SEARCHING FOR A SHARED VISION OF WRITING ASSESSMENT:

MOVING FROM WAC (Writing Across the Curriculum) to

WACA (Writing Across the Curriculum Assessment)

by

John Lando Carter

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctorate in Assessment, Learning and School Improvement

Middle Tennessee State University

August 2016

Dissertation Committee:

Dr. Julie Barger, Chair

Dr. Allison Smith

Dr. Laura Clark

Dr. Rick Vanosdall

ACKNOWLEDGEMENTS

I have always been blessed to have outstanding mentors and coaches, and that statement continues to be true as I have fought through three years of a graduate program to earn my doctorate. I want to thank all of my teachers in the ALSI program at MTSU for guiding and encouraging me. I want to thank my committee members for carrying me through this mammoth project. Dr. Clark helped me tremendously while in her assessment classes last year; in fact, much of my methodology grew out of assignments in her classes. Dr. Barger has been a constant supporter and guide through this project. Dr. Vanosdall has been in my corner since the beginning, and I believe he will remain there for much longer. Dr. Smith has been a mentor to me for the past ten years. I owe much of my growth and success to her. Her constant feedback and support will never be forgotten by the many students she has helped during her career.

Lastly, I want to express my love for my family. My father has always been an inspiration to me. Whenever I thought of quitting, I would think of how he wouldn't dare. I would think of all those long nights working side jobs, building carports and bonus rooms so that Jake and I had nice clothes and so that we could one day go to college. And here I am. The first Carter to make it through college, and now I'm about to be Dr. Carter. A lot of people didn't think I could make it, but Dad always believed in me.

The person who has believed in me the most, however, and has fought the hardest for me over the past decade is my wife Keri. She deserves a doctorate of her own after enduring what I've put her through over the past three years. The late nights, the lonely

weekends. The financial burden. The list is, in fact, endless. She stood by me though, and without my best friend, I would have never made it.

ABSTRACT

Assessment literacy remains one of the most unexplored and untaught dimensions within teacher training. Writing assessment, moreover, is an even more overlooked facet of assessment literacy. Without the proper training, teachers in all disciplines may struggle with properly assessing student writing and providing timely and accurate formative feedback. In this study, therefore, I investigated the writing assessment culture of a 6-12 magnet school. I completed a writing assessment inventory to gather the writing assessment beliefs and practices in each department at the school through a mixed-methods survey.

I administered the mixed-methods survey to 59 teachers at this school. These teachers also participated in a dual-layered professional development series concerning writing assessment. The results of the mixed-methods survey, along with the collection of artifacts from the teachers, revealed commonalties as well as discrepancies among the faculty members regarding their writing assessment beliefs and practices. Six of the eleven quantitative survey questions yielded statistical significance, and much of the quantitative data triangulates with the qualitative results. The data show a clear commitment to writing as a cornerstone element of classrooms at this school regardless of the discipline; however, the writing assessment beliefs and practices vary between departments and teachers.

This school, ultimately, has revealed a commitment to writing across the curriculum (WAC) as well as writing in the disciplines (WID). In this study, I outline, in light of the survey findings, a school improvement plan to help move this school into a

new phase: writing across the curriculum assessment (WACA). The teachers who participated in this study are equipped to begin the school improvement cycle: study, plan, reflect, do. In addition, they are ready to embrace the WACA learning cycle, which includes a commitment to iterative professional development, a belief in the professional learning community framework, and an understanding of WACA theories. By fusing the school improvement cycle with the WACA learning cycle, these teachers can solidify interdisciplinary bonds to build a shared vision for writing and writing assessment, one that guarantees that the faculty embraces its own assessment literacy strengths and shortcomings. Finally, with a unified vision for WACA in place, the magnet school teachers can follow the WACA school improvement plan in an effort to better serve our students and provide authentic and accurate feedback to help them grow as writers now and in the future.

TABLE OF CONTENTS

LIST OF TABLES xix
LIST OF FIGURESxxii
CHAPTER I: INTRODUCTION
Preface1
Project Origins
Conclusion
CHAPTER II: REVIEW OF LITERATURE
Introduction
Action Research: The Teacher as Researcher
Mixed Methods Design: A Qualitative and Quantitative Approach
Critical Theory and Pedagogy Combined with Mixed Methods
Professional Learning Communities and School Improvement Models 29
WAC + WID = Writing Across the Curriculum Assessment (WACA) 32
Achieving WACA Through Continuous and School-wide
Professional Development
The Power of Formative Assessment
The Desperate Need for Assessment Literacy
Assessment Tools Literacy: The Rubric Debate

CHAPTER III: METHODOLOGY	49
Introduction	49
Design Rationale	50
Standard C: Professional Learning and Growth	53
Text Types and Purposes	54
Design	55
Round 1 Design and Objectives	56
Round 2 Design and Objectives	57
Participants	58
Materials	59
Conclusion	64
CHAPTER IV: RESULTS	65
Introduction	65
Quantitative Introduction	66
Analysis of Writing Types and Frequencies (Question 12)	67
School-wide Overview of Question 12	67
Departmental Analysis of Question 12: English	71
Departmental Analysis of Question 12: Career and Technical F	Education 72
Departmental Analysis of Question 12: Science	73

	Departmental Analysis of Question 12: Math	75
	Departmental Analysis of Question 12: Social Studies	76
	Departmental Analysis of Question 12: Health, Physical Education,	
	and Recreation	77
	Departmental Analysis of Question 12: Fine Arts	78
	Departmental Analysis of Question 12: Foreign Language	79
	Round 2 Analyses of Question 12	81
D	pepartmental Interaction Overview for Questions 1-11	81
A	nalysis of Question 1: How often do you create your own rubric for a writing	ng
as	ssignment?	82
	School-Wide Overview of Question 1: How often do you create your own	
	rubric for a writing assignment?	83
	Departmental Analysis of Question 1: How often do you create your own	
	rubric for a writing assignment?	84
A	nalysis of Question 2: How often do you revise your rubrics?	85
	School-Wide Overview of Question 2: How often do you revise	
	your rubrics?	85
	Departmental Analysis of Question 2: How often do you revise	
	your rubrics?	86

Analysis of Question 3: How often do your students help create	
the rubrics in your class?	. 87
School-Wide Overview of Question 3: How often do your students help	
create the rubrics in your class?	. 88
Departmental Analysis of Question 3: How often do your students help	
create the rubrics in your class?	. 89
Analysis of Question 4: How often do your rubrics mirror those found on a	
state test or college entrance exam?	. 90
School-Wide Overview of Question 4: How often do your rubrics mirror	
those found on a state test or college entrance exam?	. 90
Departmental Analysis of Question 4: How often do your rubrics mirror	
those found on a state test or college entrance exam?	. 91
Analysis of Question 5: How often do you use rubrics to grade	
student writing?	. 92
School-Wide Overview of Question 5: How often do you use rubrics to	
grade student writing?	. 93
Departmental Analysis of Question 5: How often do you use rubrics to	
grade student writing?	. 94

Analysis of Question 6: How often do you feel pressured to use rubrics	
to grade writing?	95
School-Wide Overview of Question 6: How often do you feel pressured to	
use rubrics to grade student writing?	95
Departmental Analysis of Question 6: How often do you feel pressured to	
use rubrics to grade student writing?	96
Analysis of Question 7: How often do you feel prepared to grade writing in	
your classroom?	97
School-Wide Overview of Question 7: How often do you feel prepared to	
grade writing in your classroom?	98
Departmental Analysis of Question 7: How often do you feel prepared to	
grade writing in your classroom?	99
Analysis of Question 8: How often do you receive writing	
assessment training?	00
School-Wide Overview of Question 8: How often do you receive writing	
assessment training?1	00
Departmental Analysis of Question 8: How often do you receive writing	
assessment training?	Λ1

Analysis of Question 9: How often do you discuss grading writing
with other teachers?
School-Wide Overview of Question 9: How often do you discuss grading
writing with other teachers?
Departmental Analysis of Question 9: How often do you discuss grading
writing with other teachers?
Analysis of Question 10: How often do your students write in your class? 104
School-Wide Overview of Question 10: How often do your students write in
your class?104
Departmental Analysis of Question 10: How often do your students write in
your class?105
Analysis of Question 11: How often do your students write digitally? 106
School-Wide Overview of Question 11: How often do your students write
digitally? 106
Departmental Analysis of Question 11: How often do your students write
digitally?
Round 1 and Round 2 Analyses (Questions 1-15)
Round 1-Round 2 Analysis of Question 1: How often do you create your
own rubric for a writing assignment?

Round 1-Round 2 Analysis of Question 2: How often do you revise
your rubrics?
Round 1-Round 2 Analysis of Question 3: How often do your students help
create the rubrics in your class?
Round 1-Round 2 Analysis of Question 4: How often do your rubrics mirror
those found on a state test or college entrance exam? 112
Round 1-Round 2 Analysis of Question 5: How often do you use rubrics to
grade student writing?
Round 1-Round 2 Analysis of Question 6: How often do you feel pressured
to use rubrics to grade student writing?
Round 1-Round 2 Analysis of Question 7: How often do you feel prepared to
grade writing in your classroom?
Round 1-Round 2 Analysis of Question 8: How often do you receive writing
assessment training?
Round 1-Round 2 Analysis of Question 9: How often do you discuss grading
writing with other teachers?
Round 1-Round 2 Analysis of Question 10: How often do your students
write in your class?

Round 1-Round 2 Analysis of Question 11: How often do your students
write digitally?
Round 1-Round 2 Teacher Rankings
Quantitative Reflections
Qualitative Introduction
Analysis of Question 13: What purpose does writing serve in
your classroom?
School-wide Overview of Question 13: What purpose does writing serve in
your classroom?
English Department Analysis of Question 13: What purpose does writing
serve in your classroom?
Career and Technical Education Department Analysis of Question 13: What
purpose does writing serve in your classroom?
Science Department Analysis of Question 13: What purpose does writing
serve in your classroom?
Math Department Analysis of Question 13: What purpose does writing serve
in your classroom?
Social Studies Department Analysis of Question 13: What purpose does
writing serve in your classroom?

	Health, Physical Education, and Recreation Department Analysis of
	Question 13: What purpose does writing serve in your classroom? 140
	Fine Arts Department Overview of Question 13: What purpose does writing
	serve in your classroom?
	Foreign Language Department Analysis of Question 13: What purpose does
	writing serve in your classroom?
A	nalysis of Question 14: Why do you grade writing the way
yo	ou do in your classroom?
	School-wide Overview of Question 14: Why do you grade writing the way
	you do in your classroom?
	English Department Analysis of Question 14: Why do you grade writing the
	way you do in your classroom?
	Career and Technical Education Department Analysis of Question 14: Why
	do you grade writing the way you do in your classroom?154
	Science Department Analysis of Question 14: Why do you grade writing the
	way you do in your classroom?
	Math Department Analysis of Question 14: Why do you grade writing the
	way you do in your classroom?

Social Studies Department Analysis of Question 14: Why do you grade	
writing the way you do in your classroom?	163
Health, Physical Education, and Recreation Department Analysis of	
Question 14: Why do you grade writing the way you do in	
your classroom?	166
Fine Arts Department Overview of Question 14: Why do you grade wri	ting
the way you do in your classroom?	168
Foreign Language Department Analysis of Question 14: Why do you gr	ade
writing the way you do in your classroom?	170
nalysis of Question 15: What does good writing look like in	
our class?	172
School-wide Overview of Question 15: What does good writing look lil	ce in
your class?	173
English Department Analysis of Question 15: What does good writing l	ook
like in your class?	174
Career and Technical Education Department Analysis of Question 15: V	Vhat
does good writing look like in your class?	177
Science Department Analysis of Question 15: What does good writing l	ook
like in your class?	179

Main Department Analysis of Question 15: What does good writing look like
in your class?
Social Studies Department Analysis of Question 15: What does good writing
look like in your class?
Health, Physical Education, and Recreation Department Analysis of
Question 15: What does good writing look like in your class?
Fine Arts Department Overview of Question 15: What does good writing
look like in your class?
Foreign Language Department Analysis of Question 15: What does good
writing look like in your class?
Round 1 and Round 2 Qualitative Analysis
Round 1-Round 2 Analysis of Question 13: What purpose does writing
serve in your classroom?
Round 1-Round 2 Analysis of Question 14: Why do you grade writing
the way you do in your classroom?
Round 1-Round 2 Analysis of Question 15: What does good writing
look like in your class?
Qualitative Reflections
Rubrics Collected—Artifact Analysis

Mixed Methods Discussion	196
Triangulation	196
Complementarity	197
Development	197
Expansion	197
Conclusion	198
CHAPTER V: CONCLUSIONS	199
Implications	199
The School Improvement Cycle	203
Sharing the Data	206
The WACA Summer Institute	209
WACA Institute Day 1	210
WACA Institute Day 2	212
WACA Institute Day 3	215
Iterative School-wide Professional Development	217
Conclusion	219
REFERENCES	221
APPENDICES	229
APPENDIX A: WACA Survey	230

APPENDIX B: WACA Survey Data	. 237
APPENDIX C: Rubrics Collected	. 260
APPENDIX D: Rubrics/Materials Used During Round 1	. 298
APPENDIX E: Potential WACA Learning Library Resources	. 302
APPENDIX F: Question 12 Full Frequency Tables	. 304
APPENDIX G: Internal Review Board Approval	. 312

LIST OF TABLES

1. Qualitative Coding Table.	63
2. High Frequency Writing Types.	70
3. English Department Frequency Question 12	71
4. Career and Technical Education Department Frequency Question 12	72
5. Science Department Frequency Question 12	74
6. Math Department Frequency Question 12	75
7. Social Studies Department Frequency Question 12	76
8. Heath, Physical Education, and Recreation Department	
Frequency Question 12	77
9. Fine Arts Department Frequency Question 12	78
10. Foreign Language Department Frequency Question 12	80
11. Departmental Interaction Overview Table for Questions 1-11	82
12. Round 1 and Round 2 Ranking Table for Questions 1-11	120
13. English Department Evidence Table Question 13	127
14. Career and Technical Education Department	
Evidence Table Question 13	130
15. Science Department Evidence Table Question 13	133

16. Math Department Evidence Table Question 13	136
17. Social Studies Department Evidence Table Question 13	139
18. Heath, Physical Education, and Recreation Department	
Evidence Table Question 13	141
19. Fine Arts Department Evidence Table Question 13	144
20. Foreign Language Department Evidence Table Question 13	147
21. English Department Evidence Table Question 14	153
22. Career and Technical Education Department	
Evidence Table Question 14	156
23. Science Department Evidence Table Question 14	159
24. Math Department Evidence Table Question 14	162
25. Social Studies Department Evidence Table Question 14	165
26. Heath, Physical Education, and Recreation Department	
Evidence Table Question 14	167
27. Fine Arts Department Evidence Table Question 14	169
28. Foreign Language Department Evidence Table Question 14	171
29. English Department Evidence Table Question 15	176
30. Career and Technical Education Department	
Evidence Table Question 15	178

31. Science Department Evidence Table Question 15	30
32. Math Department Evidence Table Question 15	82
33. Social Studies Department Evidence Table Question 15	84
34. Heath, Physical Education, and Recreation Department	
Evidence Table Question 15	86
35. Fine Arts Department Evidence Table Question 15	88
36. Foreign Language Department Evidence Table Question 15	90
37. Teacher 3 (Social Studies) Evidence Table Question 13	91
38. Teacher 21 (Social Studies) Evidence Table Question 14	91
39. Teacher 22 (CTE) Evidence Table Question 14	92
40. Teacher 25 (Fine Arts) Evidence Table Question 14	93
41. Teacher 32 (Foreign Language) Evidence Table Question 14	93
42. Teacher 21 (Social Studies) Evidence Table Question 15	94
43. Assessment Literacy Overview	01
44. Potential WACA PLC Leaders	14

LIST OF FIGURES

1. Triangulation Model	2
2. WACA (Writing Across the Curriculum Assessment) Conceptual Model	3
3. Reasons for Visiting and Returning	8
4. English Whiteboard Brainstorm	9
5. Math and Foreign Language Whiteboard Brainstorm	10
6. Primary Trait Rubric Uses	12
7. Mixed Methods Theory	20
8. The Educational Food Chain	24
9. Methodology Timeline	56
10. Membership Information	59
11. Quantitative Likert Scale	60
12. Quantitative Survey Questions 1-4	60
13. Quantitative Survey Questions 5-6	60
14. Quantitative Survey Questions 7-11	61
15. Qualitative Trend Wheel	62
16. Qualitative Survey Questions	63
17. School-wide Overview of Question 12	69
18. School-wide Overview of Ouestion 1	83

19. Departmental Analysis of Question 1	. 84
20. School-wide Overview of Question 2	. 85
21. Departmental Analysis of Question 2	. 86
22. School-wide Overview of Question 3	. 88
23. Departmental Analysis of Question 3	. 89
24. School-wide Analysis of Question 4	. 90
25. Departmental Analysis of Question 4	. 91
26. School-wide Overview of Question 5	. 93
27. Departmental Analysis of Question 5	. 94
28. School-wide Overview of Question 6	. 95
29. Departmental Analysis of Question 6	. 96
30. School-wide Overview of Question 7	. 98
31. Departmental Analysis of Question 7	. 99
32. School-wide Overview of Question 8	100
33. Departmental Analysis of Question 8	101
34. School-wide Overview of Question 9	102
35. Departmental Analysis of Question 9	103
36. School-wide Overview of Question 10	104
37. Departmental Analysis of Question 10	105

38. School-wide Overview of Question 11	106
39. Departmental Analysis of Question 11	107
40. Round 1-Round 2 Analysis of Question 1	109
41. Round 1-Round 2 Analysis of Question 2	110
42. Round 1-Round 2 Analysis of Question 3	111
43. Round 1-Round 2 Analysis of Question 4	112
44. Round 1-Round 2 Analysis of Question 5	113
45. Round 1-Round 2 Analysis of Question 6	114
46. Round 1-Round 2 Analysis of Question 7	115
47. Round 1-Round 2 Analysis of Question 8	116
48. Round 1-Round 2 Analysis of Question 9	117
49. Round 1-Round 2 Analysis of Question 10	118
50. Round 1-Round 2 Analysis of Question 11	119
51. School-wide Trends for Question 13	124
52. English Department Trends for Question 13	125
53. Career and Technical Education Department Trends for Question 13	128
54. Science Department Trends for Question 13	131
55. Math Department Trends for Question 13	134
56. Social Studies Department Trends for Question 13	137

57. Heath, Physical Education, and Recreation Department
Trends for Question 13
58. Fine Arts Department Trends for Question 13
59. Foreign Language Department Trends for Question 13
60. School-wide Trends for Question 14
61. English Department Trends for Question 14
62. Career and Technical Education Department Trends for Question 14 15
63. Science Department Trends for Question 14
64. Math Department Trends for Question 14
65. Social Studies Department Trends for Question 14
66. Heath, Physical Education, and Recreation Department
Trends for Question 14
67. Fine Arts Department Trends for Question 14
68. Foreign Language Department Trends for Question 14
69. School-wide Trends for Question 15
70. English Department Trends for Question 15
71. Career and Technical Education Department Trends for Question 15 17
72. Science Department Trends for Question 15
73. Math Department Trends for Question 15

74. Social Studies Department Trends for Question 15	183
75. Heath, Physical Education, and Recreation Department	
Trends for Question 15	185
76. Fine Arts Department Trends for Question 15	187
77. Foreign Language Department Trends for Question 15	189
78. WACA (Writing Across the Curriculum Assessment) Conceptual Mo	del 202

CHAPTER I:

INTRODUCTION

Preface

Assessment literacy remains one of the most untaught or ignored facets of teacher training. Writing assessment, specifically, is an even more marginalized dimension of assessment literacy. Without the proper training, teachers in all disciplines may struggle with properly assessing student writing and providing timely and accurate formative feedback. In this study, therefore, I investigated the writing assessment culture of a 6-12 magnet school, hoping to answer these questions:

- 1. What are the writing assessment beliefs and practices at Martin Magnet School?
- 2. How will a multilayered writing assessment professional development series impact the writing assessment beliefs and practices at Martin Magnet School?

Over the course of the 2015-2016 school year, I compiled a writing assessment inventory to gather the writing assessment beliefs and practices in each department at the school through a mixed-methods survey. My Writing Across the Curriculum Assessment (WACA) study is purposefully situated at the nexus point of two research designs: quantitative and qualitative research methods. Furthermore, my study is also consciously rooted between two disciplines: education and composition. This blending of research approaches and disciplines is essential to uncovering and understanding the writing assessment culture at Martin Magnet. In Figure 1, I illustrate how I searched for points of triangulation from the WACA mixed-methods survey.

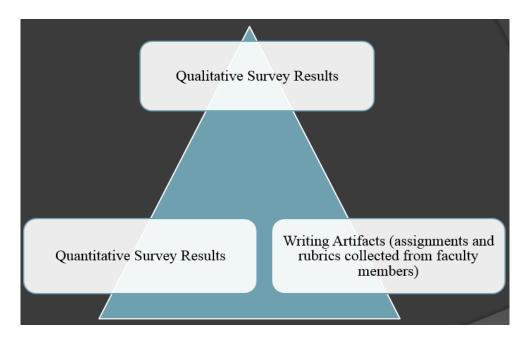


Figure 1. Triangulation Model

I administered the WACA mixed-methods survey to 59 teachers at Martin Magnet, and 15 of these teachers also participated in a dual-layered professional development series concerning the most critical debates in writing assessment theory and practice. The results of the mixed-methods survey, along with the collection of artifacts from the teachers, revealed similarities as well as discrepancies among the faculty members regarding their writing assessment beliefs and practices. Six of the eleven quantitative survey questions yielded statistical significance, and much of the quantitative data triangulates with the qualitative results. The data show a strong commitment to writing as a cornerstone element of classrooms at this school regardless of the discipline; however, the writing assessment beliefs and practices vary between departments and teachers.

Martin Magnet teachers have demonstrated a commitment to writing across the curriculum (WAC) as well as writing in the disciplines (WID). In my WACA study, I

outline, in light of the survey findings, a school improvement plan to help move this school into a new phase: writing across the curriculum assessment (WACA). The teachers who participated in this study are equipped to begin the school improvement cycle: study, plan, reflect, do. In addition, they are ready to embrace the WACA learning cycle, which includes a commitment to iterative professional development, a belief in the professional learning community framework, and an understanding of WACA theories. Figure 2 shows my WACA Conceptual Model, which is further explored in Chapter 5.

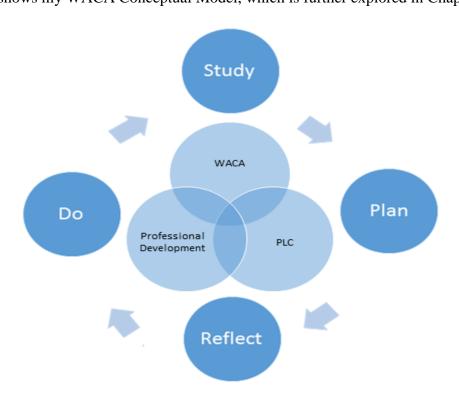


Figure 2. WACA (Writing Across the Curriculum Assessment) Conceptual Model

By fusing the school improvement cycle with the WACA learning cycle, Martin

Magnet teachers can solidify interdisciplinary bonds to build a shared vision for writing

and writing assessment, one that guarantees that the faculty embraces its own assessment

literacy strengths and shortcomings. Finally, with a unified vision for WACA in place,

the magnet school teachers can follow the WACA school improvement plan in an effort to better serve our students and provide authentic and accurate feedback to help them grow as writers now and in the future.

Project Origins

This writing assessment literacy project has a simple focus: to create and sustain a shared vision and responsibility for the assessment of student writing at Martin Magnet School. The genesis of this project came from a Professional Learning Community (PLC) meeting in early October of 2013. We gathered for our weekly Tuesday meeting to discuss the department's issues, and we circled back once again to a debate about our Response to Intervention (RTI) period. At Martin Magnet School, we have an RTI block built into 5th period, our most flexible period of the day. Mrs. Tara Sanders, our RTI teacher for English, expressed her frustrations about the lack of direction and clarity surrounding the RTI period. She was struggling to help aimless students visiting her as well as students walking in with an essay that simply read "this needs work" from their English teacher. This posed many problems for me. First, I wanted our programs at Martin to work well. Second, our own English teachers must do more than write "this needs work" on students' writing. Lastly, the most respected school improvement and writing assessment scholars promote the exact opposite of what we are doing at Martin.

I asked Mrs. Sanders why she was getting hundreds of essay referrals to RTI. That simple question then led our PLC group to an epiphany: RTI is strictly designed for benchmark and End of Course (EOC) remediation; RTI has no bearing on writing at all.

We were completely unaware of the definition and parameters of RTI. Once I pointed

this out to the PLC, the idea of creating a separate place for writing assistance emerged instantaneously.

Mrs. Esther, one of our sophomore English teachers, and I immediately began outlining strategies for implementing a fully functioning writing lab for the next school year. Without a clear and focused mission, even within a small idea such as this, no project can move forward. Mrs. Esther and I had worked together as writing tutors and freshman composition instructors in graduate school, and we both knew exactly what the mission of the writing lab would be: to provide a safe place for students of all grades to receive writing assistance from trusted peers during normal school hours.

In the past, I have pitched the same writing lab idea to three different principals within Lee County, but Dr. Jones was the first and only principal open to the idea. He was intrigued, especially since the current school improvement plan at Martin already called for an increase in the school's writing proficiency, particularly in the Support/Elaboration category of the state writing rubric (see Appendix C).

Mrs. Esther and I started the process in November 2013 with an official new course proposal for Martin Magnet, which was sent to the state department of education and approved for the 2014-15 school year. The proposal was then sent to Dr. Jones, our assistant principal Dr. Ashley Grant, and Charles Garner, our English department chair. Each person who received this email immediately gravitated toward the idea of having a writing lab within normal school hours. After reading more deeply into Lezotte and Snyder's (2011) school improvement works, I began seeing the web work between our proposal and the seven correlates of highly effective schools. Martin Magnet is already a

high achieving school, and a writing lab within our walls would create the perfect storm for unleashing all seven dimensions of the highly effective schools blueprint.

Thankfully, our administration supports this initiative wholeheartedly; they believe in the value and potential for student learning and school improvement. Dr. Jones is "forward looking," which is precisely what Lezotte and Snyder (2011) claim is an essential ingredient for initiating substantive change in a school (p. 54). Dr. Jones already sees that our students' writing skills—not just scores—can and will reach an even higher level with a writing center in place. I am also grateful that the administration has been quite frank about the only potential barricade to this project: lack of staffing. However, Lezotte and Snyder (2011) argue that if administrators truly value something, they will dedicate the resources to make it viable within the school (p. 79). The results of starting a writing lab would be boundless, but our school leaders must be willing to "bet their legacy and maybe even their professional career on demonstrated student results" (Lezotte & Snyder, 2011, p. 15). In other words, school leaders must be prepared to follow through on what they say is important.

Since August 2014, the Martin Magnet Writing Lab has been housed in the annex of our school and run by twenty students, all juniors and seniors who completed the application process the previous spring. With a minimal budget, Mrs. Esther and I have built a replica of the lab we worked in for two years during graduate school. Our lab is operational each day during 5th period, which provides all students a chance to visit the lab during their built-in study hall time.

In spring of 2015 our idea remained in the infancy stage. We were still developing our scheduling system, retooling our website, and building credibility among both the

Martin students and staff. However, we had already seen the school's strong writing culture grow stronger and more inclusive of the students' perspectives. A taste for collaborative learning and student directed discovery took root in our lab. Furthermore, our writing lab now operates as a breeding ground for personalized intervention, one that challenges the deficiency focus of the RTI model. Each student session is tracked by date and teacher as well as skills addressed during the session. These statistics are collected and sorted on a daily basis and stored in a Google Document accessible to the entire faculty. Teachers who are ready and willing to adjust instruction based on the tutoring sessions simply need to click a link.

Moreover, our visitors make appointments autonomously; it is a completely voluntary choice to visit our lab, which defies the traditional referral model of the RTI program. We had over one thousand appointments in the 2014-2015 school year, and Figure 3 from my recent IRB approved study "Investigating Why Magnet Students Visit a Writing Lab and Keep Coming Back" showcases the most recurring reasons why students visit our lab:

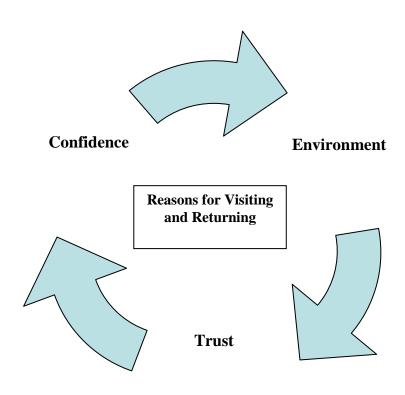


Figure 3. Reasons for Visiting and Returning

One student described the writing lab's environment as a safe haven, and our lab must indeed be a place where students feel that they can be vulnerable with their writing. One way to achieve this safe-zone is by properly training the tutors. Mrs. Esther and I adopted the training we received from Dr. James Marshall, our former writing center director, during 2006-08 as graduate assistants. From this training, Mrs. Esther and I were already grounded in Lezotte and Snyder's (2011) belief in the crucial bond between trust and learning: "Credible and timely feedback from a trusted individual is one of the most powerful influences on human learning" (p. 92). Our goal is to create a connection between peers that would foster openness among students so that deep learning—not teaching—can occur. With such an environment established, the writing lab challenges

the old model of learning by chronological age or grade level. We have an extraordinary chance at Martin to allow students from the 6^{th} grade and upward to learn from peers at the junior and senior level.

Another cornerstone of this project came from a faculty in-service I led alongside my writing lab partner Mrs. Esther in August of 2014. We were to introduce and sell the idea of our new university style writing lab, one that would serve all students in all disciplines within Martin's 6-12 frame. I began the in-service with an impromptu writing task, asking faculty members from all departments to decorate the white boards in the room with every type of writing that they do in their classrooms. Members from each department tagged the boards with an incredible range of assignments. I took photos, as seen in Figures 4 and 5, and realized that our school has a systemically strong writing culture, one I immediately wanted to study. The path to even greater school improvement undoubtedly rests in the school-wide belief in these amazing results, as well as in Martin's current belief in writing as an indispensable life skill.

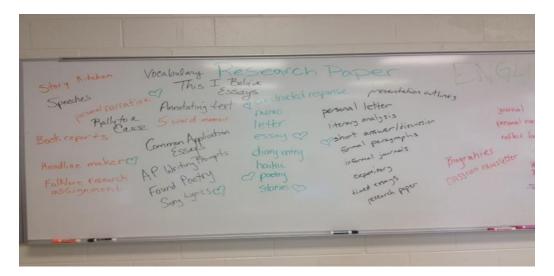


Figure 4. English Whiteboard Brainstorm

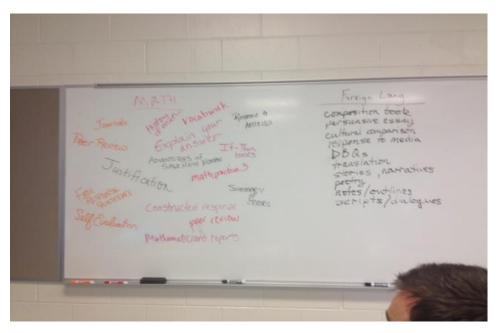


Figure 5. Math and Foreign Language Whiteboard Brainstorm

However, Jones and Comprone (1993) provide this caveat: "Permanent success in the WAC movement will be established only when writing faculty and those from other disciplines meet halfway, creating a curricular and pedagogical dialogue that is based on and reinforced by research" (p. 61). As our lab develops further, I must recruit an array of supporters from each corner of the school. This approach will quell teachers' potential apprehension or even apathy about embracing Writing Across the Curriculum (WAC) and committing to a school-wide writing assessment initiative. I want to train our team members and make WAC an official component of our school improvement plan.

Clearly, our magnet school has always been an outlier. We have a unique and diverse population funneled into one demographic: high achieving students. The best and brightest in our county attend our school regardless of socio-economic status, zoning, or racial and ethnic backgrounds. Even though it has high achieving students within its

student body, our school combats the often crippling stigma that magnet students have no room to improve. At schools like ours, a temptation exists to succumb to the myth that we do not need or cannot experience improvement. Therefore, I searched for ways to improve an already thriving writing culture at my school in an effort to defy the odds about magnet schools. The writing lab was my first mission, and it has been a victory; now the journey towards a school-wide vision for writing assessment lies ahead, for no "school is, nor should it be, immune from school improvement" (Lezotte & McKee, 2002, p. 35).

After studying both writing assessment and assessment literacy, I watched a crucial debate emerge: an assessment battle raging in regards to writing. The use of rubrics to assess student writing stokes this debate and has caused a rancorous divide between writing assessment theorists. Countless classroom teachers, however, employ rubrics regularly and are unaware of the potential pitfalls of these assessment instruments when used to grade student writing.

In the fall of 2014 I conducted a qualitative IRB-approved teacher study called "Investigating Teacher Rationale for Grading Student Writing With or Without Rubrics" to uncover these rubric issues, and the results are the final inspiration for this project. The teacher study focused on the entire English department at Martin and allowed each teacher to freely and anonymously reveal their rationale behind using or not using rubrics to assess student writing. After analyzing the thirteen survey responses, I found three dominating trends:

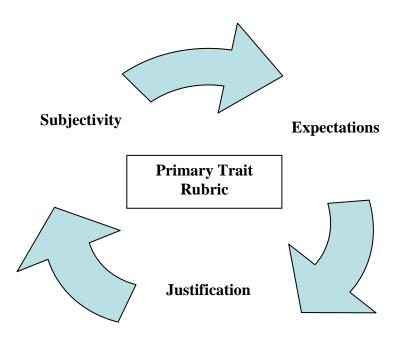


Figure 6. Primary Trait Rubric Uses

These three trends were not only iterative in nature but also align with the type of rubric used across the English department. Each interviewee reveals a habitual use of primary trait rubrics to combat subjectivity issues in grading student writing. Moreover, each participant believes that rubrics carefully communicate—up front and throughout—teacher expectations of students. To avoid bias in grading, these teachers collectively agree that rubrics can minimize subjectivity, clearly present guidelines, and finally justify grades given to students.

The Martin English teachers believe rubrics are valuable writing assessment tools.

Again, the grading instrument of choice for each teacher is the primary trait rubric.

However, the participants' comments from the survey hint that their pedagogical beliefs about writing are at odds with the instrument they use. Nearly all respondents endorse primary trait rubrics, ones that break down writing into finite categories or traits, yet

nearly all respondents claim writing should be graded holistically and not segmented into pinpointed areas. The teachers in this department undoubtedly need to discuss holistic approaches to writing assessment. They were given the chance to attend my professional development series on writing assessment and rubrics and learned that the myriad of holistic rubrics available can actually satiate their desire to eliminate subjectivity, communicate expectations, and ensure the justification of grades given. During this same professional development session, the teachers in all eight departments at Martin were also able to engage in this new conversation about how and why teachers grade student writing the way they do.

My inquiry about how and why teachers in all disciplines assess student writing was an effort to spark a writing assessment discussion at my school. I surveyed the faculty with a mixed-methods qualitative and quantitative approach (see Appendix A), collected writing assignments, and gathered the scoring instruments that accompany them (see Appendix C). The faculty participated in a two-tier professional development seminar to help the faculty fashion better tools to grade student writing. Popham (2011), a widely respected education assessment specialist, mentions that his teacher preparation program in the 1960s wholly ignored assessment and educational measurement (p. 266). Railing against this failing is certainly valid, but pre-service teachers should also decry the absence of training to prepare them to fairly and consistently assess student writing, a sensitive craft that is the fulcrum of all disciplines in education. Stiggins (2007) warns about the "immense and long-lasting harm that can be done when assessment is clumsy, inept, or used in counterproductive ways" (p. 60). This microcosm of writing assessment demands attention, for educators must handle the fragile glass that is student writing with

gentle hands. This project provided the framework to continue the cyclical process of writing assessment improvement and ensured high levels of learning for administrators, teachers, and students at Martin Magnet. The faculty needed a common vocabulary and goal for writing assessment. This school-wide unification was achieved through a fusion of writing across the curriculum (WAC) and writing across the curriculum assessment (WACA).

Conclusion

This project established a clear mission and shared vision of writing assessment at Martin as well as a joint responsibility for writing within our school. The following chapters detail the indispensable background research needed for this project as well as the outcomes, limitations, and future writing assessment recommendations for Martin. In Chapter 2, I dispel the myths surrounding action research while also detailing the unnecessary methodological fractures between quantitative and qualitative designs and other research paradigms. I further provide an analysis of PLC and school improvement theory, writing across the curriculum (WAC) and writing in the disciplines (WID) theory, iterative professional development design, using formative assessment for teachers, assessment literacy strategies, and the bifurcated debate regarding the use of rubrics to assess student writing. In Chapter 3, I give a clear rationale for the step-by-step process of this mixed methods writing assessment study. I reveal in Chapter 4 the results of the quantitative teacher survey as well as the points of triangulation found after comparison to the qualitative teacher survey questions and the impact of the professional development series. Finally, in Chapter 5, I offer a writing assessment school improvement proposal for Martin Magnet based on the implications of the survey results.

CHAPTER II:

REVIEW OF LITERATURE

Introduction

In much of the research presented in this chapter, I outline several unnecessary and harmful false dichotomies. The central goal, therefore, is to dismiss these binaries and search for middle ground between these polarizing groups in order to achieve school improvement, ensure high levels of learning for all students, and establish a clear mission and focused vision for writing across the curriculum assessment (WACA). This goal can only be achieved through abandoning perceived notions about research paradigms, educational research and policy, teacher-administrator power dynamics, teacher-student power dynamics, assessment theories, and the tools that accompany them.

Action Research: The Teacher as Researcher

Action research has far more than a single discipline focus; rather, it's driven by an interdisciplinary theoretical framework. In fact, Brydon-Miller, Greenwood, and Maguire (2003) state that action researchers do not work well within boundaries, and the connections between action researchers and theorists such as Friere (1989) share the soul of action research. Action researchers ardently promote a unique balance and blend of scholarship and activism; this duality means that teachers must don both the theorist and practitioner hats.

A complete history of the action research field is not only brief but also murky. Hard science researchers often scoff at the soft sciences, and action researchers also shoulder pointed criticism from the hard science realm. In many non-educational academic circles, action research is not considered scientific at all, primarily because

action researchers often serve as classroom teachers and makeshift scientists. This academic divide stems from the lack of a concrete definition of action research, one that differs from scholar to scholar. Moreover, the field is not exclusively framed around education or educational research. Instead, action research encompasses education, sociology, anthropology, and many other fields. The field is relatively new but has gained great momentum over the past twenty years, and teacher-research deserves far more credit than it garners today. A fierce debate about rigor and its definition within the action research field segregates many scholars. Brydon-Miller, Greenwood, and Maguire (2003) argue quite plainly that action researchers mean to do more than just "do good" research for their schools, but they also want to do it well (p. 25). Researchers who challenge the credibility of action research as a legitimate methodology struggle with rigor in action research because of its elusive definition. The irony, as Melrose (2001) points out, is that action research is not really supposed to be pinned down; moreover, action researchers do not deny that the credibility of action research has been debated and even derided for a great while. Instead, Melrose (2001) illuminates the debate, embraces the controversy of rigor and validity within action research, and finally asks both novice and veteran researchers to enter the academic discourse of action research.

Action research is fueled by a sort of snowflake paradox, where each action research project is unique, reflective, and significant to the world, yet each project also defies replication, barring the world from borrowing that mystery. According to Melrose (2001), action research must indeed be rooted in on-site cycles of continuous reflection and retooling: planning, acting, observing, reflecting, and then repeating the cycle. This is precisely the thought processes found in DuFour, DuFour, and Eaker's (2008)

Professional Learning Community framework, which challenges teacher-researchers to constantly assess and reassess classroom practices to ensure high levels of success for all students.

Ultimately, action research is just a different theoretical approach, one that thrives on unearthing bias and interpreting human anomalies. The aforesaid scholars, and many more, admit that they were not always action researchers, but they were converted and admitted that the renowned programs of their alma-maters left them flailing after graduation and arduously grappling with the murky realities of the field; when action research entered their world, their research opportunities opened and changed forever (Brydon-Miller, Greenwood, & Maguire, 2003).

The action research approach to educational studies has quickly become a fundamental roadmap for classroom teachers and administrators hoping to amplify learning in schools. Ray (1992) notes that the "revolutionary nature of teacher research has to do with its emphasis on change from the inside out—from the classroom to the administration, rather than the other way around, as is typical in most educational institutions. It is a response to a conformist educational system based on a strong belief in the separation of powers" (p. 173). This postmodern challenge of traditional power structures mirrors Mertler's (2014) approach to qualitative inquiry. Ray (1992) further contends that teacher-researchers unravel many longstanding philosophical assumptions in education, particularly the positivist paradigm that calls for objectivity, control, and decontextualization.

In action research, the teacher-researcher is not distanced and shielded from his or her subjects. In fact, Ray (1992) advocates that the often sole group studied by teacher-

researchers—students—are more than just subjects; rather, the students help the researcher, for they are "co-researchers, sources of knowledge whose insights help focus and provide new direction for the study" (p. 175). As Mertler (2014) would agree, teacher-researchers embrace the context of classroom, school, community, and environment; they welcome all of these variables and their eccentricities and inconsistencies. The goal, indeed, is to improve craft but to advance theory as well.

Action researchers can focus on single classrooms or even a single student. According to Ray (1992), knowledge and truth are "socially constructed through collaboration among students, teachers, and researchers" (p. 173).

Mixed Methods Design: A Qualitative and Quantitative Approach

Similarly, mixed methods researchers thrive on interdisciplinary sharing and the unification of polar approaches to studying phenomena. Tashakkori and Teddlie (1998), two prominent mixed methods historians and proponents of mixed methods, reveal that mixed methods has permeated "education, evaluation, nursing, public health, sociology, clinical research, administration sciences, community psychology, women's studies, and school effectiveness research" (p. ix). Furthermore, Hesse-Biber (2010) notes that mixed methods research has spread rapidly across the disciplines over the past decade, pushing "the boundaries of long-held foundational assumptions concerning how knowledge is built, what we can know, and how knowledge building ought to proceed" (p. 1).

However, mixed methods—much like action research—has a tumultuous and bifurcated history. Positivism, the belief in a singular truth that can be pursued through quantitative methods, dominated educational research in the 1940s-50s (Hesse-Biber, 2010, p. 14). Over the next few decades, however, "questions about the tenability of

applying natural science methodology to complex human dynamics" arose (Benz and Newman, 2008, p. 4). By the 1980s, the quantitative takeover of educational research was underway. Researchers with this quantitative mindset inserted anthropological methodologies into the educational research realm, followed by a flood of feminist theorists, critical theorists, and others who sought to study schools as mediators of power and privilege (p. 6). With this movement gaining incredible momentum, the mixed methods mindset was born in the 1990s and has become a way to undo the false dichotomy of quantitative versus qualitative research. According to Benz and Newman (2008), the framers of the No Child Left Behind initiative of the early 21st century revived this bitter rivalry, and the educational research pendulum swung once again in favor of quantitative methodologies and measures.

Benz and Newman (2008) rail against the divisive split between quantitative research and qualitative research. Tashakkori and Teddlie (1998) provide an expert account of this long-standing, fractured dichotomy, one that has left unnecessary rifts in countless research departments. Moreover, students in these departments become the collateral damage of this fruitless war: "Either they become well-trained statisticians, or they become cultural anthropologists. If limited to only one or the other, they are equipped with only a narrow perspective and are methodologically weak in being able to ask and study research questions" (p. 9). Nevertheless, Benz and Newman (2008) claim that this divide is simply a false dichotomy, one to banish from the discourse surrounding research methodologies. This battle between naturalistic and positivistic philosophies is self-made and harmful.

Tashakkori and Teddlie (1998) note that the quant-qual paradigm wars were the necessary catalyst for the emergence of pragmatist thought, an approach in which researchers utilize whatever method fits the research problem at hand. This pragmatist view that emerged in the 1990s spawned the now well-known and widely used mixed methods research design (p. 5). Moreover, Tashakkori and Teddlie (1998) "encourage researchers to use the appropriate methods from both approaches to answer their research question. For most applications in the social and behavioral sciences, these research questions are best answered with mixed method or mixed model research designs rather than with a sole reliance on either the quantitative or the qualitative approach" (p. x). Ultimately, the path to the elusive truth in any research may best be found by blending these two mindsets.

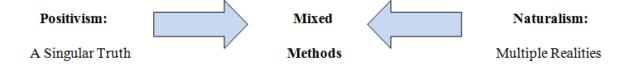


Figure 7. Mixed Methods Theory

Positivism certainly has incredible value, but adding an action research approach to the strict quantitative methods of positivism allows researchers to welcome the peculiarities of human behavior. According to Hesse-Biber (2010), qualitative researchers "desire to explore the subjective worlds of multiple realities, uncover perspectives of those who have been socially and politically marginalized, and upend positivism's claims to objectivity and traditional knowledge building as the source of

truth" (p. 17). Hesse-Biber (2010) contends that mixed methods research "holds greater potential to address these complex questions by acknowledging the dynamic interconnections traditional research methods have not adequately addressed" (p. 2). Additionally, Greene, Caracelli, and Graham (1989) outline four key benefits of using mixed methods:

- 1. **Triangulation**: A mixed methods approach focuses on studying a research question or questions with multiple methods of inquiry. According to Greene, Caracelli, and Graham (1989), "the researcher is looking for the convergence of data collected by all methods in a study to enhance the credibility of the research findings. Triangulation ultimately fortifies and enriches a study's conclusions, making them more acceptable to advocates of both qualitative and quantitative methods" (p. 3).
- Complementarity: A mixed methods approach provides the chance for
 researchers to tell the social story of the research culture and to discover if one
 instrument accentuates another within a research design.
- 3. Development: A mixed methods approach allows for rich development and expansion of the research and the research problem. For example, a quantitative statistical survey can inform and guide a focus group study; likewise, a set of qualitative interview questions could guide the development of a quantitative coding sequence.

4. **Expansion**: A mixed methods approach often provides the chance to expound upon current research in a field and propel research further.

Creswell and Plano Clark (2011) note that the allure of mixed methods research rests in the complementary relationship between quantitative and qualitative research:

One might argue that quantitative research is weak in understanding the context or setting which people talk. Also, the voices of participants are not directly heard in quantitative research. Further, quantitative researchers are in the background, and their own personal biases and interpretations are seldom discussed. Qualitative research makes up for these weaknesses. On the other hand, qualitative research is seen as deficient because of the personal interpretations made by the researcher, the ensuing bias created by this, and the difficulty in generalizing findings to a large group because of the limited number of participants studied. Quantitative research, it is argued, does not have these weaknesses. Thus, the combination of strengths of one approach makes up for the weaknesses of the other approach. (p. 12)

Tashakkori and Teddlie (1998) state that the paradigm wars are over, and Greene, Benjamin, and Goodyear (2001) note that in the aftermath of these late 20th century battles, a much clearer consensus regarding mixed methods as a valuable data collection strategy has emerged (p. 27). However, Hesse-Biber (2010) cautions researchers about the danger of treating mixed methods as the perfect research panacea, for even mixed methods has flaws, especially when methods are poorly mixed or juxtaposed with conflicting methodological standpoints (p. 15).

Critical Theory and Pedagogy Combined with Mixed Methods

The success of a mixed methods study does indeed rest upon the proper blend of appropriate theories and methodological perspectives. Combining mixed methods designs with critical theory and qualitative methodologies works, especially when studying marginalized groups: "The pioneering works of feminists, post-colonialists, postmodernists, and critical theorists aims to expose subjugated knowledge of oppressed groups that have often been left out or ignored in traditional research" (Hesse-Biber, 2010, p. 2). Creswell (2013), who has published seminal works within the field of research methods and methodologies, outlines four crucial philosophical assumptions that must be addressed when conducting qualitative research. All four assumptions ontological, epistemological, axiological, and methodological—drive critical or liberatory theory and pedagogy, focusing on the notion that multiple realities do exist, especially from unheard perspectives. Through critical theory and liberatory pedagogy, Freire (1989) challenges the traditional power dynamics between teachers and students, which cannot only be extended to the longstanding and tenuous power balance between teachers and administrators, but also representative of the entire educational food chain:

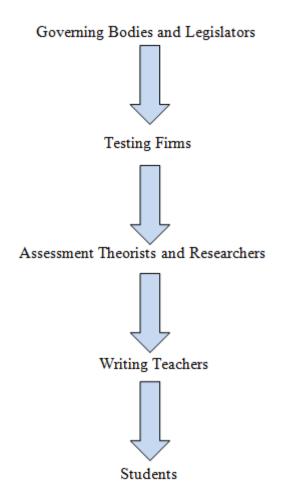


Figure 8. The Educational Food Chain. Adopted from White (1996).

The hierarchy in Figure 8 illustrates teachers' and students' subordinate positions in the assessment world. White argues that each ladder group has its own definitions, opinions, and uses for education, but to yield meaningful advancements in the field, each perspective must be recognized (p. 20). In regards to classroom research, no group can be marginalized because multiple realities and perspectives exist, all carrying meaningful axiological weight. The chain must be inverted in order to place the most important groups—the teachers and students—at the apex of the system. Likewise, Freire (1989)

calls on educators to reshape this structure and redefine what power means and advocates a reciprocal relationship. Teachers who care for students can establish a crucial student-teacher bond, and this same bond can reach the highest levels of the education system as well. In order for teachers to implement this much needed revolution, a liberatory pedagogical model that promotes "learning, relearning, and unlearning" must meld with reflective, qualitative research centered on both teacher and student perspectives (Wink, 2005, p. 67). Composition researchers Lauer and Asher (1988) state that empirical, qualitative research:

is highly valued in many social sciences because the data from such research yield better evidence of cause-and-effect relationships. . . . To test these, researchers rearrange the environment into treatment and control groups, administer treatments, and assess the results with measurement instruments and observations that they strive to make reliable and valid. (p. 17)

Lauer and Asher (1988) also note that composition researchers generally build case studies, ones that orbit around a small group of subjects, from their own classroom experiences (p. 23).

Liberatory theorists such as Shor and Freire (1987), for example, encourage teachers to abandon and unlearn what they know about teaching and grading to free themselves and their students from prison-like classrooms (p. 24-25). However, Shor and Freire (1987) were battling almost a century long tradition of oppressive teaching and assessing methods. Thus, efforts to challenge positivism, quantitative methodologies, and standardization were largely futile. Shor and Freire (1987) ask that teachers and students, together, rigorously reform traditional, oppressive pedagogies.

Ultimately, a critical or liberatory pedagogical model must be implemented to achieve the research goals of this project. Composition scholars such as Wink (2005) acknowledge Freire (1989) and his celebrated *Pedagogy of the Oppressed* for fueling much of "multicultural critical pedagogy in North America today" (p. 90). Critical pedagogy, according to Wink (2005), utilizes democracy and equality in teaching and learning to transform "us and our world for the better" (p. 67). Wink reveals that Freire's theories allowed her not only to reflect on her own teaching experiences and practices, but also to rethink and to dismiss her culturally and socially indoctrinated beliefs about teaching (p. 5). This shedding of preconceived notions, known or unknown, is integral to becoming an exemplary teacher researcher. Chriseri-Strater (1996) highlights the critical component of positionality within teacher research, especially within a qualitative approach: the need for self awareness of previous cultural connections or life events that could influence the researcher's frame of reference or fuel the researcher's known or unknown biases (p. 117). Furthermore, Chriseri-Strater (1996) posits that researchers cannot forgo writing about how and why they select subjects or gather data; methodological choices and decisions must be willingly disclosed.

This ethnographic approach to research is an essential step in blending critical pedagogy with action research and mixed methods design. Wink (2005), along with Miller (2003), argues that "Critical pedagogy is a challenge to our assumptions. We are often resistant. The whispering of the other can be jarring" (p. 9). According to George (2001), the "relationship between reflection and action" is the core of Freire's term "praxis," a state that must be experienced to "enable people to transform the world" (p. 94). Wink actually experienced this state:

[i]n my preparation to be a teacher, no one ever told me about contradictions in education. No one ever told me about change in education. However, critical pedagogy has taught me that education is rife with complexities, contradictions, multiple realities, and change. Reading books about critical pedagogy forced me to see the contradictions and changes in education even when I didn't want to see them. (p. 11)

Even though contradiction and change are often painful, researchers must endure the struggle and reflect on their experiences to become better researchers, ones who willingly uncover and showcase or shed their own biases and axiology. Wink (2005) applauds the unpredictability of submerging oneself into the research and thirsts for change through reflection. She notes that self-reflection helps researchers accept and move successfully through contradictions and changes in teaching. Through self-reflection, she understands "more fully that the many paradoxes of education are not as painful when we can articulate all of the change that is swirling around us" (Wink, p. 11).

American schools in the twenty-first century, however, do not always encourage growth and change. According to Lezotte and Snyder (2011), our current educational system "has a great deal of inertia to do again what it has always done, and the focus for change will need to be stronger and more persistent to significantly alter the system" (p. 31). However, this temptation to stay the course, as alluring as it may be, cannot suffice for teacher researchers hoping to ensure high levels of learning for all students in their classrooms.

As Wink (2005) notes, today's world is "more frightening, and the response has been controlled pedagogy and controlled language, all of which leads to controlled

thought" (p. xiii-xiv). Novice teacher researchers, as a result, can fall prey to a philosophy they do not truly believe in, and the stakeholders suffer the consequences because they fall prey to the "banking concept" Freire condemns. Brannon (1985) also warns that "Composition draws together literary critics, psychologists, linguists, educators on all levels, rhetoricians, learning theorists, and philosophers in a common concern for composing in writing. Because those interested in composing come from varying disciplinary vantage points, they have, at times, conflicting theoretical commitments, and they value different, occasionally competing research methodologies" (p. 7). Therefore, researchers must heed the call to become interconnected through Freirian principles of democracy and equality.

Successful teacher-researchers demand the inclusion of multiple realities and multiple viewpoints from various stakeholders. Some of these stakeholders are actually unaware that they even have power or are stakeholders at all. Furthermore, qualitative researchers must submerge themselves into the world of their participants to utilize the epistemological lens. Bloch (1953), author of *The Historian's Craft*, welcomes the challenge to find a tangible truth. The answer, of course, is that truth is malleable—neither solely objective nor exclusively relative. Thus, like an astute historian, it is the researcher's task to write and investigate with "integrity, with truth, [and] with the utmost possible penetration into its hidden causes" (p. 9). A careful awareness and balance of Creswell's (2013) four assumptions stand at the forefront of discovering any sort of truth in a mixed methods study.

Professional Learning Communities and School Improvement Models

Much of the aforesaid theoretical framework echoes the core concepts of the PLC theory of school governance and school improvement. PLC theory hinges on three major concepts: a focus on learning, the development of a collaborative culture, and a focus on results. DuFour, DuFour, and Eaker (2008) have built the foundation of PLC theory and note that a clear mission and shared vision for a school must be at the forefront of any school improvement project. The school mission transcends a simple slogan; rather, as DuFour, DuFour, and Eaker (2008) argue, the mission asks all stakeholders to ponder the purpose of the school, to unify under a common banner about what that purpose is, and then to take action and live out that established mission (p. 6). Every school should have a mission or creed that fuels all investors (parents, teachers, students, and administrators), so too should each school improvement project or initiative. Establishing the PLC principle of a clear mission consequently leads to developing the shared vision for a school. DuFour, DuFour, and Eaker (2008) state that a clear mission and shared vision are interlocking PLC principles, but a shared vision is a separate entity, one that iteratively asks, 'What must we become to fulfill our purpose, what future do we hope to create for this organization?' (p. 119). Reeves (2011) echoes these sentiments, arguing that "we must have a vivid, explicit, and compelling vision in order to ignite difficult changes, whether the challenge at hand is reducing infant mortality, eradicating guinea worm disease, reducing criminal recidivism, or improving student success. Change is too difficult, and reversion to prevailing behavior is too easy, without a compelling vision" (p. 109). Like a clear mission, a shared vision emerges with input from all investors.

Collaboration is absolutely the bedrock of these two philosophies, and this combined approach is also the proper pathway to spark new ideas or conversations at a school.

Authentic and consistent collaboration determines the success of any PLC. Eaker and Keating (2012) believe that all teachers "must collaborate with colleagues in meaningful ways, and they must focus on the critical issues related to student learning" (p. 98). DuFour, DuFour, and Eaker (2008) argue that "gathering data is the beginning of wisdom, but sharing data is the beginning of community" (p. 215). According to Eaker and Keating (2012), team members need to see how the pieces of the puzzle fit together in order to wholly invest in the new team (p. 45). From the first meeting, team members need a clear and focused mission; otherwise, they may end up feeling like they are just attending one more PLC Lite meeting, which could jeopardize the enterprise (p. 53). Furthermore, DuFour, DuFour, and Eaker (2008) warn that "if teachers do not work together to create assessments, then individual teachers create their own. Which assessment is likely to be of higher quality—one written by a teacher working in isolation or one developed by a team working together to clarify what students must know and be able to do?" (p. 221). The same philosophy can be extended to the creation of a new school-wide initiative or program. All stakeholders must invest in order to reach critical mass; in other words, the school reaches a tipping point where the thirst for change gains strong footing in each corner of the school, uniting the believers, tweeners, survivors, and fundamentalists.

Muhammad (2009), a school culture scholar, believes that all four of these types of faculty members must be sold on an initiative before true change can begin. Believers possess an intense commitment to student achievement and are champions of change;

their willingness to embrace ideas, differentiate instruction, and collaborate with teammates breeds a healthy school culture (p. 32-33). Tweeners are novice yet passionate team members; they have an openness to new ideas that positively impacts school culture (p. 45-46). Survivors, on the other hand, consist of a small but powerful group within the faculty, comprised of teachers who have abandoned effective instruction, hoping to survive the school year or, in some cases, the end of the school day" (55). Lastly, the fundamentalists—otherwise known as fundies to Mohammad—consist of immobilized teachers, ones who will not budge from their current mindset. Mohammad (2009) admits that an entire faculty can never fully harmonize, but the success of a new idea, especially something as tenuous as writing assessment, rests on the shared investment of all four types of teachers.

The research from the most renowned school improvement theorists astutely complements PLC theories. Lezotte and Snyder's (2011) highly effective schools blueprint is critical to implementing systemic school change, but three of their famed seven components for school success cannot go unnoticed, for they are imperative for this project: high expectations for success, strong instructional leadership, and a clear and focused mission. School leaders seeking success must hold high expectations for all involved, including all stakeholders on the educational food chain. Lezotte and Snyder (2011) argue that if administrators truly value something, they will dedicate the resources to make it viable within the school (p. 79). Beyond administrative support, a reform initiative must also have a clearly focused, all- inclusive learning agenda. According to Lezotte and Snyder (2011), "shared acceptance and commitment to the learning-for-all mission by all stakeholders in a school is a prerequisite for ongoing success in both

teaching and learning" (p. 15). Goldfarb (2013), who studies writing center implementation, warns that the mission of the initiative must be clear or else failure will loom. Goldfarb's (2013) caveat must be juxtaposed with the correlates of highly effective schools to ensure successful implementation and sustainability. As Lezotte and Snyder (2011) note, the claim to want change is quite common, but when actual opportunities for meaningful reform occur, the temptation to stay the steady course arises (pp.76-78). Lezotte and Snyder (2011) point out that administrative reluctance to forging new paths can be one of the most daunting obstacles when striving for authentic reform (p. 33). However, a diverse team of individuals dedicated to the same mission can ease the growing pains of reform.

WAC + WID = Writing Across the Curriculum Assessment (WACA)

Writing across the curriculum (WAC) has been a staple for some writing programs for decades, but actually implementing this framework with success and viability has been a consistent battle for many schools. Hanstedt (2012) acknowledges that WAC isn't new, but it has never been more important because a renewed emphasis on writing and thinking skills must begin to help prepare students for the 21st century. Smith and Smith (2014) agree with Hanstedt (2012) and have released an entire guidebook for students at the university level struggling with writing in multiple classes across various disciplines. Their book *Building Bridges Through Writing* (2014) represents one of the most recent and exhaustive student-friendly texts available. According to Smith and Smith (2014), "As a member of your chosen major or discipline, you are expected to acquire not just bodies of knowledge (facts, theories, and concepts), but you are also expected to learn and participate in your discipline's way of seeing,

thinking, and communicating" (p. 12). Lezotte and Snyder (2011) ask that school leaders widen the circle far beyond the initial ring of participants—normally seen as English teachers in this case; rather, the strategy should be to include teachers from all disciplines. The goal should be to recruit an array of professionals to actually hone strategies to harness the PLC-like benefits of WAC. With proper training and high levels of buy-in or investment from multiple disciplines and viewpoints, WAC can transform a school's writing culture:

In a unified writing curriculum, every instructor at every level—from "basic writing" to developmental courses to freshman composition to senior seminars that function as capstone writing courses in a particular discipline—would have a clear idea of the writing competencies and outcomes that should be set as a goal for the course. The result, for the student, should be a more seamless sequence of writing instruction, not merely a collection of random courses in which some writing is assigned. (Hall, 2006, p. 6)

The transformative power of WAC is obvious, and so is the presence of WAC in higher education. According to Hillyard (2012), as of 2008 more than "51% of all private and public universities and colleges across the United States had some sort of WAC program" (p. 1). The WAC model is thriving in higher education and could easily become the new norm for secondary education.

Another successful WAC development is known as Writing in the Disciplines (WID). Carter, Ferzli, and Wiebe (2007) define writing in the disciplines (WID) as the final complement to WAC, meaning that students will not only *write to learn* (WTL) in many different classes but also engage in the discourse of writing within specific

disciplines; in other words, WID demands that students practice using the writing voice of a biologist, engineer, or mathematician (p. 279). Jones and Comprone (1993) provide this warning when implementing a move toward a full WAC/WID program: "Permanent success in the WAC movement will be established only when writing faculty and those from other disciplines meet halfway, creating a curricular and pedagogical dialogue that is based on and reinforced by research" (p. 61).

Once this commitment is in place, the push toward writing transfer, known as the successful transmission of writing skills between and beyond disciplines, can begin. Yancey, Taczak, and Robertson (2014), along with Smith and Smith (2014), recognize the serious need for students to be able to make writing connections in and between various disciplines or careers. According to Yancey, Taczak, and Robertson (2014), while students are writing in the disciplines, they must also be able to write across contexts, and teachers must help their students navigate these pathways: "how can we support students' transfer of knowledge and practice in writing; that is, how we can help students develop writing knowledge and practices that they can draw upon, use, and repurpose for new writing tasks in new settings" (p. 2). Furthermore, Yancey, Taczak, and Robertson (2014) note that a single type of academic writing will no longer suffice when training students to be successful writers, and Wagner's (2008) research on the demands of the 21st century global economy reveals that all students—no matter the discipline or type of profession—must possess effective oral and written communication skills in order to compete in a global, competitive marketplace.

Writing scholars and writing teachers must take one more step to ensure that their students become skilled, dynamic writers: Writing Across the Curriculum Assessment

(WACA). A conversation about school-wide writing assessment and creating a shared writing vision for the school has been virtually untouched in current research; in other words, WACA is the next step in guaranteeing students' success outside of a single writing context.

Achieving WACA Through Continuous and School-wide Professional Development

Meaningful and recursive professional development is the key strategy to implementing and then sustaining a writing across the curriculum assessment (WACA) mindset at a school. Hall (2006) offers a similar vertical approach for the entire writing program that has been implemented at Appalachian State University. Hall calls for a cohesive writing curriculum "designed as a continuous scale of goals for student competencies, that progresses from the entering freshmen right through the graduating senior" (p. 6). University models of writing assessment alignment are too often ignored for K-12 systems. Good (2013) reveals that an entire university can create a clear mission and shared vision about writing assessment. Both Good (2013) and Hall (2006) believe that this can be achieved through proper professional development training. At Rutgers, Hall (2006) asks this question: what does the faculty "need to learn to make us comfortable with the pedagogical challenges of writing instruction, and what is the most effective way to learn it?" (p. 8). At Clemson, Good (2013) built a cyclical professional development system that trains faculty members in sections and in recursive waves. She admits that universal quality assessment of writing is maddening, "particularly for faculty from different disciplines, with different levels of expertise regarding writing pedagogy and writing assessment" (p. 20). Thus, her PD system focuses on assessment literacy in regards to writing, the validity and reliability debate, and the need for a constant

negotiation of what good writing looks like at Clemson. Good (2013) and Hall's (2006) work stand as landmark victories for WACA on a large scale, and elements of their programs can undeniably be borrowed for use in a secondary setting.

The Power of Formative Assessment

Formative assessment is more than just the latest assessment buzzword. It is a powerful assessment tool, one that transcends simple tracking of student progress in a specific skill area. Popham (2011) has written extensively about the flexibility of formative assessment and offers five ways to use it:

- 1.To make an immediate instructional adjustment
- 2. To make a near-future instructional adjustment
- 3. To make a last-chance instructional adjustment
- 4. To make a learning tactic adjustment
- 5. To promote a classroom climate shift (p. 14)

Formative assessment allows teachers to make on-demand adjustments depending on self-monitoring or drawing directly from student data or feedback. Ignoring rich formative data gathered from students is detrimental to all stakeholders and hinders students from scaffolding their own learning.

Analyzing the potent results of formative assessment also guides entire learning progressions. Popham's (2011) *learning for all* phrasing is nearly identical to DuFour, DuFour, and Eaker's (2008) approach to PLC theory:

1. The assessment is used to identify students who are experiencing difficulty in their learning.

- 2. A system of intervention is in place to ensure students experiencing difficulty devote additional time to and receive additional support for their learning.
- 3. Those students are provided with another opportunity to demonstrate their learning and are not penalized for their earlier difficulty. (p. 217)

Therefore, blending all of these philosophies provides school leaders with an incredible opportunity: the undeniable might of formative assessment can also be used to improve teacher learning. DuFour, DuFour, and Eaker (2008) demand high levels of learning for all students and challenge teachers to move beyond the simple sorting and selecting methods of data collection (pp. 201-202). Teachers must take another step forward and use the formative data to drive instruction in an effort to improve student learning. Likewise, gathering formative data from teachers is not enough; carefully analyzing the results drives future decisions for the faculty regarding school improvement. DuFour, DuFour, and Eaker's (2008) three-step recipe can be modified to help an entire faculty acclimate to a new initiative or school improvement plan. The idea that common assessments must be the focal point of any PLC is clear, and the next step is to use these strategies to help teachers gain new skills and refine old ones as well. Dweck's (2006) growth mindset, which celebrates the ongoing development of learners, can also be extended to teacher learning. Teachers, just like students, need time to learn in a nonlinear fashion, and using formative assessment to help teachers learn can change the often negative mindset that accompanies professional development and changes to school culture.

Focusing on these formative strategies for the assessment of teacher learning helps develop the crucial culture shift necessary for a sustained school improvement. As Muhammad (2009) notes, cultural change is far more challenging than meager technical changes, such as changing bell schedules and instituting common planning time:

Cultural change is a much more difficult form of change to accomplish. It cannot be gained through force or coercion. As human beings, we do not have the ability to control the thoughts and beliefs of others, so cultural change requires something more profound. It requires leaders adept at gaining cooperation and skilled in the arts of diplomacy, salesmanship, patience, endurance, and encouragement. It takes knowledge of where a school has been and agreement about where the school should go. (p.17)

True formative assessment, which is a key component of this study, beckons teachers and students alike to assess current levels of learning and understanding in order to forge new pathways to learning ahead, and school leaders must harness this formative power to lead their teachers to new pathways as well.

A commitment to discovering what students know before the learning begins must guide teachers, but a similar commitment must guide school leaders to uncover what teachers know as well. Eaker and Keating (2012) argue that student progress begins with common formative assessments, one of the best ways for teachers to collaborate through healthy "academic scrimmages" (p. 123). School leaders should collaborate in the same way to assess what their teachers know or do not know about an initiative. Formative assessment strategies also reveal how concerned or unconcerned teachers are about the new initiative. Hall and Hord (1987) consider the teachers' views about change

and the introduction of a new initiative to be of the highest concern: "Policymakers, administrators, and others will have points of view that must be considered; but in the end, how teachers feel about and perceive change will in large part determine whether or not change actually occurs in our classrooms" (p. 53). Consequently, Hall and Hord (1987) offer a "stages of concern" formative assessment strategy that helps uncover these sentiments from teachers before change is even discussed (p. 68). Modifying the original student-centered mindset of formative assessment clearly ameliorates the buy-in dilemma at schools and forges a new approach, one dedicated to *teacher* learning through common formative assessments. With this in mind, the pitch for a school-wide vision for writing assessment succeeds by taking the faculty's pulse first.

The Desperate Need for Assessment Literacy

Seemingly rudimentary but crucial discussions about the meaning of grades is often overlooked or undervalued. Marzano (2000) defines assessment as a multifaceted way to collect data about student performance (p. 86). Reeves (2011) extends this definition, arguing that "grading is not merely an evaluation of student performance but a means to give feedback designed to improve that performance" (p. 9). The lack of discussion about foundational definitions of assessment is only the beginning of Marzano's (2000) worries. Many teacher preparation programs wholly ignore assessment training in favor of classroom strategy or management training. According to Guskey (2007), "Despite the importance of assessments in education today, few teachers receive much formal training in assessment design or analysis" (p. 16). Marzano (2000) and many other assessment specialists demand a thorough examination of current assessment research and theory, and to "obtain such a perspective requires a discussion of grading at

a level of detail not commonly required in most teacher preparation courses or in most books on classroom assessment and grading" (p. 1). Reeves (2011) argues that it would be reasonable yet dangerous to assume that the "major influence on the grades a student receives is the performance of the individual student" (p. 4). The truth, however, is that many factors influence grades, including assessment policies, accidents, biases, and faulty instruments. The conversation about how these factors impact student assessment must begin in the infancy of a teacher's career. Stiggins (2007) writes about how his graduate work in educational measurement equipped him with the knowledge and vocabulary to ensure the dependability of scores, but it was years later until he understood the "keys to productive assessment" (p. 59). However, a teacher should not need to earn an advanced degree in assessment and psychometrics before having such a pivotal assessment awakening. These experiences must occur earlier for teachers and must also be iterative in nature.

Likewise, Popham (2011b) is an assessment literacy advocate, and has become a crusader for systemic change in the assessment realm. He openly admits to a major educational shortcoming early in his career; in fact, he likens his failure to a cardinal sin: neglecting the necessary understanding of assessment and overlooking assessment literacy. As penance, he begs young teachers to develop "assessment acumen" (p. 265). This assessment prowess is essential because the assessment world is indeed intimidating as well as far-ranging and fractured. Thus, it is critical to take a formative pulse regarding teachers' knowledge of writing assessment philosophies and the tools teachers do and do not use to evaluate student writing.

The next step to spreading assessment literacy is having stakeholders engage in a discussion about reliability and validity. Reeves (2011) notes that sometimes "teachers defend the accuracy of a grade because the final result conforms to the mathematical system they have created, but this sort of numerical precision creates only the illusion of accuracy" (p. 43). Popham (2014) is keenly aware of this assessment pitfall and therefore writes at length about the importance of reliability and validity in assessment. He argues that reliability is a notion to cherish and something to be sought in all areas of life, especially in education (p. 75). Here are Popham's (2014) three levels of reliability that must be defined separately:

- Stability (Test-Retest) Consistency of results among different testing occasions.
- Alternate Form Consistency of results among two or more different forms of a test.
- 3. Internal Consistency Consistency in the way an assessment instrument's items Function. (p. 76)

Stiggins (2007), however, contends that assessment consistency is only the beginning.

Assessment must indeed include a reliable assessment but also a clear purpose, a defined achievement goal, and a method of effectively communicating the assessment results to all stakeholders (p. 61).

Popham's (2014) fervor for teachers to understand reliability, however, is not overstated, just as his push for a clear understanding of validity is vital for teachers.

Popham (2014) claims that validity, yet another elusive and layered term, is the single

most critical concept instructors must grasp in assessment; however, he provides comfort for already overwhelmed teachers in saying that the "really necessary ideas, when all the hotsy-totsy terminology has been stripped away, are simply gussied-up applications of common sense" (p. 97). Classroom assessments, Popham (2014) argues, must help teachers make sound instructional choices, which would then lead to sound inferences about students and their performance (p. 101). However, to arrive at such conclusions about students, the three levels of validity must be known:

1.	Content Related	The extent to which an assessment procedure
		adequately represents the content of the curricular
		aim being measured.
2.	Criterion Related	The degree to which performance on an assessment
		procedure accurately predicts a student's
		performance on an external criterion.
3.	Construct Related	The extent to which empirical evidence confirms
		that an inferred construct exists and that a given

construct accurately. (p. 102)

assessment procedure is measuring the inferred

Once more, Popham (2014) warns that these types of validity are not interchangeable. He also cautions against searching for validity inside a test; the test does not actually have validity; instead, validity "is a score-based inference that is either accurate or inaccurate" (p. 121).

Marzano (2000), Reeves (2011), Stiggins (2007), Popham (2014), and many more scholars provide fundamental assessment theories for both novice and veteran teachers, but they almost unanimously return to a simple bottom line: create assessments with care, craft tests along with colleagues, ponder what should be included in the test, and revise assessments frequently. However, without the proper assessment training, as Guskey (2007) warns, teachers often recycle the assessments their own teachers used or blindly create their own.

Assessment Tools Literacy: The Rubric Debate

The dire need for assessment literacy also extends to the tools used to assess students. Regarding assessing student writing, the rubric debate is as divisive as that of the quantitative and qualitative rift detailed above. Teachers and administrators once again do not need to ally with one side or the other. Instead, an authentic conversation about how and why we build and use rubrics to grade writing will lead to school improvement.

Stevens and Levi (2005), vocal proponents of rubrics, believe that rubrics will save teachers grading time while simultaneously enhancing student learning and providing assessment transparency, which serves as one of the most alluring benefits of rubrics. A predetermined template not only forces teachers to reflect on the precise credentials for the assignment, but also informs students of these goals. In fact, Stevens and Levi (2005) advise against "surprise assessment," which occurs when teachers have a clear plan of what is acceptable for an assignment but do not reveal these expectations until grades are dispensed (p. 50). Students, then, are puzzled and discouraged because

they do not understand why the teacher's expectations were not clearly communicated from the beginning.

A carefully designed rubric, on the other hand, can minimize these communication problems. By discussing the rubric carefully with the class before starting brainstorms or drafts, teachers can engage students in a detailed discussion of each dimension of the rubric. Stevens and Levi (2005) argue that many teachers forget to explain terms like "thesis statement" because clear thesis statements or arguments are innate to the writing process of experienced writers. Conversely, presenting the concept of a clear thesis statement may baffle some students, but a student-teacher conversation about the rubric's components leaves nothing overlooked, creating clear and transparent assessment from the very beginning (p. 22).

Rubrics also help students communicate beyond the classroom. Students can take a well-designed rubric to a friend, parent, or another teacher and receive immediate feedback because the rubric explicitly states the assignment requirements. Stevens and Levi (2005) describe a writing center visit as a valid example of this communication. They note that when students bring an effective rubric to a writing center session, the writing assistant can easily decode the requirements and provide quick and meaningful advice for students (p. 23).

Ultimately, Stevens and Levi (2005) argue that rubrics enhance assessment for all parties involved. By using rubrics, teachers save time and create opportunities to reflect on their own beliefs about teaching and learning; hopefully, as Stevens and Levi (2005) note, teachers will use the time rubrics save to develop assignments that require critical

thinking, originality, and voice. Assignments like these would then help students develop meaningful and insightful work—work worth doing, and work worth assessing.

Wilson (2006) and Kohn (2006) criticize the use of rubrics and have sparked a bitter academic debate about the impact of rubrics on writing assessment. Wilson (2006) attacks rubrics first with a critique of the inherent positivistic nature of rubrics. She ponders how and why a piece of paper with boxes and numbers could possibly quantify something as organic as writing. Wilson (2006) quickly discovered that if veteran teachers were hesitant to disagree with a rubric, students would be even more reluctant to challenge rubrics. Wilson (2006) concludes, then, that the cold and robotic nature of rubrics cannot elicit meaningful insight. Teachers encourage meaningful writing from students to help them avoid writing fast-food style essays. Fast-food responses to student writing, moreover, perpetuate a cycle of shallow dialogue between teachers and students.

Wilson (2006) argues that marking "excellent," "average," or "unsatisfactory" on a rubric provides little detail about how a student performed. Even so, Wilson does not blame teachers for using rubrics because they "make powerful promises. They promise to save time. They promise to boil a messy process down to four to six rows of nice, neat, organized little boxes. Who can resist their wiles?" (p. 2). The critical lesson is that rubrics do not always uphold their promises, leaving all stakeholders frustrated. Wilson (2006) thus proposes a host of solutions to combat the shortcomings of rubrics. She encourages subjectivity in assessment and argues against absolute agreement, striving to spark a respectful dialogue between teachers and students to illustrate that assessment is a recursive process rather than something that occurs after students submit assignments. Like Marzano (2000) and Reeves (2011), the pillars of formative assessment research,

Wilson (2006) contends that conversations with students about their writing reveals more to students than any rubric could (p. 89). Rubrics, on the other hand, "enforce and perpetuate agreement in the field of writing assessment, making little room for the multiple perspectives, readings, and insights that would give us a better understanding of the complexities of the writing process" (p. 54). With an open dialogue instead of a rubric, teachers and students can discuss the strengths and weaknesses of the writing without worrying about ranking and sorting.

The thirst for ranking in assessment, according to Wilson (2006), also stifles students' growth as writers. She argues that students should write more and teachers should grade less: "When we grade every paper—or when we criticize every crash—we ignore and undermine what we know about the learning process in our insatiable need to rank every performance" (p. 84). Thus, Wilson (2006) calls for an environment where students are allowed to fall, learn, and pick themselves up and try again. In an environment of constant ranking, students cannot take risks and discover their own talents as writers (p. 87). Therefore, Wilson (2006) challenges teachers to remove rubrics from writing assessment, to eliminate the fear they create, and to release their stranglehold on assessment so that teachers can take risks of their own and create something better. Likewise, Kohn (2006) argues that rubrics are merely tools to support standardization, turn teachers into grading machines, and present the illusion of objectivity (p. 12). According to Kohn (2006), standardization is not always negative but should be absent from assessing writing (p. 12).

Spandel (2006) counters Kohn (2006) and Wilson (2006), arguing that when "thoughtfully crafted and used with discretion and understanding, rubrics can be among the most useful tools we have. They cause us to go deep inside performance and question our traditional beliefs about what we define as proficient" (p. 19). Spandel (2006) notes that rubrics will not eliminate subjectivity, but she argues that rubrics are valuable tools for writing assessment because they make teachers "accountable for scores or grades that affect human lives" (p. 21). Spandel (2006) claims that no form of assessment can encompass all writing concerns. She acknowledges that rubrics can be hastily designed or used to "justify the closing of a door; a good rubric, however, shows a writer how to open that door and come inside" (p. 20). Spandel (2006) defends scoring guides because she believes the real problems of assessment lie with what teachers value in writing. She argues that teachers must first decide to reward elements like risk taking, voice, and creativity before rubrics can live up to their promises: "It isn't rubrics pushing us around but our own lack of courage, our unwillingness to let go of tired formulas" (p. 21). Spandel (2006) concludes that it takes patience and practice to build an effective assessment tool, especially a rubric that assesses student writing.

Reeves (2011) plainly states that "we know that grading policies are strikingly inconsistent" (p. 39). Both factions in the rubric debate also agree that no rubric is perfect. However, the pursuit or journey toward a more effective rubric is meaningful not just for writing teachers but all teachers. Instead of abandoning rubrics altogether, after the PDs the teachers at Martin Magnet can use Wilson's (2006) caveats about rubrics to achieve the central goal of this project: to collaboratively build better rubrics in order to ensure fairness and care for all students. A school-wide conversation about how and why

teachers from all disciplines grade students' writing the way they do must begin. Once this conversation begins, the faculty can fuel school improvement, ensure high levels of learning for all students, and develop a clear mission and share vision of writing assessment.

CHAPTER III:

METHODOLOGY

Introduction

Many teachers use a rubric passed down to them from a colleague or mentorteacher. Others create customized rubrics tailored to each writing assignment or merely reuse the same rubric all year. Some teachers do not use a rubric at all; they write general commentary or sometimes place a number or letter grade on their students' writing. Using a rubric to grade student writing without a clear purpose or rationale is dangerous to all stakeholders. According to Lovorn and Rezaei (2011), "Teachers' misuses, biases, and inconsistencies related to rubrics may be due to inadequate training" (p. 20). Furthermore, Wilson (2006) notes that writing rubrics have been widely dubbed as "best practice," which encourages teachers to use them without questioning their design and purpose (p. xx). Teachers must reflect—together, separately, and across disciplines—on why they assess student writing they way they do because of the elusive nature of quantifying writing: "Because of its complexity, writing cannot be researched—or measured—in the same way that physical traits such as height or weight might be measured" (O'Neill & Moore, 2009, p. 40). However, teachers can build effective writing assessment rubrics that are both valid and reliable if they receive proper training. Therefore, I investigate how and why teachers at Martin Magnet grade writing the way they do to help solve this assessment dilemma and establish a shared vision of writing assessment and shared responsibility for writing at my school.

I root this study in an ontological assumption that multiple realities exist, and I record said realities via a school-wide mixed-methods writing assessment survey and a

multifaceted professional development series. Framing reference heavily in the social constructivism and naturalism realm, I frame this study solely on the perspective of the participants and their opinions and perceptions about writing assessment and rubrics. According to Creswell (2013), a social constructivist lens embraces the notion that multiple realities exist based on the unique experiences of the individuals within the study, that the elusive hunted truth is woven together by the researcher and the participants, that individual values are respected, and that an emergent design plays a key role in the project's success (p. 36). In this study, I use a hybrid of an ethnographic and case study approach to gather information from the participants. Creswell (2013) states that an ethnographic study captures data from the "native's point of view," (p. 262) and Lauer and Asher (1988) note that ethnographic studies produce "thick descriptions" of the rich data collected from participants (p. 139). Often the researcher must spend extended time immersed within the native's culture and environment to obtain data in situ. The ethnographic approach provides a foundation for a case study model. Creswell (2013) states that case studies can operate like microcosms of an ethnographic group (p. 97). In other words, a case study can tighten the lens, and in this study the focus is a teacher-by-teacher investigation with the end goal focusing on taking this microcosm of writing assessment practices and expanding it to the macrocosm of writing assessment practices at other schools.

Design Rationale

The use or misuse of rubrics across the disciplines to assess student writing stokes this fight and has created a needless divide among writing assessment theorists and writing instructors. Good (2013) wants to close this divide and "seek[s] the marriage of

writing assessment through authentic samples of student writing with quantifiable and psychometrically sound measurement methods," and her sprawling writing across the curriculum (WAC) program at Clemson University has been an ongoing success (p. 19). She advocates for a slow and steady approach to solving the seemingly impossible writing assessment dilemma. For example, four sessions of her ten-part PD series focus on goals, objectives, and the vision of the WAC program for the university. The notion of implementation does not begin until this foundational approach has been established over a semester of discussions, debates, and norming sessions with a campus-wide rubric at the forefront of the meetings. In fact, Good (2013) argues that "the method of assessing and analyzing the rubric, more so than the actual rubric, is the centerpiece of this model (p. 23). Huot and Dillon (2009) would wholly agree that starting with a shared understanding of the basic framework and terminology within the rubric must be the fulcrum of a successful writing assessment PD: "Writing teachers and program administrators should make an effort to become more familiar with the terminology and beliefs of educational measurement" (p. 216).

Building a new writing program can be a formidable challenge, but when carefully and incrementally crafted, a program can succeed. Gere (2010) provides the following guidelines for school-wide success:

- 1. Setting school-wide goals for student achievement in writing
- Developing and implementing action steps that address both content-area and grade-level writing
- 3. Providing appropriate professional development for teachers
- 4. Structuring institutional support for writing

- 5. Assessing student writing and learning
- 6. Recruiting effective teachers of writing
- 7. Conducting regular programmatic assessment

Elements 3 and 7 from Gere's (2010) list are critical components of the PD series for this study and were at the forefront at all times to guarantee sustainability and movement toward developing an assessment-literate faculty, especially when handling the delicate task of grading student writing.

Countless classroom teachers use rubrics regularly and are often unaware of the potential pitfalls of these assessment instruments when used to grade student writing. In an effort to build better rubrics at my school, I investigate how and why teachers in all disciplines use rubrics to grade student writing. This two-part professional development series unites the faculty under a single writing banner and guides them toward generating valid and reliable tools to grade student writing. The framework forges a shared vision of writing assessment and a shared responsibility for writing within this school. With this vision established, just as DuFour, DuFour, and Eaker (2008) recommend, the magnet school can continue the cyclical process of school improvement and ensure high levels of learning for all students.

The first step to combat this writing assessment dilemma begins with awareness.

The nonexistent nature of professional development in writing assessment and rubrics for K-12 educators must be acknowledged and then ameliorated. Offerings for such trainings and seminars in Lee County are rare, even though Common Core State Standards call for a more intense focus on writing; meanwhile the Tennessee Instructional Leadership

Standards (TILS) demand professional growth in a collaborative setting through multiple data streams:

Standard C: Professional Learning and Growth

An ethical and effective instructional leader develops capacity of all educators by designing, facilitating, and participating in collaborative learning informed by multiple sources of data.

Indicators:

- Collaborates with stakeholders to communicate a clear, compelling vision for professional learning and growth.
- 2. Implements and monitors a rigorous evaluation system using an approved Tennessee evaluation model.
- Uses educator evaluation data to inform, assess, and adjust professional learning goals and plans.
- Engages faculty and self in data-informed, differentiated professional learning opportunities for educators, aligned with the *Tennessee Standards for Professional Learning*.
- 5. Collaborates with others to induct, support, retain and/or promote effective educators based on evidence of student and educator outcomes.
- 6. Identifies and supports potential teacher-leaders and provides growth opportunities in alignment with the *Tennessee Teacher Leadership Standards*.
- 7. Improves self-practice based on multiple sources of feedback, including performance evaluation results and self-reflection.

(Tennessee Instructional Leadership Standards, 2013)

Given the intense focus of new state standards on writing and college readiness, the crucial need for writing assessment training for teachers is undeniable, yet actual opportunities for writing assessment professional development remains scarce. In Lee County, for example, entire professional development writing programs have disappeared due to the dissolved accountability measures for the state writing test in the summer of 2012. Ironically, as the state has left this test in an educational purgatory, CCSS demand an increase in the rigor and vigor of K-12 writing curriculum:

Text Types and Purposes

- 1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
- 2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selecting, organization, and analysis of content.
- Write narratives to develop real or imagined experiences
 (Common Core State Standards Initiative 2010)

Moreover, the leadership position of *writing coordinator* no longer exists at any school in Lee County as of August 2013. Before this time, writing coordinators from each school would meet for professional development but only once per year with a sole focus on how and when to administer the writing test; writing assessment topics were rarely—if ever—discussed.

The Writer's Academy, Lee County's prized week-long summer training seminar, is also defunct as of summer 2013. The program invited teachers from all grades to share writing instruction ideas and hear presentations from professional writers; however, this

program never focused on writing assessment either. Kohn (2006) notes that an increase in writing instruction training for teachers over the last decade is promising, but the lack of training in writing assessment has left "our instruction and our assessment 'out of sync" (p. xv). However, with the Tennessee writing test in accountability limbo, the funding and fervor for any type of writing seminars has also dwindled in Lee County. PD programs such as the Writer's Academy were eliminated only one year after the state writing test no longer impacted school and teacher performance ratings. The only writing program still in existence in Lee County is actually offered through the Middle State Writing Project's Invitational Summer Institute. This two-week summer certificate program once again focuses on the idea of helping participants become better writing teachers. My colleague at Martin, Sarah Marshall, participated in this program during June of 2014 and revealed that the conversations about grading writing and assessment tools were barely audible. Ultimately, the local programs that used to exist in Lee County and the lone program that remains never mentioned the important assessment concepts of validity, reliability, inter-rater reliability, or rubric.

Design

The paramount need for more PDs with a writing focus and, specifically, a writing assessment focus could not be more apparent for Lee County schools. As a result of the county's writing assessment training drought, I invited the faculty at Martin to attend a professional development series called *Building Better Rubrics* where teachers and administrators had the opportunity to reflect on formative assessment survey questions, brought their current writing assessment tools, and worked together to craft valid and reliable writing assessment instruments. The goal was to paint an intimate

portrait of the writing assessment practices of an entire faculty. Each department operated as its own case study which led to a cross-case analysis and then a teacher-by-teacher analysis. The Lee County central office approved this PD to occur during a professional development day in August 2015, followed by an hour follow-up during school in January of 2016. At no cost to this school, the *Building Better Rubrics* PD satisfied all of these concerns through a school-wide interdisciplinary PLC model that gathered data from teachers in the form of their own assignments, rubrics, and reflections.

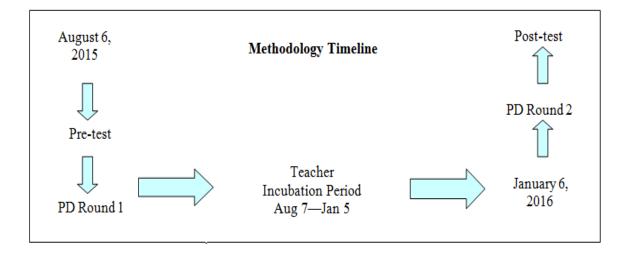


Figure 9. Methodology Timeline

Round 1 Design and Objectives

Have teachers:

- 1. take the survey.
- 2. study multiple rubric models.
- 3. share their own instruments with an interdisciplinary approach.
- 4. discuss ways to improve their instruments.

The first phase of the PD series provided the opportunity for faculty members to discuss the survey questions, study multiple rubrics, assess their own writing assessment tools, and work together to craft stronger, more valid, and more reliable writing assessment instruments. In Lee County, one of the major downfalls of professional development programs is the brevity and lack of sustainability and follow-up for participants. Rarely do our PD trainings extend beyond a singular meeting that lasts no more than two hours after the normal school day. Good (2013), chair of Clemson University's WAC program, cautions against the speedy nature of most PD programs (p. 22). Keeping this in mind, I designed the writing across the curriculum assessment (WACA) study for my school to have two parts with the first seminar focusing on examining the two most prevalent and dominant types of rubrics: the holistic vs. the primary trait. Teachers saw multiple versions of each rubric (see appendix D), discussed the philosophical and theoretical motivations behind each, and compared and contrasted the models with their own rubrics they use regularly. Most important, teachers from all disciplines were paired with each other to share rubrics and provide feedback for each other; teachers also had the chance to share their writing assignments that accompanied their instruments.

Round 2 Design and Objectives

Have teachers:

- 1. reflect on assessment practices and changes since round 1.
- 2. voluntarily take the post-test.
- 3. voluntarily submit newly designed assessment tools.
- 4. begin a WACA conversation.

The incubation period between August and January allowed teachers to revisit these assessment topics after an almost six-month period of teacher reflection. A handful of teachers brought their newly designed instruments and assignments to me; then, they vocalized what they adopted, changed, or didn't change since round one, revealing the impact these choices and experiences had on their daily writing instruction. Fifteen teachers also retook the quantitative survey from August.

One of the key purposes of this project was to encourage teachers to enhance their assessment knowledge and skills through professional learning. Some of the Martin teachers built better rubrics through newly forged interdisciplinary bonds and began laying the foundation for a shared vision for writing and writing assessment, one that ensures that the faculty embraces its own assessment literacy shortcomings and transforms them into strengths. Finally, a conversation began concerning WACA, and we worked together toward a school-wide vision of what good writing looks like.

Participants

Participants, magnet school faculty, were required by the principal to attend the PD session in August. All partipants were 18 years of age or older. This project posed no harm to any participants and ensured anonymity for them all. Participants were given code names to protect their identities and were informed beforehand with the proper information, including the purpose behind the project, the topics involved, and the guarantee of anonymity and confidentiality. Participants' true identities will not be publicably released. The school and county in question also received a pseudonym.

Materials

The quantitative responses from the grades 6-12 teachers were collected from the survey questions below. The first section of the survey relates to membership questions, and the second section relates to the quantitative writing assessment questions. The Likert scale shown in Figure 8 was used for each question, and results for the cross-case analysis were calculated using a a one-way ANOVA, which measured inter-user and interaction patterns and trends among teachers from the same department as well as a cross-comparisons between different departments. I collected data regarding gender, years experience, level of edcation, and age, but the focus of this study is seek out departmenal differences at Martin regarding writing assessment practices and beliefs. The alpha value was set at .05. Statistical significicance, therefore, occurred with values less than .05.

1. Are you Male or Female?	5. How long have you been teaching in Lee County?
2. Please select an age range: a. 20-25 b. 26-35 c. 36-50 d. 51-65 e. 66-older	6. What subject(s) do you teach?
3. How many years have you been teaching?	7. What grade(s) do you teach?
How long have you been teaching in Tennessee	8. What is your level of education a. Bachelors b. Ed.S. c. Masters d. Ph.D. or Ed.D.

Figure 10. Membership Information

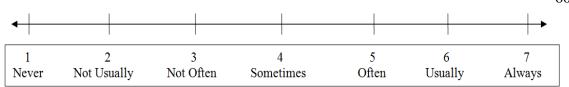


Figure 11. Quantitative Likert Scale

The first four quantifiable questions—seen in Figure 10—focus on the theme of rubric design and creation. I used these questions to investigate teachers' comfort level in rubric design, revision frequency, and motivation for rubric design.

- 1. How often do you create your own rubric for a writing assignment?
- 2. How often do you revise your rubrics?
- 3. How often do your students help create the rubrics in your class?
- 4. How often do your rubrics mirror those found on a state test or college entrance exam?

Figure 12. Quantitative Survey Questions 1-4

Questions 5 and 6—seen in Figure 11—focus on gauging how often the teachers use rubrics when grading student writing and measuring how often the teachers feel pressured to use rurbics to assess student writing.

- 5. How often do you use rubrics to grade student writing?
- 6. How often do you feel pressured to use rubrics to grade writing?

Figure 13. Quantitative Survey Questions 5-6

The final five questions revolve around writing assessment preparedness, training frequency, collaboration, and writing habits for students in teachers' classes.

- 7. How often do you feel prepared to grade writing in your classroom?
- 8. How often do you receive writing assessment training?
- 9. How often do you discuss grading writing with other teachers?
- 10. How often do your students write in your class?
- 11. How often do your students write digitally?

Figure 14. Quantitative Survey Questions 7-11

In regard to the qualitative data, I depict in Figure 13 the graphic representation of dominant trends and frequencies both in a school-wide and departmental manner: High Frequency (occurring 19 or more times school-wide; occurring 5 or more times departmentally), Middle Frequency (occurring 9 to 18 times school-wide; occurring 3-4 times departmentally, Low Frequency (occurring 1 to 8 times school-wide; occurring 1-2 times departmentally), and No Frequency (not occurring at all departmentally). High, Middle, Low, and No frequency categories are used to not only track the most recurring trends but also the regularity of each trend at Martin as a whole and by departments.



Figure 15. Qualitative Trend Wheel

As seen in Table 1 below, I transcribed and coded the qualitative repsonses following Creswell's (2013) guidelines for coding qualitative data.

Table 1

Oualitative Coding Table

Question	
Trend	Evidence

The data collection process mirrored Greene, Caracelli, and Graham's (1989) guidelines for conducting a mixed-methods study: triangulation, complementarity, development, and expansion. Triangulation was achieved through the results of the mixed-methods survey instrument; complementarity followed as a result of the iterative coding of the qualitative questions; development was sparked via the surveying beyond the English department; expansion was realized when a successful writing assessment model for other schools in Lee County emerged.

- 13. What purpose does writing serve in your classroom?
- 14. Why do you grade writing the way you do in your classroom?
- 15. What does good writing look like in your class?

Figure 16. Qualitative Survey Questions

The qualitative questions operate as a complement to the quantitative questions; these three questions allowed teachers to reflect on writing assessment practices and their own vision for what good writing looks like in their individual classrooms.

Conclusion

This mixed-methods investigation is framed around these central questions: What are the current beliefs and practices regarding writing and writing assessment at Martin Magnet? How will a writing assessment professional development series impact Martin Magnet teachers' practices and beliefs about writing assessment? The pre-test and the post-test results, when paralleled with the literature on writing assessment, proves that this project developed a launching point from the microcosm to the macrocosm and can guide other schools toward improvement regarding writing assessment. In Chapter 4, I detail the implications of the pre-test and post-test results as well as the results of the PD treatment on the faculty during and after the two stages; finally, the writing assignments and rubrics that accompany them are juxtaposed with the aforesaid findings.

CHAPTER IV:

RESULTS

Introduction

For Martin Magnet teachers to move toward a shared vision for writing assessment, we must first assess where Martin Magnet teachers are regarding writing assessment beliefs and practices so that the path ahead is clear. Hattie (2012) argues that if teachers truly want to impact student learning and help students progress, they must first know where students are, where they are going, how they are going, and where they will be going next (p. 22). Hattie's (2012) research regarding the impact of formative assessment on student learning can also be adapted to enhance teacher learning.

To collect data about Martin teachers' current beliefs and practices about writing and writing assessment, I analyzed the quantitative, qualitative, and artifact data gathered from 59 teachers at Martin Magnet school from a professional development seminar in August of 2015. These 59 teachers took the survey presented in Chapter 3. I studied the quantitative responses (questions 1-12) on a school-wide level and then on an individual department level. Furthermore, fifteen teachers voluntarily took the Writing Across the Curriculum Assessment (WACA) survey again between December 2015 and January 2016. I looked for behavioral and belief shifts within these fifteen teachers' responses in a pre-post fashion to determine how the August 2015 professional development training impacted their thinking and practices regarding writing assessment. I then investigated the results of qualitative questions 13-15 in the same manner. I catalogued and analyzed the rubrics collected from Martin teachers to establish triangulation between the

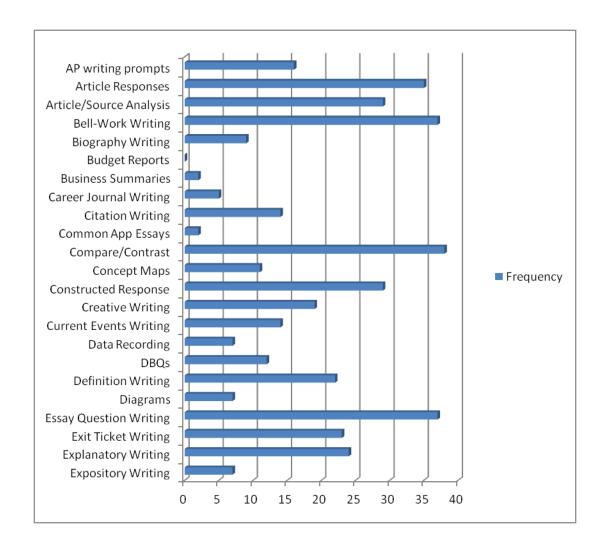
quantitative and qualitative data. Finally, I employed a mixed methods investigation and completed a cross-case analysis of all the survey responses to distill the data in search of trends and findings that will help move Martin Magnet toward a shared vision of writing across the curriculum, writing assessment, and a WACA initiative.

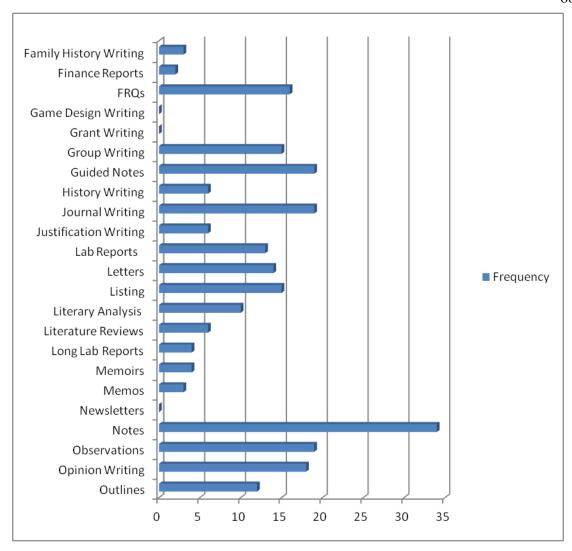
Quantitative Introduction

I broke the quantitative questions (questions 1-12) from the Writing Across the Curriculum Assessment (WACA) survey into three groups. The first group of questions (questions 1-4) focuses on rubric design and creation in order to uncover teachers' current methods of rubric design, revision practices, and rubric design rationale. The second set of questions (questions 5-6) surrounds teachers' frequency of rubric use to assess student writing as well as to gauge how often teachers feel pressured to use rubrics to assess student writing. The next four questions focus on writing assessment training, training frequency, collaboration, and writing habits for students in teachers' classes. In Question 12, which is an inventory of writing types, I track the types of writing Martin teachers said occurs in their classrooms in the August 2014 professional development training detailed in Chapter 1 to what types of writing now take place in their classrooms. I present the Question 12 results first to display what types of writing occurs at Martin on a school-wide level as well as on an individual departmental level.

Analysis of Writing Types and Frequencies (Question 12)

School-wide Overview of Question 12





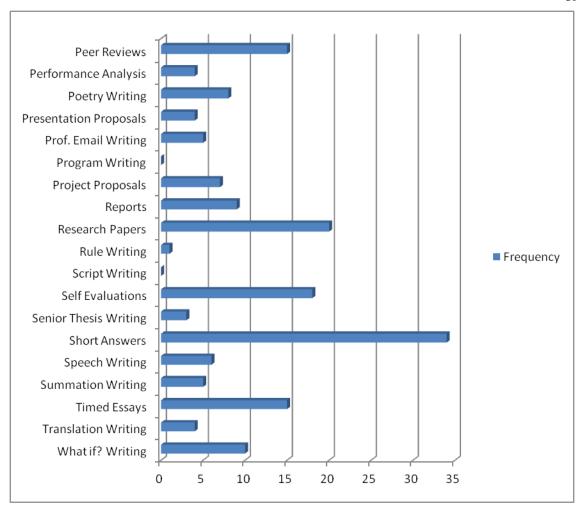


Figure 17. School-wide Overview of Question 12

I created the compiled list of writing choices from the photographs seen in Chapter 1. In that professional development session from August 2014, I asked Martin teachers in each department to write down on a white board the different types of writing that take place in their classrooms. My analysis of the Question 12 results highlights a strong commitment to writing in all disciplines as well as a diverse approach to using writing as a learning tool.

Of the 65 different writing types for Question 12, the following types shown in Table 2 occurred with the highest frequency across the school¹:

Table 2

High Frequency Writing Types

High Frequency Writing Types: School-w		
Writing Type	Frequency	
Compare/Contrast	64%	
Bell-work	63%	
Essay Question Writing	63%	
Article Responses	59%	
Short Answer	59%	
Notes	58%	
Article/Source Analysis	49%	
Constructed Response	49%	

Items from the list with a frequency of nearly 50% or higher show that these types are embedded in classrooms across the entire school. Bell-work writing rivals Compare/Contrast writing and Essay Question Writing for the most prominent writing types in the school, which are typical writing types for many disciplines. However, the high frequency of article response and source analysis indicates a commitment to non-fiction writing, which is likely a result of the new TN Ready standards for writing.

_

¹ See Appendix F for the full frequency tables.

Departmental Analysis of Question 12: English². Table 3 illustrates the Martin English teachers' responses to Question 12 before they participated in the WACA professional development day in August of 2015.

Table 3 English Department Frequency Question 12

High Frequency Writing Types: English Department		
Writing Type	Frequency	
Creative Writing	91%	
Essay Question Writing	90%	
Explanatory Writing	82%	
Compare/Contrast	73%	
Constructed Response	73%	
Journal Writing	73%	
Bell-work Writing	64%	
Literary Analysis	64%	
Notes	64%	
Short Answers	64%	
Timed Essays	64%	
Article Responses	55%	

² The English department appears first because the English teachers took the WACA survey first during the professional development training in August of 2015.

The English teachers, collectively, selected 45 of the 65 writing types for Question 12. These teachers demonstrated that the types of writing that occurs in their classroom is multifaceted. Moreover, English teachers reported fifteen types of writing take place in their classrooms at a rate of 50% or above. Creative Writing and Essay Question Writing, for example, occurs in 90% of English teachers' classrooms.

Constructed Response and Explanatory Writing occurs in more than 73% of English teachers' classrooms. The English teachers at Martin have reported a robust, strong commitment to diverse writing types in their classrooms.

Departmental Analysis of Question 12: Career and Technical Education.

I use Table 4 to illustrate the Martin Career and Technical Education teachers' responses to Question 12 before they participated in the WACA professional development day in August of 2015.

High Frequency Writing Types: Career and Technical Education Department

50%

Table 4

Career and Technical Education Department Frequency Question 12

9 11 1 7 1 9 7 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1	
Writing Type	Frequency
Article/Source Analysis	75%
Career Journal Writing	50%
Lab Reports	50%
Notes	50%
Observations	50%

Short Answers

As a department, the CTE teachers selected 27 of the 65 writing types for Question 12. Multiple types of writing occur in the CTE classrooms, and seven types of writing occur more than 50% of the time in these teachers' classrooms: Article Responses, Article Source Analysis, Career Journal Writing, Notes, Observations, Short Answers, and Lab Reports. The CTE teachers selected writing types that suit their discipline; moreover, the CTE teachers selected items that align with their qualitative responses surrounding the need for real world or discipline specific writing assignments to prepare students for the writing they will encounter in their fields of study after graduation.

Departmental Analysis of Question 12: Science. Before they participated in the WACA professional development day in August of 2015, the Martin Science teachers' responses to Question 12, as seen in Table 5, indicate a wide range of writing types that take place in their classrooms.

Table 5
Science Department Frequency Question 12

High Frequency Writing Types: Science Department		
Writing Type	Frequency	
Lab Reports	80%	
Article Responses	70%	
Bell-work	70%	
Compare/Contrast	60%	
Notes	60%	
Short Answers	60%	
Article/Source Analysis	50%	
Constructed Response	50%	
Essay Question Writing	50%	
Observations	50%	

The Science department teachers selected 37 of the 65 writing types for Question 12. The types of writing occurring in science classes is diverse, and nine types of writing appeared in 50% or more of science classrooms. Article Responses and Bell-work occurs in 70% of Science teachers' classrooms. Notes, Short Answers, and Compare/Contrast Writing occurs in 60% of science teachers' classrooms. The science teachers, like the English teachers, demonstrate a broad commitment to writing and would benefit from including grant writing, memo writing, and peer review writing to help them simulate the real-world writing that occurs within their discipline. The science teachers' qualitative

responses, which are presented later in this chapter, indicate a need for real-world writing in their classrooms, but their responses from Question 12 reveal a lack of certain real-world writing assignments that would benefit their students.

Departmental Analysis of Question 12: Math. I use Table 6 to show the Martin Math teachers' responses to Question 12 before they participated in the WACA professional development day in August of 2015.

Table 6

Math Department Frequency Question 12

High Frequency Writing Types: Math Department		
Writing Type	Frequency	
Bell-work Writing	71%	
Constructed Response	71%	
Explanatory Writing	71%	
Notes	71%	
Compare/Contrast	43%	
Exit Ticket Writing	43%	
Short Answers	43%	

The Math teachers selected 23 of the 65 writing types for Question 12. Many types of writing take place in math classes at Martin. Moreover, four of these types of writing take place in multiple Math classrooms with high frequency. Bell-work, Constructed Response, Explanatory, and Note writing occurs in 71% of math classes.

Although the math teachers reported a lower number of writing types for Question 12, their focused commitment to a particular set of writing types aligns with their qualitative responses and the follow-up interviews I conducted. The math teachers have a deep dedication to constructed response and explanatory writing because of the new math practice standards implemented over the last two years in Tennessee.

Departmental Analysis of Question 12: Social Studies. Table 7 illustrates the Martin Social Studies teachers' responses to Question 12 before they participated in the WACA professional development day in August of 2015.

Table 7
Social Studies Department Frequency Question 12

TT:~L	E	TX7:4: ~	T	Casial	C4 4:00	Domontonom
High	Frequency	writing	1 vpes:	Social	Studies	Department

Frequency
82%
73%
72%
72%
64%
64%
64%
64%
64%
46%

Teachers in the Social Studies department selected 43 of the 65 writing types for Question 12. Like the English teachers, the Social Studies teachers have reported a wide variety of writing types. Furthermore, nine of these types of writing take place in multiple Social Studies classrooms with high frequency. Compare/Contrast writing occurs in 82% of social studies classrooms. Article Responses, Article Source/Analysis, and Free-Response Questions (FRQs) occur more than 63% of social studies classes. These writing types are prominent in the Social Studies department in part because of their discipline's innate focus on non-fiction texts as well as the test preparation trend that emerged in their qualitative data.

Departmental Analysis of Question 12: Heath, Physical Education, and Recreation. I use Table 8 to display the Martin Heath, Physical Education, and Recreation teachers' responses to Question 12 before they participated in the WACA professional development day in August of 2015.

Table 8

Heath, Physical Education, and Recreation Department Frequency Question 12

High Frequency Writing Types: Health, Physical Education, and Recreation Department		
Writing Type Frequency		
Article Responses	80%	
Essay Question Writing	80%	
Bell-work Writing	ell-work Writing 60%	

The Heath, Physical Education, and Recreation teachers selected 22 of the 65 writing types for Question 12. Of these types of writing, three types take place in multiple HPER classrooms with high frequency. Article Responses and Essay Question Writing occur in 80% of HPER classes. Bell-work occurs in 60% of HPER classes. These teachers reported a lower number of writing types for Question 12, which aligns with the justifications for the lack of writing in their qualitative responses.

Departmental Analysis of Question 12: Fine Arts. In Table 9, I illustrate the Martin Fine Arts teachers' responses to Question 12 before they participated in the WACA professional development day in August of 2015.

Table 9

Fine Arts Department Frequency Question 12

High Frequency Writing Types: Fine Arts Department		
Writing Type	Frequency	
Compare/Contrast	80%	
Essay Question Writing	80%	
Article Responses	60%	
Bell-work Writing	60%	
Biography Writing	60%	
Creative Writing	60%	
Definition Writing	60%	
Explanatory Writing	60%	

The Fine Arts teachers selected 36 of the 65 writing types for Question 12. These teachers have reported, like the English and Social Studies teachers, that a wide variety of writing occurs in their classrooms. Fourteen of these types also occur in multiple classrooms at a high rate. Compare/Contrast Writing and Essay Question Writing occur in 80% of Fines Arts classes. The remaining 12 types of writing occur in 60% of Fine Arts classrooms. However, the Fine Arts teachers' qualitative responses reveal less of a commitment to writing in their classrooms.

Departmental Analysis of Question 12: Foreign Language. I use Table 10 to show the Martin Foreign Language teachers' responses to Question 12 before they participated in the WACA professional development day in August of 2015.

Table 10

Foreign Language Department Frequency Question 12

Biography Writing

High Frequency Writing Types: Foreign Language Department		
Writing Type	Frequency	
Compare/Contrast	100%	
Essay Question Writing	100%	
AP Writing Prompts	83%	
Article Responses	67%	
Creative Writing	67%	
Group Writing	67%	
Notes	67%	
Short Answers	67%	
Translation Writing	67%	
Article/Source Analysis	50%	
Bell-work Writing	50%	

Teachers in the Foreign Language department selected 42 of the 65 writing types for Question 12. These teachers, along with the English, Social Studies, and Fine Arts teachers, have demonstrated that numerous types of writing occur in their classrooms. In addition, twenty-one of these types of writing occur more than 50% of the time in Foreign Language classrooms, which is more than any other department at Martin. These teachers also reported the only frequency of 100% for a writing type; Compare/Contrast

50%

and Essay Question Writing occur in all six Foreign Language teachers' classrooms. The foreign language teachers' strong commitment to writing in their classrooms also appears in their qualitative responses; in fact, these teachers provided some of the most extended and thoughtful responses.

Round 2 Analyses of Question 12. The fifteen teachers who completed the Round 2 survey (see appendix A) showed little to no change in the types of writing that takes place in their classrooms. Teacher 3, Teacher 21, Teacher 30, and Teacher 31 showed slightly higher volumes, but many of the added assignments were akin to previous reported writing types.

Departmental Interaction Overview for Questions 1-11

Of the eleven quantitative questions, seven questions (Questions 4, 5, 7, 8, 9, 10, 11) yielded results with statistical significance, meaning that values were less than the alpha value of .05 established in Chapter 3. These values indicate interaction differences between the eight departments caused by more than chance. In Table 11, I illustrate the overall significance values for each of the quantitative WACA survey questions.

Table 11

Departmental Interaction Overview Table for Questions 1-11.

Survey Question	p
Question 1	.156
Question 2	.051
Question 3	.539
Question 4	.000
Question 5	.001
Question 6	.078
Question 7	.002
Question 8	.014
Question 9	.001
Question 10	.000
Question 11	.001

Note. Bold *p* values are significant at $\alpha = .05$.

Analysis of Question 1: How often do you create your own rubric for a writing assignment?

In Question 1, I aim to measure how often Martin teachers create their own rubrics when assessing student writing. Haswell and Wyche-Smith (2009) argue that teachers must be diligent about creating their own rubrics and take caution when using "assessment tools made by others" (p. 204). Thus, in the following section, I detail Martin teachers' rubric creation practices on a school-wide and then a departmental level.

School-wide Overview of Question 1: How often do you create your own rubric for a writing assignment?

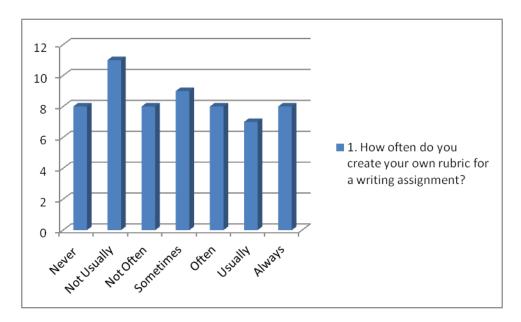


Figure 18. School-wide Overview of Question 1

I noticed that the the school-wide results of Question 1 reveal a mixed trend across the 59 teachers' responses. Of the 59 eachers at Martin, 23 scored above the median. More than half of the teachers at Martin responded at the mid point or below on the likert scale. In other words, over fifty percent of the teachers occassionaly create their own rubrics for a writing assignment. These responses, however, do align with the lack of writing assessment training reported in Questions 7 and 8. Teachers are far less likley to create their own rubrics if they do not know that they have the power to do so and should do it often.

Departmental Analysis of Question 1: How often do you create your own rubric for a writing assignment?

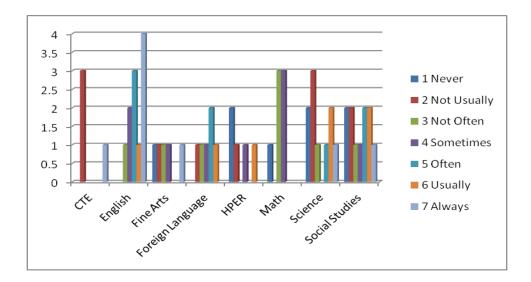


Figure 19. Departmental Analysis of Question 1

The highest scoring teachers came from the English and Social Studies departments. The lowest scoring teachers came from the Career and Technical Education, Fine Arts, and Science departments. These responses match the frequency of training reported in Question 8. Although the majority of teachers at Martin admit to rarely receiving writing assessment training, the teachers who did report otherwise are in the English and Social Studies departments. These Martin teachers, therefore, could be potential WACA leaders for the future.

Analysis of Question 2: How often do you revise your rubrics?

In Question 2, my goal is to extend the rubric conversation from rubric creation to rubric revision. Popham (2014) implores teachers to not only create their own assessment instruments but to also revise them often to ensure that the instruments are, in fact, valid and reliable. Moving to the revision stage of rubric creation, therefore, is crucial for our teachers at Martin if they want to provide students with the best feedback possible about their writing performance and growth.

School-wide Overview of Question 2: How often do you revise your rubrics?

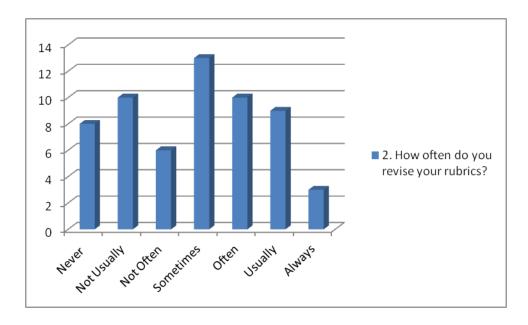


Figure 20. School-wide Overview of Question 2

Responses to Question 2 are similar to Question 1 with a portion of teachers responding in the upper end of the scale and a majority of teachers falling into the lower score points on the scale. Once again, over fifty percent of the teachers sometimes or

rarely revise their rubrics. As mentioned previously, these low scores can be ameliorated with more writing assessment training, and the responses from Question 7 and Question 8 reveal that the faculty needs this training.

Departmental Analysis of Question 2: How often do you revise your rubrics?

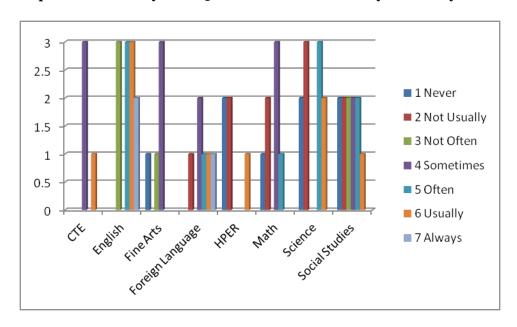


Figure 21. Departmental Analysis of Question 2

A closer breakdown of the responses for Question 2 reveals that the English and Science departments revise their rubrics most frequently. More than half of the eleven English teachers' scores fell at the "often" score point or above. Alternatively, the Career and Technical Education, Foreign Language, and HPER departments score much lower; the majority of these teachers responded at the "sometimes" or below score points. The departmental data, once again, shows potential leaders for the WACA initiative; specifically, Teacher 39 (English), Teacher 43 (English), Teacher 27 (Science), and Teacher 57 (Science).

Analysis of Question 3: How often do your students help create the rubrics in your class?

I use Question 3 to measure how often students are included in the assessment of their own writing and, more specifically, in the creation of the assessment instrument. Wilson (2006) and Popham (2014) both advocate for inviting students' to join the assessment conversation. Wilson (2006), for example, claims that when students are included in the writing assessment discussion they can start taking ownership of the assessment process (p. 90). Moreover, Popham (2014) notes that the student perspective is one of the most undervalued in the assessment conversation (p. 275). Martin teachers' levels of student inclusion in the writing assessment process are presented in Figure 22.

School-wide Overview of Question 3: How often do your students help create the rubrics in your class?

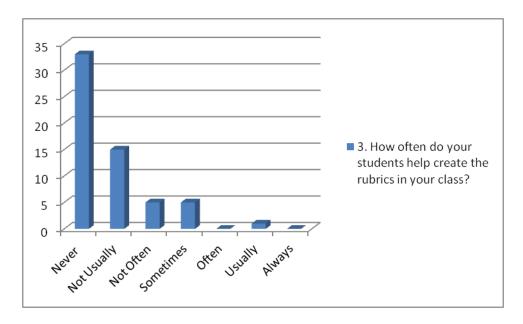


Figure 22. School-wide Overview of Question 3

Responses for Question 3 show a far more skewed pattern than Question 1 and Question 2. This school-wide skewing toward the "never" score point could be related to Popham's (2014) claim mentioned above. Students are, indeed, often left out of the assessment process. Of the 59 Martin teachers, 34 responded with "never," totaling 56% of the sample set. Moreover, fifteen teachers responded with "not usually," totaling 25% of the sample set. Thus, more than 80% of the faculty fell at or below the "not often" score point. These low scores reveal a desperate need for training on how and why we should include our students' in the writing assessment process.

Departmental Analysis of Question 3: How often do your students help create the rubrics in your class?

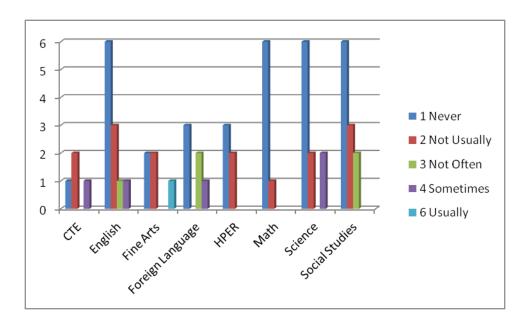


Figure 23. Departmental Analysis of Question 3

The departmental breakdown revealed that the majority of the English, HPER, Math, Science, and Social Studies departments do not include students in the creation of rubrics in their classes. However, outliers emerged in the Foreign Language department. Of the six foreign language teachers, two of them reported at the "not often" score point and 1 reported at the "sometimes" score point. This subset of teachers within the Foreign Language department could help train not only their departmental colleagues in how to include students in the assessment process but also Martin teachers in other departments.

Analysis of Question 4: How often do your rubrics mirror those found on a state test or college entrance exam?

Martin teachers prepare students for 29 different Advanced Placement tests as well as a host of state mandated assessments. Many of these AP and state tests contain a written component and have specific rubrics that the student will be judged upon. Thus, in Question 4, I aim to discover how much influence a state or college entrance exam influences Martin teachers in their creation and use of rubrics to assess student writing.

School-wide Overview of Question 4: How often do your rubrics mirror those found on a state test or college entrance exam?

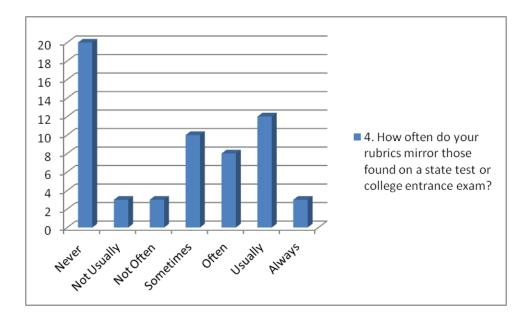


Figure 24. School-wide Analysis of Question 4

Responses for Question 4 were also heavily skewed to the "never" score point with 33.9% of teachers choosing "never." The second most frequent score point was "usually" with 20.3% of teachers selecting this choice. Finally, the "sometimes" score

point amassed 16.9% of the total responses. Given the high volume of testing at Martin, the teachers large response to the "never" score point is surprising. This odd pattern may be due to the phrasing of the question, which does not include the specific words "Advanced Placement" or "AP."

Departmental Analysis of Question 4: How often do your rubrics mirror those found on a state test or college entrance exam?

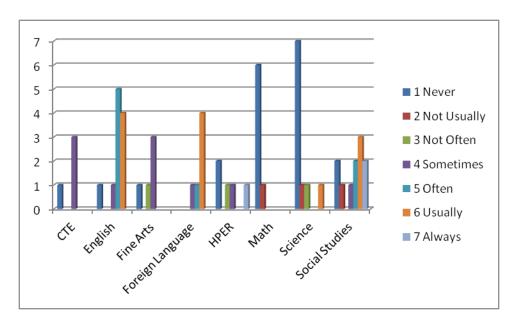


Figure 25. Departmental Analysis of Question 4

Teachers who responded with "never" came predominately from the Math and Science departments. The smaller group of teachers who responded at the higher end of the scale came from the English and Social Studies departments. These two departments do prepare students for AP and state tests that include writing as a portion of the assessment. Moreover, the ANOVA results align with these departmental differences.

The English department, for example, has a .002 interaction difference from the Science department and a .000 interaction difference from the Math department. The English teachers, therefore, outscore the Science and Math teachers regarding the use of rubrics that align with a state or AP test. These same patterns appear again in Question 6, which gauges teachers' levels of pressure to use rubrics. The English teachers, along with the social studies teachers, report higher levels of pressure because of the state or AP tests tied to their classes.

Analysis of Question 5: How often do you use rubrics to grade student writing?

Teachers at Martin assess student writing in various ways. Question 5 is specifically designed to gauge how often Martin teachers use rubrics to grade student writing. Authors such as Kohn (2006) and Wilson (2006) rail against the use of rubrics to assess student writing; meanwhile, Stevens and Levi (2005) and Popham (2014) endorse the use of rubrics to ensure validity and reliability when assessing student performance. Thus, I used this question to uncover a detailed view of Martin teachers' use of rubrics to assess student writing.

School-wide Overview of Question 5: How often do you use rubrics to grade student writing?

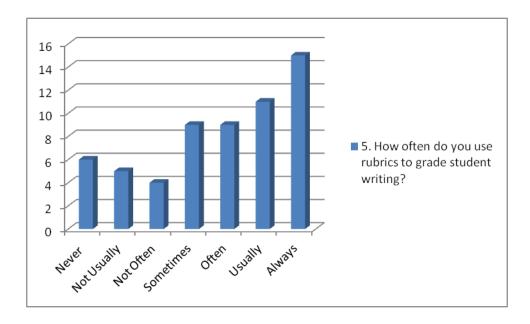


Figure 26. School-wide Overview of Question 5

School-wide responses for Question 5 show a high level of rubric use at Martin. More than 60% of the teachers responded at the "sometimes" score point or above. However, nearly 20% of the teachers responded at the "not usually" or never score point. These varying scores reveal that teachers at Martin need to discuss how and why they grade student writing the way they do in an effort to align both their beliefs and practices regarding writing assessment.

Departmental Analysis of Question 5: How often do you use rubrics to grade student writing?

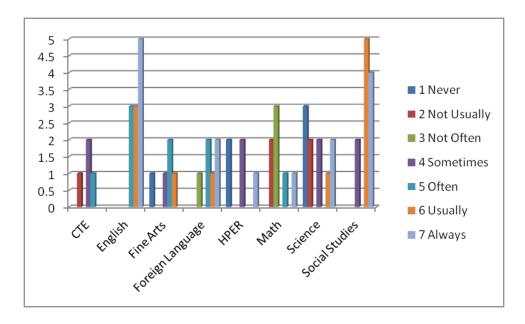


Figure 27. Departmental Analysis of Question 5

The highest concentrations of rubric use came from the English, Social Studies, and Foreign Language departments. The entire English department scored at the "often" score point or above, and the Social Studies and Foreign Language departments scored in a similar fashion. These reports of high frequency may be due to the AP or state tests that accompany these disciplines at Martin. The lowest reported use of rubrics, on the other hand, came from the Math and Science departments. ANOVA results echo these departmental discrepancies. The English department, for example, has a .016 interaction difference from the Science department; the Social Studies department has a .032 interaction difference from the Science department. The discrepancies between the departments may be linked to the embedded nature of writing in certain disciplines; it

may also be connected to the previously mentioned pressure regarding state or AP rubrics in English and social studies classes.

Analysis of Question 6: How often do you feel pressured to use rubrics to grade writing?

In addition to investigating rubric use at Martin, it is also important to understand why the rubrics are being used to assess student writing. Question 6 aims to measure how often Martin teachers feel pressured to use rubrics to grade student writing.

School-wide Overview of Question 6: How often do you feel pressured to use rubrics to grade writing?

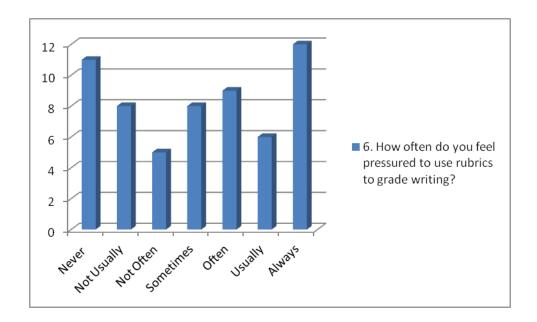


Figure 28. School-wide Overview of Question 6

Responses for Question 6 are much more evenly split across the score points than the previous questions. Almost half of the teachers selected "often" or above on the scale, revealing that nearly half of Martin teachers feel pressured to use rubrics while the other half feel far less pressure, scoring at the "sometimes" or below points on the WACA scale. Moreover, approximately 19% of the teachers selected "never." Follow-up investigation is needed to identify not only the source of the pressure to use rubrics but also how this pressure impacts the types of instruments being used at Martin to assess student writing. In regard to the source of the pressure, I found that the qualitative data hint that standardized testing causes much of the pressure to use rubrics.

Departmental Analysis of Question 6: How often do you feel pressured to use rubrics to grade writing?

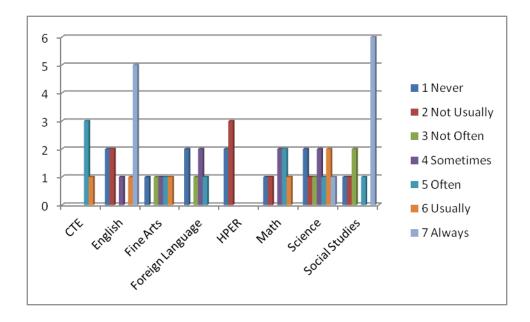


Figure 29. Departmental Analysis of Question 6

The teachers who feel most pressured to use rubrics to grade writing came from the English and Social Studies department, which aligns with the high levels of rubric use reported from these same departments in Question 5. The teachers who reported the least pressure to use rubrics to grade writing came from the Foreign Language, HPER, and Science departments. Further investigation is needed to uncover why these splits occur; however, as previously mentioned, the pressure from standardized tests in ELA and Social Studies could the root cause of these departmental differences.

Analysis of Question 7: How often do you feel prepared to grade writing in your classroom?

My goal for Question 7 is to assess Martin teachers' confidence when assessing student writing. The answers to this question can help schools tailor professional development needs to what their teachers voluntarily identify as areas needing improvement. In the case of Martin teachers, an overwhelming majority do not feel prepared to assess student writing.

School-wide Overview of Question 7: How often do you feel prepared to grade writing in your classroom?

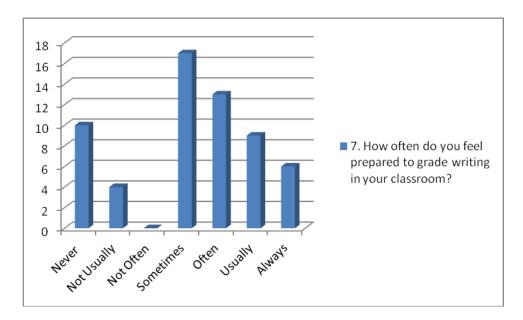


Figure 30. School-wide Overview of Question 7

School-wide responses to Question 7 revealed that a majority of teachers do not feel prepared to grade writing in their classrooms. More than half of all teachers responded with "sometimes" or lower on the scale. Only 10% of teachers responded "always." The need for more formal training in writing assessment in all disciplines is clear. The survey results from Question 7 also align with the results from Question 8.

Departmental Analysis of Question 7: How often do you feel prepared to grade writing in your classroom?

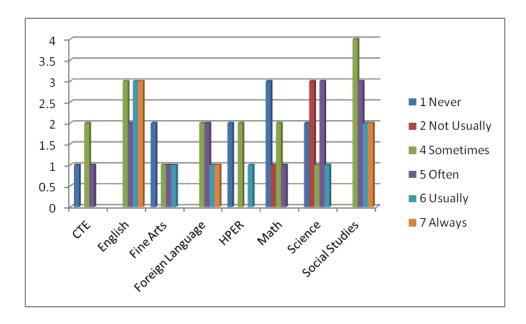


Figure 31. Departmental Analysis of Question 7

The highest levels of preparedness to grade writing came from the English, Social Studies, and Foreign Language departments. The lowest levels of confidence in preparation to grade writing came from the Career and Technical Education, Fine Arts, HPER, Math, and Science departments.

Analysis of Question 8: How often do you receive writing assessment training?

As mentioned in the discussion of the Question 7 results, many Martin teachers not only feel unprepared to assess student writing but also receive little to no writing assessment training. There is undoubtedly a need to match Martin teachers' passion for writing as a foundational tool in their classroom with the proper assessment training so that we can better serve our students and provide the timely and accurate feedback they need to grow as writers.

School-wide Overview of Question 8: How often do you receive writing assessment training?

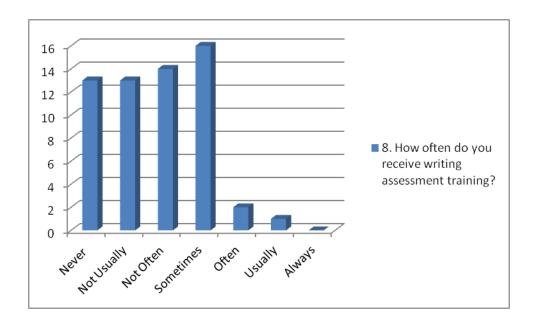


Figure 32. School-wide Overview of Question 8

Responses to Question 8 are skewed to the lower end of the scale. 95% of teachers responded to "sometimes" or below in regard to how often they receive writing assessment training. Only three teachers responded above the "sometimes" score point.

There were thirteen teachers who responded with "never."

Departmental Analysis of Question 8: How often do you receive writing assessment training?

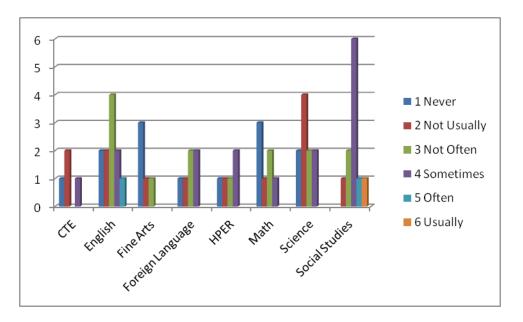


Figure 33. Departmental Analysis of Question 8

As mentioned above, responses to Question 8 are concentrated below the middle score point of "sometimes" with three outliers selecting "often" or "usually." The strong responses from the English and Social Studies departments in previous questions do not align with the low scores on this question. Essentially, the two strongest scoring departments at Martin scored well below their normal response trends.

Analysis of Question 9: How often do you discuss grading writing with other teachers?

One of the key tenets of Professional Learning Communities is not only collecting data across classrooms but also sharing that data. Martin teachers are already discussing lesson planning and formative assessment creation in a PLC setting, and now is the time to take a new step and begin writing assessment discussions in our PLCs at Martin Magnet.

School-wide Overview of Question 9: How often do you discuss grading writing with other teachers?

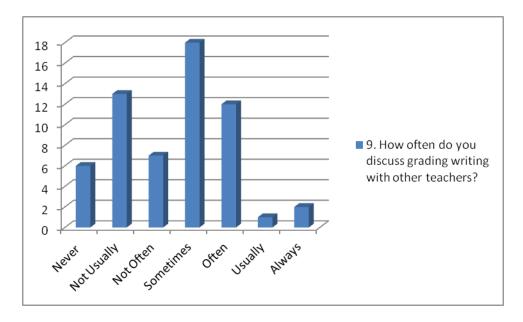


Figure 34. School-wide Overview of Question 9

Teachers' responses to Question 9 show a distinct split between the 59 teachers.

Half of Martin teachers responded at the "sometimes" or "often" score point, and the other half responded at "not often" or below. If true collaboration begins with sharing the

data, as DuFour, DuFour, and Eaker (2008) note, Martin teachers can add writing assessment discussions to their weekly PLC meeting agendas because we already have a strong commitment to the PLC mindset at Martin. With weekly meetings in place and common planning time for each department, conversations about how and why teachers are assessing student writing can begin.

Departmental Analysis of Question 9: How often do you discuss grading writing with other teachers?

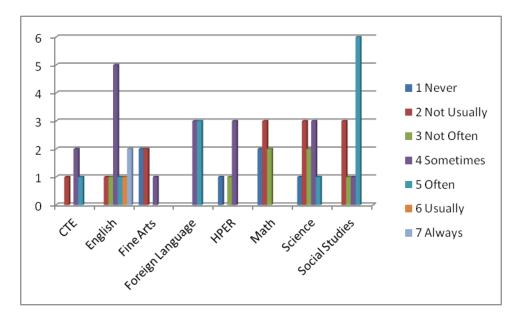


Figure 35. Departmental Analysis of Question 9

The departments that converse the most frequently with each other about grading writing are English, Foreign Language, Science, and Social Studies. The Career and Technical Education, Fine Arts, HPER, and Math departments reported discussing writing with each other at a far lower level. Therefore, an imbalance is occurring at

Martin regarding how often teachers discuss writing assessment practices with each other.

Analysis of Question 10: How often do your students write in your class?

My goal for Question 10 is to gauge how often students write in each discipline at Martin and assess strengths and weaknesses in the data. The results from this question can also be cross-compared to the results from Question 12 in search of triangulation.

School-wide Overview of Question 10: How often do your students write in your class?

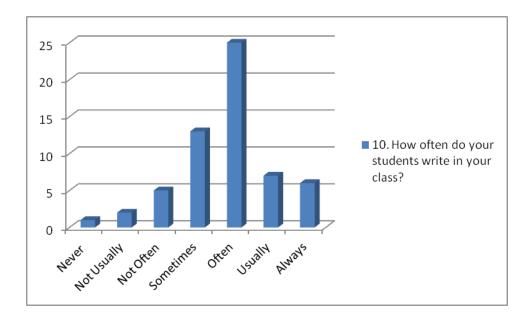


Figure 36. School-wide Overview of Question 10

Responses to Question 10 show a school-wide trend toward frequent student writing in the majority of classrooms at Martin. More than eighty percent of teachers responded at the "sometimes" score point or above. Approximately 40% of teachers

reported at the "often" score point. The remainder of Martin teachers reported at the "usually" or "always" score point. Writing is clearly an important component to many Martin teachers, which has also been confirmed through the qualitative responses detailed in the latter half of Chapter 4.

Departmental Analysis of Question 10: How often do your students write in your class?

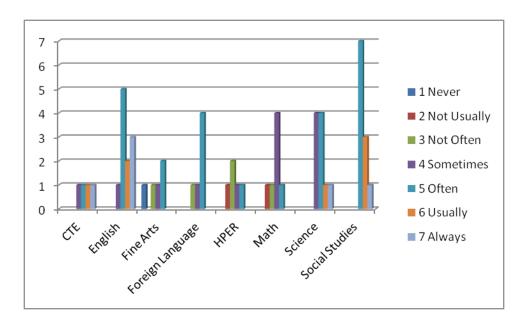


Figure 37. Departmental Analysis of Question 10

The highest scoring departments for Question 10 are Career and Technical Education, English, Science, and Social Studies. The lowest scoring departments for Question 10 are Fine Arts, and HPER. The overwhelming majority of responses for Question 10 reveal a strong school-wide writing presence in many classrooms in multiple disciplines.

Analysis of Question 11: How often do your students write digitally?

Digital writing can open many opportunities for collaboration between disciplines. My aim for Question 11, therefore, is to assess how often students are using technology to craft their written responses.

School-wide Overview of Question 11: How often do your students write digitally?

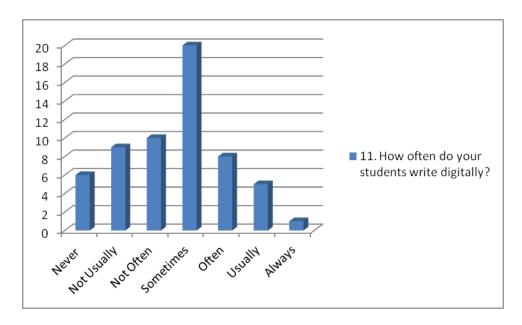


Figure 38. School-wide Overview of Question 11

Question 11 responses mirror the split seen in Question 9 with half of the faculty reporting high levels of digital writing and the other reporting only occasional or no digital writing. More than half of the teachers responded at the "sometimes" score point or above, and 42.4% of the teachers' responded below the "sometimes" score point.

Martin teachers have opportunities to embrace digital writing, meaning that they have the chance to include more types of writing in their classes via Google drive, Office 365 and Turnitin.com, all of which are being used currently at our school in some fashion. Taking

advantage of what we already have, as Bernhardt (2013) contends, can help a school improvement plan thrive. The WACA initiative at Martin, therefore, can be more successful and feel like less of a burden to teachers if we harness the power of our current digital writing technologies.

Departmental Analysis of Question 11: How often do your students write digitally?

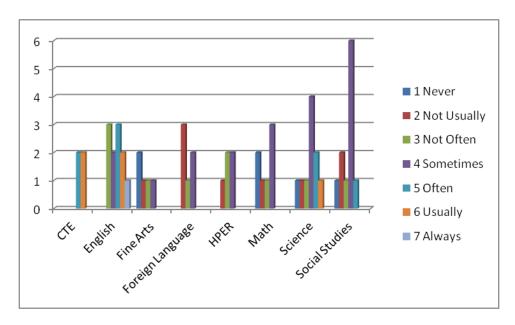


Figure 39. Departmental Analysis of Question 11

The highest levels of digital writing at Martin occur in the Career and Technical Education, English, Science, and Social Studies departments. The teachers in these departments can become WACA leaders at Martin and help increase our levels of digital writing.

Round 1 and Round 2 Analyses (Questions 1-15)

The second phase of the Writing Across the Curriculum Assessment (WACA) professional development series began in December of 2015. My original design called for a second, physical meeting in December or January during a school-wide professional development day; however, I was not able to reserve the second session.³ Instead, Martin teachers were given the chance to voluntarily complete the same survey from the August 2015 professional development seminar. The window to take the Round 2 survey closed in January of 2016, and fifteen of the fifty-nine teachers from Round 1 voluntarily completed the Round 2 survey. Only 25% of teachers from Round 1 took the Round 2 survey, which could be attributed to the lack of interest in the follow-up survey or time constraints. However, the fifteen teachers who did complete the Round 2 survey have provided important data to help fuel the WACA initiative at Martin.

³ I received IRB approval for the second day of face-to-face training; however, as the school year progressed, the administrators chose to use our remaining in-service training days for other purposes.

Round 1-Round 2 Analysis of Question 1: How often do you create your own rubric for a writing assignment?

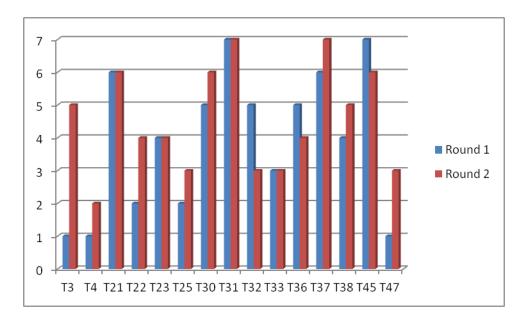


Figure 40. Round 1-Round 2 Analysis of Question 1

The average Question 1 responses in Round 1 were 3.9 and 4.5 for Round 2 with a .6 difference. More than half of the Round 2 teachers show an increase in scores with three teachers reporting a two point or higher score since the initial round of professional development.

Round 1-Round 2 Analysis of Question 2: How often do you revise your rubrics?

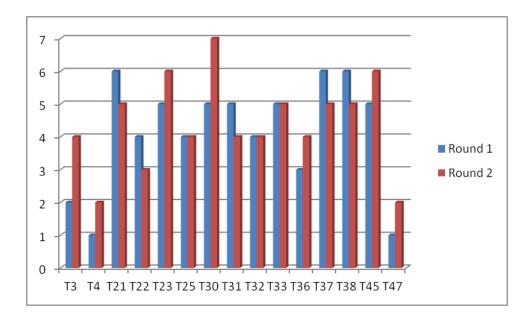


Figure 41. Round 1-Round 2 Analysis of Question 2

For Question 2, the average responses in Round 1 were 4.1 and 4.4 for Round 2 with a .26 difference. More than half of the teachers showed an increase in scores with two teachers reporting a two-point score increase since the initial round of professional development. Alternatively, four teachers scored lower since the first round of professional development in the fall.

Round 1-Round 2 Analysis of Question 3: How often do your students help create the rubrics in your class?

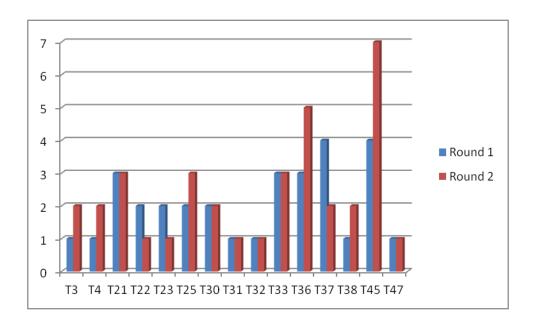


Figure 42. Round 1-Round 2 Analysis of Question 3

The average responses for Question 3 in Round 1 were 2.06 and 2.4 for Round 2 with a .33 difference. Many of the teachers showed no change or a negative change for Question 3. However, six teachers showed an increase in scores with two teachers reporting a two point or higher score increase since the initial round of professional development.

Round 1-Round 2 Analysis of Question 4: How often do your rubrics mirror those found on a state test or college entrance exam?

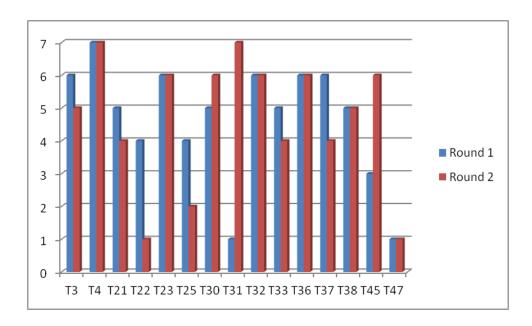


Figure 43. Round 1-Round 2 Analysis of Question 4

The average responses for Question 4 in Round 1 were 4.6 and 4.6 for Round 2 with a .0 difference. Many of the teachers showed no change or a negative change for Question 4. Other teachers reported skewed scores that do not match the previous round scores.

Round 1-Round 2 Analysis of Question 5: How often do you use rubrics to grade student writing?

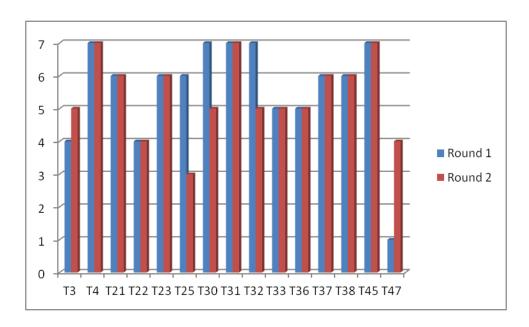


Figure 44. Round 1-Round 2 Analysis of Question 5

For Question 5, the average responses in Round 1 were 5.6 and 5.4 for Round 2 with a -.2 difference. A majority of teachers (10 of 15) showed no change in scores since the initial round of professional development. However, two teachers reported a far lower score since their first round scores, and two other teachers reported a far higher score since their first round scores.

Round 1-Round 2 Analysis of Question 6: How often do you feel pressured to use rubrics to grade writing?

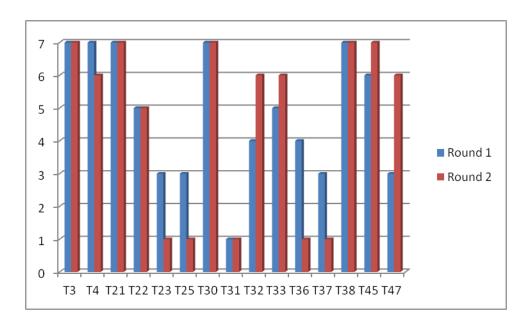


Figure 45. Round 1-Round 2 Analysis of Question 6

The average responses for Question 6 in Round 1 were 4.8 and 4.6 for Round 2 with a -.2 difference. Just under half of the teachers showed no change or a negative change for Question 6. Additionally, five teachers showed a decrease in scores since the initial round of professional development.

Round 1-Round 2 Analysis of Question 7: How often do you feel prepared to grade writing in your classroom?

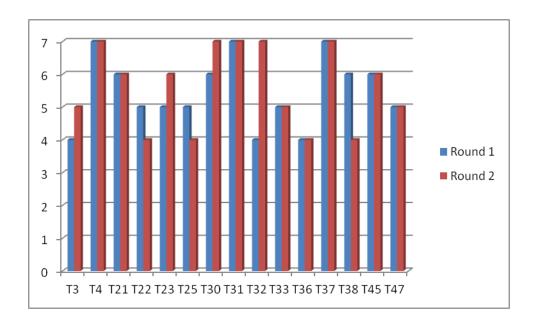


Figure 46. Round 1-Round 2 Analysis of Question 7

For Question 7, the average responses in Round 1 were 5.46 and 5.6 for Round 2 with a .13 difference. Half of the 15 teachers showed no change scores since the initial round of professional development.

Round 1-Round 2 Analysis of Question 8: How often do you receive writing assessment training?

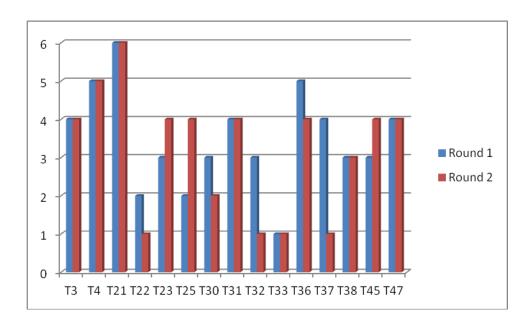


Figure 47. Round 1-Round 2 Analysis of Question 8

The average responses for Question 8 in Round 1 were 3.46 and 3.2 for Round 2 with a -.26 difference. Seven of the teachers showed no change or a negative change for Question 8. Five teachers showed a decrease in scores since the initial round of professional development.

Round 1-Round 2 Analysis of Question 9: How often do you discuss grading writing with other teachers?

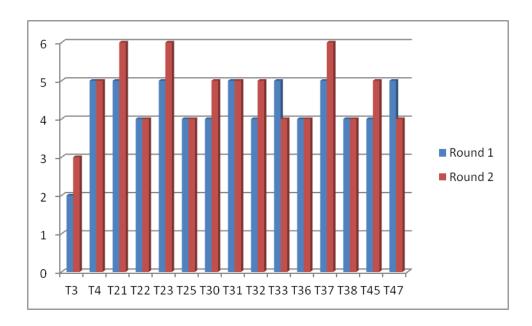


Figure 48. Round 1-Round 2 Analysis of Question 9

For Question 9, the average responses in Round 1 were 4.33 and 4.66 for Round 2 with a .33 difference. Six of the 15 teachers showed 1-point score increase since the initial round of professional development. Six teachers showed no change.

Round 1-Round 2 Analysis of Question 10: How often do your students write in your class?

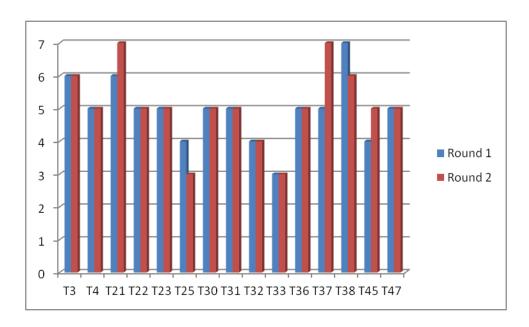


Figure 49. Round 1-Round 2 Analysis of Question 10

The average responses for Question 10 in Round 1 were 4.9 and 5.06 for Round 2 with a -.13 difference. A majority of the teachers showed no change for Question 10.

Round 1-Round 2 Analysis of Question 11: How often do your students write digitally?

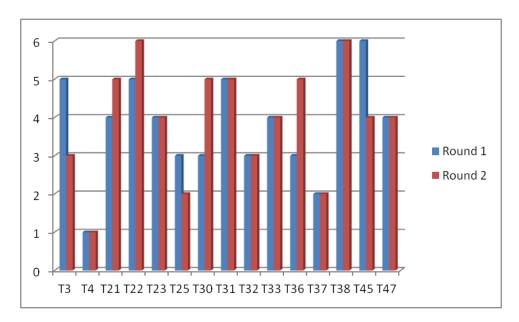


Figure 50. Round 1-Round 2 Analysis of Question 11

For Question 11, the average responses in Round 1 were 3.86 and in Round 2 were 3.93, indicating a slight increase in scores. Eight of the teachers showed no change in score since the initial round of professional development. Three teachers reported a negative score since Round 1, and four teachers reported a higher score.

Round 1-Round 2 Teacher Rankings

Table 12

Round 1 and Round 2 Ranking Table for Questions 1-11.

Teacher Number and Department Teacher 47 (Sci)	Round 1 (Raw Total Score Before PD) 2.8	Round 2 (Raw Total Score After PD) 3.5	Difference (From Round 1 to Round 2) +.7
Teacher 3 (SS)	3.8	4.5	+.7
Teacher 45 (Sci)	5.0	5.7	+.7
Teacher 31 (Eng)	4.3	4.8	+.5
Teacher 30 (Eng)	4.7	5.1	+.4
Teacher 4 (SS)	4.2	4.5	+.3
Teacher 23 (SS)	4.3	4.5	+.2
Teacher 36 (Eng)	4.2	4.3	+.1
Teacher 32 (FL)	4.0	4.0	.0
Teacher 21 (SS)	5.5	5.5	.0
Teacher 33 (FL)	4.0	3.9	1
Teacher 38 (Eng)	5.0	4.8	2
Teacher 22 (CTE)	3.8	3.5	3
Teacher 37 (FL)	4.9	4.4	5
Teacher 25 (FA)	3.5	3.0	5

With Table 12, I illustrate teachers' composite scores across all eleven quantitative questions prior to the professional development seminar in August 2015, and I compare them to not only their Round 2 scores reported between December 2015 and January 2016 but also their ranking shifts. Teacher 21 maintained the same high overall score, indicating that Teacher 21 may have already possessed advanced writing assessment knowledge or confidence in writing assessment topics. However, Teachers 45 and 47 from the science department and Teacher 3 from the social studies department showed the largest score increase after the incubation time between the August professional development and the Round 2 voluntary follow-up, revealing a heightened sense of writing assessment skills or knowledge. The professional development impacted these teachers the most, and these teachers are prime candidates to become WACA PLC leaders.

Quantitative Reflections

The quantitative results reveal strengths and weaknesses both school-wide and by department. Teachers across the school scored high in revision of their self-created rubrics. The participants also revealed that a great majority of these teachers have their students writing with a high frequency in their classrooms (36 of 59 teachers).

With the results, I also show high levels of rubric use in the school but not a high level of rubric creation among the teachers. When compared with the qualitative data, the quantitative data show that Martin teachers often use rubrics that mirror a state test or college entrance exam. Moreover, more than half of the faculty responded on the lower end of the scale in regard to their preparedness to grade student writing, which correlates

to the school-wide responses about receiving little to no writing assessment training (56 of 59 teachers).

Finally, in the Round 1-Round 2 analysis I reveal that the professional development did impact teachers' practices or beliefs regarding writing and writing assessment. Teachers demonstrated learning, which also helped build the list of potential WACA PLC leaders seen in the next chapter. However, as Good (2013) and Gere (2010) note, this is just the beginning of teaching teachers in a meaningful way. Martin teachers and administrators must commit iterative writing assessment training if the WACA initiative is to be a longstanding success.

Qualitative Introduction

I used the qualitative questions (questions 13-15) from the Writing Across the Curriculum Assessment (WACA) survey to complement the quantitative questions. Now that it is clear what types of writing take place at Martin, we can now investigate the purposes these writing types serve (Question 13), the methods of assessing these writing types (Question 14), and the perceptions of what good writing looks like at Martin (Question 15). The figures displayed in this section indicate not only the prevailing trends that emerged from the teachers' responses but also the frequency in which they emerged. The wheel figures all operate on the same four-tier legend: High Frequency (occurring 19 or more times school-wide; occurring 5 or more times departmentally), Middle Frequency (occurring 9 to 18 times school-wide; occurring 3-4 times departmentally, Low Frequency (occurring 1 to 8 times school-wide; occurring 1-2 times departmentally), and No Frequency (not occurring at all departmentally).

Analysis of Question 13: What purpose does writing serve in your classroom?

In Question 13, I aim to catalogue the different purposes writing serves in classrooms at Martin. Knowing how and why teachers use writing throughout the school-year is crucial to building a shared vision of writing assessment. Now that I have collected quantitative data from the WACA survey, I can use the qualitative data regarding the purpose that writing serves in different departments as well as in individual classrooms. Figure 50⁴ illustrates the school-wide purposes writing serves at Martin Magnet; the figures that follow detail departmental trends.

⁴ The wheel design appears for each of the qualitative questions to display the trends as they appear school-wide and by department. Moreover, the four-level color legend illustrates the frequency of the trends.

School-wide Overview of Question 13: What purpose does writing serve in your classroom?



Figure 51. School-wide Trends for Question 13.

As I illustrate with Figure 50, ten school-wide trends emerge from the responses to Question 13. Overlapping trends also emerged, revealing multiple shared tendencies. Unique differences regarding the purpose of writing in classrooms from each of the eight departments at Martin Magnet arose as well. Writing is undoubtedly present in each of the eight departments at Martin, and writing is used for multiple purposes.

English Department Analysis of Question 13: What purpose does writing serve in your classroom?



Figure 52. English Department Trends for Question 13

Of the ten school-wide trends, five emerge from the teachers in the English department: Foundational to Classroom, Formative/Practice, Creativity, Demonstrate Knowledge/Understanding, and Analysis. Several teachers expressed that writing or becoming a writer was a central goal in their classrooms. Teachers from this department

also expressed a distinctive need for writing to be a creative outlet for self-expression and exploration. Teachers from the English department also reported, unlike many of the other departments, that writing plays a formative role in their classrooms. Table 13 displays prominent trends from the English department as well as excerpted data from the qualitative responses from the eleven different teachers in this department.

Teacher 39's response, in comparison to the other English teachers' responses, is particularly detailed and insightful:

Writing is essential in my classroom. In fact, becoming a better writer is one of the main goals of my classes. Writing helps students figure out what they think about the subject matter and how to communicate that clearly. It helps them learn how to justify their ideas with evidence. It can be informal and exploratory writing to help them begin thinking about ideas. Writing is incorporated into almost every goal in my class.

Teacher 39 demonstrates a commitment to writing and believes that writing plays multiple, crucial roles. This teacher is a potential WACA PLC leader, one who would initiate and propel WACA conversations within regular English PLC meetings (see Chapter 5 for further discussion of WACA PLC leaders and their roles).

Table 13

English Department Evidence Table Question 13

Q.13: What purpose does writing serve in your classroom? English			
Trend	Evidence		
	"Writing is essential in my classroom. In fact, becoming a better writer is one of the main goals of my classes."	"Writing is incorporated into almost every goal in my class."	
Foundational to Classroom	"Writing is a fundamental part of my classes."	"Many purposes: it meets the standards of the curriculum, it promotes self-discovery	
	"Writing to learn, all stages, formative assessments"	"assessing student growth in content learning and/or writing development."	
Formative/Practice	"Writing to learn, all stages, formative assessments"	"assessing student growth in content learning and/or writing development."	
	"It is a way for student to develop and enhance their ability to express their thoughts on matters."	"put thoughts on paper, brainstorm, practice skills"	
	"for fun, and to reflect on literature and respond to it"	"It's a method of self-expression. Writing is highly personalized as students select areas of interest."	
Creativity	"they are also able to use writing as an outlet for emotions, thoughts, feelings, etc."	It is a way for student to develop and enhance their ability to express their thoughts on matters.	
	"it promotes self-discovery"	"inform, entertain, and foster creativity."	
	"writing as a means for demonstrating their knowledge and expertise"	"nearly all summative include writing"	
Demonstrate Knowledge/Understanding	"It can be informal and exploratory writing to help them begin thinking about ideas"	"writing as a means for demonstrating their knowledge and expertise in certain standards-based areas"	
	"Analyze, explain, cite info"		
Analysis	"response to literature or text while digging deeper into the text"	"and enhance their ability to express their thoughts on matters."	
	"Analyze, explain, cite info"	"investigates texts and constructs meaning for the student, it connects students with their own ideas and with others' ideas"	

Career and Technical Education Department Analysis of Question 13: What purpose does writing serve in your classroom?

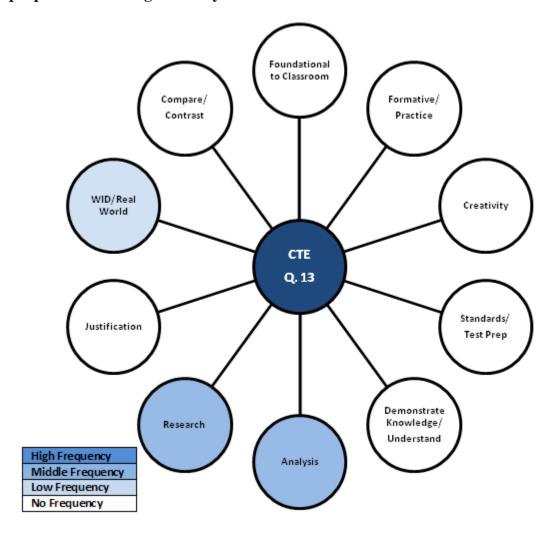


Figure 53. Career and Technical Education Department Trends for Question 13

Three core trends surface from the Career and Technical Education department data: WID/Real World, Research, and Analysis. The four CTE teachers have a narrow focus for the purpose of writing in their classrooms. Two of the teachers mentioned the

need for writing to play a real world role and to have students know exactly how writing looks in their field. However, these teachers did not specifically use the phrase writing in the disciplines (WID). Three of the teachers reported that research and analysis was a chief purpose for writing in their classrooms. Table 14 displays the three key trends from the CTE department along with data excerpts that align with the trends.

Of the four CTE teachers, Teacher 22's response solely encompasses all three trends from the CTE department:

Writing takes the form of article reviews/summaries and some research based writing where students provide feedback about what they have found online through research and writing proposals for projects based on their research.

Writing is also used to convey basic information through the use of presentation software and project reports.

Teacher 22, much like teacher 39 from the English department, is a prospective WACA PLC leader because of the teacher's clear and multifaceted incorporation of writing within the CTE discipline.

Table 14

Career and Technical Education Department Evidence Table Question 13

Q.13: What purpose does writing serve in your classroom? Career and Technical Education

Trend	Evidence	
WID/Real World	"research based writing where students provide feedback about what they have found online through research and writing proposals for projects based on their research."	"article analysis of medical article, see how medical articles written"
Research	"weekly/bi-monthly article analysis of medical article"	"research based writing"
	"found online through research and writing proposals for projects based on their research."	
A se a levada	"Promotes higher order thinking skills"	"weekly/bi-monthly article analysis"
Analysis	"Writing takes the form of article reviews/summaries"	

Science Department Analysis of Question 13: What purpose does writing serve in your classroom?

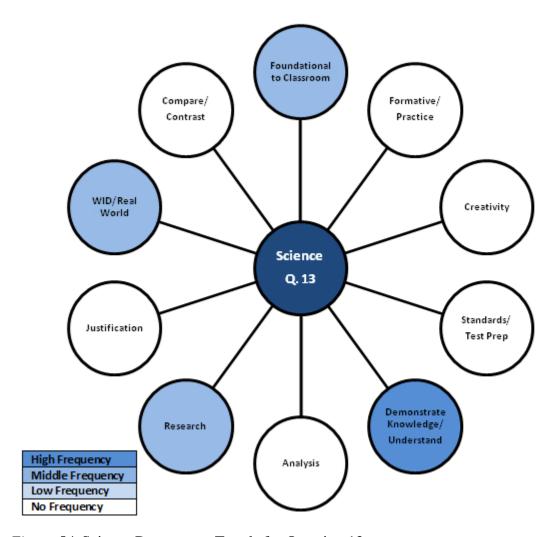


Figure 54. Science Department Trends for Question 13

Four of the ten trends emerge from the teachers in the Science department:

Foundational to Classroom, WID/Real World, Research, and Demonstrate

Knowledge/Understanding. The responses from these ten teachers reveal that the purpose of writing in the Science department at Martin Magnet is multifaceted but also clearly

aligned across different science classes and grade levels. This level of clarity regarding the purpose of writing is unique to this department. Table 15 displays prominent trends from the Science department and data samples from the qualitative responses from the ten different teachers in this department.

Teacher 57's response, more than any other science teacher at Martin, contains many of the overall trends from the Science department:

There is on-going writing in my classroom through journal entries in a daily journal. Whether students respond to Bell Work questions, record notes, or construct lab reports, students are always writing to some degree in my class. Writing in this way allows students to express thoughts, ideas, findings, and other data in a single database.

Similar to Teachers 39 and 22, Teacher 57 reveals a robust and differentiated approach to writing and therefore is another possible WACA PLC leader.

Table 15
Science Department Evidence Table Question 13

Q.13: What purpose does writing serve in your classroom? Science

Trend	Evidence	
Foundational to Classroom	"My classroom uses writing in a variety of ways."	"There is on-going writing in my classroom through journal entries in a daily journal."
	"In physics, mostly for lab reports"	"students are always writing to some degree in my class."
WID/D I WI J	"My focus is to graduate students who are proficient in scientific and professional writing abilities."	"It is analyses of current articles and scientific writing"
WID/Real World	"To connect the material in science to current events and the real world around them"	"Learn to write like a scientist."
Research	"This will include the ability to create, conduct and analyze individual research"	"finding sources to support stances."
Research	"article summaries and college research paper."	
Demonstrate	"to help portray or demonstrate how they understand a particular concept or standard"	"Writing serves to allow an explanation within context of a situation"
Knowledge/Understanding	"to communicate ideas learned and connected"	"articulate their understanding of a concept"
	"Writing in this way allows students to express thoughts, ideas, findings"	

Math Department Analysis of Question 13: What purpose does writing serve in your classroom?



Figure 55. Math Department Trends for Question 13

Five of the ten trends emerge from the teachers in the Math department:

Compare/Contrast, WID/Real World, Justification, Demonstrate

Knowledge/Understanding, and Creativity. The responses from these seven teachers

reveal that the purpose of writing in the Math department at Martin Magnet is wide ranging with a particularly strong focus on explaining thought processes and understanding of math concepts through writing. Table 16 displays evidence of the seven core trends in the Math department drawn from the Math teachers' qualitative responses.

Teacher 59's response stands out among the other math teachers and includes many of the departmental trends:

Most of the writing in my class is to explain a concept or justify their reasoning as part of their answer to a problem. I can determine the student's level of mastery of a concept by reading their explanation of how to work a problem. I can make comments and ask them further questions to help them correct or move further in their understanding. The students must also justify their answer very often. This requires the student to understand more fully what the numerical answer really means. I also utilize projects in my class in order to enrich the curriculum and allow students some creative license in an otherwise very cut and dry kind of class. I also try to find interesting articles that tie the real world to the calculus they are learning in class. The students have to either summarize the article or answer a question stating evidence from the article.

Teacher 59 is another possible WACA PLC leader, one who would be able to sustain the WACA initiative within the Math Department but also beyond it. According to Smith and Smith (2014) as well as Yancey, Taczak, and Robertson (2014), teachers with the proper training can help students carry their writing skills between and beyond disciplines.

Teacher 59's dedication to using writing to help students justify answers could also assist

students in English and social studies classes transfer this skill across multiple disciplines.

Table 16

Math Department Evidence Table Question 13

Q.13: What purpose does writing serve in your classroom	,
Math	

Trend Compare/Contrast	Evidence	
	"they can compare/contrast two concepts."	"Compare or contrast your solution and methods to others."
	"Describe situations to which mathematical sentences might apply."	"Discuss the math that appears in a real-world situation."
WID/Real World	"Normally would assign a paper a year for either a research paper or for career research."	"I also try to find interesting articles that tie the real world to the calculus they are learning in class"
Justification	"their reasoning as part of their answer to a problem."	"The students must also justify their answer very often."
Demonstrate Knowledge/Understanding	"opportunity for students to explain their thinking and how they came to an answer to a particular problem or mathematical question"	"explain their understanding of a topic"
9	"Describing a thought process when a problem is solved incorrectly"	"Detailed description of a process or method to solve a problem"
	"Most of the writing in my class is to explain a concept"	"help them correct or move further in their understanding"
Creativity	"Occasionally, it is a tool for reflecting and summarizing."	"I also utilize projects in my class in order to enrich the curriculum and allow students some creative license in an otherwise very cut and dry kind of class."

Social Studies Department Analysis of Question 13: What purpose does writing serve in your classroom?

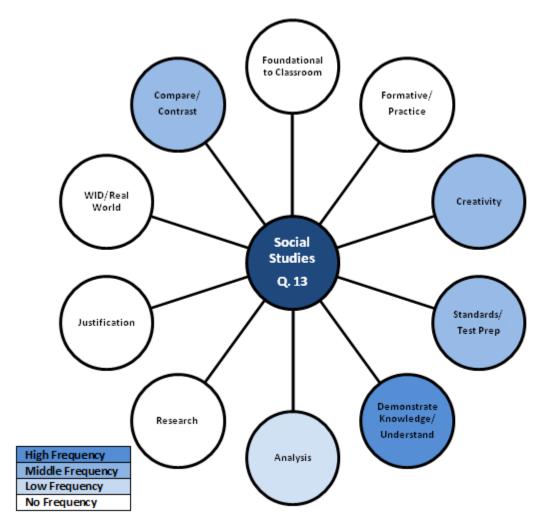


Figure 56. Social Studies Department Trends for Question 13

Five of the ten trends surface from the teachers in the Social Studies department:

Foundational to Classroom, Compare/Contrast, Creativity, Demonstrate

Knowledge/Understanding, Standards/Test Prep, and Analysis. The responses from these eleven teachers reveal that the purpose of writing in the Social Studies department at

Martin Magnet is—like the Science and Math departments—sprawling. However, there is

strong focus on writing being an ideal way for students to demonstrate their knowledge and understanding in the social studies classrooms at Martin. Table 17 displays evidence of the seven core trends in the Social Studies department drawn from the social studies teachers' qualitative responses.

Teacher 21's response shows a distinctive break from the other teachers in the Social Studies department with a focus on extending the class through writing and providing an outlet for student expression:

Writing is an overall extension of our class discussions and an exploration of student views on various issues. Writing, I tell students, also allows those who are more reserved or shy about expressing their views openly the opportunity to do so in a more private manner.

This teacher provides a unique perspective on the purpose of writing at Martin, one that focuses on student exploration and self-expression. Teacher 21 is a probable WACA PLC leader.

Table 17
Social Studies Department Evidence Table Question 13

Q.13: What purpose does writing serve in your classroom? Social Studies

Trend	Evidence		
	"compare and contrast, and report on recent activity."	"FRQs to define, describe, explain, compare/contrast"	
Compare/Contrast	"compare/ contrast works of art."		
Creativity	"Makes connections to personal experience."	"Writing is an overall extension of our class discussions and an exploration of student views on various issues."	
	"expressing their views openly"		
	"To allow me to assess the student's knowledge of the subject matter."	"Demonstrates mastery"	
Demonstrate Knowledge/Understanding	"It is used for demonstration of mastery of material"	"To better understand and show understanding of content"	
	"Helps develop student thinking as well as assess their understanding in the subject matter"		
	"Practice for AP exam or TN Ready."	"It prepares the student for the AP Exam."	
Standards/Test Prep	"To prepare students for AP classes and state standardized testing."	"FRQs to define, describe, explain, compare/contrast, synthesize, and evaluate concepts and ideas associate with politics and government."	
Analysis	"analyzing a source"	"FRQs to define, describe, explain, compare/contrast, synthesize, and evaluate concepts and ideas associat with politics and government."	

Heath, Physical Education, and Recreation Department Analysis of Question

13: What purpose does writing serve in your classroom?

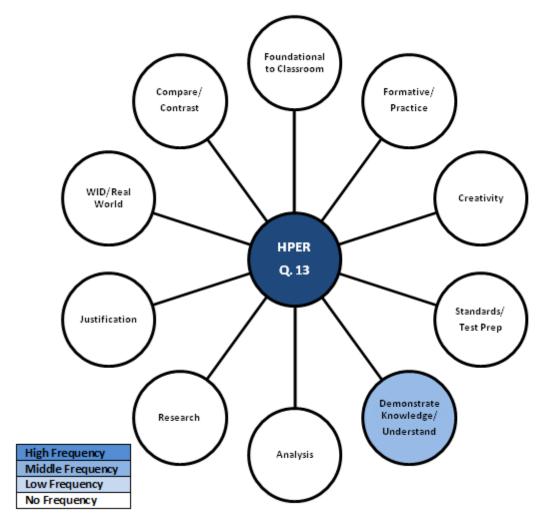


Figure 57. Heath, Physical Education, and Recreation Department Trends for Question 13

One of the ten school-wide trends arises from the Heath, Physical Education, and Recreation department data. These five teachers provided brief yet aligned answers regarding the purpose of writing in the physical education classroom: Demonstrate

Knowledge/Understanding. Table 18 illustrates evidence of the trend in the HPER department drawn from the HPER teachers' qualitative responses.

Although the HPER teachers' responses were brief and a WACA PLC leader did not emerge, the HPER teachers have a specific, aligned purpose for writing in the physical education classroom, which is a step in the direction of the school-wide WACA vision. Aligning teachers' perspectives on the purposes of writing at Martin can also help them discuss how and why writing could and should be assessed.

Table 18

Health, Physical Education, and Recreation Department Evidence Table Question 13

Q.13: What purpose does writing serve in your classroom? Heath, Physical Education, and Recreation		
Trend	Evido	ence
Demonstrate Knowledge/Understanding	"To put thoughts and ideas into written word."	"To demonstrate understanding"
imowieage onderstanding	"Allows students to expand on thoughts."	

Fine Arts Department Analysis of Question 13: What purpose does writing serve in your classroom?

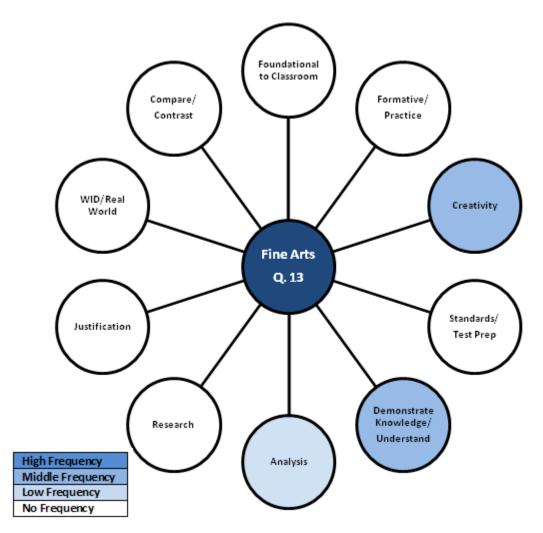


Figure 58. Fine Arts Department Trends for Question 13

Three of the ten school-wide trends appear within the Fine Arts department:

Demonstrate Knowledge/Understanding, Creativity, and Analysis. The responses from the Fine Arts teachers were concise yet showed a heightened sense of reflection about the purpose of writing in their classrooms. One teacher realized, while taking the survey, how much writing does take place in his classroom. In Table 19, I display evidence of the

trends in the Fine Arts department drawn from the Fine Arts teachers' qualitative responses.

Teacher 1's response reveals an honest reflection about the role of writing in his Fine Arts classroom:

I will be completely honest. I am a choir director and find that I am constantly pressed or time just to get rehearsal time for performances. We typically move from one performance to the next with little to no transition time.

This teacher's candid response is important because gauging teachers' readiness to adopt a new program is essential to the success and sustainability of the school improvement initiative. Hord and Hall (1987) as well as Bernhardt (2013) warn against diving into a new plan without checking the pulse of faculty members first. Thus, we have a group of teachers at Martin who are not quite ready to embrace the WACA movement, and the plan of action detailed in Chapter 5 explores strategies to help these teachers become valuable WACA stakeholders.

Table 19

Fine Arts Department Evidence Table Question 13

Q.13: What purpose does writing serve in your classroom? Fine Arts

Trend	Evidence	
	"Comprehension"	"Summary, analysis, review"
Demonstrate Knowledge/Understanding	"It allows me to have students respond to an image or work of art without and knowledge of the piece and then respond once they read an explanation by the artist."	
Creativity	"I primarily use writing for creative purposes and response to artwork or for large projects"	"Exploring ideas, comprehension, exploring creative thought."
·	"Writing serves as a means for students to provide their responses to works of art."	
Analysis	"Summary, analysis, review"	"Writing is also used to compare and contrast periods and styles of art."

Foreign Language Department Analysis of Question 13: What purpose does writing serve in your classroom?

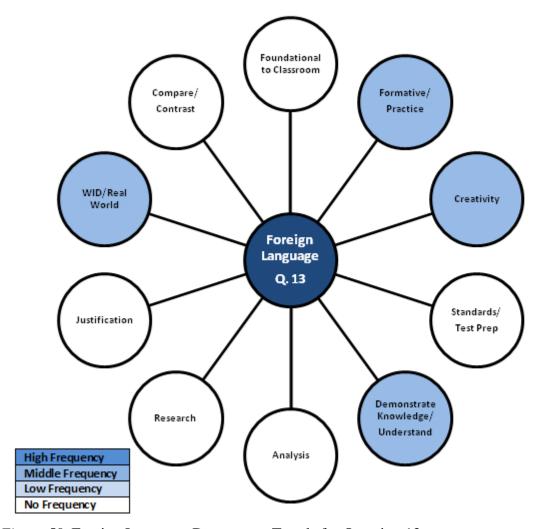


Figure 59. Foreign Language Department Trends for Question 13

Four of the ten trends surface from the Foreign Language teachers: Getting to Know Students, Formative/Practice, Creativity, Demonstrate Knowledge/Understanding, and WID/Real World. Table 20 displays evidence of the trends in the Foreign Language department drawn from the Foreign Language teachers' qualitative responses.

Teacher 37's response represents the only teacher at Martin who reported using writing as a way to create connections between the instructor and the student:

Writing serves as a way for me to get to know the students. I learn where they make common language mistakes (I am a foreign language teacher), and learn about their personality, interests, and personal opinions. Writing allows me to see what students know about a particular topic and allow me to gauge comprehension.

Hattie's (2012) research has made it clear that strong teacher-student relationships have an incredible impact on student learning. Teacher 37, whether conscious or not, is using writing to build these vital relationships that will absolutely increase student learning. Teacher 37 from the Foreign Language Department is another potential WACA PLC leader.

Table 20

Foreign Language Department Evidence Table Question 13

Q.13: What purpose does writing serve in your classroom? Foreign Language

Trend Formative/Practice	Evide	nce
	"In the foreign language classroom, writing serves to practice concepts in action" "It gives students the opportunity to learn	"Writing allows the student to use what they know (although sometimes limited)" "I learn where they make common
	how to structure sentences and express themselves"	language mistakes"
Creativity	"They are also given opportunities to do some creative writing within the target language."	"It also helps them to develop the creativity and improve communication in the target language."
	"make connections; creativity and self-relevance."	"express their opinions on a variety of topics"
Demonstrate	"The students demonstrate their mastery of language skills and comprehension"	"Reinforce material learned and make connections"
Knowledge/Understanding	"It is a way for me to see if students understand the material"	"Writing allows me to see what students know about a particular topic and allow me to gauge comprehension."
WID/Real World	"They are also given opportunities to do some creative writing within the target language."	"In the foreign language classroom, writing serves to practice concepts i action, meaning they use what they've learned in a real-world situation."
	"In upper levels, they use writing to synthesize information for persuasive essays, create CV's, critique art and express their opinions on a variety of topics."	"I learn where they make common language mistakes"

Analysis of Question 14: Why do you grade writing the way you do in your classroom?

In Question 14, I seek to gather teachers' rationales for grading student writing the way they do. Discovering how and why teachers assess writing in their classrooms is essential to establishing a school-wide vision of writing assessment. The results from Q14 can also be cross-checked with the quantitative questions concerning rubric use and

rubric creation. As seen in Figure 59, I illustrate the school-wide assessment practices that occur at Martin; the figures that follow detail individual departmental trends.

School-wide Overview of Question 14: Why do you grade writing the way you do in your classroom?

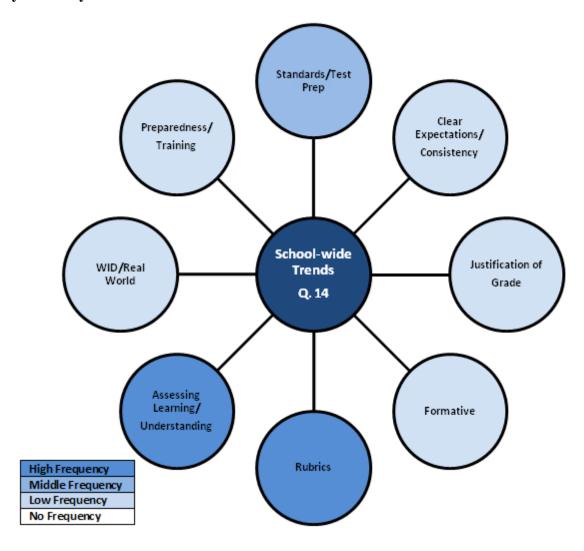


Figure 60. School-wide Trends for Question 14

Eight school-wide trends emerge from the qualitative data, revealing a wide range of writing assessment rationales. Three of the trends appear most frequently across multiple departments: Standards/Test Prep, Rubrics, and Assessing

Learning/Understanding. These three trends appeared in four or more departments at Martin. Less dominant trends such as Justification and WID/Real World appeared only in single departments, but these trends are of value because they align with the results of the other two qualitative questions.

English Department Analysis of Question 14: Why do you grade writing the way you do in your classroom?

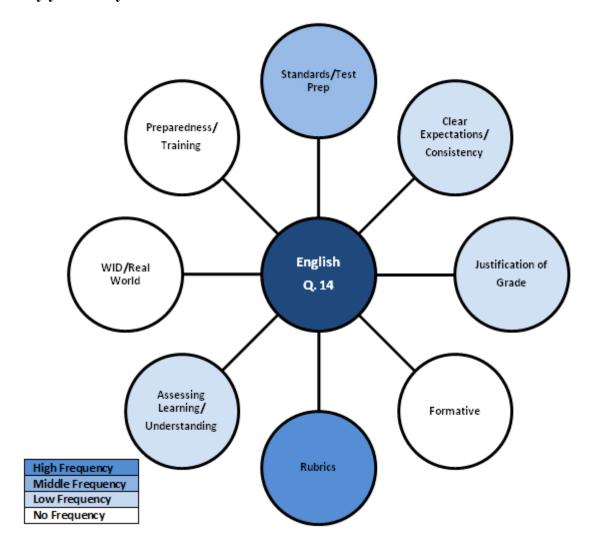


Figure 61. English Department Trends for Question 14

Five of the eight school-wide trends for Question 14 surface in the English department: Standards/Test Prep, Clear Expectations/Consistency, Justification of Grade, Rubrics, and Assessing Learning/Understanding. The English department demonstrates a heavy use of rubrics to assess student writing. Several teachers reported using rubrics to prepare for a state or AP exam while others reported using rubrics to communicate clear

expectations or to justify a grade. The English department certainly has a varied writing assessment philosophy.

Two teachers from the English department provide responses that show a heightened sense of assessment interest, experimentation, and expertise. Teacher 39's response reveals an eagerness to create customized rubrics but also knowledge of rubric terminology:

I have started using my own adaptations of the rubrics [for the tests] that my students take. For instance, on the TNReady test, they use a rubric that has four categories with four possible scores. I use those so that my students are being graded consistently throughout the school year and know what to expect on the test, and we can [track] progress towards those categories (especially when using the data notebook). I do play with the descriptions under the categories and reserve the right to add my own to fit the assignment better. For my AP students, the rubric is holistic. I will continue to use the AP rubric, but I am going to use that for half of the score, and then add some categories for the other half to be able to provide more specific feedback and perhaps focus on specific skills depending on the assignment.

Teacher 39 not only shows the willingness to tailor rubrics to fit specific assignments but also specifically mentions the word "holistic," which rarely appears in the qualitative responses from Martin teachers. Moreover, Teacher 43 demonstrates similar writing assessment literacy skills:

The only way I know how to grade writing is by using a rubric. The rubric and skill is constantly changing per assignment in my class. Not every piece of writing

should be graded in a classroom nor is it possible. I love to allow students to sometimes choose the assignment they believe should be graded for a certain skill. Ex. Narrative Essay.

Teacher 43 not only uses rubrics to assess student writing but also adapts the rubric as the assignments and skills change. Teacher 43 also welcomes the idea of students being involved in their own assessment, which is a unique response when compared to the majority of Martin teachers. Teacher 43, along with Teacher 39, espouses writing assessment practices and beliefs that align with the research and best practices presented in the Chapter 2. The next step, then, is to investigate how and why these two particular teachers obtained these anomalous writing assessment perspectives and how they can become WACA PLC leaders who help their peers grow and learn.

Table 21

English Department Evidence Table Question 14

Q.14: Why do you grade writing the way you do in your classroom? English

Trend	Evidence		
Standards/Test Prep	"Graded based on standards and how the students will be assessed."	"on the TNReady test, they use a rubric that has four categories with four possible scores. I use those so that my students are being graded consistently throughout the school year"	
	"For my AP students, the rubric is holistic. I will continue to use the AP rubric"	"I use the state rubric to assess writing because I want my students to be familiar with the way they wil be assessed on the writing portion o the state test"	
Clear Expectations/Consistency	"I use those so that my students are being graded consistently throughout the school year and know what to expect on the test"	"I usually create rubrics, which I give to the students ahead of time, s that they know what I expect from their writing."	
Justification of Grade	"I use a common core rubric so that I can justify the grade to all parties concerned."	"guide for students, justification"	
	"Based on the research, grading on a 4 or 5 point scale using descriptions is the most useful way"	"I use a common core rubric so that can justify the grade to all parties concerned."	
	"I have started using my own adaptations of the rubrics that the tests my students take"	"For my AP students, the rubric is holistic. I will continue to use the A rubric"	
Rubrics	"I use the state rubric to assess writing because I want my students to be familiar with the way they will be assessed on the writing portion of the state test"	"Occasionally, I will create a rubric that will focus on a particular skill"	
	"I usually create rubrics, which I give to the students ahead of time, so that they know what I expect from their writing."	"The only way I know how to grade writing is by using a rubric"	
Assessing Learning/Understanding	"In order to give students feedback so that he/she can improve and know strengths and weaknesses."	"I grade it to assess the learning I are emphasizing with the assignment. Sometimes it focuses on the writing other times just the content."	

Career and Technical Education Department Analysis of Question 14: Why do you grade writing the way you do in your classroom?

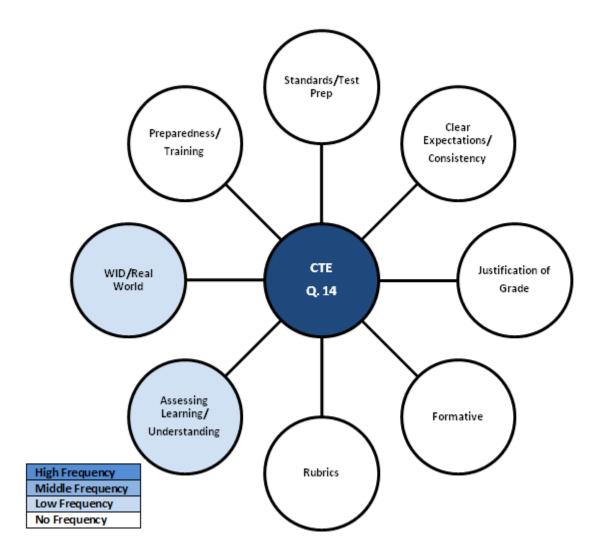


Figure 62. Career and Technical Education Department Trends for Question 14

Two of the eight school-wide trends for Question 14 emerge in the Career and Technical Education department: Assessing Learning/Understanding and WID/Real World. Unlike the English teachers at Martin, the CTE teachers have a more focused

writing assessment philosophy. These teachers are committed to assessing thinking, career, and life skills when grading student writing.

Teacher 20's response is notable because this teacher's rationale for assessing student writing in a certain way focuses solely on students being able to write in a specific discipline (WID):

I tend to base it on what the students will have to do in the medical profession.

Since I am a CTE teacher, we are trained to get students prepared for the "real world" so I have grade based on what they need for the "work force"

The CTE Department teachers, along with the Science Department teachers, exhibit the strongest assessment connections to WID. These teachers, therefore, are assets in helping other Martin teachers embrace the notion of real-world writing so that students will not only compete in the global economy that Wagner (2008) discusses but also so that students can learn to transfer their skills beyond a single discipline; after all, WID is a operates as a natural scaffold to transfer.

Table 22

Career and Technical Education Department Evidence Table Question 14

Q.14: Why do you grade writing the way you do in your classroom? Career and Technical Education

Assessing Learning/Understanding	Evidence	
	"I am more concerned with the reasoning, not so much the outcome of the project. 'Why did the student choose this idea and how did it impact the final product' is an example of the type of question I would ask myself when grading"	"In general, I look for sound thinking and reasonable ideas about a topic when I am analyzing their article summaries."
WID/Real World	"Helps to encourage students to proofread their writings and incorporate real life situations into their writings."	"I tend to base it on what the students will have to do in the medical profession. Since I am a CTE teacher, we are trained to get students prepared for the 'real world so I have grade based on what they need for the 'work force'"

Science Department Analysis of Question 14: Why do you grade writing the way you do in your classroom?

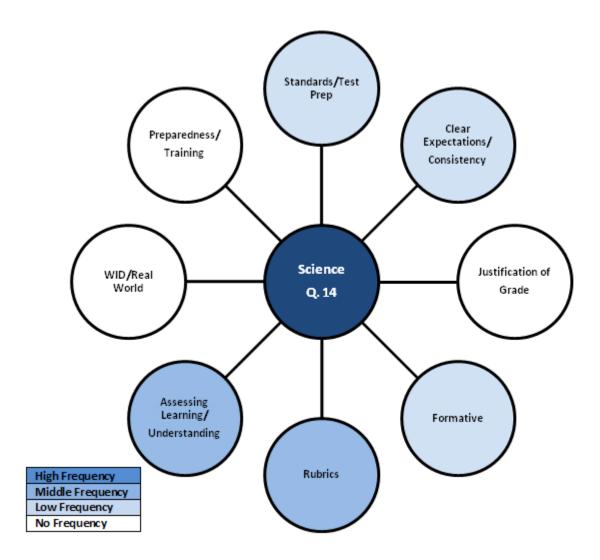


Figure 63. Science Department Trends for Question 14

Five of the eight school-wide trends for Question 14 arise in the Science department: Standards/Test Prep, Clear Expectations/Consistency, Formative, Rubrics, and Assessing Learning/Understanding. The Science teachers, like the English and Social Studies teachers, reveal a frequent use of rubrics to assess student writing. However, the

most dominant trend for the Science teachers is Assessing Learning/Understanding.

Many of the Science teachers assess student writing with a focus on depth of ideas and comprehension. However, two Science teachers expressly wrote that they assess writing in a way to help students improve and track their progress. This Formative trend only appears in the Science and Foreign Language departments.

The science teachers, as a group, reveal many positive writing assessment rationales, especially surrounding the use of rubrics; however, Teacher 50 did frankly reveal a lack of confidence regarding rubrics, saying that he was "just not comfortable making rubrics." Although Teacher 50's science colleagues' responses reflect more confidence in their assessment methods, Teacher 50 is not alone in his sentiment and would benefit from seeing that 46% of Martin teachers reported that they rarely or never create their own rubrics for a writing assignment. One of the major pitfalls of action research is that teachers from the researcher's own school can often feel judged. If the WACA initiative is to be a sustained success, I must ensure that all Martin teachers can reveal their true opinions without fear of judgment.

Table 23
Science Department Evidence Table Question 14

Q.14: Why do you grade writing the way you do in your classroom? Science

Trend Standards/Test Prep	Evidence	
	"FRQs: I grade them using a rubric because that is how they are graded on the AP Exam"	"I am moving to standards-based grading"
Clear Expectations/Consistency	"Most writing is graded with some sort of rubric. This allows me to ensure that I have held the same requirements when grading all the papers."	"I use a rubric for all writing so that I can be consistent with expectations"
Assessing	"sometimes I find myself skimming them for the material and not necessarily the correct grammar or punctuation"	"I am looking for the relevance to science and their understanding of the science concept"
Learning/Understanding	"I grade based more on were they able to express their findings than on how they write it. Basically, they need to include pertinent facts in a concise manner."	"I do not grade 'writing' as much as I grade did they convey the gist of the concept assesses"
Formative	"To make sure they read the assignment and to help foster their writing skills."	"I am moving to standards-based grading because it is most effective to track students' mastery of standards with this method."
Rubrics	"Most writing is graded with some sort of rubric. This allows me to ensure that I have held the same requirements when grading all the papers."	"I use a rubric for all writing so that I can be consistent with expectations"
Rubiles	"FRQs: I grade them using a rubric because that is how they are graded on the AP Exam Other: I use a rubric to evaluate content present and structure (when writing in a specified structure like a lab report.)"	"Just not comfortable making rubrics."

Math Department Analysis of Question 14: Why do you grade writing the way you do in your classroom?

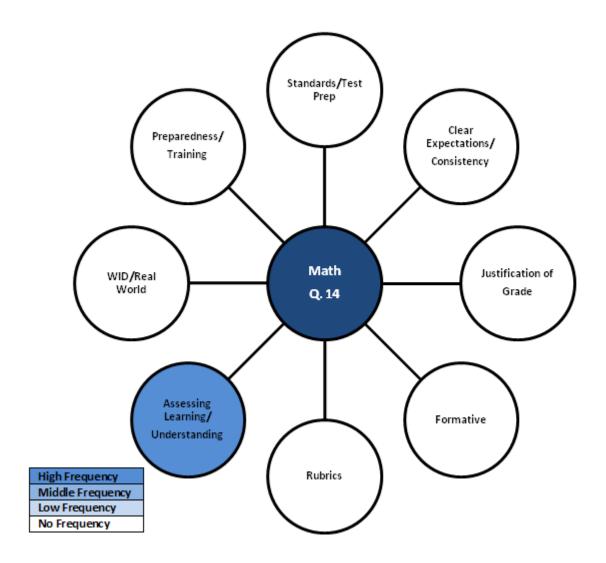


Figure 64. Math Department Trends for Question 14

For Question 14, the Math teachers writing assessment motives circle a single trend: Assessing Learning/Understanding. Unlike any other department at Martin, the teachers in the Math department have a unified, focused vision for assessing student

writing. These teachers are acutely focused on student understanding and processing of ideas when assessing student writing. Like the Science teachers, the Math teachers are far less focused on grammar and mechanics when assessing student writing; rather, they want to ensure that students are successfully grasping the concepts.

In contrast to the math teachers' focus on assessing writing to check for student understanding, Teacher 56 did, reveal a conflict about balancing writing as well as math content and skills in her classroom:

My lack of grading writing is because I feel overwhelmed by the need to achieve mastery in math skills. There's no time for me to grade writing adequately in addition to what I grade already.

Like Teacher 50 from the Science department, Teacher 56 shows vulnerability and is not alone in this apprehension to add more to an already full load. Bernhardt (2013) notes that school improvement teams must ensure that the new initiative does not feel like another burdensome task for teachers to complete. I will discuss, in Chapter 5, strategies to avoid overwhelming teachers with this new WACA movement.

Table 24

Math Department Evidence Table Question 14

Q.14: Why do you grade writing the way you do in your classroom? Math

Trend Assessing Learning/Understanding	Evidence	
	"I am looking for students thought processes so it needs to be to the point but also clear so that I know exactly how they came to their answer so I am looking for good explanations"	"I am looking to see if they have a true understanding of the concepts I am teaching"
	"I focus on student understanding of information, not writing rules (ie spelling, grammar rules etc)"	"I grade more for proof of understanding and precise language than flowing words"
	"To assess student understanding and provide feedback"	

Social Studies Department Analysis of Question 14: Why do you grade writing the way you do in your classroom?

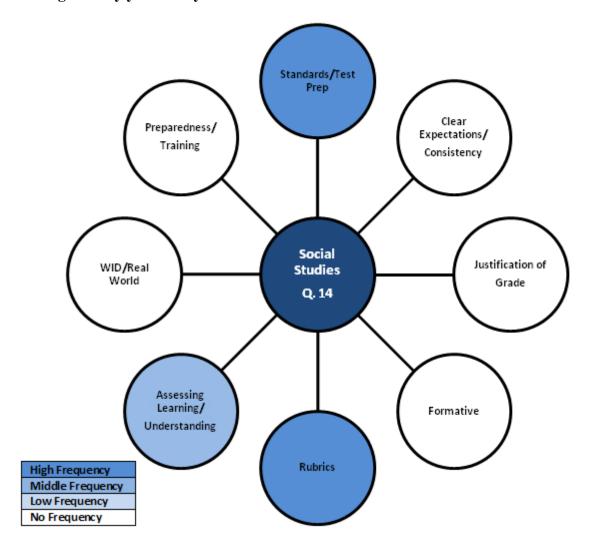


Figure 65. Social Studies Department Trends for Question 14

Three of the eight school-wide trends for Question 14 appear in the Social Studies department: Standards/Test Prep, Rubrics, and Assessing Learning/Understanding. The Social Studies teachers, more than any other group, have a heightened focus on preparing students for state or AP exams when assessing student writing. The two most dominant

trends for these teachers are Assessing Learning/Understanding and Rubrics. These trends overlap among the majority of the Social Studies teachers because the aforesaid state and AP exams have specific rubrics that define writing expectations for students. However, these teachers are also concerned with student understanding of ideas and content when assessing student writing.

Teacher 21, once again, provides a thoughtful and unique perspective on writing and writing assessment:

I grade it in a variety of ways because our children learn in a variety of ways. I also think it's important to allow students to choose writing types that are most appropriate for them. Other times, I want to push them out of their comfort zone to try something new

Like Teacher 43 from the English Department, Teacher 21 shows a passion for differentiate the assessment to meet students' needs; moreover, there is a willingness to invite students to become part of the assessment process, which is not common at Martin. Approximately 10% of Martin teachers involve students in the creation of writing rubrics. As a result, Teacher 21 could help other social studies teachers embrace the notion of students as assessment stakeholders.

Table 25
Social Studies Department Evidence Table Question 14

Q.14: Why do you grade writing the way you do in your classroom? Social Studies

Trend	Evide	ence
	"To maintain AP standards."	"I use real AP rubrics with real AP FRQs so the students have plenty of experience with that type of questio before the big AP exam."
Standards/Test Prep	"To match scoring methods that will be used to score student responses on the AP Exam and research presentations."	"AP Rubrics need to be used to rais student comfort level with FRQ responses."
	"I follow the AP rubric so that my students prepared for the exam."	
Assessing	"To ensure that students master the writing requirements"	"Is a valuable tool to determine if a student understands the ideas or objectives of said lesson"
Learning/Understanding	"I grade it to make sure the students understand the sources that they read or to make sure they understand the content."	
	"Have to follow the given rubric."	"I use real AP rubrics with real AP FRQs so the students have plenty of experience with that type of questio before the big AP exam."
Rubrics	"Typically the rubric I assign with the writing assessment I have given dictates the way I grade an assignment."	"To match scoring methods that will be used to score student responses on the AP Exam and research presentations."
	"AP Rubrics need to be used to raise student comfort level with FRQ responses."	"I follow the AP rubric so that my students prepared for the exam."

Heath, Physical Education, and Recreation Department Analysis of Question

14: Why do you grade writing the way you do in your classroom?

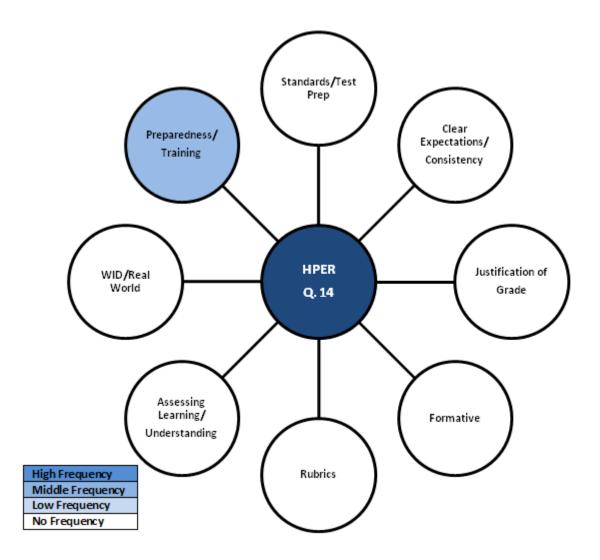


Figure 66. Heath, Physical Education, and Recreation Department Trends for Question 14

For Question 14, one of the eight school-wide trends surfaces in the Heath,

Physical Education, and Recreation department: Preparedness/Training. The HPER

teachers provided the briefest answers to Question 14 yet revealed a candid perspective

on the lack of writing assessment training. These five teachers either seem unconcerned with writing assessment practices or unprepared to comment on the issue.

Even though these teachers reveal a lack of training or confidence, they would benefit to know that approximately 68% of Martin teachers also report receiving little to no writing assessment training, and nearly 50% of Martin teachers "sometimes" or do "not often" or "never" feel prepared to grade writing. Instead of viewing these responses at shortcomings, we can use them as opportunities to discuss our writing assessment needs and apprehensions with each other.

Table 26

Heath, Physical Education, and Recreation Department Evidence Table Question 14

Q.14: Why do you grade writing the way you do in your classroom? Heath, Physical Education, and Recreation

Trend	Evidence	
Preparedness/Training	"N/A"	"Lack of experience in grading writing."
	"Its how I was trained."	

Fine Arts Department Analysis of Question 14: Why do you grade writing the way you do in your classroom?

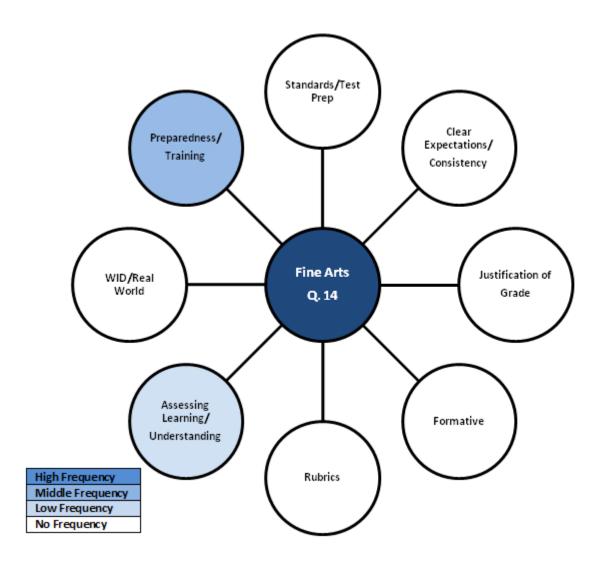


Figure 67. Fine Arts Department Trends for Question 14

Two of the eight school-wide trends for Question 14 arise in the Fine Arts department: Assessing Learning/Understanding and Preparedness/Training. The Fine Arts teachers are most concerned with assessing understanding and ideas when grading

student writing. However, one teacher also expressed an honest admission about the lack of writing done in his classroom and another admitted to grading writing in a certain manner to comply with school mandates.

Teachers in the Fine Arts department, much like those in the HPER department, openly express their concerns or lack of interest in writing, and these admissions can become valuable entry points to a new discussion about the purpose of writing in Fine Arts classes and how writing should or should not be assessed.

Table 27

Fine Arts Department Evidence Table Question 14

Q.14: Why do you grade writing the way you do in your classroom?
Fine Arts

Trend	Evide	nce
Assessing Learning/Understanding	"I grade primarily on the content and less on grammar. I do this because I care more about their ideas and thoughts than the actual writing rules."	"I seek to see if a student has provided their own response vs only provide obvious visual recollections of things they are observing."
Preparedness/Training	"I don't grade writing in my classroom because I do little to no writing." "Because I'm told to"	"This is what I know as a teacher."

Foreign Language Department Analysis of Question 14: Why do you grade writing the way you do in your classroom?

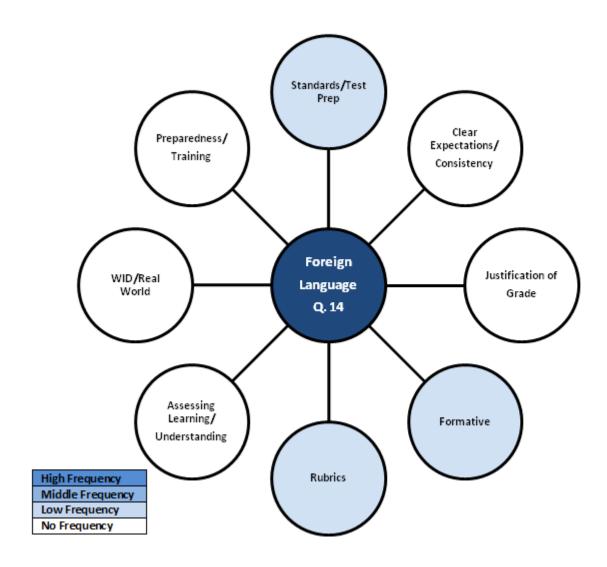


Figure 68. Foreign Language Department Trends for Question 14

Three of the eight school-wide trends for Question 14 surface in the Foreign Language department: Standards/Test Prep, Formative, and Rubrics. Much like the Social Studies teachers, the Foreign Language teachers focus on preparing for an AP exam and use the AP rubric as a guide for assessing student writing.

In addition to a focus on AP test preparation, the Foreign Language teachers also reveal a focus on formative assessment and student growth when assessing writing.

Hattie (2012) and Popham (2014) agree on the power of formative assessment for increasing student learning. At Martin, a dedication to assessing writing formatively only appears in the Foreign Language and Science departments.

Table 28

Foreign Language Department Evidence Table Question 14

Q.14: Why do you grade writing the way you do in your classroon	n?
Foreign Language	

Trend	Evidence	
Standards/Test Prep	"Rubric reflects format that is used on AP exam."	"During AP, I model my rubric off of the AP samples."
Formative	"To try to keep the students reflecting on how they can improve their writing while also practicing vocabulary in context and demonstrating their acquired skills."	"I want my students to write clearly and be understood, but I am not grading on grammar or specific "ELA" standards. I am more looking for content, comprehension, comparison, or better yet- concept integration."
Rubrics	"Rubric reflects format that is used on AP exam."	"I try to model my assessment after AP testing materials. During the lower levels of my language, I do not often use a rubric. During AP, I model my rubric off of the AP samples."

Analysis of Question 15: What does good writing look like in your classroom?

In the final question of the WACA survey, I ask teachers to describe what good writing looks like in their classrooms. Once we obtain and then study this invaluable perception data, we can determine exactly what elements in writing we value most and least at Martin. The next step is sharing these results in order to build the foundation of the WACA initiative at Martin. Using the same wheel design as the previous sections, Figure 76 illustrates the school-wide writing traits that Martin teachers value; the figures that follow detail specific departmental trends.

School-wide Overview of Question 15: What does good writing look like in your class?

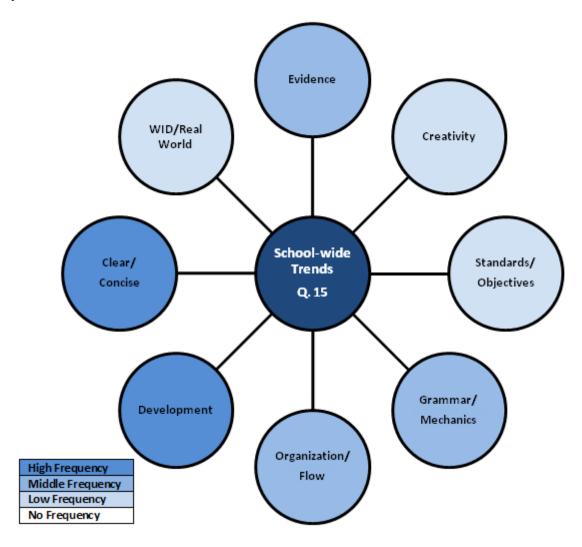


Figure 69. School-wide Trends for Question 15

For Question 15, eight school-wide trends emerge from the qualitative data, revealing a diverse range of what good writing looks like at Martin. Development appeared in seven of eight departments as a key trend. Clear/Concise appeared in five of the eight departments. Organization/Flow and Evidence appeared in four of the eight

departments. The remaining trends of Grammar/Mechanics, WID/Real World,

Standards/Objectives, and Creativity appeared in select departments but are still crucial to
the overall vision for what good writing looks like at Martin Magnet.

English Department Analysis of Question 15: What does good writing look like in your class?

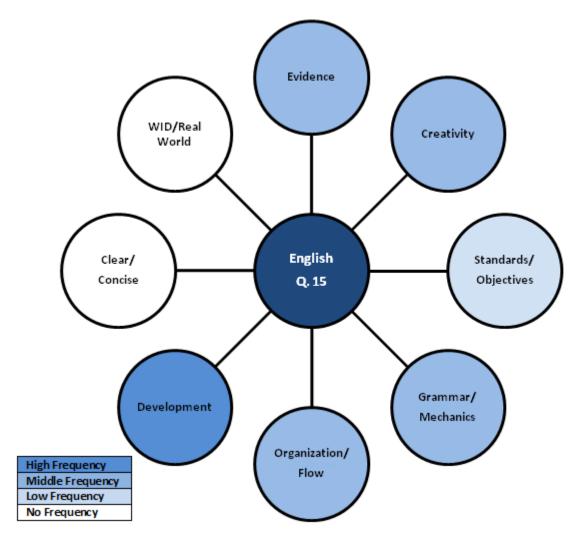


Figure 70. English Department Trends for Question 15

Six of the eight school-wide trends for Question 15 surface in the English department: Evidence, Creativity, Standards/Objectives, Grammar/Mechanics, Organization/Flow, and Development. The English teachers have a diverse vision for what good writing looks like. The major concern of the English department is that students thoroughly develop their ideas. However, the second most important quality of good writing for the English teachers is that it is creative and original. The minor trends among the English teachers are that writing is organized, is filled with supporting evidence, and is grammatically correct.

For Teacher 39, good writing has many qualities, including purpose, development, audience, voice, and more:

Good writing has a clear purpose, is fully developed with appropriate and detailed evidence, is arranged in a manner appropriate for the task and purpose, is geared towards the audience, has an original voice and sophisticated diction, is original and engaging in ideas, and is mechanically sound.

Teacher 39 provides, for the third time, another detailed and authentic response. This teacher reveals a clear interest in study and would be an ideal candidate for a WACA PLC leader.

Table 29

English Department Evidence Table Question 15

Q.15: What does good writing look like in your class? English

Trend	Evide	nce
	"Well-thought out, detailed evidence"	"detailed evidence"
Evidence	"Not plagiarized, well-researched, sophisticated and properly cited."	
Creativity	"creative, specific vocabulary, out-of-the-box"	"When it has an intangible 'wow' factor that makes my jaw drop just a bit, I consider that great writing."
•	"has an original voice"	"is original and engaging in ideas"
Standards/Objectives	"Reflects the TNCore standards for writing skills"	"I guess the best answer would be that good writing in my class is writing that fulfills the objectives of the assignment"
	"grammatically correct"	"is mechanically sound"
Grammar/Mechanics	"is grammatically and logically sound"	
Ouganization/El	"Organized into paragraphs according to topic"	"good flow and transitions"
Organization/Flow	"Good writing is organized clearly"	
Development	"details that expand on the topic"	"Good writing has a clear purpose, is fully developed"
	"is original and engaging in ideas"	"Good writing is when a student takes the time to truly develop the quality of their paper"
	"Good writing is thoughtful"	

Career and Technical Education Department Analysis of Question 15: What does good writing look like in your class?

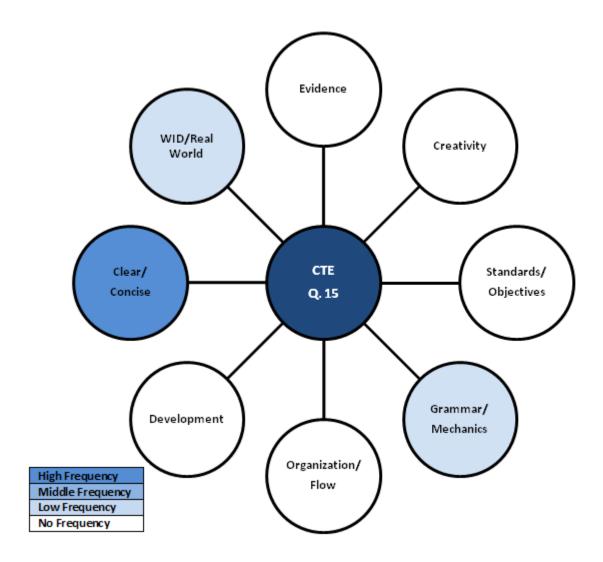


Figure 71. Career and Technical Education Department Trends for Question 15

Three of the eight school-wide trends for Question 15 appear in the Career and Technical Education department: Grammar/Mechanics, Clear/Concise, and WID/Real World. The CTE teachers have a clear vision of what good writing looks like in their classrooms: clearly and concise written with sound grammar and mechanics.

Moreover, the WID/Real World trend has appeared in each qualitative question in this department. The CTE teachers, as a result, know what good writing looks like in their discipline and have concrete reasons why it should look that way. These teachers could lead the push for WID at Martin and help us move toward building our students' transfer skills.

Table 30

Career and Technical Education Department Evidence Table Question 15

Q.15: What does good writing look like in your class?	
Career and Technical Education	

Trend	Evidence	
	"to the point"	"Good writing is clear, concise"
Clear/Concise	"I do not like wordiness"	"As an English teacher friend once said, "Writing should be like a ladies skirt, long enough to cover the details, but short enough to keep it interesting."
	"can they digest the information and in turn, understand it!"	
Grammar/Mechanics	"I do not like wordiness"	"correct spelling a MUST in the medical profession!"
WID/Real World	"correct spelling a MUST in the medical profession!"	"to the point, detailed description of the process used"

Science Department Analysis of Question 15: What does good writing look like in your class?

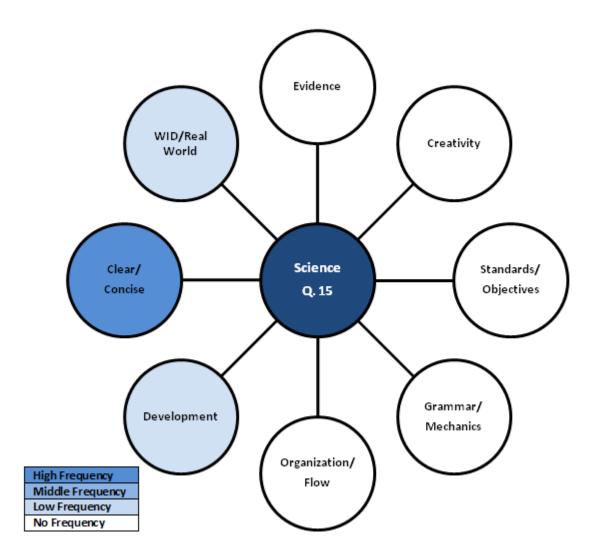


Figure 72. Science Department Trends for Question 15

For Question 15, three of the eight school-wide trends arise in the Science department: Development, Clear/Concise, and WID/Real World. The Science teachers have specific vision for what good writing looks like in their classrooms. The Science teachers reported that good student writing must be developed, professional in style, and

succinctly written. The Science teachers are unified in what they believe good science writing looks like.

The Science Department teachers are unified in what they believe good science writing looks like, particularly when discussing what real-world science writing looks like. Much like the CTE teachers, the science teachers reveal a commitment to WID.

These teachers, in more ways than one, serve as a model department for the future of the WACA initiative at Martin.

Table 31
Science Department Evidence Table Question 15

Q.15: What does good	writing look like in your class?
	Science

Trend	Evidence	
Development	"depth of meaning and understanding"	"Descriptive and concise lab reports."
	"It is clear and concise without the need for unnecessary detail/ fluff."	"Good writing in Science is concise"
Clear/Concise	"Descriptive and concise lab reports."	"effectual, concise, and to the point"
	"to the point"	"AP chem philosophy in writing is 'get in get out-don't embarrass yourself"
WID/Real World	"I require my students to write in the 'professional voice"	"professional & scientific writing"

Math Department Analysis of Question 15: What does good writing look like in your class?

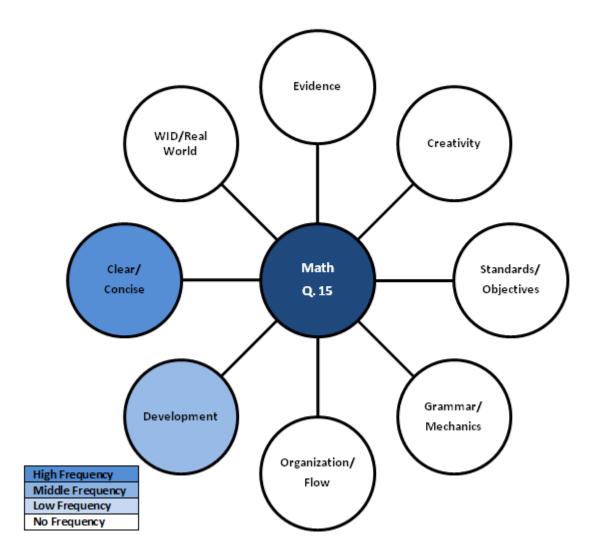


Figure 73. Math Department Trends for Question 15

Much like the Science department, similar trends emerge from the Math department: Development and Clear/Concise. Unlike the English teachers, the math teachers have a narrow vision for what good writing looks like in their classrooms. Good writing, for these teachers, is detailed and developed with clarity and brevity.

Table 32

Math Department Evidence Table Question 15

Q.15: What does good writing look like in your class? Math

Trend	Evidence	
	"Being able to clearly and concisely explain their thinking in mathematics"	"so good writing looks like a solid piece of thinking without being too long or wordy"
Clear/Concise	"A clear concise sentence or three that can fully get the concept across to the reader."	"Good writing is when a student puts the book or lecture concepts into their own words with clarity and accuracy."
	"Good writing in my class is short and to the point"	
Development	"Good writing takes a numerical or algebraic expression and turns it into a story."	"Good writing is exceptionally detailed"
	"I am looking for them to be able to describe what is happening and why."	

Social Studies Department Analysis of Question 15: What does good writing look like in your class?

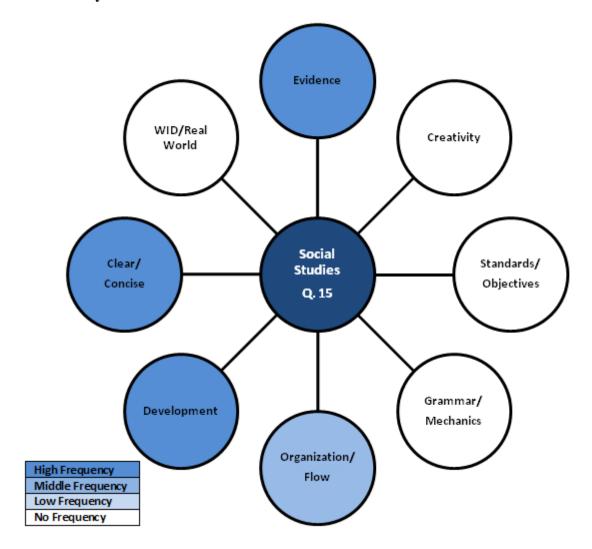


Figure 74. Social Studies Department Trends for Question 15

Four of the eight school-wide trends for Question 15 arise in the Social Studies department: Evidence, Organization/Flow, Development, and Clear/Concise. The Social Studies teachers have expressed that good writing in their classrooms is developed, well organized, clearly and concisely written, and supported by evidence. Like the Science

and Math teachers, the Social Studies teachers are not as concerned with grammar and mechanics as the English, CTE, and Foreign Language departments.

Table 33
Social Studies Department Evidence Table Question 15

Q.15: What does good writing look like in your class?	
Social Studies	

Trend	Evidence	
	"answering the question completely by citing evidence."	"evidence backing up their arguments"
Evidence	"gives references to the text"	"gives good examples"
	"Good writing answers the question and provides accurate historical detail."	
	"Well organized."	"Flows well from point to point"
Organization/Flow	"Writing in my class is like water: it's clear, it flows, it stands."	
	"Thesis, Argument, Background, and Synthesis"	"writing should thoroughly answer the writing prompt or thoroughly address the given topic"
Development	"answering the question completely"	"Descriptive"
	"gives good examples"	"clear, cogent, detailed"
	"It has to be clear"	"Coherent and cohesive understanding of the content"
Clear/Concise	"It also does not have to be based on length."	"Clear and concise"
	"expresses a belief or idea clearly"	"clear, cogent, detailed"

Heath, Physical Education, and Recreation Department Analysis of Question 15: What does good writing look like in your class?

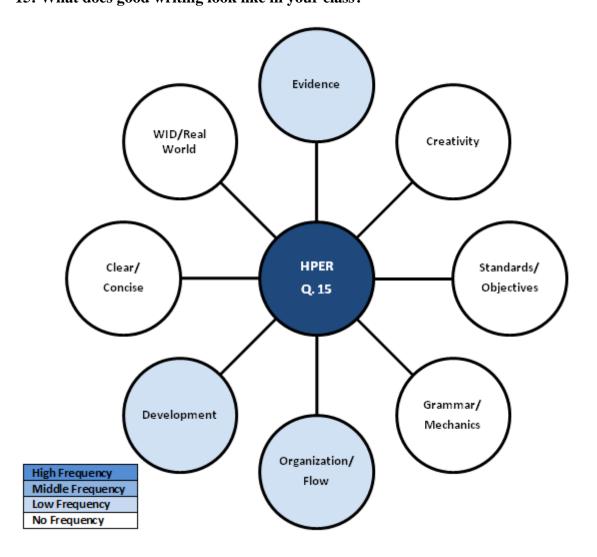


Figure 75. Heath, Physical Education, and Recreation Department Trends for Question 15

Three of the eight school-wide trends for Question 15 surface in the Heath,

Physical Education, and Recreation department: Evidence, Organization/Flow, and

Development. The HPER teachers share three of the most prominent trends in all

departments but are also unified in their own departmental vision for good writing, which

means that good writing is organized and well-developed with evidence to support ideas, claims, and opinions.

Table 34

Heath, Physical Education, and Recreation Department Evidence Table Question 15

Q.15: What does good writing look like in your class? Heath, Physical Education, and Recreation		
Trend	Evidence	
Evidence	"Not a retelling of facts but an explanation with evidence."	"Complete thoughts with evidence to support claims and opinions."
Organization/Flow	"Organized and well thought out"	"Organized and substantiated thought"
Development	"Organized and well thought out"	"Organized and substantiated thought"

Fine Arts Department Analysis of Question 15: What does good writing look like in your class?

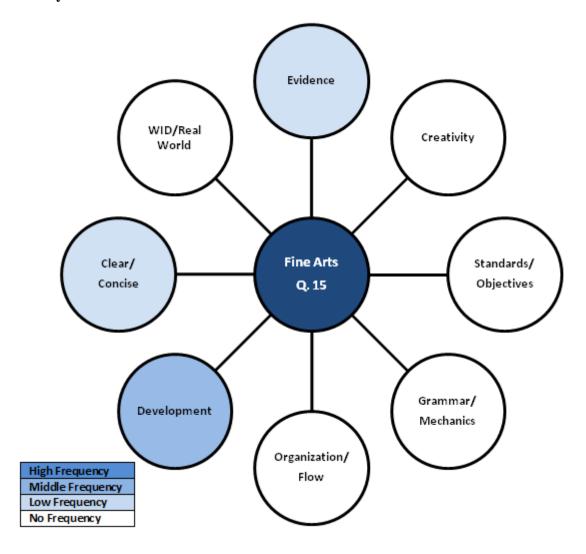


Figure 76. Fine Arts Department Trends for Question 15

Three of the eight school-wide trends for Question 15 appear in the Fine Arts department: Evidence, Development, and Clear/Concise. The Fine Arts teachers share a similar vision of good writing with the Math, Social Studies, and HPER teachers. For the

Fine Arts teachers, good writing is descriptive yet concise as well as thoroughly developed with evidence to support their ideas.

Table 35

Fine Arts Department Evidence Table Question 15

Q.15: What does good writing look like in your class?
Fine Arts

Trend	Evidence	
Evidence	"I expect students to cite evidence and to be thorough in their thoughts."	"Analysis and comparison of multiple sources"
Development	"Good writing is descriptive, it paints a picture, it is detail oriented." "Well observed details and the understanding of those"	"to be thorough in their thoughts."
Clear/Concise	"Short. concise, to the point"	"They show clear individual responses"

Foreign Language Department Analysis of Question 15: What does good writing look like in your class?

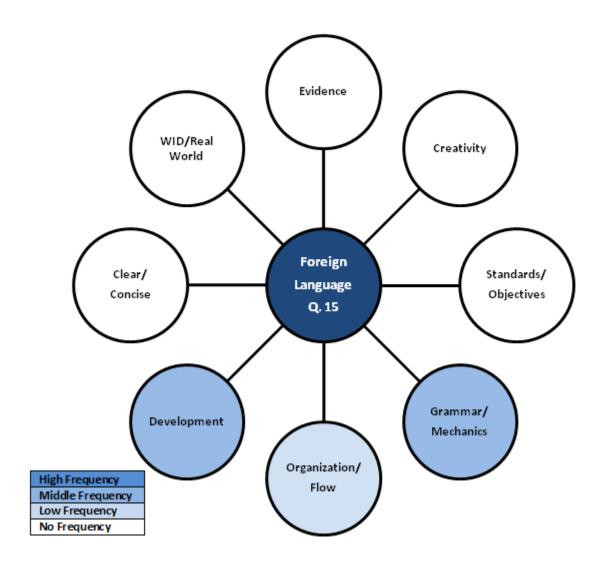


Figure 77. Foreign Language Department Trends for Question 15

For Question 15, three of the eight school-wide trends surface in the Foreign

Language department: Grammar/Mechanics, Organization/Flow, and Development. The

Foreign Language teachers reported that good writing is meaningfully developed with

flowing ideas. However, grammar and mechanics was of major component for the Foreign Language teachers' vision of what characterizes good writing.

Table 36

Foreign Language Department Evidence Table Question 15

Foreign Language		
Trend	Evidence	
	"ideas with meaningful conclusion."	"Good writing presents a meaningfu argument or message"
Development	"supported by examples from a text, or a fleshed our argument."	"I look for content"
Organization/Flow	"No struggle of comprehension and has ease of reading"	"flows with good transition"
Grammar/Mechanics	"Good sentence structure in the target language, correct use of the vocab, and well-used idioms or phrases."	"Attention to conjugation and adjective agreement, proper syntax and sentence structure, effective communication in a foreign language"
	"grammar"	"precise vocabulary"

Q.15: What does good writing look like in your class?

Round 1 and Round 2 Qualitative Analysis

The follow-up professional development took place approximately five months after the initial WACA training in August of 2016. Between December and January of 2016, fifteen teachers volunteered to take the Round 2 survey, which is identical to the survey they took in August of 2016: T3 (Social Studies), T4 (Social Studies), T21 (Social Studies), T22 (CTE), T23 (Social Studies), T25 (Fine Arts), T30 (English), T31 (English), T32 (Foreign Language), T33 (Foreign Language), T36 (English), T37 (Foreign Language), T38 (English), T45 (Science), and T47 (Science). However, only a

select group from these fifteen teachers showed considerable changes from Round 1 to Round 2.

Round 1-Round 2 Analysis of Question 13: What purpose does writing serve in your classroom?

Table 37

Teacher 3 (Social Studies) Evidence Table Question 13

Q13 Round 1	Q13 Round 2
"To allow me to assess the student's	"It is part of the expectations set by
knowledge of the subject matter.	the state for TN Ready and part of the
Practice for AP exam or TN Ready."	AP curriculum. Personally I think it is
	incredibly important to be able to
	share your feelings, sound intelligent
	and is a skill that all students must
	have."

Teacher 3's response set was one of the few that changed from Round 1 to Round 2. Teacher 3's response in Round 1 focused on preparing students for a state or AP exam; however, Teacher 3's Round 2 response echoes the same sentiment but also adds a new statement regarding the need for students to freely express ideas through writing.

Round 1-Round 2 Analysis of Question 14: Why do you grade writing the way you do in your classroom?

Table 38

Teacher 21 (Social Studies) Evidence Table Question 14

Q14 Round 1	Q14 Round 2
"I grade it in a variety of ways	"I grade writing in a variety of ways
because our children learn in a	depending on the type of assignment
variety of ways. I also think it's	as a way to vary my instruction and to
important to allow students to choose	be fair for students based on the
writing types that are most	varying expectations."
appropriate for them. Other times, I	
want to push them out of their	
comfort zone to try something new."	

Although Teacher 21's answers did not change drastically from Round 1 to Round 2, Teacher 21's answers indicate a strong commitment to the belief that writing serves many purposes and should be assessed in various ways. This teacher admits to tailoring instruction to ensure fairness for students based on individual student needs, which aligns with Stronge (2007)'s research on effective teaching.

Table 39

Teacher 22 (CTE) Evidence Table Question 14

Q14 Round 1	Q14 Round 2
"I look for detailed analysis about the project. I am more concerned with the reasoning, not so much the outcome of the project. "Why did the student choose this idea and how did it impact the final product" is an example of the type of question I would ask myself when grading. When I can find the answer without assuming, then the grade is a better one for the student. In general, I look for sound thinking and reasonable ideas about a topic when I am analyzing their article summaries."	"I grade writing because it is a required part of the curriculum based on our principal's request. I would use writing as a tool for understanding the concepts but would not stress it as a part of the curriculum if I was not required to."

Teacher 22's response from Round 1 focuses on assessing student writing as a way to assess thinking and reasoning skills. However, Teacher 22's Round 2 response indicates a stark shift in response to Question 14, one that reveals an aversion to including writing in the curriculum because of an administrative mandate. Bernhardt (2013) warns of this type of compliance when beginning a new initiative. Without genuine commitment from all stakeholders, the initiative will likely be unsuccessful.

Table 40

Teacher 25 (Fine Arts) Evidence Table Question 14

Q14 Round 1	Q14 Round 2
"I seek to see if a student has	"I only grade it to meet the criteria our
provided their own response vs only	school has asked for. I would much
provide obvious visual recollections	rather use it to just respond to and
of things they are observing."	allow students to write out what they
	are thinking about their project or
	artwork they are thinking about."

Teacher 25's Round 1 Response focuses on assessing writing to check for student comprehension. However, in a similar fashion to Teacher 22 from the Career and Technical Education department, Teacher 25 reveals in Round 2 a sense of compliance with a school writing mandate. Teacher 25 indicates a need for students to be able to respond in a more holistic and open manner.

Table 41

Teacher 32 (Foreign Language) Evidence Table Question 14

Q14 Round 1	Q14 Round 2
"Reinforce material learned and	"I follow the AP rubric for writing
make connections; creativity and	because we have agreed as a
self-relevance."	department that all students should be
	held to that standard so they are
	accustomed to those expectations if
	they ever take the AP level."

Teacher 32's Round 1 avoids writing assessment comments; however, Teacher 32's Round 2 response reveals that the Foreign Language teachers have met before to discuss a rubric that will help them align as a department in regard to a unified standard of writing assessment.

Round 1-Round 2 Analysis of Question 15: What does good writing look like in your class?

Table 42

Teacher 21 (Social Studies) Evidence Table Question 15

Q15 Round 1	Q15 Round 2
"Clear and concise, with evidence	"Not really able to answer this
backing up their arguments. Some	question as there is not a one size fits
writing is less formal and just	all approach to writing. I suppose the
expresses a belief or idea clearly."	main thing is whether students can
-	back up arguments with evidence."

Teacher 21's response to Question 15 aligns with the answer provided for Question 14. For this teacher, good writing can be formal or informal. Teacher 21 has dismissed the "one size fits all" way to assess writing.

Qualitative Reflections

Much like the quantitative responses, the qualitative results highlight school-wide and departmental strengths. The most reoccurring school-wide trend from Question 13 is that writing serves as a purpose for students to demonstrate knowledge and understanding Meanwhile, in the responses from Question 14, teachers reported that the major reason for grading writing the way they do is to gauge student progress and understanding. However, formative trends only appeared explicitly in the Foreign Language department. Finally, the most prominent trends for Question 15 revolve around the idea that good writing is clearly and concisely written with well-developed and organized ideas. The English, CTE, and Foreign Language teachers did reveal a strong commitment to proper Grammar/Mechanics while the CTE and Science teachers alone showed a commitment to writing that mirrors that of their discipline and the real world.

Rubrics Collected—Artifact Analysis

During the planning phase of Round 1, teachers were encouraged to bring writing rubrics they use or have created to the first round of professional development in August of 2015. Many different Rubrics were collected from six different departments: English, Career and Technical Education, Science, Math, Social Studies, and Foreign Language.

- The English rubrics collected from the teachers were customized by the teachers. These rubrics are both trait based rubrics with a 4-point scaled modeled from Marzano's (2010) grading guidelines.
- The CTE rubric is a customized trait based rubric with a 5-point assessment scale for each trait.
- The Science rubrics, however, are holistic in nature and focus almost entirely on content.
- The Math rubrics for Calculus contain only assignment instructions and bulleted items that must be included (citations, group roles to assign).
- The Social Studies rubrics submitted are the actual state test or AP rubric used on those assessments. These rubrics are, like the English and CTE rubrics, trait based.
- The Foreign Language rubrics focus on French and Spanish writing assessment. The French rubric submitted is the actual AP French Test rubric, which is trait-based and set on a 6-point scale. The Spanish rubric is for a group writing project and is solely content based and holistic.

Mixed Methods Discussion

The mixed methods Writing Across the Curriculum Assessment (WACA) survey results provide both panoramic and focused views into the writing assessment culture at Martin Magnet. In order to analyze the mixed methods results of the WACA survey, I reference Greene, Caracelli, and Graham (1989) who outline four key benefits of using mixed methods: triangulation, complementarity, development, and expansion.

Triangulation. Several points of triangulation arose between the quantitative and qualitative data. Of the eleven quantitative questions, seven questions (Questions 4, 5, 7, 8, 9, 10, 11) yielded results with statistical significance, meaning that values were less than the alpha value of .05 set in Chapter 3. These values indicate differences between the eight departments caused by more than simple chance. Moreover, these values echo the findings in the qualitative data. For example, one-way ANOVA results indicate a significant difference between English teachers' preparedness to grade writing and Science teachers' preparedness to grade writing (a .49 interaction difference). Similarly, a discrepancy between the English teachers' preparedness to grade writing and the Math teachers' preparedness to grade writing is also evident (a .009 interaction difference). The qualitative responses mirror these trends as well. English teachers wrote extensively about their writing assessment practices, ranging from rubric use and rubric creation to including students in the assessment process. Science and math teachers' qualitative responses also align with the quantitative data. These teachers reported higher levels of uncertainty when assessing student writing as well as issues of time constraints and feeling already overwhelmed with typical science and math assignments.

Complementarity. Similar to triangulation, evidence of complementarity emerged as well. The quantitative and qualitative instruments did, in fact, work in tandem and yielded valuable results about the writing assessment culture at Martin. In many instances, teachers' quantitative responses revealed a numerical tendency about writing assessment, and their qualitative responses accentuated the numerical score. Teachers 1 and 50, for example, reported scores almost exclusively on the lower or in the "never" score range on the WACA scale. Moreover, these same teachers revealed, in their qualitative responses, either apathy toward writing assessment or a lack of confidence in assessing writing. Teachers 39 and 43, on the other hand, reported high quantitative scores that matched their in-depth, authentic written responses.

Development. The WACA survey is a unique mixed methods survey because teachers can anonymously reveal their opinions in writing assessment and current writing assessment practices, which is an area that goes unexplored in K-12 schools. The closest example found in the current research, which is also sparse, comes from the college level. Good's (2013) and Gere (2010)'s work serves as a driving force for this WACA initiative.

Expansion. Martin teachers' responses to the WACA survey, as well as the recommendations outlined in Chapter 5, have opened opportunities to expand this research model to multiple school sites. The Martin WACA survey is a strong pilot that can be adjusted to fit the specific needs of each school site. Once the survey is given at these schools, the data can be compared with the pilot data to further inform focus groups, professional development trainings, and PLC conversations. The ultimate goal is to use this WACA pilot model to grow the WACA mindset at other schools.

Conclusion

Chapter 4 contains an overwhelming amount of data, including school-wide and departmental analyses of quantitative and qualitative data for each survey question; additionally, I included an analysis of artifacts collected from the 59 Martin teachers. This huge data set was contained to a single chapter to ensure that the gaps and overlaps uncovered through the mixed methods analysis were at the forefront. After analyzing the Martin teachers' survey responses, I have found that Martin Magnet teachers are passionate about writing regardless of the discipline. They believe that writing is an important skill for students' lifelong success. I now have an expansive writing assessment inventory, which has helped me create the blueprint for implementing and sustaining the Writing Across the Curriculum Assessment (WACA) vision at Martin.

CHAPTER V:

CONCLUSIONS

Implications

My Writing Across the Curriculum Assessment (WACA) study is unique because the only studies that mirror this model occur at the university level. Moreover, my WACA survey of Martin Magnet teachers provides school-wide, departmental, and individual perspectives showing what Martin Magnet teachers value about writing and the roles writing plays in Martin classrooms. Lezotte and McKee (2002) note that the core beliefs of a school must be examined first to ensure that true change can be made (p. 122). From the data I collected with the mixed methods WACA survey, I can clearly see that Martin teachers believe that writing is an integral component of their classroom practices. I have constructed, from the teachers' responses, an exhaustive writing assessment inventory, one that catalogues not only the types of writing that take place at Martin but also the purposes and values imbedded in them. According to Bernhardt (2013), "starting with comprehensive data analysis, schools see how they are getting their current results. Then, with their vision, they can determine what they need to do to get different results" (p. 20). The teachers at Martin are ready to implement this WACA vision now that they know where they are and where they are going.

Many of the departments at Martin exhibit distinctive strengths. For example, a dedication to WID exists in the Science and Career and Technical Education departments that need to be cultivated in other departments. The teachers in these departments, especially CTE teachers, willingly push students to write in their discipline. The CTE

teachers take this one step further with Martin's annual engineering and biomedicine expo, which is a public exhibition of student work where professionals in the field discuss and assess students' capstone projects. In the English and Social Studies departments, the strength lies in the teachers' push for many different types of writing, ranging from test prep to creative writing.

However, the foreign language and math teachers show unique strengths that needed further investigation. The Foreign Language teachers have demonstrated the only department-wide belief that writing plays a primarily formative role. I asked the Foreign Language teachers during their PLC meeting how this became so common to their classroom practices, and they said they had never really discussed it with each other but that the curriculum itself seems to have formative practice rooted within it; in fact, they agreed that failure is essential to increasing writing skills in foreign language class. The Math teachers also displayed a unique trend; they are more closely aligned with their purpose for writing and what good writing looks like than any other department. I followed up with the math teachers to discover how they became so aligned with their writing practices and beliefs. When I attended their PLC meeting in April of 2016, they revealed that the new math practice standards—first introduced at a summer training in 2015—requires students to clearly explain how they arrived at an answer to a problem. This summer training session on the new standards, although they never overtly discussed it, drove the math teachers toward similar writing goals.

After celebrating these results from the WAVA survey, Martin teachers must also address concerns found in the data. Popham (2011) warns, as noted in Chapter 2, about the dire need for assessment literacy among many secondary teachers. Huot and O'Neill

(2009) agree, noting that "many practicing composition teachers and administrators lack formal assessment preparation" (p. 1). Furthermore, the data from the WACA survey confirm this alarming need for assessment literacy, especially within the microcosm of writing assessment. As I illustrate in Table 33, this WACA study reveals an even larger gap in writing assessment training and preparation.

Table 43

Assessment Literacy Overview

How often do you feel pressured to use rubrics to grade writing?	How often do you feel prepared to grade writing in your classroom?	How often do you receive writing assessment training?
Almost 50% of the teachers said that they feel pressured often , usually , or always .	More than 50% of the teachers said that they never or do not usually or sometimes feel prepared to grade writing.	Nearly all of the teachers revealed that they never or do not usually receive writing assessment training.

Furthermore, Popham (2014) argues that in order for teachers to attain assessment acumen, they must revise their instruments often (p. 271). Approximately 38% of Martin teacher said they revise their rubrics "often" or above on the WACA scale (score point of 5 or above). Popham (2014) also insists that teachers create assessment tools together and discuss their assessment practices with colleagues. Only half of Martin teachers reported that they "sometimes" or "often" discuss grading writing with other teachers. Similarly, Haswell and Wyche-Smith (2009) argue that teachers must be diligent about creating their own rubrics: "writing teachers should be leery of assessment tools made by others, that they should, and can, make their own" (p. 204). Only 38% of Martin teachers responded at the "often" or above score point when asked about creating their own rubrics to assess student writing, and more than 70% of Martin teachers responded that

they rarely or never receive writing assessment training. Thus, we have teachers who believe that writing is important in all classes across all disciplines, and now we need a plan of action to help match their support and eagerness for writing with writing assessment training opportunities that will allow them to align with the experts in the field and, in the end, better serve their students.

Now is the time for Martin teachers to not only solidify the vision for writing assessment at our school, but also to implement and sustain that vision. Ultimately, if teachers are better equipped to assess writing alongside their students, teachers can provide more accurate and timely feedback that will undoubtedly impact student learning in every corner of Martin Magnet. The key to achieving these goals at Martin is for all stakeholders to welcome the WACA school improvement framework:



Figure 78. WACA (Writing Across the Curriculum Assessment) Conceptual Model

The conceptual model above has two layers. The outer dark blue layer represents the affirmed school improvement cycle; the three-pronged WACA framework fits within the school improvement cycle. When these two theories interlock, the WACA initiative at Martin can not only begin but can become sustainable in the years to come. Martin teachers are ready to begin this journey and embrace second-order changes, which DuFour, DuFour, and Eaker (2008) define as "innovation that represents a dramatic departure from the expected and familiar" (p. 92). The data show they are ready and committed to writing being foundational to their classroom regardless of the discipline or department. Martin could be, with commitment to this WACA initiative, a school that encourages students to write across the curriculum and within the disciplines while also playing a crucial role in assessing their own growth as writers. The following steps provide a blueprint for a WACA vision for Martin as well as a school improvement plan, one designed to not only implement the vision but sustain it and foster its long term effectiveness.

The School Improvement Cycle

The next step to achieving a school-wide vision for writing assessment is to embrace the school improvement cycle, as outlined in Chapter 2. Now that I have collected the data from multiple levels, including school-wide, department, and individual teachers, the school improvement cycle at Martin can begin. As seen in chapter 2, Lezotte and Mckee (2002); Bernhardt (2013); and James-Ward, Fisher, Frey, and Lapp (2013) have all come to the same consensus about the recursive nature of the

continuous school improvement process: Study, Reflect, Plan, Do. My research at Martin confirms that the school improvement cycle can also be used to fuel the WACA model.

Thus, if the Martin faculty members review the WACA data, they can then reflect and establish a detailed plan to ensure the longevity of the WACA school improvement initiative at Martin Magnet. We, the teachers at Martin, understand that true change will take time. As James-Ward, Fisher, Frey, and Lapp (2013) note, once an initiative is in place, years will pass before the sustained vision will yield tangible results: "The time commitment alone demands that there be a process for gauging progress" (p. 13). We also understand that an effective school is a "complex system of manageable, interdependent components propelled by broad staff commitment to successfully accomplish the mission of learning for all" (Lezotte and Snyder, 2011, p. 29). This particular mission focuses on iterative teacher learning so that school-wide student learning will occur, and the ultimate goal is to empower students to write and provide them with the writing skills needed to survive the 21st century global economy. Wagner (2008) devised a list of seven survival skills for young people leaving high school and entering either college or the work force, and effective written and oral communication is one of these seven foundational and transferable skills. These skills have become essential pillars to my classroom and have also been embedded in the Martin Magnet Writing Lab.

With these principles in place, Martin can move forward with the WACA initiative. Bernhardt (2013) argues that "there must be *one vision* for the school—we have to get everyone on the same page and moving forward together" (p. 1). The WACA survey results clearly show that the teachers are ready to commit to this venture, but

without a "system, structure, or vision in place to guide the use of all data, there is no new learning to change teacher attitudes, behaviors, or instruction" (Bernhardt, 2013, p. 2). As a result, Martin teachers will need to believe in the WACA framework displayed above and understand its cyclical nature. Moreover, Bernhardt (2013) and Eaker and Keating (2012) note that when teachers believe in an initiative, they will move beyond simple compliance into a committed mindset. When that occurs, a school no longer has to worry about jeopardizing the movement: "To ignore the system in place and equate school reform with simply a call to ask teachers or principals to work harder and care more, is doomed from the outset" (Eaker and Keating, 2012, p. 25).

The first step at Martin, therefore, is cement a plan for the WACA initiative, one that heeds both Bernhardt (2013) and Hattie's (2012) advice. They contend that many schools skip the planning phase and move directly to results, assuming that a plan is already in place and aligned with a single, focused mission. However, the teachers at Martin must answer these questions first:

Where are we now?

How did we get to where are?

Where do we want to be?

How are we going to get to where we want to be?

Is what we are doing making a difference? (Bernhardt, 2013, p. 20).

Similarly, we can use Hattie's (2012) student learning strategies to enhance our teachers' learning and growth. As teachers, if we know where we are going, how we are going, and where we are going next, the chances of the school improvement initiative's success rises (p. 22).

Finally, Martin Magnet teachers must resist the temptation to stay the current course despite the fact that students are already succeeding. Lezotte and Mckee (2002) argue that school improvement "must not be limited to low-performing schools" (p. 35). James-Ward, Fisher, Frey, and Lapp (2013) agree:

Some schools, particularly those that meet federal or state designations suggesting that they have met the accountability demands, back sufficient internal need to improve. In these schools, the stakeholders rest on their laurels because other schools are much lower performing. In reality, we should all focus on instructional improvement and continually strive for excellence. (p. 117)

Therefore, even a school such as Martin Magnet, where students are outperforming their peers across the state, must strive for continued excellence in order to ensure high levels of learning for all students.

Sharing the Data

Analyzing the WACA survey data is just the beginning of our journey at Martin. DuFour, DuFour, and Eaker (2008) claim that when teachers start sharing data and discussing where to go next, true collaboration occurs. Eaker and Keating (2012) also note that once the data is shared, school improvement leaders must keep returning to why the initiative is worth their time and effort. They suggest making it "personal and urgent" and remind the faculty often about why this movement matters.

This movement matters because the students at Martin must be prepared for a new set of 21st century survival skills, ones that transfer between disciplines and departments.

Wagner (2008) has made it clear that students must be strong writers when they leave high school, but teachers must also be strong writing teachers and writing assessors

because without the proper feedback, students will be blind to how they can improve their writing skills. Teacher feedback, according to Hattie (2012), has one of the greatest impacts on student learning. Hattie also asks teachers to include students in their own assessment, which is a practice that many of the Martin teachers have yet to adopt: "So often, the most important assessment decisions tend to be made by adults on behalf of students. Instead, the claim is that the primary function of assessment is to support learning by generating feedback that students can act upon in terms of where they are going, how they are going there, and where they might go next" (p. 141-142).

With an expert knowledge of formative writing assessment practices, teachers can move away from a teacher-centered "corrective" assessment philosophy to a student-centered "forward looking" assessment philosophy. The teachers at Martin need to be reminded that their own growth as writing teachers and writing assessors can help students become successful, life-long writers regardless of the profession or field they choose.

Sharing the WACA data with the entire faculty will certainly help Martin teachers not only study school-wide and departmental trends but also allow them to reflect on the implications of the findings. Even with the detailed writing assessment inventory complete, Martin teachers are still not ready to act. Martin teachers will first be encouraged to take ownership of the results and make meaning of the data over the summer. They will then participate in a school-wide debriefing session in August of the 2016-2017 school year. Bernhardt (2013) argues that teachers must move beyond simply complying with a new school initiative and instead authentically invest in the new plan.

In order to build this genuine school-wide commitment to WACA, both administrative briefs and departmental briefs will be uploaded to the school server. The administrators will receive the entire data set while the departments will have access to their own departmental data. In the fall debriefing session, teachers from different departments will have the chance to converse with each other about their own results from the WACA survey.

Over the summer, the teachers will be encouraged to discuss the departmental data with each other in their PLC teams and revise or endorse the findings from the survey. It is crucial, according to Bernhardt (2013), that the data is shared before the school year begins. The WACA results will be streamlined into tables, graphs, and visuals seen in the previous chapter to help alleviate any time burdens on the teachers. The data presented must be quick, clear, and concise.

Presenting these data snapshots will also help build a common vocabulary for the administrators and teachers. Eaker and Keating (2012) note that "building a shared knowledge requires a purposeful clarification of words, phrases, concepts, and, importantly, rationale" (p. 50). Moreover, Many (2008) argues that teachers need absolute clarity when new terminology enters the school improvement conversation, and achieving this clarity demands collaboration (p. 67). The faculty, therefore, must know exactly what WAC, WID, And WACA mean for multiple stakeholders, including administrators, teachers, and students. Popham (2014) claims that assessment literacy must include a clear understanding of validity and reliability, and White (1999) argues that inter-rater reliability is especially important to writing assessment, specifically.

These terms, along with the ones mentioned above, must also be included in the conversation. A glossary of terms will be included in the data briefs to help teachers understand and begin using these terms in their PLC meetings. The data briefs, glossary, and the school-wide WACA PD in the fall of 2016 will help ensure that every team member at Martin Magnet understands these terms and can, therefore, make a stronger commitment to the WACA vision.

The WACA Summer Institute

While stakeholders are studying the data briefs over the summer, all Martin teacher will also be invited to the first annual WACA Summer Institute, a three-day professional development series that will provide intensive training in WAC, WID, writing assessment theories and terminology, PLC teaming, and WACA leadership strategies. Bernhardt (2013) specifically endorses the institute model as an effective method to unpack data and create leadership teams (p. 169). All Martin teachers are welcome to participate and will receive in-service credit. However, the exceptional teachers who emerged from the WACA survey data will be specifically recruited for this training. These star teachers will become WACA PLC leaders who will serve as writing assessment ambassadors to their normal PLC teams.

Much of this training will focus on building interdisciplinary teacher teams, and these teams will cultivate a collaborative writing assessment culture at Martin. Many (2008) notes that the most effective teachers seeking to enhance student learning will create "collaborative cultures in which educators pool their knowledge, effort, and energy to learn from one another" (p. 57). The common vocabulary mentioned above can be

further clarified in these teams. Moreover, data from the WACA survey can be shared between and across departments.

We will build eclectic leadership teams to ensure that the WACA initiative succeeds. According to Lezotte and Snyder (2011), one of the best ways to build these teams and support a school improvement movement is to widen the circle of involvement when building a new team (pp. 55-56). Furthermore, the teams must be built both organically and purposefully: "[E]ffective teams do not occur simply because a group of people have been brought together and told they are on a team. Teams, like continuous school improvement itself, go through stages of development" (p. 49). These WACA teams, as well as the WACA PLC leaders, will be patiently forged over several days of thorough training. Good (2013) makes it clear that the success of program growth and sustainability takes years of consistent training and follow up, and the WACA Summer Institute will be the beginning of annual writing assessment training for Martin Magnet teachers.

WACA Institute Day 1. The first training day of the summer institute will focus on teachers sharing writing assessment instruments they have created as well as discussing assessment practices, methods, and beliefs. Martin teachers will have the opportunity to review the school-wide and departmental data in whole group and focus group settings. This blend of departmental and interdisciplinary teaming will help begin WACA conversations that will drive the remaining day of the summer institute.

The WACA survey data shows that Martin teachers use rubrics to assess the majority of student writing in their classrooms. However, the survey results also show that Martin teachers do not discuss writing assessment practices or revise their rubrics on

a regular basis. Popham (2014) mentions that even the best authors, including Milton and Keats, revised their now classic works, so teachers should also strive to constantly evaluate their assessment instruments. Wagner (2008) notes that writing in secondary schools is too often formulaic but acknowledges that teachers do not have time for much else. Thus, on Day 1, Martin teachers must ensure that their writing assessment rubrics do not follow a similarly robotic trend, especially when considering the importance of Hattie's (2012) work on the power of providing timely and authentic feedback.

As a result, teachers must be willing to share their rubric questions and concerns on Day 1 of the summer institute. Popham (2014) strongly advocates for sharing and collaboration when designing or revising assessment tools: "What you need is a good, hard, *nonpartisan* review of what you've been up to assessment-wise" (p. 274). According to DuFour, DuFour, and Eaker (2008), PLC theory also encourages the sharing of data to track student performance, so many of the Martin teachers have been sharing information with each other and can now strengthen those bonds by extending those conversations to writing assessment.

In addition to these new writing assessment PLC conversations, Martin teachers will also have the chance to discuss these key assessment issues within interdisciplinary groups. Haswell and Wyche-Smith (2009) note that these mixed teams provide opportunities to participate in crucial conversations outside their normal realm: "involvement in original assessment projects expands participation in teaching. Our own involvement has given us, for instance, access to conversations from which we otherwise would have been excluded" (p. 215).

Finally, Martin teachers will complete the first day of the summer institute training with a focus on the terms validity, reliability, and inter-rater reliability.

Understanding these terms and coming to a school-wide concerns is critical to the success of the WACA initiative at Martin. In both departmental and interdisciplinary teams, teachers will discuss not only the meaning of these words but also the application of them through rubric building sessions and inter-rater reliability scoring sessions. As mentioned above, Eaker and Keating (2012) advocate for a common vocabulary to ensure that when the school year starts each member of the faculty has a clear understanding of these key writing assessment terms.

WACA Institute Day 2. The second day of training will also be multifaceted. Martin teachers will first review the WACA departmental briefs in order to increase ownership of the data. The departmental teams will endorse or revise the briefs and then share their discoveries with other departments to see where they align or depart from each other. Writing in the Disciplines (WID) was a school-wide trend in the qualitative data, and having these conversations can help the faculty commit to WID as well as the notion of transfer.

Martin teachers, through this training, will understand why our students need to master Wagner's (2008) seven survival skills, which include effective written and oral communication. These are necessary skills for all disciplines and fields. According to Wagner (2008), "Communication skills are a major factor highlighted in dozens of studies over the years that focus on students' lack of preparation for both college and the workplace, and these skills are only going to become more important as teams are increasingly composed of individuals from diverse cultures" (p. 34). Smith and Smith

(2014) also reveal that employees' lack of sound writing skills is costing major American businesses billions of dollars in training costs; these businesses are paying the bill because writing skills are vital for employees' survival in the 21st century workplace (p. 5). Once Martin teachers understand why these skills are crucial to students' long-term success, they can begin to implement transfer into their assignments.

Therefore, a push for a transfer of skills within and across disciplines is crucial for student success at Martin and beyond. Far transfer, as Smith and Smith (2014) argue, is especially crucial for student success beyond a single learning context: "if you learn how to consider both sides of an argument in an English class and then use this same skill in a history class or in the first memo you write in a new job, that one intellectual maneuver shows a far transfer" (p. 8). In the summer institute, a focus on bridging different writing types and purposes will be a centerpiece of Day 2. Interdisciplinary teams will review the WACA data and share ideas about how, for example, engineering writing and English writing overlap or complement each other. This type of interdepartmental sharing will help solidify and sustain the WACA initiative at Martin.

During the final portion of Day 2, Martin teachers will work in departmental teams to further discuss WID and transfer strategies while I recruit potential WACA PLC leaders. Bernhardt (2013) notes that school improvement initiatives often fail because school leaders attempt to add new components to the school and, thereby, give teachers just another task to complete. However, the WACA PLC leaders are already working in a traditional PLC team at Martin and will now serve as WACA ambassadors within their normal PLC team.

Muhammad (2009) argues that these leaders should be recruited from the *believer* portion of a school faculty, and I found believers in seven of the eight departments while studying the WACA data. Mohammad (2009) found in his school culture research that believers "had a strong presence on school improvement teams, curriculum initiatives, and voluntary committees. Change was not foreign and threatening to them; in fact, they embraced any change that they felt would improve student performance" (p. 32). The believers or star teachers at Martin, as discussed in Chapter 4, provided robust responses that indicated a strong and authentic commitment to writing being foundational to their classroom. Table 34 shows the believers I will ask to become WACA PLC leaders:

Table 44

Potential WACA PLC Leaders

Department	Round 2 Participation
Fine Arts	
Social Studies	Yes
CTE	Yes
Foreign Language	
Foreign Language	
Foreign Language	Yes
English	
English	
English	
Science	
Math	
	Fine Arts Social Studies CTE Foreign Language Foreign Language Foreign Language English English English Science

These select teachers will attend the summer institute, and the WACA PLC leaders will be selected from teachers who decide to attend the training. These new WACA PLC leaders will play a formal role in their normal PLC groups. They will help create a WACA agenda tailored to their departmental needs. They will also help to create a WACA learning library so that teachers can access key resources regarding writing assessment, WAC, WID, and WACA (see Appendix E for a list of potential resources).

When these teachers are selected to play a formal role in within their PLC teams, they will be empowered to carry the WACA message back to their departmental or grade level teams. According to Sparks (2008), "Formally naming team leaders, chairs, or facilitators helps the team move quickly. In a PLC, the facilitator role can change from person to person. But this person should lead the initiative, coach, collect and analyze data and communicate the findings to the group and ultimately to the administration" (p. 41). The WACA PLC leaders can play the facilitator roles quite well after attending the summer institute training and become vocal supporters of WACA in the professional development sessions to come during the next school year.

WACA Institute Day 3. Martin teachers will receive, on the final day of the summer institute, an opportunity to discuss the school culture that surrounds writing and writing assessment at Martin Magnet. According to DuFour, DuFour, and Eaker (2008), "Cultural changes are less visible, more amorphous, and *much* more difficult to make; yet unless efforts to improve schools ultimately impact the culture, there is no reason to believe schools will produce better results" (p. 91). In order to implement and sustain the WACA initiative, we must widen the circle of involvement, as both Lezotte and Snyder (2011) and Popham (2014) suggest, and include the central office perspective, the

administrative perspective, and the student perspective. Discussions about how and why to include all of these stakeholders in the WACA conversion will take place on this final training day.

Once we have dedicated teachers in place to play the role of WACA PLC leaders, we can begin to address the issues that stifle school-wide, substantive change. According to Muhammad (2009), "If schools are to transform their cultures into fertile ground for positive experimentation and student nurturing, they must increase their population of Believers, and their Believers must become more vocal members of the school community" (p. 41). With our believers playing an officially leadership role, they will be able to connect with the aforesaid stakeholders and help complete a reculturing of Martin Magnet and potentially other schools as well. Eaker and Keating (2012) claim that a "deep reculturing of a school district involves changing virtually everything and everyone—people's assumptions, attitudes, knowledge base, and most importantly, behaviors" (p. 51).

Martin teachers must also be mindful of any issues that arise among less committed faculty members. Muhammad (2009) warns school leaders about these team members, calling them survivalists. These particular teachers fear and resist change, and I certainly will encounter a few of these teachers at Martin. Tucker (2014) warns that there are teachers "just putting in their time, waiting for the day when they could make maximum retirement so they could walk out the door" (p. 16). Likewise, Muhammad discovered in his research that "several schools where pessimistic faculty members are eager to prove that new strategies or programs aimed at raising student performance do not work in order to justify their hypothesis that not all students are capable of achieving

excellence" (p. 16). However, teachers who voluntarily attend this voluntary summer institute will help combat these school improvement blockades by becoming WACA leaders either in their PLC teams or in their individual classrooms.

Iterative School-wide Professional Development

Unlike many PD programs, the Writing Across the Curriculum Assessment (WACA) school improvement initiative provides multiple chances for teachers to collaborate, discuss, assess, reassess, and reflect on their learning. Many (2008) claims that collaboration is at the center of school improvement, and "when teachers work together to improve their professional practice, student learning improves" (p. 57).

Stronge (2007) also argues that a "positive relationship exists between student achievement and how recently an experienced teacher took part in a professional development opportunity such as a conference, workshop, or graduate class" (p. 7).

Moreover, Hattie (2012) reports that professional development for teachers provides vital opportunities to "know the quality of their impact" on students (p. 173). Similarly, Lezotte and Snyder (2011) note that a successful school improvement model is about learning and not teaching. Thus, after a summer to browse through the WACA briefs, Martin teachers will regroup to discuss their questions and concerns regarding this school improvement plan.

During one of the professional development days before the 2016-2017 school year begins, teachers will be encouraged to bring their newly designed writing rubrics and writing assignments to the first school-wide WACA PD of the year. They will then have the chance to vocalize what they adopted, changed, or didn't change since round

one last August and reveal the impact these choices and experiences have had on their daily writing instruction and assessment plans for the new school year.

During this meta-assessment session, the framework for building and joining a WACA community will emerge. Wilson (2006) notes that the WAC initiatives of the past two decades have been positive, but the movement has left teachers from all disciplines now struggling with how to communicate their own beliefs about good writing through rubrics (p. 31). Therefore, this school-wide PD will be an ideal time for teachers to share these changes as well as their reflections on the WACA briefs provided at the end of the previous school year.

Once this PD session is complete, Martin teachers will take the same WACA survey given in August of last school year, and I will continue to track writing assessment culture and practice shifts at our school. Sparks (2008) argues that these professional development sessions are meaningless if school leaders have no way to monitor progress since the last session. She suggests, just like when monitoring student progress, that the team leaders record changes in the data and collect them into an artifact (p. 38). Moreover, Eaker and Keating (2012) warn that leaders cannot assume that the teachers are, in fact, learning. Leaders also "cannot wait until the end of the year to assess the effectiveness of professional development" (p. 137).

PLC teams will then meet to discuss their normal topics, including SMART goals and norms, but they will also build their departmental WACA plans. New WACA PLC leaders will lead these conversations to ensure that we "monitor the implementation of the vision and plan" (Bernhardt, p. 180). These PLC meetings will energize the WACA initiative at Martin until we meet for another school-wide WACA PD in January of the

2016-2017 school year. The faculty will take the WACA survey once more to complete a two-year study of writing assessment practices and beliefs at our school.

Conclusion

The purpose of this study was to create an inventory of writing assessment practices and beliefs within a single school setting in order to enhance teacher learning, strengthen our commitment to Writing Across the Curriculum (WAC), and move toward a shared vision of Writing Across the Curriculum Assessment (WACA). Bernhardt (2013) supports the notion that teachers "need to *collaborate* and *use* student, classroom, grade level, and school level data. Teachers need to work together to determine what they need to do to ensure *every* student's learning" (p. 1). Many (2008) says that collaboration creates a shared responsibility for the success of all students, joint accountability between teachers, and "reciprocal accountability between teachers and administrators" (p. 70).

We must now commit to ongoing data analysis and reflection to ensure that the initiative succeeds. Lezotte and Mckee (2002) caution that school improvement is a "never-ending cycle of self-examination and adjustment" (ix). Similarly, James-Ward, Fisher, Frey, and Lapp (2013) warn of the arduous work ahead: "In an organization as complex as a school, monitoring the processes related to instructional improvement is crucial because it is so easy to become consumed with daily demands and lose sight of the longer view." As a result, Martin teachers must heed Bernhardt's (2013) call to "reflect on all parts of the system, the alignment of the parts to the whole, and the appraisal of whether or not the school made the difference as expected" (p. 18). If we dedicate ourselves to the challenges ahead, we can avoid what Eaker and Keating (2012) call "mission drift" and instead stay focused on the goals of the WACA initiative.

Eaker and Keating (2002) also counsel against the panacea mentality when implementing change: "A common problem of many groups is that they are committed to improvement, but they want it over and done with quickly. So quickly, in fact, that they pounce on the 'quick fix" (p. 53). However, Martin Magnet teachers are ready for a long-term commitment to WACA and have demonstrated that writing matters in their classrooms. Following DuFour, DuFour, and Eaker's (2008) PLC model, we now have the framework in place to enter the school improvement cycle: study, plan, reflect, do. We are also equipped to forge interdisciplinary bonds to build a shared vision for writing and writing assessment, one that ensures that the faculty embraces its own assessment literacy strengths and shortcomings. Finally, with a unified vision for WACA we can better serve our students and provide authentic and accurate feedback to help them grow as writers now and for a lifetime.

REFERENCES

- Benz, C. R., & Newman, I. (2008). *Mixed methods research: Exploring the interactive continuum*. Carbondale, IL: Southern Illinois University Press.
- Bernhardt, V. (2013). *Data analysis for continuous school improvement*.

 New York, NY: Routledge.
- Block, M. (1953). The historian's craft: Reflections on the nature and uses of history and the techniques and methods of those who write it. New York, NY: Vintage Books.
- Brannon, L. (1985). Toward a theory of composition. In B.W. McClelland & T.R. Donovan (Eds.), *Perspectives on research and scholarship in composition* (pp. 6-25). New York, NY: MLA.
- Brydon-Miller, M., Greenwood, D., & Maguire, P. (2003). Why action research?

 Action Research, 1(1), 9-28.
- Carter, M., Ferzli, M., & Wiebe, E. N. (2007). Writing to learn by learning to write in the disciplines. *Journal of Business and Technical Communication*, 21 (3), 278-302.
- Chiseri-Strater, E. (1996). Turning in upon ourselves: Positionality, subjectivity, and reflexivity in case study and ethnographic research. In P. Mortensen & G. E. Kirsch (Eds.), *Ethics & representation in qualitative studies of literacy* (pp. 115-133). Urbana, IL: NCTE.
- Creswell, J. W. (2013). Qualitative inquiry and research design: Choosing among five approaches. Los Angeles, CA: Sage.
- Creswell, J. W., & Plano Clark, V. L. (2011). *Designing and conducting mixed methods* research. Thousand Oaks, CA: Sage.

- DuFour, R. [Richard], DuFour R. [Rebecca], & Eaker, R. (2008). Revisiting professional learning communities at work: New insights for improving schools. Bloomington, IN: Solution Tree Press.
- Dweck, C. S. (2006). *Mindset: the new psychology of success*. New York, NY: Ballantine.
- Eaker, R., & Keating, J. (2012). Every school, every team, every classroom: District leadership for growing professional learning communities at work. Bloomington, IN: Solution Tree Press.
- Freire, P. (1989). *Pedagogy of the oppressed*. (M. B. Ramos, Trans.). New York, NY: Continuum.
- George, A. (2001). Critical pedagogy: Dreaming of democracy. In G. Tate, A. Rupiper, & K. Schick (Eds.), *A guide to composition pedagogies* (pp. 92-112). New York: Oxford University Press.
- Gere, A. R. (2010). Taking initiative on writing. *Principal Leadership*, 3, 36-42.
- Goldfarb, D. (2013). The age of student-run writing centers. *The Journal of the Virginia Writing Project*, 31 (3), 9-11.
- Good, J. (2013). Crossing the measurement and writing assessment divide: The practical implications of inter-rater reliability in faculty development.

 The WAC Journal, 23, 19-30.
- Green, J. C., Benjamin, L., & Goodyear, L. (2001). The merits of mixing methods in evaluation. *Evaluation*, 7, 25-44.

- Green, J. C., Caracelli, V. J., & Graham, W. F. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Policy*Analysis, 11 (3), 255-274.
- Guskey, T. R. (2007). Assessment for learning: An essential foundation of productive instruction. In D. Reeves (Ed.), *Ahead of the curve: The power of assessment to transform teaching and learning* (pp. 15-29). Bloomington, IN: Solution Tree.
- Hall, G. E., & Hord, S. M. (1987). *Change in schools: Facilitating the process*.

 Albany, NY: SUNY Press.
- Hall, J. (2006). Toward a unified writing curriculum: Integrating wac/wid with freshman composition. *The WAC Journal*, 17, 5-22.
- Hanstedt, P. (2012). Three reasons to make writing across the curriculum part of the conversation. *Liberal Education*, 98 (4), 48-51.
- Haswell, R., & Wyche-Smith, S. (2009). The importance of teacher knowledge in college composition placement testing. In B. Huot & P. O'Neill (Eds.), *Assessing writing:*A critical sourcebook (pp. 203-17). Urbana, IL: NCTE.
- Hattie, J. (2012). Visible learning for teachers: Maximizing impact on learning.

 New York, NY: Routledge.
- Hesse-Biber, S.N. (2010). *Mixed methods research: Merging theory with practice*. New York, NY: Guilford Press.
- Hillyard, C. (2012). Comparative study of the numeracy education and writing across the curriculum movements: Ideas for future growth. *Numeracy: Advancing education in Quantitative Literacy*, 5(2), 1-19.

- Huot, B. (2002). (Re)Articulating writing assessment for teaching and learning.

 Logan, UT: Utah State.
- Huot, B., & Dillon, E. (2009). WAC and writing program assessment take another step:
 A response to assessment of writing. In M. C. Paretti & K. M. Powell (Eds.).
 Assessment of Writing (pp. 207-18). Tallahassee, FL: Association for Institutional Research.
- Huot, B., & O'Neill, P. (2009). Assessing writing: A critical sourcebook.

 Urbana, IL: NCTE.
- James-Ward, C., Fisher, D., Frey, N., & Lapp, D. (2013). *Using data to focus instructional improvement*. Alexandria, VA: ASCD.
- Jones, R., & Comprone, J.J. (1993). Where do we go next in writing across the curriculum? *College Composition and Communication*, 44 (1), 59-68.
- Kohn, A. (2006). Forward. In M. Wilson (author), *Rethinking rubrics in writing* assessment (pp. xi-xvii). Portsmouth, NH: Heinemann.
- Lauer, J.M., & Asher, J.W. (1988). Composition research: Empirical designs.

 New York, NY: Oxford.
- Lezotte, L. W., & Mckee, K. (2002). Assembly required: A continuous school improvement system. Okemos, MI: Effective Schools Products.
- Lezotte, L. W., & Snyder, K. T. (2011). What effective schools do: Re-envisioning the correlates. Bloomington, IN: Solution Tree Press.
- Lovorn, M., & Rezaei, A. R. (2011). Assessing the assessment: Rubrics training for preservice and new in-service teachers. *Practical Assessment, Research & Evaluation*, 16 (16), 1-18.

- Many, T. W. (2008). Teacher talk: How collaboration gets to the heart of great schools.

 The collaborative teacher: Working together as a professional learning

 community (pp. 57-75). Bloomington, IN: Solution Tree Press.
- Marzano, R. J. (2000). Classroom assessment and grading that work.

 Alexandria, VA: ASCD.
- Marzano, R. J. (2010). Formative assessment & standards-based grading. Bloomington, IN: Solution Tree Press.
- Marzano, R. J. (2003). What works in schools: Translating research into action.

 Alexandria, VA: ASCD.
- Melrose, M. J. (2001). Maximizing the rigor of action research: Why would you want to? How could you? *Field Methods*, *13*(2), 160-180.
- Mertler, C.A. (2014). *Action research: Improving schools and empowering educators*. Los Angeles, CA: Sage.
- Miller, R. E. (2003). The arts of complicity: Pragmatism and the culture of schooling. In V. Villanueva (Ed.), *Cross-Talk in comp theory: A reader* (pp. 655-75). Urbana, IL: NTCE.
- Muhammad, A. (2009). *Transforming school culture*. Bloomington, IN: Solution Tree Press.
- O'Neill, P., & Moore, C. (2009). What college writing teachers value and why it matters.

 In M.C. Paretti & K. M. Powell (Eds.), *Assessment of writing* (pp. 35-47).

 Tallahassee, FL: Association for Institutional Research.
- Popham, W. J. (2011). Assessment literacy overlooked: A teacher educator's confession. *The Teacher Educator*, *46*, 265-273.

- Popham, W. J. (2014). Classroom assessment: What teachers need to know.

 Boston, MA: Pearson.
- Popham, W. J. (2011). Transformative assessment in action: An inside look at applying the process. Alexandria, VA: ASCD.
- Ray, R. (1992). Composition from the teacher-researcher point of view. In G. Kirsch &
 P.A. Sullivan (Eds.), *Methods and methodology in composition research* (pp. 172-89). Carbondale: Southern Illinois University.
- Ray, R. (1996). Ethics and representation in teacher research. In P. Mortensen & G. E. Kirsch (Eds.), *Ethics & representation in qualitative studies of literacy* (pp. 287-99). Urbana, IL: NCTE.
- Reeves, D. B. (2011). *Elements of grading: A guide to effective practice*. Bloomington, IN: Solution Tree.
- Rhoades, G., & Carroll, B. (2012). Supporting a vertical writing model: Faculty conversations across the curriculum. *Currents in Teaching and Learning*, *4* (2), 42-50.
- Seidman, I. (2013). *Interviewing as qualitative research: A guide for researchers in education and the social sciences*. New York, NY: Teachers College Press.
- Shor, I., & Freire, P. (1987). A pedagogy for liberation: Dialogues on transforming education. South Hadley, MA: Bergin & Garvey.
- Smith, T.G., & Smith, A.D. (2014). *Building bridges through writing*. Southlake, TX: Fountainhead.
- Spandel, V. (2006). In defense of rubrics. English Journal, 96 (1), 19-22.

- Stevens, D., & Levi, A. (2005). Introduction to rubrics: An assessment tool to save grading time, convey effective feedback, and promote student learning. Sterling, VA: Stylus.
- Stiggins, R. (2007). Assessment for learning: An essential foundation of productive instruction. In D. Reeves (Ed.), *Ahead of the curve: The power of assessment to transform teaching and learning* (pp. 59-76). Bloomington, IN: Solution Tree.
- Stronge, J. H. (2007). *Qualities of effective teachers*. Alexandria, VA: ASCD.
- Tashakkori, A., & Teddlie, C. (1998). *Mixed methodology: Combining qualitative and quantitative approaches*. Thousand Oaks, CA: Sage.
- Tucker, M. S. (2014). Fixing our nation's accountability system. *The National Center on Education and the Economy*, 1-47.
- Wagner, T. (2008) The global achievement gap: Why even our best schools don't teach the new survival skills our children need—and what we can do about it.

 NewYork, NY: Basic.
- White, E. M. (1999). Assigning, responding, and evaluating: A writing teacher's guide.

 Boston, MA: Bedford.
- White, E. M. (1996). Power and agenda setting in writing assessment.

 In E. White, W. Lutz, & S. Kamusikiri (Eds.), *Assessment of writing:*Politics, policies, and practices (pp. 9-24). New York, NY: MLA.
- Wilson, M. (2006). *Rethinking rubrics in writing assessment*. Portsmouth, NH: Heinemann.
- Wink, Joan (2005). *Critical pedagogy: Notes from the real world*. New York, NY: Pearson.

Yancey, K. B., Taczak, K., & Robertson, L. (2014). Writing across contexts: Transfer, composition, and sites of writing. Boulder, CO: University Press of Colorado.

APPENDICES

APPENDIX A

WACA Survey

WACA Survey
Form description
:::
1. How often do you create your own rubric for a writing assignment? *
○ 1 Never
O 2 Not Usually
3 Not Often
O 4 Sometimes
○ 5 Often
○ 6 Usually
O 7 Always
2. How often do you revise your rubrics?*
1. 1 Never
2. 2 Not Usually
3. 3 Not Often
4. 4 Sometimes
5. 5 Often
6. 6 Usually
7. 7 Always

3. How often do your students help create the rubrics in your class?*
1. 1 Never
2. 2 Not Usually
3. 3 Not Often
4. 4 Sometimes
5. 5 Often
6. 6 Usually
7. 7 Always
4. How often do your rubrics mirror those found on a state test or college entrance exam?
1. 1 Never
2. 2 Not Usually
3. 3 Not Often
4. 4 Sometimes
5. 5 Often
6. 6 Usually
7. 7 Always
5. How often do you use rubrics to grade student writing? *
1. 1 Never
2. 2 Not Usually
3. 3 Not Often
4. 4 Sometimes
5. 5 Often
6. 6 Usually
7. 7 Always

6. How often do you feel pressured to use rubrics to grade writing?*
1. 1 Never
2. 2 Not Usually
3. 3 Not Often
4. 4 Sometimes
5. 5 Often
6. 6 Usually
7. 7 Always
7. How often do you feel prepared to grade writing in your classroom? *
1. 1 Never
2. 2 Not Usually
3. 3 Not Often
4. 4 Sometimes
5. 5 Often
6. 6 Usually
7. 7 Always
8. How often do you receive writing assessment training?*
1. 1 Never
2. 2 Not Usually
3. 3 Not Often
4. 4 Sometimes
5. 5 Often
6. 6 Usually
7. 7 Always

9. How often do you discuss grading writing with other teachers?*
1. 1 Never
2. 2 Not Usually
3. 3 Not Often
4. 4 Sometimes
5. 5 Often
6. 6 Usually
7. 7 Always
10. How often do your students write in your class?*
1. 1 Never
2. 2 Not Usually
3. 3 Not Often
4. 4 Sometimes
5. 5 Often
6. 6 Usually
7. 7 Always
11. How often do your students write digitally?*
1. 1 Never
2. 2 Not Usually
3. 3 Not Often
4. 4 Sometimes
5. 5 Often
6. 6 Usually
7. 7 Always

Of the options below, check what type(s) of writing takes place in your class. *
AP writing prompts
Article responses
Article/source analysis
Bell-work writing
☐ Biography writing
☐ Budget reports
Business summaries
Career journal writing
Citation writing
Common app essays
Compare/contrast
Concept maps
Constructed response
Creative writing
Current events writing
Data recording
□ DBQs
Definition writing
Diagrams
Essay question responses
Exit ticket responses
Explanatory writing Expository writing
FRQs
Finance reports
Family history writing
Game design writing
Grant writing
Group writing
Guided notes

☐ History writing	
☐ Journal writing	
Justification writing	
Lab reports	
Letters	
Listing	
Literary analysis writing	
Literature reviews	
Long lab reports	
Memoirs	
Memos	
☐ Newsletters	
Notes	
Observations	
Opinion writing	
Outlines	
Peer reviews	
Performance analysis	
Poetry writing	
Presentation proposals	
Professional email writing	
Program writing	
Project proposals	
Reports	
Research papers	
Rule writing	
Script writing	
Self evaluations	
Senior thesis writing	
Short answer writing	
Speech writing	
Summation writing	
Summation writing	
Timed essays	
☐ Translation writing	
What if? writing	

What purpose does writing serve	n your classroom? *	
Your answer		
Why do you grade writing the way	you do in your classroom? *	
Your answer		
What does and uniting look like i	m v.c.vm alo as 2 *	
What does good writing look like i	n your class? *	
rour answer		
Are you male or female? *		
O Male		
O Female		
Please select your age rar	nge *	
O 20-25		
O 26-35		
O 36-50		
O 51-65		
O 66-older		
	What subject(s) do you teach? *	
	Your answer	
How many years have you been teaching?	What grade(s) do you teach? *	
Your answer	Your answer	
How long have you been teaching in Tennessee? *	What is your level of education? *	
Your answer	O Bachelors	
Have been been seen been to a big or this area.	O Masters	
How long have you been teaching in this county? *	O Ed.S	
Your answer	O Ph.D or Ed.D	

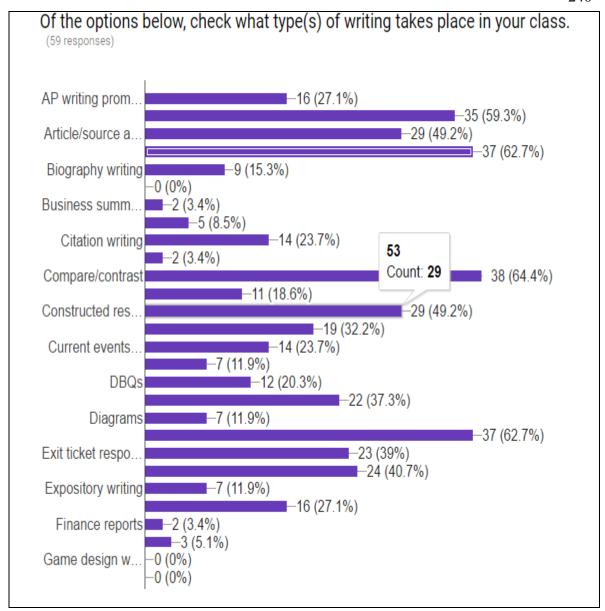
APPENDIX B

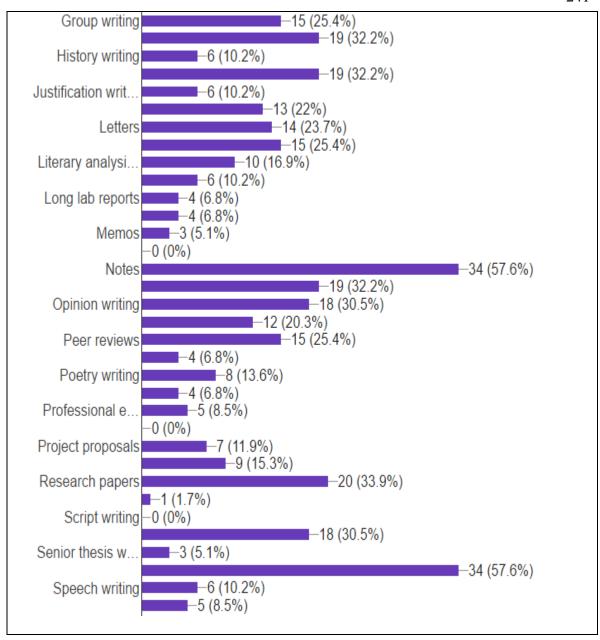
WACA Survey Data

T1	1 Never	1 Never	1 Never	1 Never	1 Never	1 Never					
T2	7 Always	6 Usually	1 Never	5 Often	7 Always	1 Never	7 Always	3 Not Often	4 Sometimes	4 Sometimes	4 Sometime
T3	1 Never	2 Not Usually	1 Never	6 Usually	4 Sometimes	7 Always	4 Sometimes	4 Sometimes	2 Not Usually	6 Usually	5 Often
T4	1 Never	1 Never	1 Never	7 Always	7 Always	7 Always	7 Always	5 Often	5 Often	5 Often	1 Never
T5	2 Not Usually	4 Sometimes	2 Not Usually	6 Usually	6 Usually	3 Not Often	5 Often	4 Sometimes	5 Often	5 Often	4 Sometime
T6	4 Sometimes	3 Not Often	2 Not Usually	3 Not Often	5 Often	6 Usually	4 Sometimes	1 Never	1 Never	5 Often	2 Not Usual
T7	3 Not Often	4 Sometimes	1 Never	4 Sometimes	4 Sometimes	5 Often	6 Usually	3 Not Often	2 Not Usually	5 Often	4 Sometime
T8	5 Often	4 Sometimes	1 Never	2 Not Usually	6 Usually	2 Not Usually	5 Often	4 Sometimes	3 Not Often	5 Often	2 Not Usual
T9	3 Not Often	2 Not Usually	1 Never	4 Sometimes	4 Sometimes	7 Always	4 Sometimes	4 Sometimes	4 Sometimes	6 Usually	4 Sometime
T10	1 Never	2 Not Usually	1 Never	2 Not Usually	3 Not Often	3 Not Often	3 Not Often				
T11	1 Never	1 Never	1 Never	4 Sometimes	2 Not Usually	2 Not Usual					
T12	2 Not Usually	6 Usually	1 Never	1 Never	4 Sometimes	5 Often	1 Never	1 Never	4 Sometimes	6 Usually	5 Often
T13	5 Often	5 Often	3 Not Often	5 Often	7 Always	7 Always	6 Usually	3 Not Often	5 Often	5 Often	4 Sometime
T14	2 Not Usually	2 Not Usually	2 Not Usually	7 Always	4 Sometimes	2 Not Usually	4 Sometimes	4 Sometimes	4 Sometimes	4 Sometimes	4 Sometime
T15	6 Usually	3 Not Often	2 Not Usually	7 Always	6 Usually	7 Always	4 Sometimes	4 Sometimes	5 Often	5 Often	4 Sometime
T16	7 Always	4 Sometimes	4 Sometimes	4 Sometimes	5 Often	6 Usually	4 Sometimes	4 Sometimes	5 Often	4 Sometimes	6 Usually
T17	6 Usually	6 Usually	2 Not Usually	4 Sometimes	7 Always	1 Never	6 Usually	4 Sometimes	4 Sometimes	5 Often	4 Sometime
T18	4 Sometimes	2 Not Usually	1 Never	3 Not Often	4 Sometimes	2 Not Usually	4 Sometimes	3 Not Often	1 Never	3 Not Often	3 Not Often
T19	7 Always	4 Sometimes	6 Usually	4 Sometimes	5 Often	4 Sometimes	1 Never	1 Never	2 Not Usually	3 Not Often	1 Never
T20	2 Not Usually	4 Sometimes	2 Not Usually	4 Sometimes	2 Not Usually	5 Often	4 Sometimes	2 Not Usually	2 Not Usually	7 Always	6 Usually
T21	6 Usually	6 Usually	3 Not Often	5 Often	6 Usually	7 Always	6 Usually	6 Usually	5 Often	6 Usually	4 Sometime
T22	2 Not Usually	4 Sometimes	2 Not Usually	4 Sometimes	4 Sometimes	5 Often	5 Often	2 Not Usually	4 Sometimes	5 Often	5 Often
T23	4 Sometimes	5 Often	2 Not Usually	6 Usually	6 Usually	3 Not Often	5 Often	3 Not Often	5 Often	5 Often	4 Sometime

T24	2 Not Usually	3 Not Office	1 Never	1 Never	7 Always	1 Never	7 ΔΙνισμο	4 Sometimes	2 Not Houselle	5 Ofton	3 Not Often
T25				4 Sometimes	7 Always		7 Always 5 Often	2 Not Usually			
			1 Never		•			,			
T26 T27	7 Always	1 Never 6 Usually	2 Not Usually	1 Never	7 Always			2 Not Usually		- 1	2 Not Usually
	6 Usually	,	2 Not Usually		6 Usually			2 Not Usually		•	4 Sometimes
T28	6 Usually	6 Usually			•			2 Not Usually			5 Often
T29	5 Often	4 Sometimes		4 Sometimes				4 Sometimes			4 Sometimes
T30	5 Often	5 Often	2 Not Usually				,		4 Sometimes		3 Not Often
T31	7 Always	5 Often	1 Never	1 Never	7 Always		,	4 Sometimes			5 Often
T32	5 Often	4 Sometimes			7 Always		4 Sometimes			4 Sometimes	
T33	3 Not Often	5 Often		5 Often	5 Often		5 Often				4 Sometimes
T34	4 Sometimes	-	1 Never		7 Always						2 Not Usually
T35		2 Not Usually	1 Never	6 Usually				2 Not Usually	4 Sometimes		2 Not Usually
T36	5 Often	3 Not Often	3 Not Often	6 Usually	5 Often	4 Sometimes	4 Sometimes	5 Often	4 Sometimes	5 Often	3 Not Often
T37	6 Usually	6 Usually	4 Sometimes	6 Usually	6 Usually	3 Not Often	7 Always	4 Sometimes	5 Often	5 Often	2 Not Usually
T38	4 Sometimes	6 Usually	1 Never	5 Often	6 Usually	7 Always	6 Usually	3 Not Often	4 Sometimes	7 Always	6 Usually
T39	7 Always	7 Always	2 Not Usually	6 Usually	7 Always	2 Not Usually	7 Always	4 Sometimes	7 Always	7 Always	6 Usually
T40	3 Not Often	3 Not Often	1 Never	6 Usually	7 Always	6 Usually	5 Often	1 Never	4 Sometimes	6 Usually	4 Sometimes
T41	5 Often	3 Not Often	1 Never	6 Usually	5 Often	7 Always	4 Sometimes	2 Not Usually	3 Not Often	5 Often	3 Not Often
T42	7 Always	5 Often	4 Sometimes	4 Sometimes	6 Usually	2 Not Usually	6 Usually	3 Not Often	6 Usually	6 Usually	5 Often
T43	4 Sometimes	7 Always	1 Never	5 Often	5 Often	7 Always	5 Often	1 Never	7 Always	7 Always	7 Always
T44	3 Not Often	5 Often	1 Never	1 Never	4 Sometimes	1 Never	2 Not Usually	1 Never	2 Not Usually	5 Often	5 Often
T45	7 Always	5 Often	4 Sometimes	3 Not Often	7 Always	6 Usually	6 Usually	3 Not Often	4 Sometimes	4 Sometimes	6 Usually
T46	5 Often	5 Often	4 Sometimes	6 Usually	7 Always	7 Always	5 Often	2 Not Usually	4 Sometimes	4 Sometimes	4 Sometimes
Teacher	1. How often d	2. How often d	3. How often of	4. How often d	5. How often d	6. How often of	7. How often	d 8. How often	d 9. How often	d 10. How ofte	n 11. How oft
T47	1 Never	1 Never	1 Never	1 Never	1 Never	2 Not Office	r 04	A. O Carre	C 00	5 Often	4 Sometime
T48				1 110101	i ivever	3 Not Often	5 Often	4 Sometimes	5 Often	5 Oitell	4 Comcuni
170	4 Sometimes	4 Sometimes			5 Often	5 Often	4 Sometimes		3 Not Often		
T49	4 Sometimes 2 Not Usually		2 Not Usually			5 Often	4 Sometimes		3 Not Often		4 Sometime
	2 Not Usually	2 Not Usually	2 Not Usually 1 Never	1 Never	5 Often	5 Often	4 Sometimes 1 Never	3 Not Often 1 Never	3 Not Often 2 Not Usually	4 Sometimes	4 Sometime 3 Not Often
T49	2 Not Usually 1 Never	2 Not Usually	2 Not Usually 1 Never 1 Never	1 Never 1 Never	5 Often 2 Not Usually	5 Often 2 Not Usually	4 Sometimes 1 Never 1 Never	3 Not Often 1 Never	3 Not Often 2 Not Usually 3 Not Often	4 Sometimes	4 Sometime 3 Not Often 5 5 Often
T49 T50	2 Not Usually 1 Never	2 Not Usually 1 Never 5 Often	2 Not Usually 1 Never 1 Never 1 Never	1 Never 1 Never 1 Never 1 Never	5 Often 2 Not Usually 1 Never	5 Often 2 Not Usually 4 Sometimes 4 Sometimes	4 Sometimes 1 Never 1 Never 1 Never	3 Not Often 1 Never 4 Sometimes 4 Sometimes	3 Not Often 2 Not Usually 3 Not Often 1 Never	4 Sometimes 4 Sometimes 4 Sometimes 4 Sometimes	4 Sometime 3 Not Often 5 Often 1 Never
T49 T50 T51	2 Not Usually 1 Never 3 Not Often	2 Not Usually 1 Never 5 Often 2 Not Usually	2 Not Usually 1 Never 1 Never 1 Never 2 Not Usually	1 Never 1 Never 1 Never 1 Never	5 Often 2 Not Usually 1 Never 3 Not Often	5 Often 2 Not Usually 4 Sometimes 4 Sometimes	4 Sometimes 1 Never 1 Never 1 Never 2 Not Usually	3 Not Often 1 Never 4 Sometimes 4 Sometimes	3 Not Often 2 Not Usually 3 Not Often 1 Never 2 Not Usually	4 Sometimes 4 Sometimes 4 Sometimes 4 Sometimes 7 5 Often	4 Sometime 3 Not Often 5 Often 1 Never 2 Not Usual
T49 T50 T51 T52	2 Not Usually 1 Never 3 Not Often 2 Not Usually	2 Not Usually 1 Never 5 Often 2 Not Usually 4 Sometimes	2 Not Usually 1 Never 1 Never 1 Never 2 Not Usually 1 Never	1 Never 1 Never 1 Never 1 Never 2 Not Usually	5 Often 2 Not Usually 1 Never 3 Not Often 2 Not Usually	5 Often 2 Not Usually 4 Sometimes 4 Sometimes 4 Sometimes	4 Sometimes 1 Never 1 Never 1 Never 2 Not Usually 2 Not Usually	3 Not Often 1 Never 4 Sometimes 4 Sometimes 2 Not Usually	3 Not Often 2 Not Usually 3 Not Often 1 Never 2 Not Usually 2 Not Usually	4 Sometimes 4 Sometimes 4 Sometimes 4 Sometimes 7 5 Often	4 Sometime 3 Not Often 5 Often 1 Never 2 Not Usual
T49 T50 T51 T52 T53	2 Not Usually 1 Never 3 Not Often 2 Not Usually 4 Sometimes	2 Not Usually 1 Never 5 Often 2 Not Usually 4 Sometimes 2 Not Usually	2 Not Usually 1 Never 1 Never 1 Never 2 Not Usually 1 Never 1 Never	1 Never 1 Never 1 Never 1 Never 2 Not Usually 1 Never	5 Often 2 Not Usually 1 Never 3 Not Often 2 Not Usually 3 Not Often	5 Often 2 Not Usually 4 Sometimes 4 Sometimes 4 Sometimes 5 Often	4 Sometimes 1 Never 1 Never 1 Never 2 Not Usually 2 Not Usually 2 Not Usually	3 Not Often 1 Never 4 Sometimes 4 Sometimes 2 Not Usually 2 Not Usually	3 Not Often 2 Not Usually 3 Not Often 1 Never 2 Not Usually 2 Not Usually 3 Not Often	4 Sometimes 4 Sometimes 4 Sometimes 4 Sometimes 7 5 Often 7 4 Sometimes	s 4 Sometime s 3 Not Often s 5 Often s 1 Never 2 Not Usual s 3 Not Often 1 Never
T49 T50 T51 T52 T53 T54	2 Not Usually 1 Never 3 Not Often 2 Not Usually 4 Sometimes 2 Not Usually 4 Sometimes	2 Not Usually 1 Never 5 Often 2 Not Usually 4 Sometimes 2 Not Usually 4 Sometimes	2 Not Usually 1 Never 1 Never 2 Not Usually 1 Never 1 Never 1 Never	1 Never 1 Never 1 Never 2 Not Usually 1 Never 1 Never 1 Never	5 Often 2 Not Usually 1 Never 3 Not Often 2 Not Usually 3 Not Often 1 Never	5 Often 2 Not Usually 4 Sometimes 4 Sometimes 5 Often 1 Never 4 Sometimes	4 Sometimes 1 Never 1 Never 1 Never 2 Not Usually 2 Not Usually 2 Not Usually	3 Not Often 1 Never 4 Sometimes 4 Sometimes 2 Not Usually 2 Not Usually 2 Not Usually	3 Not Often 2 Not Usually 3 Not Often 1 Never 2 Not Usually 2 Not Usually 3 Not Often	4 Sometimes 4 Sometimes 4 Sometimes 5 Often	s 4 Sometime s 3 Not Often s 5 Often s 1 Never 2 Not Usual s 3 Not Often 1 Never y 1 Never
T49 T50 T51 T52 T53 T54 T55	2 Not Usually 1 Never 3 Not Often 2 Not Usually 4 Sometimes 2 Not Usually 4 Sometimes 1 Never	2 Not Usually 1 Never 5 Often 2 Not Usually 4 Sometimes 2 Not Usually 4 Sometimes 1 Never	2 Not Usually 1 Never 1 Never 2 Not Usually 1 Never 1 Never 1 Never 1 Never 1 Never	1 Never 1 Never 1 Never 2 Not Usually 1 Never 1 Never 1 Never	5 Often 2 Not Usually 1 Never 3 Not Often 2 Not Usually 3 Not Often 1 Never 7 Always	5 Often 2 Not Usually 4 Sometimes 4 Sometimes 5 Often 1 Never 4 Sometimes 6 Usually	4 Sometimes 1 Never 1 Never 2 Not Usually 2 Not Usually 2 Not Usually 1 Never	3 Not Often 1 Never 4 Sometimes 4 Sometimes 2 Not Usually 2 Not Usually 1 Never	3 Not Often 2 Not Usually 3 Not Often 1 Never 2 Not Usually 2 Not Usually 3 Not Often 2 Not Usually	4 Sometimes 4 Sometimes 4 Sometimes 5 Often 7 Sometimes 5 Often 7 Not Usuall	s 4 Sometime s 3 Not Often s 5 Often s 1 Never 2 Not Usual s 3 Not Often 1 Never y 1 Never 2 Not Usual
T49 T50 T51 T52 T53 T54 T55 T56	2 Not Usually 1 Never 3 Not Often 2 Not Usually 4 Sometimes 2 Not Usually 4 Sometimes 1 Never 6 Usually	2 Not Usually 1 Never 5 Often 2 Not Usually 4 Sometimes 2 Not Usually 4 Sometimes 1 Never	2 Not Usually 1 Never 1 Never 2 Not Usually 1 Never 1 Never 1 Never 1 Never 1 Never 1 Never	1 Never 1 Never 1 Never 2 Not Usually 1 Never 1 Never 1 Never 1 Never 2 Not Usually	5 Often 2 Not Usually 1 Never 3 Not Often 2 Not Usually 3 Not Often 1 Never 7 Always 2 Not Usually 4 Sometimes	5 Often 2 Not Usually 4 Sometimes 4 Sometimes 5 Often 1 Never 4 Sometimes 6 Usually	4 Sometimes 1 Never 1 Never 2 Not Usually 2 Not Usually 2 Not Usually 1 Never 1 Never 5 Often	3 Not Often 1 Never 4 Sometimes 4 Sometimes 2 Not Usually 2 Not Usually 1 Never 3 Not Often 3 Not Often	3 Not Often 2 Not Usually 3 Not Often 1 Never 2 Not Usually 2 Not Usually 3 Not Often 2 Not Usually 3 Not Often	4 Sometimes 4 Sometimes 4 Sometimes 5 Often 7 Always	s 4 Sometime s 3 Not Often s 5 Often s 1 Never 2 Not Usual s 3 Not Often 1 Never

Teacher	1. How	2. Ho	3. How	4. Ho	5. Ho	6. H	7. H	8. Ho	9. How	10. H	11. Hov
T3	1	2	1	6	4	7	4	4	2	6	5
T4	1	1	1	7	7	7	7	5	5	5	1
T21	6	6	3	5	6	7	6	6	5	6	4
T22	2	4	2	4	4	5	5	2	4	5	5
T23	4	5	2	6	6	3	5	3	5	5	4
T25	2	4	2	4	6	3	5	2	4	4	3
T30	5	5	2	5	7	7	6	3	4	5	3
T31	7	5	1	1	7	1	7	4	5	5	5
T32	5	4	1	6	7	4	4	3	4	4	3
T33	3	5	3	5	5	5	5	1	5	3	4
T36	5	3	3	6	5	4	4	5	4	5	3
T37	6	6	4	6	6	3	7	4	5	5	2
T38	4	6	1	5	6	7	6	3	4	7	6
T45	7	5	4	3	7	6	6	3	4	4	6
T47	1	1	1	1	1	3	5	4	5	5	4





What purpose does writing serve in your classroom? (59 responses)

I will be completely honest. I am a choir director and find that I am constantly pressed for time just to get rehearsal time for performances. We typically move from one performance to the next with little to no transition time.

To analyze and explain information and to cite information for research.

To allow me to assess the student's knowledge of the subject matter. Practice for AP exam or TN Ready.

It prepares the student for the AP Exam.

Demonstrates mastery. Makes connections to personal experience. Organize thoughts.

I primarily use writing for creative purposes and response to artwork or for large projects. I will say after looking at this list I realize how much writing I actually do in my class.

Exploring ideas, comprehension, exploring creative thought.

It is used for demonstration of mastery of material, summarize a viewpoint, compare and contrast, and report on recent activity.

To better understand and show understanding of content.

To put thoughts and ideas into written word.

To respond to an athletic/physical education/sports related article

to be used as a communication too between others in a similar profession

analyzing a source, citing evidence, essays on test

We will use writing in the Wellness portion of our Physical Education classes.

To prepare students for AP classes and state standardized testing.

Promotes higher order thinking skills.

to demonstrate understading

Allows students to expand on thoughts.

Summary, analysis, review

One example that I will give is that we do many different types of writing, students do a weekly or bimonthly artic analysis of a medical article of my choice which serves to make sure that they can understand how medical article are written. I usually start out with a basic type article and then work up to a article from a medical journal which sometimes more difficult for them.

Writing is an overall extension of our class discussions and an exploration of student views on various issues. Writing, I tell students, also allows those who are more reserved or shy about expressing their views openly the opportunity to do so in a more private manner.

Writing takes the form of article reviews/summaries and some research based writing where students provide feedback about what they have found online through research and writing proposals for projects based on their research. Writing is also used to convey basic information through the use of presentation software and project reports.

Helps develop student thinking as well as assess their understanding in the subject matter. For research writing let's students describe their research methodology.

FRQs to define, describe, explain, compare/contrast, synthesize, and evaluate concepts and ideas associate with politics and government.

Writing serves as a means for students to provide their responses to works of art. Writing is also used to compar and contrast periods and styles of art. It allows me to have students respond to an image or work of art without and knowledge of the piece and then respond once they read an explanation by the artist.

To assess mastery of content or skills

My classroom uses writing in a variety of ways. My focus is to graduate students who are proficient in scientific and professional writing abilities. This will include the ability to create, conduct and analyze individual research and present it in the correct professional format. It is analyses of current articles and scientific writing, and it is finding sources to support stances.

Primary

The students demonstrate their mastery of language skills and comprehension of reading materials through their writing assignments. They are also given opportunities to do some creative writing within the target language.

put thoughts on paper, brainstorm, practice skills

Students write at all stages of learning: writing to learn (journal, etc.) formative assessments (paragraphs, rough drafts, etc.) summative assessments (final essays/writing projects)

Nearly all my summative assessments involve writing.

Reinforce material learned and make connections; creativity and self-relevance.

Writing is a means for students to express their knowledge and opinions about various subjects. This stretches from translation to essay responses. It is a way for me to see if students understand the material, without providing the students with too much information.

In the foreign language classroom, writing serves to practice concepts in action, meaning they use what they've learned in a real-world situation. It also helps them to develop the creativity and improv communication in the target language. Writing allows the student to use what they know (although sometimes limited) in order to get their point across.

It gives students the opportunity to learn how to structure sentences and express themselves in the lower levels. In upper levels, they use writing to synthesize information for persuasive essays, create CV's, critique art and express their opinions on a variety of topics.

To help them feel more comfortable with the new writing assessment, to extend and expand his/her response to literature or text while digging deeper into the text, for fun, and to reflect on literature and respond to it.

Writing serves as a way for me to get to know the students. I learn where they make common language mistakes (I am a foreign language teacher), and learn about their personality, interests, and personal opinions. Writing allows me to see what students know about a particular topic and allow me to gauge comprehension.

It's a method of self-expression. Writing is highly personalized as students select areas of interest.

Writing is essential in my classroom. In fact, becoming a better writer is one of the main goals of my classes. Writing helps students figure out what they think about the subject matter and how to communicate that clearly. It helps them learn how to justify their ideas with evidence. It can be informal and exploratory writing to help them begin thinking about ideas. Writing is incorporated into almost every goal in my class.

It allows students to convey their thoughts in both private and shard formats. Students are able to utilize writing as a means for demonstrating their knowledge and expertise in certain standards-based areas; however, they are also able to use writing as an outlet for emotions, thoughts, feelings, etc.

Writing is a fundamental part of my classes. It is a way for student to develop and enhance their ability to express their thoughts on matters.

Many purposes: it meets the standards of the curriculum, it promotes self-discovery, it develops communication skills, it puts grammar skills into practice, it investigates texts and constructs meaning for the student, it connects students with their own ideas and with others' ideas, it provides me a means of assessing student growth in content learning and/or writing development.

It's purpose is to persuade, inform, entertain, and foster creativity.

To connect the material in science to current events and the real world around them, to help portray or demonstrate how they understand a particular concept or standard

Writing serves to allow an explanation within context of a situation

Students learn how to write as a scientist.

To answer open ended questions. We read articles from certain sources and they students must write what the article was about.

It serves as an opportunity for students to explain their thinking and how they came to an answer to a particular problem or mathematical question. The explanation needs to not be too lengthy so that they can explain themselves.

to communicate ideas learned and connected

In physics, mostly for lab reports. In ACT Prep, article summaries and college research paper.

As a way for students to explain their understanding of a topic. Or they can compare/contrast two concepts.

It enables the students to learn to present data in word form and a format that can be understood by peers.

Describe situations to which mathematical sentences might apply.

Explain the context of a numerical answer.

Compare or contrast your solution and methods to others.

Discuss the math that appears in a real-world situation.

articulate their understanding of a concept

I do not use a rubric to grade "writing" as much as grade grasp of concept

I use a rubric to make sure they have incorporated salient points, not the way the write the points.

Writing is a way to assess whether the math content has been covered, especially with the focus on conceptual understanding with the new standards.

Primarily, writing serves as a means to record the most important points of a lesson. Occasionally, it is a tool for reflecting and summarizing.

There is on-going writing in my classroom through journal entries in a daily journal. Whether students respond to Bell Work questions, record notes, or construct lab reports, students are always writing to some degree in my class. Writing in this way allows students to express thoughts, ideas, findings, and other data in a single "database".

Students taking notes

Describing a thought process when a problem is solved incorrectly

Detailed description of a process or method to solve a problem (example 'Calculus for Dummies')

A few Bellringer and Exit tickets

Normally would assign a paper a year for either a research paper or for career research.

Most of the writing in my class is to explain a concept or justify their reasoning as part of their answer to a problem. I can determine the student's level of mastery of a concept by reading their explanation of how to work a problem. I can make comments and ask them further questions to help them correct or move further in their understanding. The students must also justify their answer very often. This requires the student to understand more fully what the numerical answer really means.

I also utilize projects in my class in order to enrich the curriculum and allow students some creative license in an otherwise very cut and dry kind of class.

I also try to find interesting articles that tie the real world to the calculus they are learning in class. The students have to either summarize the article or answer a question stating evidence from the article.

Why do you grade writing the way you do in your classroom? (59 responses)

I don't grade writing in my classroom because I do little to no writing.

Graded based on standards and how the students will be assessed.

Have to follow the given rubric.

To maintain AP standards. To ensure that students master the writing requirements.

I use real AP rubrics with real AP FRQs so the students have plenty of experience with that type of question before the big AP exam.

I grade primarily on the content and less on grammar. I do this because I care more about their ideas and thoughts than the actual writing rules.

This is what I know as a teacher.

Is a valuable tool to determine if a student understands the ideas or objectives of said lesson. To express their understanding or viewpoint on subject matter.

I grade it to make sure the students understand the sources that they read or to make sure they understand the content.

Lack of experience in grading writing.

N/A

I grade for content because that is the basis of what is being communicated, but it still must have proper sentence structure, etc.

I was a writing teacher for 10 years and used that format to grade my writings

To parallel the type of writing evaluation the students will be subjected to on testing.

Typically the rubric I assign with the writing assessment I have given dictates the way I grade an assignment.

Helps to encourage students to proofread their writings and incorporate real life situations into their writings.

it takes the subjectivity out of the grading process

Its how I was trained.

Because I'm told to

I tend to base it on what the students will have to do in the medical profession. Since I am a CTE teacher, we are trained to get students prepared for the "real world" so I have grade based on what they need for the "work force"

I grade it in a variety of ways because our children learn in a variety of ways. I also think it's important to allow students to choose writing types that are most appropriate for them. Other times, I want to push them out of their comfort zone to try something new.

I look for detailed analysis about the project. I am more concerned with the reasoning, not so much the outcome of the project. "Why did the student choose this idea and how did it impact the final product" is an example of the type of question I would ask myself when grading. When I can find the answer without assuming, then the grade is a better one for the student.

In general, I look for sound thinking and reasonable ideas about a topic when I am analyzing their article summaries.

To match scoring methods that will be used to score student responses on the AP Exam and research presentations.

AP Rubrics need to be used to raise student confort level with FRQ responses.

I seek to see if a student has provided their own response vs only provide obvious visual recollections of things they are observing.

I follow the AP rubric so that my students prepared for the exam.

Most writing is graded with some sort of rubric. This allows me to ensure that I have held the same requirements when grading all the papers.

Based off district professional development

To try to keep the students reflecting on how they can improve their writing while also practicing vocabulary in context and demonstrating their acquired skills.

guide for students, justification

Based on the research, grading on a 4 or 5 point scale using descriptions is the most useful way.

Rubric reflects format that is used on AP exam.

I grade primarily on grammatical accuracy and content. I try to model my assessment after AP testing materials. During the lower levels of my language, I do not often use a rubric. During AP, I model my rubric off of the AP samples.

When grading, I try to focus on just a few points or grammatical issues. That way, the writing sample is not subjective, but objective.

For the purpose of time and efficiency.

In order to give students feedback so that he/she can improve and know strengths and weaknesses.

I want my students to write clearly and be understood, but I am not grading on grammar or specific "ELA" standards. I am more looking for content, comprehension, comparison, or better yet- concept integration.

I use a common core rubric so that I can justify the grade to all parties concerned.

I have started using my own adaptations of the rubrics that the tests my students take. For instance, on the TNReady test, they use a rubric that has four categories with four possible scores. I use those so that my students are being graded consistently throughout the school year and know what to expect on the test, and we can chart progress towards those categories (especially when using the data notebook). I do play with the descriptions under the categories and reserve the right to add my own to fit the assignment better. For my AP students, the rubric is holistic. I will continue to use the AP rubric, but I am going to use that for half of the score, and then add some categories for the other half to be able to provide more specific feedback and perhaps focus on specific skills depending on the assignment.

I use the state rubric to assess writing because I want my students to be familiar with the way they will be assessed on the writing portion of the state test. Occasionally, I will create a rubric that will focus on a particular skill, such as citing evidence, organization, etc.

I grade writing based on a syllabus that is more focused on enhance the quality of their writing above the quantity. I also grade based on student's ability to properly cite what they are writing about in class.

The grading of each writing assignment is different, depending on the purpose of the assignment. I grade it to assess the learning I am emphasizing with the assignment. Sometimes it focuses on the writing, other times just the content. I usually create rubrics, which I give to the students ahead of time, so that they know what I expect from their writing.

The only way I know how to grade writing is by using a rubric. The rubric and skill is constantly changing per assignment in my class. Not every piece of writing should be graded in a classroom nor is it possible. I love to allow students to sometimes choose the assignment they believe should be graded for a certain skill. Ex. Narrative Essay.

It is difficult to grade with so many students and the lack of time available to grade them all efficiently—sometimes
I find myself skimming them for the material and not necessarily the correct grammar or punctuation. I am looking
for the relevance to science and their understanding of the science concept

I use a rubric for all writing so that I can be consistent with expectations

FRQs: I grade them using a rubric because that is how they are graded on the AP Exam

Other: I use a rubric to evaluate content present and structure (when writing in a specified structure like a lab report.)

To make sure they read the assignment and to help foster their writing skills. I try not to nit pik too much.

I am looking for students thought processes so it needs to be to the point but also clear so that I know exactly how they came to their answer so I am looking for good explanations but also not a very lengthy response.

based on whether or not they have done the assignment, if it is cited, and if it answers all the questions

Just not comfortable making rubrics.

I am looking to see if they have a true understanding of the concepts I am teaching,

I grade based more on were they able to express their findings than on how they write it. Basically, they need to include pertinent facts in a concise manner.

To assess student understanding and provide feedback.

I do not grade "writing" as much as I grade did they convey the gist of the concept assesses

I grade writing more based on the math content. When I grade math writing in my classroom I am usually focused on the math practice standard "attend to precision." I expect everything written to be factual, in the correct order mathematically, and conceptually based (as opposed to procedurally based).

My lack of grading writing is because I feel overwhelmed by the need to achieve mastery in math skills. There's no time for me to grade writing adequately in addition to what I grade already.

I am moving to standards-based grading because it is most effective to track students' mastery of standards with this method.

I focus on student understanding of information, not writing rules (ie spelling, grammar rules etc)

I grade more for proof of understanding and precise language than flowing words. If a paper is blatantly misspelled and unorganized then I do count off.

What does good writing look like in your class? (59 responses)

Again, I don't do very much writing.

Not plagiarized, well-researched, sophisticated and properly cited.

Follows the rubric.

Thesis, Argument, Background, and Synthesis

Well organized. It has to be clear that they know what is being asked and how to answer it.

Good writing is descriptive, it paints a picture, it is detail oriented. I expect students to cite evidence and to be thorough in their thoughts.

Short. concise, to the point- creating and answering big questions.

Flows well from point to point, relevant to the subject matter

Coherent and cohesive understanding of the content. Good writing should thoroughly answer the writing prompt or thoroughly address the given topic.

Organized and well thought out

N/A

to the point, detailed description of the process used

answering the question completely by citing evidence. It also does not have to be based on length.

Organized and substantiated thought

Writing in my class is like water: it's clear, it flows, it stands.

Central idea stated and all topics covered in their writing.

Not a reteiling of facts but an explanation with evidence.

Complete thoughts with evidence to support claims and opinions.

Analysis and comparison of multiple sources;
Well observed details and the understanding of those

*understanding of the work

*correct spelling -- a MUST in the medical profession!

*can they digest the information and in turn, understand it!

Clear and concise, with evidence backing up their arguments. Some writing is less formal and just expresses a belief or idea clearly.

Good writing is clear, concise, but has solid detail. I do not like wordiness, but I do prefer relevant details. As an English teacher friend once said, 'Writing should be like a ladies skirt, long enough to cover the details, but short enough to keep it interesting."

Descriptive and gives references to the text and gives good examples.

clear, cogent, detailed

They show clear individual responses and correctly compare/ contrast works of art.

Not what an English teacher would think is good, unfortunately. Students only have 45 minutes to read documents, synthesize them, and write. Students do not have time to think about how to phrase their thoughts eloquently. Good writing answers the question and provides accurate historical detail.

I require my students to write in the "professional voice" - 3rd person, passive and sometimes past tense. This is the most commonly used professional & scientific writing and it teaches the students a new skill versus narrative and opinion.

Well-thought out, detailed evidence

Continual improvement.

creative, specific vocabulary, out-of-the-box

Reflects the TNCore standards for writing skills.

No struggle of comprehension and has ease of reading; flows with good transition; utilizes precise vocabulary and is not repetitive; concise delivery of thesis and ideas with meaningful conclusion.

Good writing presents a meaningful argument or message. This is supported by examples from a text, or a fleshed our argument.

Good sentence structure in the target language, correct use of the vocab, and well-used idioms or phrases.

Attention to conjugation and adjective agreement, proper syntax and sentence structure, effective communication in a foreign language

Organized into paragraphs according to topic, details that expand on the topic, grammatically correct, good flow and transitions, etc.

Good writing looks very different based on assignment, student, and situation. I look for content, opinion, grammar, etc.

When it has an intangible "wow" factor that makes my jaw drop just a bit, I consider that great writing.

Good writing has a clear purpose, is fully developed with appropriate and detailed evidence, is arranged in a manner appropriate for the task and purpose, is geared towards the audience, has an original voice and sophisticated diction, is original and engaging in ideas, and is mechanically sound.

Good writing is organized clearly.

Good writing is when a student takes the time to truly develop the quality of their paper in an organic matter. In other words, I want to see students write and revise their papers at least once. The purpose of this revision is to emphasis the importance of allowing a paper to mature through editing and revision. They need to see that rushing often does no work well with the creation of a good, quality paper.

Good writing is thoughtful and is grammatically and logically sound. That can take many different forms and doesn't look just one way. I guess the best answer would be that good writing in my class is writing that fulfills the objectives of the assignment. While it is possible to have something that is well-written that does not meet the objectives, I would call it good writing for the class.

It depends on what type of writing you are asking your students to complete. When students turn in a major essay I asked that they following the writing process all the way through, and submit all copies of their essay together.

Pre-write (Out-line, story web. Ext)

Draft

Edit

Revise

and

Final Copy

I have them use a rubric and grade themselves on the rubric before submitting the work.

depth of meaning and understanding, use of vocabulary words relative to the writing prompt/assignment, details and visuals when needed and being able to interpret data

A well written piece of work is true to the style of the assignment and includes evidence from multiple sources. It is clear and concise without the need for unnecessary detail/ fluff.

Good writing in Science is concise and uses correct terminology in the correct format.

A good solid paragraph with information from the text that they read.

Being able to clearly and concisely explain their thinking in mathematics. Students usually have trouble explaining how they came to an answer or they say too much when explaining so good writing looks like a solid piece of thinking without being too long or wordy. Also, using correct mathematical terms and vocabulary.

short essays, lab reports, weekly article reviews

Descriptive and concise lab reports.

A clear concise sentence or three that can fully get the concept across to the reader.

effectual, concise, and to the point

Good writing in my class is a description of a process that someone who is not in my class could understand and follow.

Good writing takes a numerical or algebraic expression and turns it into a story.

legible
to the point
backed up with math or drawing
summarized or bulleted more then expounded on in paragraph form
AP chem philosophy in writing is "get in get out-don't embarrass yourself"

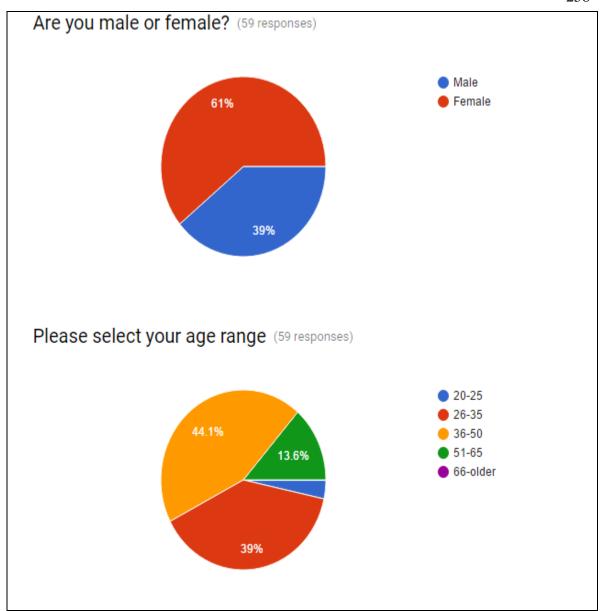
Good writing is exceptionally detailed. It does not have to be complex as far as sentence structure, but the vocabulary must be mathematical and the structure must be obvious.

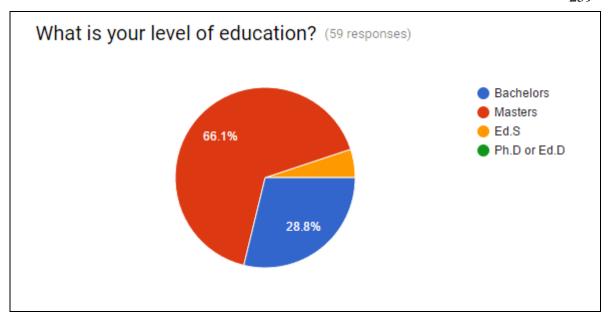
Good writing is when a student puts the book or lecture concepts into their own words with clarity and accuracy.

I always encourage students to put information in their own words because they will retain it better! (That can include charts, diagrams, and doodles - not just words.) For more formal writing assignments, structure and content are the most important part.

Is the student able to transfer an idea or a thought process into words. Students tend to learn a process for how to solve a math problem but do not understand what is actually happening. I am looking for them to be able to describe what is happening and why. They are writing it out as a remediation assignment for test retakes and occasionally for class assignments to verify understanding of material.

Good writing in my class is short and to the point with statements of evidence to back up the student answer or explanation. The evidence can be work and numerical answers, graphs, or data.





APPENDIX C

Rubrics Collected

Quarter 3 Exam Essays

- Pick one of these First Amendment-related topics in your first essay and evaluate your support or opposition to its legal status. Should it be legal? Why or why not? Explain your position thoroughly.
 - ☑ Censorship
 - ☑ Demonstrations outside abortion clinics and/or military funerals
 - ☑ NSA spying
- 2) Public support of same-sex marriage has grown rapidly over the last decade. Do you believe same-sex couples should have the right to marry in the United States? Why or why not? Discuss your position thoroughly. If you wish, you can make civil unions a part of your analysis as well.
- · Each essay is worth 25 points.
- <u>Each essay must be submitted separately to turnitin.com before</u> your class begins on Wednesday, March 12th.
- Take a clear position in each essay with a well-defined thesis.
- Each essay must support the thesis with ample credible evidence.
- Each essay should be a three-point essay format.
- Both essays are professional and persuasive/argumentative. While personal pronouns are acceptable, these essays are <u>NOT personal</u> <u>narratives</u>.
- Grades determined by the following formula (per essay):
 - o Structure with strong thesis 10 points
 - Uses ample credible/accurate evidence 5 points
 - Uses syntactic variety 5 points
 - o Works cited with at least 3 sources 5 points





News Article Analysis Questions

"Termites explode to defend their colonies"

- 1) What are 3 main ideas in this article?
- 2) Describe the physical adaptation of the termite's "explosive backpack". What is it made of? How does it work?
- 3) Which type of termite carries it?
- 4) How does this adaptation benefit the termite?
- 5) What type of *behavior* is this particular adaptation? Provide evidence from the article to support your choice.
- 6) What does the term eusociality mean in the context of the article?

News Article Analysis Questions

"Humpbacks Pass on Behavior"

- 1) What is one central idea in this article?
- 2) Describe the main claim the author makes. (What point is she trying to prove?)
- 3) Give 2 points of evidence that back up the author's claim. *Cite evidence with page # and line where you found it.
- 4) What is the difference between bubble-net feeding and lobtail feeding?
- 5) Is lobtail feeding an innate or learned behavior? Back up your reasoning with evidence from the article.
- 6) What experiments could researchers perform in the future? For example, what tests might help them to gather more information about this behavior?

News Article Analysis Questions

"Why is Yawning Contagious?"

- 1. What is one new piece of information you learned from this article?
- 2. Where does yawning come from? What does it mean? Support your answers with at least 2 quotes or citations of evidence from the article.
- 3. How does the author explain children with autism respond to yawning? What might this mean about their mental and emotional development?
- 4. Describe 2 findings the researcher Helt made from her studies of reading stories to children and yawning while he was reading to them.
- 5. What conclusion did Helt draw from her research?
- 6. So what do you think is yawning an innate or learned behavior? Be ready to support your reason with evidence from the article.

Bio 1110

The capstone assignment for this course is a thorough lab report that walks through all of the experiments that you conducted to characterize soil bacteria and search for new antibiotics. For several of you, this also counts as your CMS thesis, so I am expecting a substantial effort. I am OK with you and your partner handing in a single report.

First draft (for peer review) due April 7th Final draft (100pts) due April 21st

Sections:

1. Introduction

- a. 2-4 pages (double-spaced)
- b. Outline your experimental question: are soil bacteria a good source for new antibiotics? Are soil microbes themselves resistant to antibiotics?
- You also want to use this space to explain why the reader should care about this question:
 - i. A few paragraphs on emerging antibiotic resistance of hospital-borne (nosocomial) infections, current treatment methods/antibiotic regimes, and/or rates for the evolution of antibiotic resistance relative to marketing of new generations of antibiotics are all appropriate background topics to discuss. Use primary literature to support these topics!
 - ii. Be sure to also explain the rationale behind using soil bacteria as a source to screen for new antibiotics. Refer back to your *Small World* manual for justification on this topic if you need a refresher.
- d. Conclude with a short paragraph that outlines which site(s) you decided to screen, any justification for those sites, and what (specifically) you'll be testing for (AB resistance, production, identification of species, etc.)

2. Methods

- a. 3-6 pages
- b. In this section, you describe all of the procedures used to conduct your experiment in enough detail that a naïve scientist could read your methods and replicate your experiment.
- c. I'd recommend breaking down the methods into subsections (with subheadings) because we did so many different experiments. Subsections that come to mind:
 - Site descriptions (location, weather conditions, soil type determination, date of sampling)
 - ii. Bacterial isolation from soil samples (how did you go from a pile of dirt to a lawn of microbes? What dilutions did you do? What did you look for on that plate as a potential isolate? How did you quantify bacterial diversity from your soil sample?)
 - iii. **Developing a master plate** (how did you pick and transfer colonies? What safety measures or tools did you use to do this? What type of agar did you use?)
 - iv. Screening for antibiotic production vs. SAFE-ESKAPE pathogens (How were tester plates prepared? What tester strains did you assay against and

Bio 1110

- at what volume were they added? Which ESKAPE pathogens do these equate to? How long and at what temperatures were assay plates grown? What did you look for to say an isolate was producing antibiotics?)
- v. Screening for antibiotic resistance (What antibiotics were used? Why were they selected? othersimilar considerations as part iv)
- vi. Amplifying 16s rRNA via PCR (what primers were used? What gene was being amplified and why was it selected? What was the PCR sequence? How were colonies sampled for DNA? How did we confirm that the 16s rRNA was amplified correctly?)
- vii. Sequencing 16s rRNA to determine species ID (What primers were used for this step? What volumes/concentrations of reagents? What equipment was used to process the sample? What did you do with the sequencing results? What's the purpose?)
- viii. For all of these, think about how many isolates you tested, it likely will progress from ~20 isolates to ~5-10 screened for AB production/resistance, and a single species tested for species ID

3. Results

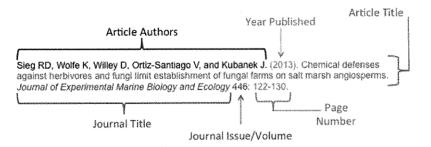
- a. 2-4 pages, plus figures
- b. There are two objectives in this section:
 - i. Write a summary of the findings for each experiment that you conducted (outlined above). You can use subheadings if it keeps things organized. We didn't conduct statistics for this project, so report on observations. Interpretations of findings should be saved for the discussion. (1-2 paragraphs per experiment are appropriate).
 - ii. Figures or tables should be clearly labeled, organized, and contain a descriptive legend that summarizes the experiment and findings. You should refer to these in text as (Figure 1, Figure 2, Table 1, etc.).
 - iii. Data to consider including:
 - 1. Colony counts (CFU/g) for soil samples
 - A descriptive table that lists the morphological characteristics of the isolates on your master plate
 - A table that reports +/- results for growth inhibition by isolates against the three tester strains.
 - 4. A table that reports +/- results for resistance/growth on antibiotic-laden agar plates
 - A figure that shows the gel electrophoresis results, with your group's lane clearly highlighted
 - A figure that lists your 16s rRNA sequence, as well as BLAST results to identify a matching genus/species of bacteria.
 - Any photographs that are pertinent to sites, assays, or experiments can be included as supplementary figures
 - I'd recommend putting each figure on a separate sheet at the end of the document.

4. Discussion

- a. 2-3 pages
- b. Your goal here is to connect your findings back to the background and introductory material that you presented earlier. Primary literature support in the discussion is expected.
- c. Things to consider:
 - i. Were you able to isolate antibiotic producers? How does this compare to other studies or known sources of current antibiotics?
 - ii. How do you interpret your antibiotic-resistance assay data? Do you have a mix of gram +/- bacteria, or are there resistant isolates?
 - iii. Why/how might soil bacteria develop resistance to antibiotics? Is this a problem that others are trying to solve?
 - iv. If you successfully identified an isolate, what does the literature tell you about the behavior/activity of that particular species?
- d. Once you have discussed the main findings from your experiment, close the paper by reiterating the "big picture". Why should the reader care that you just did this experiment, and what does the future hold for us?

5. Works Cited

- For any primary literature articles that you cite, you need to provide a complete citation (see below).
- b. This report should contain at least 5 peer-reviewed studies to support the introduction/discussion. The lab guidebook can be cited, but it does not count towards the 5 studies.
- c. Remember to cite articles in-text as (Author, year). If there are more than three authors, write (First author et al., year)
 - i. (Sieg, 2015)
 - ii. (Sieg and Myers, 2015)
 - iii. (Sieg et al., 2015)



Bio 1110

Small World Report Rubric

Name:

Grading rubric for full lab report	
Introduction (20 pts)	
Descriptive title	/2
Paper presents state of the field/broad overview of the general topic at hand	/6
Paper highlights specific background aspects of topic that pertain to the	/6
research	
Paper explains how the proposed experiment relates to the "big picture"	/4
Introduction concludes with a concise statement of null/alt hypotheses	/2
Methods (20 pts) Procedures used to collect data are clearly explained in sufficient detail that the experiment could be repeated by someone reading the report Methods are appropriate to the question being addressed	/17 /3
n 1. (OF 1.)	
Results (25 pts)	(4.0
Major results are summarized in text, with supporting statistics for	/12
appropriate data Figures are clear, labeled, and convey primary findings	/10
No interpretation/discussion of findings included	•
No raw data (averages, error, p-values are OK)	/1
No raw data (averages, error, p-values are OK)	/2
Discussion (20 pts)	
Data collected in the experiment is clearly discussed, and results are referred	/8
to in-text (references to figures when appropriate)(e.g. Figure 1)	70
Results are interpreted in comparison to other relevant studies	/6
Possible sources of error/bias and future directions for research are provided	/2
There is a clear "wrap-up" or conclusion paragraph that ties the findings back	/4
into the big picture	, -
•.	
Quality (15 pts)	
Writing is clear, correct, and easy to read	/2
Consistent verb tense throughout (past tense, first person is OK)	/2
Paper follows appropriate format for a scientific paper (no bulleted lists,	/1
sentence fragments, etc.)Sections are clearly identified	
At least five primary literature sources cited in-text w/ appropriate citations	/10
Total: Comments:	/100

RAFT Version 1: Role, Audience, Format, Topic

This writing assignment will allow you to demonstrate your understanding of symbiosis in an ecosystem.

Role	You will assume the role of a tick
Audience	The audience is "a dog"
Format	We have learned about three symbiotic relationships that can be present in an ecosystem. Consider what symbiotic relationship these two organisms have and create a love letter that the tick might write to the dog in this scenario.
Topic	Why might the tick write a love letter? Think about how a love letter from the tick would correlate to their symbiotic relationship.

RAFT Version 2: Role, Audience, Format, Topic

This writing assignment will allow you to demonstrate your understanding of symbiosis in an ecosystem.

Role	You will assume the role of a sea anemone
Audience	The audience is "a clownfish"
Format .	We have learned about three symbiotic relationships that can be present in an ecosystem. Consider what symbiotic relationship these two organisms have and create a persuasive speech of why the clownfish should live with the sea anemone.
Topic	Why might the sea anemone want to persuade the clownfish to live with it? Think about how a persuasive speech from the sea anemone to the clownfish would correlate to their symbiotic relationship.

Entering the Conversation: Position paper prompt

In 2003, the American Film Institute ran a three-hour special naming their picks for the 100 best movie heroes and villains. Most of the heroes named in the top tier were action heroes like Indiana Jones from the self-titled action movies and Ellen Ripley from Aliens. Ironically though, their number one pick was Atticus Finch, the gentle and quiet attorney in To Kill a Mockingbird who stubbornly stood up to his own town against the conviction of an innocent man. The number one pick for hero in ancient England, on the other hand, was brawny and boastful Beowulf. After the coming of the sophisticated French brought Romance to the British Isles, the English idea of a hero changed to the likes of Sir Gawain and King Arthur, urbane, courteous, and bound by the law of chivalry. By the Victorian age, though, the lack of a clear hero in Wilde's Picture of Dorian Gray and other novels and dramas of the day became painfully obvious, though Tennyson showed the longing of the age for old-style heroes in his poems "Ulysses" and Idylls of the King.

What would be your number one pick of the best hero in literature or movies? Write a position paper defending your choice. Using at least 3 texts (*Beowulf*, *Sir Gawain and the Green Knight*, and a 3rd text of your choice), enter the big conversation by explaining your choice and comparing your choice to the other two heroes.

- Begin your paper with a section that introduces your own view and places your discussion in context. Use your notes on the historical, social, biographical, and literary context of the 2 texts discussed in class as well as your own research on the context of the text of your choice. The unit introductions in your textbook provide convenient summaries of these contexts.
- Discuss each text, placing it in its own context and providing evidence from the text for your claims about each.
 - o Organize your discussion logically.
 - Option 1: text by text
 - Option 2: topic by topic
 - or any other organization that flows logically (check with me)
 - Stick to one topic in each paragraph and develop that topic fully before moving on to the next topic.
 - Help your audience follow your argument by providing clear topic sentences for each paragraph
 - Make sure the first sentences of each paragraph provides a clear transition from the previous paragraph. These sentences should show how the upcoming discussion relates to the previous one and how it relates to your thesis.
 - Remember to provide quote sandwiches.
- Conclude your discussion by helping your audience see why this discussion matters.
 - o Draw conclusions about how cultural context factors into a society's choice of hero.
 - What are the implications of this discussion for us as Americans? as Tennesseans? as students and teachers at Central Magnet? as members of our own personal groups (family, religious organization, friends, etc.)?
 - Provide closure for your audience by ending with a memorable sentence that connects your concluding discussion back to the introduction.

Honors English IV Assignment: Assessing and revising position paper body paragraph 1 Tuesday, Feb. 27, 2015

You should have your essay folder and your essay prompt in addition to your completed body paragraph. Be sure your working thesis is at the top of your paragraph and labeled.

- Read and study the section of the essay prompt that deals with the body of your paper (begins with "Discuss each text").
- 2. Underline your topic sentence twice.
- 3. Underline all evidence once (quotes, details, examples).
- 4. Put brackets around quote sandwiches. This should include signal phrases, context for quotes and details, evidence, and warrant for evidence.
- 5. Circle all transitions.
- 6. Study the essay rubric stapled in your folder.
- 7. Fill in the chart below with the rubric number and description for each of the following traits that best describes your paragraph:

Interpretation	Coherence	
	Interpretation	Interpretation Coherence

Now get a partner to do the same. Partner's name:

Development	Interpretation	Coherence	

- Attach your body paragraph to this page and turn it in.
- Begin working on the rest of your body paragraphs. All body paragraphs due tomorrow (Wed).

Theme Essay Prompt:

Analyze a common theme in *The Picture of Dorian Gray* and one other text in this unit considering the elements of fiction and the contexts in which they were written. Write an essay comparing and contrasting the treatment of this topic or theme in the two texts.

minor flows in grammar and usage, a lack of variety and maturity in style makes this writing less interesting than top papers.
-Essay has closure. Even though there may only be
-Conclusions drawn and implications discussed may be superficial.
 -ideas are presented in a coherent way with transitions.
-Development may not relate the analysis to the overall meaning of the piece as thoroughly as top papers.
The argument develops the thesis but may not explore the complexity of the text as thoroughly or be as insightful as higher papers. Paragraphs have a clear focus and support the argument outlined in the thesis. Supporting evidence may be lacking in some places. Context and warrant for evidence may be lacking in some areas.
odequotely. Thesis is interpretive but may not answer the implied question in the prompt thoroughly.

Newspaper Headlines Activity

Earth's Geologic History

Write the front-page headlines for an imaginary newspaper printed at the close of each era. The headlines should detail the important events and characteristics of the era. You should have <u>6 total headlines</u>, <u>2 for each era</u>.

For example, the front page of the Mesozoic Times might say, "Mammals Appear – Warmblooded!" or "Hairy Critters – Can we Trust Them?" You may need to research more about geologic history to complete this activity.

Biome Travel Project Rubric

	366C0090000009935 <u>TTT</u>	
Teacher Na		
Student Name:		
Otadoni Hanno.		-

CATEGORY	4	3	2	1
Biome Map	A map of the biome was included featuring a specific country and continent where the biome is found along with the correct names.	A map of the biome was included featuring a specific country and continent where the biome is found. No names were given.	A general map of the biome was included showing where the biome can be found. No specific country or continent was named.	A general map was included
Project Visuals	The project features 3 or more pictures which accurately represent the biome.	The project features 2 pictures which accurately represent the biome.	The project features 1 pictures which accurately represent the biome.	The project features no pictures
Abiotic and Biotic Factors	A full description of the biome is included with information regarding soil, water, terrain/landforms, amount of biodiversity, human impact, and 3 interesting facts.	A full description of the biome is included with information regarding all except for 1 of the following soil, water, terrain/landforms, amount of biodiversity, human impact, and 3 interesting facts.	A full description of the biome is included with information regarding all except for 2 of the following soil, water, terrain/landforms, amount of biodiversity, human impact, and 3 interesting facts.	A full description of the biome is included with information regarding all except for 3 of the following - soil, water, terrain/landfm, amount of biodiversity, human impact, and 3 interesting facts.
Plants and Animals	5 or more common plants and 5 or more common animals are described and pictured along with an adaptation for each organism	4 or more common plants and 4 or more common animals are described and pictured along with an adaptation for each organism	3 common plants and 3 common animals are described and pictured along with each organism	2 common plants and 2 common animals are described and pictured along with an adaptation for each
Climate Information	The average precipitation (what kind of precip) temperature, and the climate group for the biome is included with detail in the brochure.	The average precipitation and temperature for the blome is included in the brochure with some detail.	The average precipitation and temperature for the biome is included in the brochure but is lacking description or detail	Average precipitation and temperature is not included in the brochure
Vacation Travel Information	The project states the best time to travel, type of clothing clients should bring, and a list of activities and is accurate.	The project states the best time to travel, type of clothing clients should bring, and a list of activities.	The project states at least 2 of the following - best time to travel, type of clothing clients should bring, and a list of activities.	The project states 1 of the following - best time to travel, type of clothing clients should bring, and a list of activities.

French AP

Presentational Writing: Persuasive Essay

5 Strong

- Effective treatment of topic within the context of the task
- · Demonstrates a high degree of comprehension of the sources' viewpoints, with very few minor inaccuracies
- · Integrates content from all three sources in support of the essay
- · Presents and defends the student's own viewpoint on the topic with a high degree of clarity; develops a persuasive argument with coherence and detail
- · Organized essay; effective use of transitional elements or cohesive devices
- Fully understandable, with ease and clarity of expression; occasional errors do not impede comprehensibility
- · Varied and appropriate vocabulary and idiomatic language
- Accuracy and variety in grammar, syntax, and usage, with few errors
 Develops paragraph-length discourse with a variety of simple and compound sentences, and some complex sentences

- 4 Good

- · Generally effective treatment of topic within the context of the task
- · Demonstrates comprehension of the sources' viewpoints; may include a few inaccuracies
- · Summarizes, with limited integration, content from all three sources in support of the essay
- Presents and defends the student's own viewpoint on the topic with clarity; develops a persuasive argument with coherence
 Organized essay; some effective use of transitional elements or cohesive devices
- Fully understandable, with some errors which do not impede comprehensibility
- · Varied and generally appropriate vocabulary and idiomatic language
- General control of grammar, syntax, and usage
 Develops mostly paragraph-length discourse with simple, compound, and a few complex sentences

3 Fair

- · Suitable treatment of topic within the context of the task
- · Demonstrates a moderate degree of comprehension of the sources' viewpoints; includes some inaccuracies
- · Summarizes content from at least two sources in support of the essay
- Presents and defends the student's own viewpoint on the topic; develops a somewhat persuasive argument with some coherence
 Some organization; limited use of transitional elements or cohesive devices
- · Generally understandable, with errors that may impede comprehensibility
- Appropriate but basic vocabulary and idiomatic language
- · Some control of grammar, syntax, and usage
- · Uses strings of mostly simple sentences, with a few compound sentences

2 Weak

- · Unsuitable treatment of topic within the context of the task
- · Demonstrates a low degree of comprehension of the sources' viewpoints; information may be limited or inaccurate
- · Summarizes content from one or two sources; may not support the essay
- Presents, or at least suggests, the student's own viewpoint on the topic; develops an unpersuasive argument somewhat incoherently
- · Limited organization; ineffective use of transitional elements or cohesive devices
- · Partially understandable, with errors that force interpretation and cause confusion for the reader
- Limited vocabulary and idiomatic language
- · Limited control of grammar, syntax, and usage
- · Uses strings of simple sentences and phrases

1 Poor

- · Almost no treatment of topic within the context of the task
- · Demonstrates poor comprehension of the sources' viewpoints; includes frequent and significant inaccuracies
- Mostly repeats statements from sources or may not refer to any sources
 Minimally suggests the student's own viewpoint on the topic; argument is undeveloped or incoherent
- · Little or no organization; absence of transitional elements and cohesive devices
- · Barely understandable, with frequent or significant errors that impede comprehensibility
- Very few vocabulary resources
- · Little or no control of grammar, syntax, and usage
- · Very simple sentences or fragments

0 Unacceptable

- Mere restatement of language from the prompt
- Clearly does not respond to the prompt; completely irrelevant to the topic
 "I don't know," "I don't understand," or equivalent in any language
- · Not in the language of the exam

You will write a persuasive essay to submit to a French writing contest. The essay topic is based on three accompanying sources that present different viewpoints on the topic and include both print and audio material. First, you will have 6 minutes to read the essay topic and the printed material. Afterward, you will hear the audio material twice; you should take notes while you listen. Then, you will have 40 minutes to prepare and write your essay.

In your persuasive essay, you should present the sources' different viewpoints on the topic and also clearly indicate your own viewpoint and defend it thoroughly. Use information from all of the sources to support your essay. As you refer to the sources, identify them appropriately. Also, organize your essay into clear paragraphs. Vous allez écrire un essai persuasif pour un concours d'écriture de langue française. Le sujet de l'essai est basé sur trois sources cijointes, qui présentent des points de vue différents sur le sujet et qui comprennent à la fois du matériel audio et imprimé. Vous aurez d'abord 6 minutes pour lire le sujet de l'essai et le matériel imprimé. Ensuite, vous écouterez l'audio deux fois ; vous devriez prendre des notes pendant que vous écoutez. Enfin, vous aurez 40 minutes pour préparer et écrire votre essai.

Dans votre essai, vous devriez présenter les points de vue différents des sources sur le sujet et aussi indiquer clairement votre propre point de vue que vous défendrez à fond. Utilisez les renseignements fournis par toutes les sources pour soutenir votre essai. Quand vous ferez référence aux sources, identifiezles de façon appropriée. Organisez aussi votre essai en paragraphes bien distincts.

Thème du cours : Les défis mondiaux

Vous aurez 6 minutes pour lire le sujet de l'essai, la source numéro 1 et la source numéro 2.

Sujet de l'essai :

Est-ce que les nouvelles technologies (ordinateurs, iPads, e-Readers, smartphones, ...) sont bonnes pour l'environnement ?

Source numéro 2

Introduction

Dans cette sélection il s'agit d'une enquête sur les jeunes et les jeux vidéo menée auprès de 404 adolescents français (12 à 17 ans). Les données originales ont été publiées en décembre 2009 en France par Ipsos pour le compte de la Délégation Interministérielle à la Famille.

Enquête sur les jeunes et les jeux vidéo

1. Proportion des 12-17 ans jouant aux jeux vidéo (selon le sexe). Vous arrive-t-il de jouer à des jeux vidéo sur une console de jeux ou sur Internet à la maison ou chez des amis ?

Garçons	Filles
85 %	43 %
14 %	43 %
1 %	13 %
0 %	1 %
	85 % 14 %

2. Fréquence des disputes causées par les jeux vidéo (selon le sexe). Est-ce que le temps que vous passez à jouer aux jeux vidéo est un sujet de dispute avec vos parents ?

Garçons	Filles
9 %	2 %
37 %	20 %
38 %	40 %
16 %	38 %
	9 % 37 % 38 %

3. Exposition à des jeux vidéo violents (selon l'âge). Vous est-il déjà arrivé d'être choqué par des jeux vidéo parce qu'ils étaient violents ou vulgaires ?

	12 à 14 ans	15 à 17 ans
Souvent	3 %	1%
Parfois	28 %.	25 %
Rarement	35 %	43 %
Jamais	34 %	31 %

Now that I've told yo your expectations of	u my expectations a good teacher?	of a good stud	dent, what are
Tell me about the bes	it teacher you've e	ver had. Wha	it made the person
such a good teacher?		V	
Tell me how you LEAR where you learned a lo	N best. Give me o	an example of project in deta	a project or unit

Nombre Fec	ha Clase
Prueba de:	Standard:
Picasso 10pts. Los partes del cuerpo 9pts Colores 3pts	1.2 Understand and interpret both written and spoken forms of the target language on a variety of topics -use vocabulary for a wide range of
I studied by:I studied for:	topics such as numbers, & colors
Answer the questions in complete sentences about the drawing you were provided.	2.2 Gain knowledge and understanding of other cultures - develop familiarity with historical moments and figures experience (observe)
 ¿De qué color es la boca? ¿De qué colores son los ojos? 	expressive products of the cultures being studied (e.g., art)
3. ¿De qué color es el pelo?	
4. ¿Tiene corazón?	- 100
Haz una lista de 5 partes del cuerpo que le 1	falta.

On the other side of this paper, write a paragraph about Picasso. Include a few basic facts about his life. Then, use the drawing you were provided by a classmate. Discuss how it reflects Picasso's influence. What period does it utilize? Compare this painting to another of Picasso's. Use specific

Standard:

(e.g., art)

Clase

1.2 Understand and interpret both written and

2.2 Gain knowledge and understanding of other

cultures - develop familiarity with historical

moments and figures experience (observe) expressive products of the cultures being studied

topics such as numbers, & colors

spoken forms of the target language on a variety of topics -use vocabulary for a wide range of

Nombre ______ Fecha _

Prueba de:
Picasso 10pts.
Los partes del cuerpo 9pts
Colores 3pts

I studied by: _____ I studied for: ______

Answer the questions in complete sentences about the drawing you were provided.

- ¿De qué color es la boca?
- 2. ¿De qué colores son los ojos?
- 3. ¿De qué color es el pelo?
- 4. ¿Tiene corazón?

examples.

5. Haz una lista de 5 partes del cuerpo que le falta.

On the other side of this paper, write a paragraph about Picasso. Include a few basic facts about his life. Then, use the drawing you were provided by a classmate. Discuss how it reflects Picasso's influence. What period does it utilize? Compare this painting to another of Picasso's. Use specific examples.

Una Leyenda

PRODUCTION OF THE PROPERTY OF

Write a legend in Spanish using current vocabulary and grammar.

Standard: Number 1 (Goal One): Communicate in a language Other than English
1.3Present information, concepts, and ideas to an audience of
listeners or readers on a variety of topics

Purpose/ Objective: I can use legend vocabulary and past tense grammar in a personal, collaborative, and creative way.

Must Haves:

- Alone or in groups of 2-4 (everyone MUST play a significant role)
- At least one vocabulary word from EACH section from 217 and 241
- Use preterite and imperfect
- · Be neat, attractive, professionally presented
- Always know what step your group is on
- If you are not ACTIVELLY involved with the current step, use that time to
 do workbook pages, worksheets, or online practice. NO VIDEO games, other
 classes' homework, etc. BE ENGAGED IN YOUR LEARNING in class so that
 the teacher can help you.
- All in Spanish
 - Do not write it in English first and then translate. Use what you know. Look up very few words. If you MOSTLY use words that you know, your classmates will know them as well.

Step 1-

• Decide, write, and submit group members and final product choice

Step 2 -

- Decide on setting, plot (conflict and resolution), characters (protagonist and antagonist)
- · Assign rolls and time frame. Who's doing what and when?

Step 3 -

- Write story (start with <u>Había una vez</u> or <u>Hace muchos siglos</u>)
- · Check Rubric
- Have Sra. Rayburn check grammar

Step 4-

• Implement plan. Do it!

Step 5 -

Check Rubric again

Step 6-

· Rehearse and finishing touches

Step 7-

Ensayo 1°

Tema curricular: La belleza y la estética

Tienes toda la clase para leer la fuente número 1 y escribir tu ensayo persuasivo.

Tema del ensayo:

En relación al arte, ¿Debe continuar las corridas de toros o no?

Fuente 1:

La Corrida de Toros

La corrida de toros o toreo es una fiesta que consiste en lidiar toros bravos, a pie o a caballo, en un recinto cerrado para tal fin, la plaza de toros.¹

En la lidia participan varias personas, entre ellas los toreros, que siguen un estricto protocolo tradicional, reglamento de espectáculos taurino, regido por la intención estética; sólo puede participar como matador el torero que ha tomado la alternativa. Es el espectáculo de masas más antiguo de España y uno de los más antiguos del mundo. Como espectáculo moderno realizado a pie, fija sus normas y adopta su orden actual a finales del siglo XVIII en España, donde la corrida finaliza con la muerte del toro.

Las corridas de toros son consideradas una de las expresiones de la cultura hispánica. Se practican también en Portugal (donde, a excepción de algunos municipios, no se le da muerte al toro en la plaza desde 1836, durante el reinado de María II), en el sur de Francia y en diversos países de Hispanoamérica como México, Colombia, Ecuador, Perú, Venezuela y Costa Rica.

Las corridas pueden clasificarse, según la edad y el trapío del toro que se lidia, en becerradas, novilladas y corridas de toros propiamente dichas, y pueden desarrollarse a pie o a caballo. Si se ejecutan las suertes a caballo, el festejo recibe el nombre de corrida de rejones o rejoneo. Cuando se combinan ambas disciplinas en un mismo festejo, se denominan corridas mixtas.

Components	5- Exemplary	4- Accomplished	3- Average	2- Developing	1- Unacceptable	Multiply by	Total Points Earned
TITLE PAGE	All components required 75% or more of the for the title page exist and components necessary are located correctly. Exist. Exist.	a	50% or more of the components necessary for a complete title page exist.	25% or more of the components necessary for a complete title page exist.	Title page is missing or not a separate page	. Zx	
ABSTRACT	Abstract is well written, only one paragraph and completely but conclsely summarizes the entire research in a well organized way. All sections of the paper are represented.	Abstract is only one paragraph, and completely summarizes the entire research paper in an organized way. All sections of the paper are represented.	Abstract is either: more than one paragraph, or not a complete summary of entire research paper as information regarding one or two sections is missing.	Abstract is: more than one paragraph, and/or not a complete summary of entire research paper as more than two sections are not represented.	Abstract is not provided.	7	
INTRODUCTION	Provides a clear purpose Provides a clear purpo for doing the experiment. For doing the Provides accurate information that explains accurate information the previous activities and that explains the knowledge that led to the previous activities. work being reported. Information not presented in a ordered/organized manner.	Provides a clear purpose Presents an unclear for doing the experiment, with or inaccurate explan accurate information of previous activities information not presented in a ordered/organized manner.	Presents an unclear purpose. Reports minimal experiment is stated and or inaccurate explanation presents inaccurate or of previous activities or incomplete explanation knowledge. knowledge that led to the work being reported.	No purpose for experiment is stated and presents inaccurate or incomplete explanation of activities and knowledge that led to the work being reported.	No background information provided in report.	χ	
HYPOTHESIS	Presented as a single Presented as a sentence that presents a sentence that prelearly testable for the expected results prediction for the lab. expected results lab.	Presented as a single Presents either an un sentence that presents a prediction or is not a clearly testable testable statement. prediction for the expected results of the lab.	Presents either an unclear prediction or is not a testable statement.	Presents either an unclear Statement is unrelated to No hypothesis provided prediction or is not a the experiment, is not a in report. testable statement. prediction, and/or is not testable.	No hypathesis provided in report.	2	

							Total
Components	5- Exemplary	4- Accomplished	3- Average	2- Developing	1- Unacceptable	Multiply by	Earned
TITLE PAGE	All components required 75% or more of the for the title page exist and components necessary are located correctly. for a complete title page exist.	o)		25% or more of the components necessary for a complete title page exist.	Title page is missing or not a separate page	. ×2	
ABSTRACT	Abstract is well written, only one paragraph and completely but conclesity summarizes the entire research in a well organized way. All sections of the paper are represented.	Abstract is only one paragraph, and completely summarizes the entire research paper in an organized way. All sections of the paper are represented.	Abstract is either more than one paragraph, or not a complete summary of entire research paper as information regarding one or two sections is missing.	Abstract is: more than one paragraph, and/or not a complete summary of entire research paper as more than two sections are not represented.	Abstract is not provided.	Z	
INTRODUCTION	Provides a clear purpose Provides a clear purp for doing the experiment. For doing the Provides accurate information that explains accurate information the previous activities and that explains the knowledge that led to the previous activities. work being reported. Information not presented in a ordered/organized manner.	Provides a clear purpose Presents an unclear for doing the experiment, with or inaccurate explan accurate information of previous activities. Information not presented in a ordered/organized manner.	nimal ation or	No purpose for experiment is stated and presents inaccurate or incomplete explanation of activities and knowledge that led to the work being reported.	No background information provided in report.	22	
HYPOTHESIS	Presented as a single Presented as a sentence that presents a sentence that prelearly testable for the expected results prediction for th of the lab.	Presented as a single Presents either an un sentence that presents a prediction or is not a clearly testable tatement. prediction for the expected results of the lab.	Presents either an unclear Statement is unrelated to No hypothesis provided prediction or is not a the experiment, is not a in report. testable statement. prediction, and/or is not testable.	Statement is unrelated to the experiment, is not a prediction, and/or is not testable.	No hypothesis provided in report.	Z	

Ī		Γ		Γ	Language and a second		
	All materials and procedural steps are laid out concisely, in paregraph form. Sketches, photos, schematics, equations, etc. are shown where appropriate.	And materials used and procedural steps are listed. Procedural steps are laid out in paragraph form but not concisely. Form, but not concisely OR Sketches, photos, are inaccurate. Sketche schematics, etc. are not shown where sporopriate.	r o s,	<u>Q</u>	methods provided in report.	2	
	accurate and complete presentation of the results obtains interpreting their meaning. Equations, etc. drawings, pictures, drawings, graphs, etc are used when graphs, etc are used applicable.	and ed	eG		No results provided in report.	Ž	
	The results are clearly and Analysis of the results i completely analyzed complete and accurate accurately. Possible errors Possible errors are not are completely explained completely explained and suggestions for improvement have been improvement are made.	s . 8	ai	Analysis of the results is incomplete and inaccurate with a complete and of possible errors and no suggestions made for improvement.	No discussion of results provided in report.	ZX	
	Presents a clear and accurate final statement that completely summarizes the results obtained. Statement directly relates back to the hypothesis.	Presents a clear and accurate final statement but does not completely summarize the results obtained. Or, statement does not relate back to hypothesis.	Presents an unclear summary statement that does not completely summarize the results obtained, and does not relate to hypothesis.	Summary statement presented is <u>inaccurate</u> summary of the results obtained.	No conclusion provided in report.	, zx	

	Student correctly cited at		Student is missing 1 or		No citations provided.		
	least 3 credible sources,		more citations and/or				
CITATIONS	including PLTW and used		APA format.				
	APA format.					Ż	
	Report has 0 errors in	Report has only 1 or 2	Report has 3 or 4 errors in Report has multiple		Report is completely		
	grammar, spelling,	errors in grammar,	grammar, spelling, etc.	errors in grammar,	illegible, and/or		
	etc.Report is neatly typed. spelling, etc. Report is		Report is not typed.	spelling, etc. Report is	unreadable due to		
GRAMINIAR		neatly typed		not typed.	grammatical errors.		
						x1	
	Report is written	Report contains 1-2	Report contains 3 or 4 Report has multiple	ı	Report is mostly		
	completely in the	mistakes in perspective	mistakes in perspective mistakes in perspective	errors in perspective but written in first person	written in first person		
Professional Voice professional voice	professional voice	but is written mostly in	but is written mostly in but is written mostly in	attempts professional	perspective.		
		professional voice.	professional voice.	voice			
	,					x1	

Total Points Earned out of 100 =

Macbeth Final Project

PART 1: You may work on Part 1 individually or with a partner.

- 1. Choose a scene from Acts 3-5. Do not choose an excessively short one.
- 2. Print out the scene (see the digital script in the English locker).
- 3. Decide on an overall concept. Where and when will you set it? What will the overall look of the scene be? Are there any major themes you want to be included in the appearance of the scene?
- Edit the scene. You may cut lines but not add or change words. Be sure the resulting scene makes sense and you don't cut anything important.
- 5. Design a set on the open file folder.
- Interpret the scene by adding stage directions to the script for the actors to follow. Pay attention to subtext (add the subtext beside the text where appropriate), vocal pauses, tone of voice, gestures and facial expressions, notes or diagrams of actions and movements, props needed.
- Design costumes for the characters in your scene that reflect your interpretation of the character. You may either draw them or describe them in writing.
- 8. Choose music for your scene that helps interpret the scene.
- 9. Using your set diagram and chess pieces, run through your script to make sure it works.

PART 2: This part must be done individually. Each partner must complete a separate paragraph.

- 10. Write a paragraph explaining your concept, set choices, costume choices, and music choices. Use evidence from the scene and other parts of the play if necessary to justify your choices.
- 11. Put all parts (annotated script, costume design, music description, and justification paragraph(s)) in the folder with your name(s) on it and turn in.

SCORING RUBRIC

Skill demonstrated (Standard)	4	3	2	1
·	Mastered skill	Mastered skill	Acceptable	Little
	with insight		demonstration	evidence
	and		of skill; some	of skill
	independent thinking		lapses	
* 11-12.R.L.1 Cite textual evidence to				
support analysis of what the text says				
explicitly as well as inferences drawn from				
the text. (What does the text say? What				
subtext can you infer?)				
* 11-12.R.L.2 Determine two or more				
themes of a text and analyze their				
development over the course of the text.				
(What themes do you see in the play?				
How do they develop over the course of				
the play and in this scene?)				
* 11-12.R.L.7 Analyze multiple				
interpretations of a story, drama, or poem.				
(How would you stage this scene? How				
would you interpret the scene or a				
character through the actions of the				
characters or other elements of the				
scene?)				1

To grade

Does not maintain a formal Inconsistent use of formal Varied transitional words Establishes and maintains Utilizes transitional words Establishes and maintains Consistent use of formal a formal writing style for Use of highly developed Repetitive wording and Formal writing style is inconsistent and weak a formal writing style throughout the paper No transitional words Does not use a formal most of the paper Mostly pronouns Languag and phrases writing style vocabulary vocabulary vocabulary or phrases vocabulary phrases Focus & Organization Ideas hard to following Adequate organization Effective organization Logical and relevant Limited introduction Logical and relevant Contains a relevant Contains a relevant Limited conclusion Attempted to use No organization No introduction TNCore Literacy in Social Studies Informational/Explanatory Rubric – Grades 6-8 Hard to follow No conclusion organization introduction introduction conclusion conclusion strategies Understands some of the topic Does not understand the topic Adequately explains evidence Demonstrates understanding Clear understanding of the Adequately develops topic Only personal knowledge Irrelevant or no evidence Well-chosen evidence to Development Not enough evidence Explains all evidence Repetitive evidence develop topic of topic topic Score j n

76 grade Social Sudice

φ
9 9
ě
ad
Ö
Ī
ij
ā
æ
>
ē
ĭā,
ā
å
Œ
ā
o
Ħ
Ĕ
ö
rf u
s
<u>ie</u>
ä
χ
a
Ö
ŏ
₽.
Ş
ra
ţ
_
)re
ပိ
Z
-

	Z = 2400		
Score	Development	Focus & Organization	Language
	 Well-chosen evidence to 	Logical and relevant	Use of highly developed
7	develop topic	introduction	vocabulary
	 Explains all evidence 	Effective organization	 Varied transitional words
	 Clear understanding of the 	strategies	and phrases
	topic	 Logical and relevant 	 Establishes and maintains
•		conclusion	a formal writing style
			throughout the paper
•	 Adequately develops topic 	Contains a relevant	 Consistent use of formal
Y	 Adequately explains evidence 	introduction	vocabulary
)	 Demonstrates understanding 	 Adequate organization 	 Utilizes transitional words
	of topic	 Contains a relevant 	or phrases
		conclusion	 Establishes and maintains
			a formal writing style for
			most of the paper
	Not enough evidence	Limited introduction	• Inconsistent use of formal
	 Repetitive evidence 	 Attempted to use 	vocabulary
	 Understands some of the topic 	organization	 Repetitive wording and
		 Hard to follow 	phrases
		 Limited conclusion 	 Formal writing style is
			inconsistent and weak
	 Irrelevant or no evidence 	 No introduction 	 Mostly pronouns
e de la constante de la consta	 Only personal knowledge 	 Ideas hard to following 	 No transitional words
	 Does not understand the topic 	 No organization 	 Does not maintain a formal
		No conclusion	vocabulary
			 Does not use a formal
			writing style

Take It to the Limit Project

While limits are a fundamental concept in calculus, the idea of a limit can be found elsewhere. Music, visual arts, advertising, and other areas of popular culture often use the concept. Find an example of a song, poem, picture, or other real world application (science, engineering, medicine, biology, chemistry, etc.) and explain how it uses or demonstrates the concept of a limit.

A function tends toward a value and no matter what, as x approaches a value c, the function approaches the limiting value L.

The Eagles song "Take It to the Limit" describes how the singer finds himself drawn to thoughts of someone and no matter what happens he keeps coming back to her. This is a limit.

The most challenging part of this project will be finding the example you will use. Once you find your example, analyze that example in relation to the definition of a limit. Use specific quotes, elements, or examples to clearly articulate how your real world example demonstrates the concept of a limit.

You will "explain" how your example demonstrates the concept of a limit by completing a written analysis (1-2 page paper, size 12 font, double spaced, include works cited if applicable). You will also be required to make a presentation of your example. You may create a piece of artwork (drawing, painting, etc.), create a PowerPoint, make a poster, or any other approved idea. Take this opportunity to explore your creative side while making connections to a difficult calculus concept.

Adapted from "Take It to the Limit" (pg. 78), A Watched Cup Never Cools. Key Curriculum Press, 1999: Emeryville, CA.

*Timeline: Take It to the Limit Project (see Rubric link on webpage)

- 1. Turn in idea by Tuesday, September 2nd (4 points)
- 2. Explanation of the use of a limit in the real world
 - a. Clear and Detailed, Connects to limit concepts we learned in class, Creative
 - b. Turn it to Turnitin.com September 19th
- 3. Presentation September 19th
 - a. PowerPoint or Poster must include brief explanation and pictures/illustrations/graphs
 - Artwork must be accompanied by a poster with brief description of connection to limits and summary of project

Group Project: Exponential and Logarithmic Functions Newspaper

Due Date: January 27, 2014

The Task

Your group will fill a legal sized paper (8.5inX14in) with the following information describing your chosen application of logarithms and exponential functions:

- The history and description of your application topic should include explanation
 of the concept (ie. What is a decibel?), the inventor(s) or people who impacted the
 discovery, and dates of discovery. (29 points)
- 2. The description of math used in calculations should include usefulness of calculations, sample problem and solution (can be written by hand). (29 points)
- 3. You must include a description of at least one career that uses your application topic. (29 points)
- Each member of your group should choose one of the above requirements. In addition, a citation of websites, at least one relevant graphic, and a catchy title should be included. (8 points)
- Your final product must be neat and colorful. Try to make it look like a newspaper, if possible. (5 points)

Topics - first come first serve

- decibel scale
- 2. Richter scale
- 3. pH level
- 4. biodiversity index
- 5. stellar magnitude
- 6. radioisotope dating (carbon 14, etc)
- 7. population growth
- 8. capacitor discharge
- 9. Newton's Law of Cooling

On January 27, 2014, your group will teach your topic in small groups.

Project: Who Invented Calculus?

Historical evidence concludes that modern calculus seems to have its origins in either Sir Isaac Newton's or Wilhelm Gottfried Leibniz's hands. Or maybe the answer is slightly more complicated. We don't know and we need your help!

For this project, you will write an editorial on who should be given the most kudos for inventing calculus. Who came up with the "main points of discovery"? Why do you conclude that? Your editorial should be persuasive and engaging. Be creative with your design; for example, make your editorial part of a newspaper or magazine, add pictures and captions, have fun!

To assist you in this daunting task, I have provided you with a <u>WebQuest</u> that has many resources outlining the history of calculus. You may use all of the resources provided, but are not limited to them. Feel free to use any other **credible** resources to help answer your question. The most challenging part of this project will be sifting through all of the information. You will have to sort through all of the information to find the parts most relevant to answering the question: Who gets the most kudos for inventing calculus? The other challenging part of this project is that you don't know very much about calculus yet; hopefully, this quest will help you learn more!

To start, begin reading some of the provided info and watching the video clips. Then make a pros and cons for Newton and Leibniz, to organize your thoughts and findings.

Here are a few points of advice:

- -An editorial is an opinion. But it is one based on a lot of credible supporting evidence.
- -Cite your sources for each fact you come across! I'd bookmark each webpage, so you have them somewhere in case something goes wrong.

Here are some questions to think about when organizing your search:

- -What is calculus, really? This will be useful in setting the stage.
- -Newton wrote letters to Leibniz. State one interesting thing he said. This might be useful in terms of finding supporting evidence for one position or the other. When did Leibniz send a letter to Newton concerning the use of differentials?
- -What did you find to be the most interesting or surprising fact about the rise of calculus? Why is it interesting to you? If it is interesting to you, it might very well be interesting to your readers! You might want to start that out as your lead.
- -What was the very first step in the rise of calculus? Does that make a difference in who gets the most credit?
- -On a timeline of the rise of calculus, what do you think was the most important fact?

This WebQuest came from mistershah's Who Invented Calculus WebQuest

AP CALCULUS NOTEBOOK (BC)

Tape the table of contents in the inside cover of at least a 80 page spiral notebook. For each topic use the following procedure.

- 1. On a page numbered the same as the entry, write the topic as a title.
- 2. State any relevant definitions, procedures, or theorems.
- 3. State and solve a specific problem that uses this procedure. Show clearly each step of problem-solving needed.

TABLE OF CONTENTS

- 1. Graphs of the basic parent functions.
- 2. Graph basic transformations of functions.
- 3. Determination of Even or Odd Functions.
- Determination of Symmetry of a curve x-axis, y-axis, origin.
- 5. Comparisons of the graphs of y = f(x), y = |f(x)|, y = f(|x|).
- 6. Formation of a Composite Function and finding its domain.
- 7. Graphs of three functions for which $\lim_{x \to a} f(x)$ does not exist.
- 8. Graph of a function in which $\lim_{x\to x} f(x)$ exists but $\lim_{x\to x} f(x)$ does not exist.

- 9. Three algebra techniques used to calculate limits. 10. Two limit theorems involving trigonometric functions. 11. Find $\lim_{x \to \infty} f(x)$ and $\lim_{x \to \infty} f(x)$ for rational functions.
- 12. Find vertical and horizontal asymptote equations.
- 13. Proving a function is continuous at a point.
- 14. Graph of a function where $\lim f(x)$ exists but does not equal f(a).
- 15. Example of a function which is continuous on (a,b) but discontinuous on [a,b].
- 16. Application of the Intermediate Value Theorem.
- 17. Application of Average Rate of Change of a function on (a,b).
- 18. Two definitions of derivative involving limits of difference quotients.
- 19. Finding Tangent and Normal line equations to graph of a function at a point.
- 20. Using Tangent line equations for Local Linear Approximations of a function.
- 21. Give Verbal Descriptions of equations involving derivatives.
- 22. Estimating a Derivative of a Function from a table of values and from a graph of a function.
- 23. Four Different Graphs of Functions who Fail to have a Derivative at a point.
- 24. Relationship between Continuity and Differentiability. Give an example which satisfies this test and one that fails this test.
- 25. Implicit Differentiation How and When do you use it?
- 26. Relationships Between Position, Velocity, Speed, and Acceleration of a particle moving on x-axis.
- 27. Related Rate Problems How do you recognize them and what are the steps needed in solving?
- 28. Application of Extreme Value Theorem.
- 29. Application of The Mean Value Theorem (for Derivatives).
- 30. Finding Critical Points of a Function.
- 31. Application of First Derivative Test to Graphing a function. Perform and Verbalize this test.
- 32. Finding Absolute (Global) Extrema for a Function on a Closed Interval.
- 33. Inflection Points and Concavity of a function.
- 34. Give first and second derivatives for four possible arcs of a non-constant function(inc/ccup, inc/ccdn, dec/ccup, dec/ccdn).
- 35. Use Second Derivative Test for Max/Mins of a function.
- 36. Steps to solve Optimization Problems.
- 37. Estimate area under $y = x^2 + 4$ on [0,8] with four equal subintervals using Trapezoidal Rule and Riemann Sums of Left Endpoint, Right Endpoint, and Midpoint Methods.

- 38. State and use (give example) The Fundamental Theorem of Calculus to evaluate $\int_{0}^{\infty} f(x)dx$.
- 39. State and use (give example) The Fundamental Theorem of Calculus to evaluate $\frac{d}{dx}\int_{0}^{x}f(t)dt$.
- 40. For a Function Defined as an Integral, $g(x) = \int_{0}^{x} f(t)dt$ with only the graph of f(t) given, give three

questions that could be asked about y=g(x).

- 41. Find and apply The Average Value of a Function f(x) on [a,b].
- 42. Use the Method of Substitution to evaluate an Indefinite Integral.
- 43. Change the Limits of Integration (when using substitution) on a Definite Integral.
- 44. Logarithmic Differentiation How and When do you use it?
- 45. Find Area Between Two Curves.
- 46. Compute the Volume of a Solid of Revolution using Disc and Washer Methods.
- 47. Compute the Volume of a Solid with Known Cross-Sections.
- 48. Compute Total Distance Traveled by an object given its velocity on [a,b]. Compare to Net
- 49. Use L'Hopital's Rule for evaluation of limits.
- 50. Solve First Order, Variables Separable Differential Equations with given initial condition.
- 51. Construct a Slope Field and give hints on matching slope fields with their Differential Equations. 52. Given a Differential Equation that you cannot solve, what is the purpose of constructing its slope field?
- 53. Solve for y given these differential equations: y' = ky and y' = k(a y).
- 54. Growth Decay Problems How to Recognize and Solve Calculus problems involving growth and decay. What phrase gives evidence of exponential growth and decay? How do you use given points to write the solution exponential equation?
- 55. AB CNLY: Make a list of all derivative formulas you have learned this year.
- 56. AB ONLY: Make a list of all integral formulas you have learned this year.

BC TOPICS

- 55. Find Length of an Arc of a function in Rectangular Form.
- 56. Use Integration by Parts, Regular Method and Tabular Method, to integrate a function.
- 57. Use Partial Fractions to integrate a rational function.
- 58. Use Euler's Method to estimate a Function using its Differential Equation
- 58. Solve a Differential Equation involving a Logistics Function.
- 59. Recognize and Solve Two Types of Improper Integrals.60. State and Use 4 Tests for Convergence and Divergence for a Series of all Positive terms.
- 61. State and Apply the Alternating Series Test and its Error Bound.
- 62. Compare Absolute and Conditional Convergence.
- 63. Form a Taylor Series, centered about x=a.
- 64. State the Power Series for e^x , $\sin x$, $\cos x$, $\frac{1}{1-x}$ 1 from MacLaurin Series.
- 65. Use Substitution into Known Power Series to create new power series.
- 66. Use differentiation and integration(don't forget +c) of a known power series to create a new power
- 67. State and Use LaGrange Error Bound for Taylor Series.
- 68. Find the Interval of Convergence and Radius of Convergence for a series.
- 69. For a Farametrically Defined Function, find y' and y".
- 70. Find the length of a Parametric curve.
- 71, Find Velocity and Acceleration Vectors from a Position Vector.
- 72. Find Speed of a particle defined in Vector Format.
- 73. Given a curve defined in Polar Form, find y'.
- 74. Find Area inside a Polar Curve.
- 75. Make a list of all Derivative formulas memorized this year.
- 76. Make a list of all Integration formulas memorized this year.

Reading Standards		For each skill, knowledge,	or process:
	Is it included in your reading curriculum?	At what grade level (or in which course) are students first introduced to it?	At what grade level (or in which course) are students expected to demonstrate proficiency?
Recognize a clear intent of an author or narrator in uncomplicated literary narratives			
Locate basic facts (e.g., names, dates, events) clearly stated in a passage			
Determine when (e.g., first, last, before, after) or if an event occurred in uncomplicated passages			
Recognize clear cause-effect relationships described within a single sentence in a passage			
Understand the implication of a familiar word or phrase and of simple descriptive language			
Draw simple generalizations and conclusions about the main characters in uncomplicated iterary narratives	-		

Descriptions of the EPAS (EXPLORE, PLAN, and ACT) Reading Test Passages

- Uncomplicated Literary Narratives refers to excerpts from essays, short stories, and novels that tend to use simple language and structure, have a clear purpose and a familiar style, present straightforward interactions between characters, and employ only a limited number of literary devices such as metaphor, simile, or hyperbole.
- More Challenging Literary Narratives refers to excerpts from essays, short stories, and novels that tend to make moderate use of figurative language, have a more intricate structure and messages conveyed with some subtlety, and may feature somewhat complex interactions between characters.
- Complex Literary Narratives refers to excerpts from essays, short stories, and novels that tend to make generous use of ambiguous language and literary devices, feature complex and subtle interactions between characters, often contain challenging context-dependent vocabulary, and typically contain messages and/or meanings that are not explicit but are embedded in the passage.
- Uncomplicated Informational Passages refers to materials that tend to contain a limited amount of data, address basic concepts using familiar language and conventional organizational patterns, have a clear purpose, and are written to be accessible.
- More Challenging Informational Passages refers to materials that tend to present concepts that are not always stated explicitly and that are accompanied or illustrated by more—and more detailed—supporting data, include some difficult contextdependent words, and are written in a somewhat more demanding and less accessible style.
- Complex Informational Passages refers to materials that tend to include a sizable amount of data, present difficult concepts that are embedded (not explicit) in the text, use demanding words and phrases whose meaning must be determined from context, and are likely to include intricate explanations of processes or events.

TABLE 3 (continued): Reading College Readiness Standards for Score Range 16-19 For each skill, knowledge, or process: Reading Standards Is it included in At what grade level (or in At what grade level (or in which course) are students expected to demonstrate your reading which course) are students curriculum? first introduced to it? proficiency? Identify a clear main idea or purpose of straightforward paragraphs in uncomplicated literary narratives Locate simple details at the sentence and paragraph level in uncomplicated passages Recognize a clear function of a part of an uncomplicated passage Identify relationships between main characters in uncomplicated literary narratives Recognize clear cause-effect relationships within a single paragraph in uncomplicated literary narratives Use context to understand basic figurative language Draw simple generalizations and conclusions about people, ideas, and so on in uncomplicated passages

AND RESIDENCE OF THE PROPERTY OF THE PROPERTY

kkkiissa Tharasaanin tehinin – kassalinesta – kasaanaan kansalisan – kasiisaasaa siitiilikkii – kasiiniinin –

TABLE 3 (continued): Reading College	ge Readiness St	andards for Score Range 2	0-23
Reading Standards		For each skill, knowledge, or	r process:
	Is it included in your reading curriculum?	At what grade level (or in which course) are students first introduced to it?	At what grade level (or in which course) are students expected to demonstrate proficiency?
Infer the main idea or purpose of straightforward paragraphs in uncomplicated literary narratives			
Understand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in uncomplicated passages			
Locate important details in uncomplicated passages			
Make simple inferences about how details are used in passages			
Order simple sequences of events in uncomplicated literary narratives			
Identify clear relationships between people, ideas, and so on in uncomplicated passages			
Identify clear cause-effect relationships in uncomplicated passages			
Use context to determine the appropriate meaning of some figurative and nonfigurative words, phrases, and statements in uncomplicated passages			
Draw generalizations and conclusions about people, ideas, and so on in uncomplicated passages			
Draw simple generalizations and conclusions using details that support the main points of more challenging passages			

Deeding Standards		For each skill, knowledge, o	or process:
Reading Standards	Is it included in your reading curriculum?	At what grade level (or in which course) are students first introduced to it?	At what grade level (or in which course) are students expected to demonstrate proficiency?
dentify a clear main idea or purpose of any aragraph or paragraphs in uncomplicated assages			
nfer the main idea or purpose of traightforward paragraphs in more hallenging passages			
ummarize basic events and ideas in more hallenging passages			
nderstand the overall approach taken by an uthor or narrator (e.g., point of view, kinds f evidence used) in more challenging assages			
ocate important details in more challenging assages			
ocate and interpret minor or subtly stated etails in uncomplicated passages			
oiscern which details, though they may ppear in different sections throughout a assage, support important points in more hallenging passages			·
Order sequences of events in uncomplicated assages			
Inderstand relationships between people, deas, and so on in uncomplicated passages			
Jentify clear relationships between haracters, ideas, and so on in more hallenging literary narratives			
Inderstand implied or subtly stated cause- iffect relationships in uncomplicated assages			
dentify clear cause-effect relationships in nore challenging passages			
Jse context to determine the appropriate neaning of virtually any word, phrase, or tatement in uncomplicated passages			
Jse context to determine the appropriate neaning of some figurative and nonfigurative words, phrases, and statements in more shallenging passages			
Draw subtle generalizations and conclusions about characters, ideas, and so on in incomplicated literary narratives			
Draw generalizations and conclusions about beople, ideas, and so on in more challenging bassages			

Reading Standards		For each skill, knowledge,	or process:
(PLAN and ACT only)	Is it included in your reading curriculum?	At what grade level (or in which course) are students first introduced to it?	At what grade level (or in which course) are students expected to demonstrate proficiency?
nfer the main idea or purpose of more hallenging passages or their paragraphs			
Summarize events and ideas in virtually any assage			
Inderstand the overall approach taken by an author or narrator (e.g., point of view, kinds of evidence used) in virtually any passage			
ocate and interpret minor or subtly stated letails in more challenging passages			
Jse details from different sections of some complex informational passages to support a specific point or argument			
Order sequences of events in more challenging passages			
Inderstand the dynamics between people, deas, and so on in more challenging lassages			
Inderstand implied or subtly stated cause- ffect relationships in more challenging assages			
Determine the appropriate meaning of vords, phrases, or statements from figurative r somewhat technical contexts			
Use information from one or more sections of a more challenging passage to draw generalizations and conclusions about beople, ideas, and so on			

APPENDIX D

Rubrics/Materials Used During Round 1

Student McCool

Mr. Carter

English I Advanced Honors

22 August 2011

Courage

Courage can be many things. It can be as grand as risking your life for a friend, or a miniscule as standing up for a bullied kid. But courage can be one thing anyone can relate to. Standing up for what you believe in. This I believe.

The way courage ties in to my life started one sweltering summer day in the year of my tenth birthday. My family and I took a camping trip to somewhere in east Tennessee. The first day we were there is when my courage was tested. While my mom was organizing everything in the camper my dad took me to a place where he went when he was a kid. There was a tourist spot on the edge of a cliff where a rock hung out over the side. When we arrived at the cliff I was terrified and would go nowhere it no matter what my dad said.

Quicker than expected five days later. I couldn't believe our trip was already over. So I made one of the toughest decisions of life and asked my dad to return me to the cliff overhang. It took a few minutes but I finally summoned the courage to inch out to the rock on my belly and look over the edge. I was never afraid of heights again.

Introduction: Sets up essay/captures attention
Belief: Clearly stated/thesis statement
Body: Organized into paragraphs to prove belief
Details: Personal examples to prove belief
Conclusion: Provides essay closure
Vocabulary: Powerful, descriptive words used
Editing: No major typos, correct MLA
Final Essay Grade

 $\sqrt{+}$ Excellent $\sqrt{-}$ Adequate $\sqrt{-}$ Inadequate

Student_____

Area Score	Excellent Very Good Good Average Needs Improvement	Weak
Content	*Clear thesis developed around the This I Believe Topic	
	10 9.5 8.5 7.5 6.5	5.5
	*Strong support, including a multitude of personal examples to prove be	elief
	10 9.5 8.5 7.5 6.5	5.5 X2
/30		
Organization	*Introduction is inviting, interesting, and sets up what the essay will be a 10 9.5 8.5 7.5 6.5	about 5.5
	*Each body paragraph is a unified, meaningful, and coherent unit	
	109.5 8.5 7.5 6.5	5.5
	*Body paragraphs are arranged in a logical order and are linked by trans	itions
	109.5 8.5 7.5 6.5	5.5
	* Conclusion summarizes main ideas and brings closure to the essay	
/40	109.5 8.5 7.5 6.5	5.5
Vocabulary	*Accurate, precise, and varied word choice without excessive wordines	s
	10 9.5 8.5 7.5 6.5	5.5
/10		
Grammar and Mechanics		
	*Correct grammar, spelling, and mechanics, and uses sentence variety	
	10 9.5 8.5 7.5 6.5	5.5
	*Correct format, meets length requirement, and follows instructions pro	ovided
/20	10 9.5 8.5 7.5 6.5	5.5

TOTAL /100

Rubric #3

Grade the Essay.

APPENDIX E

Potential WACA Learning Library Resources

- Carter, M., Ferzli, M., & Wiebe, E. N. (2007). Writing to learn by learning to write in the disciplines. *Journal of Business and Technical Communication*, 21 (3), 278-302.
- DuFour, R. [Richard], DuFour R. [Rebecca], & Eaker, R. (2008). Revisiting professional learning communities at work: New insights for improving schools. Bloomington, IN: Solution Tree Press.
- Gere, A. R. (2010). Taking initiative on writing. *Principal Leadership*, 3, 36-42.
- Good, J. (2013). Crossing the measurement and writing assessment divide: The practical implications of inter-rater reliability in faculty development.

 The WAC Journal, 23, 19-30.
- Hall, G. E., & Hord, S. M. (1987). Change in schools: Facilitating the process.

 Albany, NY: SUNY Press.
- Hanstedt, P. (2012). Three reasons to make writing across the curriculum part of the conversation. *Liberal Education*, Fall, 48-51.
- Hattie, J. (2012). Visible learning for teachers: Maximizing impact on learning.

 New York, NY: Routledge.
- Lezotte, L. W., & Snyder, K. T. (2011). What effective schools do: Re-envisioning the correlates. Bloomington, IN: Solution Tree Press.
- Popham, W. J. (2014). Classroom assessment: What teachers need to know.

 Boston, MA: Pearson.

- Stevens, D., & Levi, A. (2005). Introduction to rubrics: An assessment tool to save grading time, convey effective feedback, and promote student learning. Sterling, VA: Stylus.
- Wilson, M. (2006). *Rethinking rubrics in writing assessment*. Portsmouth, NH: Heinemann.

APPENDIX F

Question 12 Full Frequency Tables

English Department Q12 Frequencies

Creative Writing	91%	Letters	46%	Memoirs	27%	Career Journal Writing	0%
Essay Question Writing	90%	Outlines	45%	Observations	27%	Data Recording	0%
Explanatory Writing	82%	Peer Reviews	45%	AP Writing Prompts	18%	Finance Reports	0%
Compare/Contrast	73%	Research Papers	45%	DBQs	18%	Game Design Writing	0%
Constructed Response	73%	Self Evaluations	45%	FRQs	18%	Grant Writing	0%
Journal Writing	73%	What if? Writing	45%	Justification Writing	18%	Lab Reports	0%
Bell-Work Writing	64%	Article/Source Analysis	36%	Summation Writing	18%	Long Lab Reports	0%
Literary Analysis	64%	Group Writing	36%	Common App Essays	9%	Memos	0%
Notes	64%	Listing	36%	Diagrams	9%	Newsletters	0%
Short Answers	64%	Opinion	36%	Family History Writing	9%	Performance Analysis	0%
Timed Essays	64%	Reports	36%	History Writing	9%	Performance Analysis	0%
Article Responses	55%	Speech Writing	36%	Presentation Proposals	9%	Rule Writing	0%
Definition Writing	55%	Biography Writing	27%	Prof. Email Writing	9%	Script Writing	0%
Exit Ticket Writing	55%	Concept Maps	27%	Project Proposals	9%	Translation Writing	0%
Poetry Writing	55%	Current Events Writing	27%	Senior Thesis Writing	9%		
Citation Writing	46%	Guided Notes	27%	Budget Reports	9%	_	
Expository Writing	46%	Literature Reviews	27%	Business Summaries	0%		

Career and Technical Education Department Q12 Frequencies

Article/Source Analysis	75%	Group Writing	20%	Explanatory Writing	0%	Outlines	0%
Career Journal Writing	50%	Journal Writing	20%	Expository Writing	0%	Poetry Writing	0%
Lab Reports	50%	Peer Reviews	20%	FRQs	0%	Prof. Email Writing	0%
Notes	50%	Performance Analysis	20%	Family History Writing	0%	Program Writing	0%
Observations	50%	Presentation Proposals	20%	Game Design Writing	0%	Research Papers	0%
Short Answers	50%	Project Proposals	20%	Grant Writing	0%	Memos	0%
Bell-Work Writing	20%	Reports	20%	Guided Notes	0%	Rule Writing	0%
Business Summaries	20%	Self Evaluations	20%	History Writing	0%	Script Writing	0%
Citation Writing	20%	Speech Writing	20%	Justification Writing	0%	Senior Thesis Writing	0%
Compare/Contrast	20%	AP Writing Prompts	0%	Letters	0%	Summation Writing	0%
Concept Maps	20%	Biography Writing	0%	Listing	0%	Timed Essays	0%
Constructed Response	20%	Budget Reports	0%	Literary Analysis	0%	Translation Writing	0%
Current Events Writing	20%	Common App Essays	0%	Literature Reviews	0%	What if? Writing	0%
Diagrams	20%	Creative Writing	0%	Long Lab Reports	0%		
Essay Question Writing	20%	Data Recording	0%	Memoirs	0%	_	
Exit Ticket Writing	20%	DBQs	0%	Newsletters	0%	_	

Science Department Q12 Frequencies

Lab Reports	80%	FRQs	30%	Literature Reviews	10%	Literary Analysis	0%
	5 00/	1.75.47.1.1	2001		100/	•	001
Article Responses	70%	AP Writing Prompts	20%	Peer Reviews	10%	Memoirs	0%
Bell-Work	70%	Current	20%	Prof. Email	10%	Memos	0%
Writing		Events		Writing			
•		Writing		•			
Compare/Contrast	60%	Definition	20%	Senior Thesis	10%	Newsletters	0%
1		Writing		Writing			
Notes	60%	Explanatory	20%	Summation	10%	Performance	0%
		Writing		Writing		Analysis	
Short Answers	60%	Group	20%	Timed Essays	10%	Poetry Writing	0%
		Writing		•		, .	
Article/Source	50%	Listing	20%	Biography	0%	Presentation	0%
Analysis		· ·		Writing		Proposals	
Constructed	50%	Opinion	20%	Budget Reports	0%	Program Writing	0%
Response		Writing				8 4 4 6	
Essay Question	50%	Outlines	20%	Business	0%	Reports	0%
Writing				Summaries		•	
Observations	50%	Project	20%	Common App	0%	Rule Writing	0%
		Proposals		Essays		C	
Exit Ticket	40%	Self	20%	Expository	0%	Script Writing	0%
Writing		Evaluations		Writing		1 0	
Guided Notes	40%	Career	10%	Finance Reports	0%	Speech Writing	0%
		Journal		-			
		Writing					
Long Lab Reports	40%	Concept	10%	Family History	0%	Translation	0%
		Maps		Writing		Writing	
Research Papers	40%	Creative	10%	Game Design	0%	What if? Writing	0%
-		Writing		Writing		C	
Citation Writing	30%	DBQs	10%	Grant Writing	0%		
Data Recording	30%	Journal	10%	History Writing	0%	-	
Ç		Writing					
Diagrams	30%	Justification	10%	Letters	0%	_	
C		Writing					

Math Department Q12 Frequencies

Bell-Work	71%	Justification	14%	Essay Question	0%	Peer Reviews	0%
Writing		Writing		Writing			
Constructed	71%	Observations	14%	Expository	0%	Performance	0%
Response				Writing		Analysis	
Explanatory	71%	Research	14%	Family History	0%	Poetry Writing	0%
Writing		Papers		Writing			
Notes	71%	Rule Writing	14%	Finance Reports	0%	Presentation	0%
		_		-		Proposals	
Compare/Contrast	43%	Self	14%	Game Design	0%	Prof. Email	0%
1		Evaluations		Writing		Writing	
Exit Ticket	43%	What if?	14%	Grant Writing	0%	Program Writing	0%
Writing		Writing				2 6 m	
Short Answers	43%	AP Writing	0%	History Writing	0%	Project	0%
		Prompts		,		Proposals	
Concept Maps	29%	Biography	0%	Lab Reports	0%	Reports	0%
Conceptinups	_>,0	Writing	0,0	Zuo ruporus	0 / 0	reports	0,0
Definition	29%	Budget	0%	Letters	0%	Script Writing	0%
Writing	2770	Reports	070	Letters	070	sempt witting	070
Guided Notes	29%	Business	0%	Literary Analysis	0%	Senior Thesis	0%
	_>,0	Summaries	0,0	Zittiai ji iliai ji ili	0 / 0	Writing	0,0
Journal Writing	29%	Career	0%	Literature	0%	Speech Writing	0%
vourier writing	2770	Journal	070	Reviews	070	Specen Willing	0 70
		Writing		100 110 115			
Listing	29%	Citation	0%	Long Lab Reports	0%	Summation	0%
Listing	2770	Writing	070	Long Lao Reports	0 / 0	Writing	0 70
Article Responses	28%	Common App	0%	Memoirs	0%	Timed Essays	0%
Article Responses	2070	Essays	0 /0	Wichions	0 /0	Timed Essays	0 /0
Article/Source	14%	Current	0%	Memos	0%	Translation	0%
Analysis	14%	Events	0%	Memos	0%	Writing	0%
Allarysis						witting	
Caratina Waitina	1.40/	Writing	00/	N1-44	00/		
Creative Writing	14%	Data	0%	Newsletters	0%		
EDO	1.40/	Recording	00/	O : : M. : .:	00/	_	
FRQs	14%	DBQs	0%	Opinion Writing	0%		

Social Studies Department Q12 Frequencies

					0		0.5.1
Compare/Contrast	82%	Current	27%	Literary Analysis	9%	Memoirs	0%
		Events					
		Writing					
FRQs	73%	Letters	27%	Literature	9%	Newsletters	0%
				Reviews			
Article Responses	72%	Opinion	27%	Memos	9%	Performance	0%
		Writing				Analysis	
Article/Source	72%	Outlines	27%	Observations	9%	Poetry Writing	0%
Analysis							
AP Writing	64%	Peer Reviews	27%	Presentation	9%	Program Writing	0%
Prompts				Proposals		e e	
Bell-Work	64%	Concept	18%	Prof. Email	9%	Project	0%
Writing		Maps		Writing		Proposals	
DBQs	64%	History	18%	Senior Thesis	9%	Reports	0%
BBQs	0170	Writing	1070	Writing	<i>></i> /0	reports	0 70
Essay Question	64%	Listing	18%	Biography	9%	Rule Writing	0%
Writing	0+70	Listing	1070	Writing	<i>J 7</i> 0	Rule Willing	0 /0
Short Answers	64%	Business	9%	Budget Reports	9%	Script Writing	0%
Short Allswers	0+70	Summaries	<i>J 7</i> 0	Dudget Reports	<i>J 7</i> 0	Script Willing	0 /0
Exit Ticket	46%	Common App	9%	Career Journal	0%	Self Evaluations	0%
Writing	40%		9%	Writing	0%	Sell Evaluations	0%
	1.0/	Essays	9%		00/	Connection White	0%
Notes	46%	Diagrams	9%	Creative Writing	0%	Speech Writing	0%
Research Papers	46%	Explanatory	9%	Data Recording	0%	Summation	0%
resourch rupors	.070	Writing	,,,	2 and 110001amg	0,0	Writing	0,0
		· · · · · · · · · · · · · · · · · · ·				· · · · · · · · · · · · · · · · · · ·	
Constructed	36%	Expository	9%	Family History	0%	Translation	0%
Response	3070	Writing	<i>J</i> /0	Writing	070	Writing	0 / 0
Response		witting		Willing		witting	
Definition	36%	Finance	9%	Game Design	0%	What if? Writing	0%
Writing	3070	Reports	<i>J 7</i> 0	Writing	0 /0	what it: witting	0 /0
Guided Notes	36%	Group	9%	Grant Writing	0%		
Guided Motes	3070	Writing	<i>77</i> 0	Grant Withing	070		
Timed Farrer	260/		00/	Instification	00/	_	
Timed Essays	36%	Journal	9%	Justification	0%		
CI II TYY III	2501	Writing	001	Writing	061	_	
Citation Writing	27%	Lab Reports	9%	Long Lab Reports	0%		

Health, Physical Education, and Recreation Department Q12 Frequencies

Article Responses	80%	Journal Writing	20%	FRQs	0%	Performance Analysis	0%
Essay Question Writing	80%	Listing	20%	Finance Reports	0%	Poetry Writing	0%
Bell-Work Writing	60%	Notes	20%	Family History Writing	0%	Presentation Proposals	0%
Article/Source Analysis	40%	Reports	20%	Game Design Writing	0%	Prof. Email Writing	0%
Current Events Writing	40%	Short Answers	20%	Grant Writing	0%	Program Writing	0%
Definition Writing	40%	AP Writing Prompts	0%	Group Writing	0%	Project Proposals	0%
Observations	40%	Biography Writing	0%	Justification Writing	0%	Rule Writing	0%
Opinion Writing	40%	Budget Reports	0%	Lab Reports	0%	Script Writing	0%
Research Papers	40%	Business Summaries	0%	Letters	0%	Senior Thesis Writing	0%
Self Evaluations	40%	Citation Writing	0%	Literary Analysis	0%	Speech Writing	0%
Career Journal Writing	20%	Common App Essays	0%	Literature Reviews	0%	Summation Writing	0%
Compare/Contrast	20%	Concept Maps	0%	Long Lab Reports	0%	Timed Essays	0%
Constructed Response	20%	Creative Writing	0%	Memoirs	0%	Translation Writing	0%
Exit Ticket Writing	20%	Data Recording	0%	Memos	0%	What if? Writing	0%
Explanatory Writing	20%	DBQs	0%	Newsletters	0%		
Guided Notes	20%	Diagrams	0%	Outlines	0%	_	
History Writing	20%	Expository Writing	0%	Peer Reviews	0%	_	

Fine Arts Department Q12 Frequencies

Compare/Contrast	80%	History Writing	40%	Reports	20%	Long Lab Reports	0%
Essay Question Writing	80%	Journal Writing	40%	Short Answers	20%	Memoirs	0%
Article Responses	60%	Justification Writing	40%	AP Writing Prompts	0%	Newsletters	0%
Bell-Work Writing	60%	Listing	40%	Budget Reports	0%	Poetry Writing	0%
Biography Writing	60%	Opinion Writing	40%	Business Summaries	0%	Prof. Email Writing	0%
Creative Writing	60%	Performance Analysis	40%	Common App Essays	0%	Program Writing	0%
Definition Writing	60%	Research Papers	40%	Data Recording	0%	Rule Writing	0%
Explanatory Writing	60%	Article/Source Analysis	20%	DBQs	0%	Script Writing	0%
Letters	60%	Career Journal Writing	20%	Diagrams	0%	Senior Thesis Writing	0%
Notes	60%	Concept Maps	20%	Expository Writing	0%	Speech Writing	0%
Observations	60%	Current Events Writing	20%	FRQs	0%	Summation Writing	0%
Peer Reviews	60%	Group Writing	20%	Finance Reports	0%	Timed Essays	0%
Project Proposals	60%	Literary Analysis	20%	Family History Writing	0%	Translation Writing	0%
Self Evaluations	60%	Literature Reviews	20%	Game Design Writing	0%	What if? Writing	0%
Citation Writing	40%	Memos	20%	Grant Writing	0%		
Constructed Response	40%	Outlines	20%	Guided Notes	0%	=	
Exit Ticket Writing	40%	Presentation Proposals	20%	Lab Reports	0%	-	

Foreign Language Department Q12 Frequencies

Compare/Contrast	100%	Journal Writing	50%	Literary Analysis	17%	History Writing	0%
Essay Question Writing	100%	Letters	50%	Memoirs	17%	Justification Writing	0%
AP Writing Prompts	83%	Opinion Writing	50%	Memos	17%	Lab Reports	0%
Article Responses	67%	Self Evaluations	50%	Observations	17%	Literature Reviews	0%
Creative Writing	67%	Timed Essays	50%	Performance Analysis	17%	Long Lab Reports	0%
Group Writing	67%	Current Events Writing	33%	Reports	17%	Newsletters	0%
Notes	67%	Data Recording	33%	Research Papers	17%	Outlines	0%
Short Answers	67%	Family History Writing	33%	Summation Writing	17%	Presentation Proposals	0%
Translation Writing	67%	FRQs	33%	Budget Reports	0%	Program Writing	0%
Article/Source Analysis	50%	Listing	33%	Business Summaries	0%	Project Proposals	0%
Bell-Work Writing	50%	Peer Reviews	33%	Career Journal Writing	0%	Rule Writing	0%
Biography Writing	50%	Poetry Writing	33%	Citation Writing	0%	Script Writing	0%
Constructed Response	50%	Prof. Email Writing	33%	Common App Essays	0%	Senior Thesis Writing	0%
Definition Writing	50%	What if? Writing	33%	Expository Writing	0%	Speech Writing	0%
DBQs	50%	Concept Maps	17%	Finance Reports	0%		
Explanatory Writing	50%	Diagrams	17%	Game Design Writing	0%	•	
Guided Notes	50%	Exit Ticket Writing	17%	Grant Writing	0%	-	

APPENDIX G

Internal Review Board Approval

IRB

INSTITUTIONAL REVIEW BOARD

Office of Research Compliance, 010A Sam Ingram Building, 2269 Middle Tennessee Blvd Murfreesboro, TN 37129



EXEMPT APPROVAL NOTICE

7/13/2015

Investigator(s): Lando Carter Department: College of Education

Investigator(s) Email: jlc3s@mtmail.mtsu.edu

Protocol Title: "Searching for a Shared Vision of Writing Assessment: Moving from WAC to

WACA *

Protocol ID: 15-350

Dear Investigator(s),

The MTSU Institutional Review Board, or a representative of the IRB, has reviewed the research proposal identified above and this study has been designated to be EXEMPT.. The exemption is pursuant to 45 CFR 46.101(b) (1) Evaluation/Comparison of Instructional Strategies/Curricula

The following changes to this protocol must be reported prior to implementation:

- · Addition of new subject population or exclusion of currently approved demographics
- · Addition/removal of investigators
- Addition of new procedures
- · Other changes that may make this study to be no longer be considered exempt

The following changes do not have to be reported:

- · Editorial/administrative revisions to the consent of other study documents
- · Changes to the number of subjects from the original proposal

All research materials must be retained by the PI or the faculty advisor (if the PI is a student) for at least three (3) years after study completion. Subsequently, the researcher may destroy the data in a manner that maintains confidentiality and anonymity. IRB reserves the right to modify, change or cancel the terms of this letter without prior notice. Be advised that IRB also reserves the right to inspect or audit your records if needed.

Sincerely,

Institutional Review Board Middle Tennessee State University