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Critical Thinking in the Upper Elementary Grades: A Program Evaluation of Write from the Beginning and Beyond: Response to Literature

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Critical Thinking in the Upper Elementary Grades: A Program Evaluation of Write from the Beginning and Beyond: Response to Literature

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Approval Page

This dissertation was submitted by Ginger C. Black under the direction of the persons listed below. It was submitted to the Gardner-Webb University School of Education and approved in partial fulfillment of the requirements for the degree of Doctor of Education at Gardner-Webb University.

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Abstract

Critical Thinking in the Upper Elementary Grades: A Program Evaluation of Write from the Beginning and Beyond: Response to Literature. Black, Ginger C., 2017: Dissertation, Gardner-Webb University, Write from the Beginning and Beyond: Response to Literature/Critical Thinking/Program Evaluation/Literacy

The purpose of this study was to determine the impact the integration of critical thinking through Write from the Beginning and Beyond: Response to Literature had on planning, instruction, and assessment. Based on the school's end-of-grade reading tests scores, educators determined students struggled in reading and designed an action plan using a logic model. The teachers at the intermediate school in the piedmont of North Carolina were previously trained to use the program and determined the program was being implemented as intended. The logic model guided this study to meet medium-term goals.

The impact of the program was measured qualitatively using teacher observations, teacher focus-group interviews, and through document analysis of lesson plans and the program guide. Quantitative data were collected using teacher surveys.

The results from this study led the researcher to conclude Write from the Beginning and Beyond: Response to Literature is a support system to assist with the integration of critical thinking in the English language arts classroom as recommended by the P21 Framework and positively impacted teachers' planning, instruction, and assessment. Professional development implemented as PLCs positively developed the teachers' continued understanding of using the program. Establishing one definition of critical thinking provided guidance and unified understanding for the teachers. Critical thinking integrated through the program was observable in teachers' planning, instruction, and assessment using Scriven and Paul's critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating.

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Chapter 1: Introduction and Problem Statement

The 21st century requires students to have strong literacy skills and thinking skills to interpret complex text. The Common Core State Standards (CCSS), high-stakes testing, and national and state standards emphasized the importance of strong comprehension skills and the ability to respond to complex, rigorous text (North Carolina Department of Public Instruction [NCDPI], 2014; United States Department of Education, 2004). Graham and Hebert (2010) stated, "somewhere between one half to two thirds of new jobs in the future will require a college education and higher-level of literacy skills" (p. 7). Friedman and Mandelbaum (2011) stated the educational system is not preparing future generations to lead our nation in the correct direction.

The Partnership for 21st (P21) Century Learning (2015) formulated a framework to support expected student outcomes and provides a support system to help achieve necessary skills for the future. P21 Century Skills was formed in 2002 and consisted of business, education, community, and government leaders who collaboratively developed the Framework for 21st Century Learning to encourage educators to integrate 21st century skills with core academics. The framework described how to blend skills, content, and proficiencies students will need to be successful adults in the 21st century (Zhao, 2009). According to researchers at P21 Century Skills (2007c), learning and innovation skills are increasingly recognized as the skills that prepare students for increasingly complex lives and work environments in the 21st century. How will educators prepare future generations to be critical thinkers and prepared for their future?

Background

According to Graham and Hebert (2010), "American students today are not meeting even basic literacy standards and their teachers are often at a loss for how to help

them" (p. 2). Some researchers (Lee, Grigg & Donahue 2007; Salahu-Din, Perksy, and Miller, 2008) believed there have been improvements in American student literacy achievement; however, many students are performing below grade level in reading.

The No Child Left Behind (NCLB) Act of 2001 stated students should receive a high-quality education and be proficient on challenging state achievement standards and tests (United States Department of Education, 2004). Every Student Succeeds Act (ESSA), signed by President Obama in 2015, stated all students should be held to high academic standards to ensure their success in college and careers (The White House, 2015). National and state mandates and adoptions of the CCSS demand educators to engage students in critical thinking, rigor, and increased text complexity to be prepared for the demands of college and careers. According to NCDPI (2014), North Carolina state assessments were developed based on the college and career readiness content standards set forth from the adoption of the CCSS. The goal of the North Carolina Read to Achieve legislation initiative outlined in the Excellent Public Schools House Bill 950 is to ensure all third graders are reading proficiently and fluently and are prepared to read complex texts needed for college and careers (NCDPI, 2015).

How do educators bridge gaps missing between students' reading and comprehension skills to prepare them for the demands set forth by state and national governments? How do they create classrooms to prepare students to be CCR? What literacy strategies will prepare a nation of students who are prepared to be global citizens with the abilities to think critically and comprehend rigorous, complex texts? According to Friedman and Mandelbaum (2011), "the only way to improve outcomes is to improve instruction" (p. 111).

Concerns arise around the impact high-stakes tests have placed on the deficit of

instruction and curriculum in schools today. Many researchers stated high-stakes tests are the reason teachers do not emphasize teaching a curriculum which helps students develop critical thinking skills (Landsman & Gorski, 2007; Rothenstein, Wilder, & Jacobson, 2007). Schools across America may be meeting the needs of adequate yearly progress but are failing students in preparing them to be citizens of a competitive global economy. Burke, Williams, and Skinner (2007) and Wagner (2008) noted teachers are preparing students for standardized tests but are not infusing critical thinking into the curriculum. Critical thinking skills are important for students to be successful and to be competitive in the future workforce (Rothenstein et al., 2007; Walker, 2000). According to Daggett (2005), standardized tests are limiting students' chances for success in a global marketplace; instead of focusing on testing, educators should be responsible for developing critical thinking skills in their students to help them be prepared for the future.

P21 Century Learning (2015) defined the need to support learning and innovative skills such as critical thinking directly through core subjects to prepare students for a successful life and to equip them with knowledge and skills needed for the workforce. Student outcomes outlined by the P21 Framework integrate content; learning and innovation skills; information, media, and technology skills; and life and career skills (P21 Century Learning, 2015). According to P21 Century Skills (2007b), it is imperative that students be able to use creativity, critical thinking, communication, and collaboration for a complex life and work environments of the 21st century.

How can educators evolve their educational practices to meet the global demands to prepare students to be 21st century thinkers? The art of teaching literacy has been impacted by high-stakes testing, national and state mandates, and the implications of the

CCSS. According to Goatley and Hinchman (2013), the implementation of the CCSS should focus on long-term goals of literacy achievement in students and appropriate implementation of a fitting literacy program. Gumble (2014) explained the goal of the CCSS–English language arts (CCSS–ELA) is to prepare all students to be CCR by high school graduation.

Graham and Hebert (2010) pointed to the relationship of strong literacy skills to student success. In their meta-analysis, Graham and Hebert found three strong instructional practices recommended for improving student reading comprehension skills. Graham and Hebert found student reading comprehension can be improved by increasing the amount of time students write. In addition, they determined student reading and comprehension skills are improved if teachers explicitly teach them the writing process. The strongest recommendation was to have students write about text they have read by responding to text, writing summaries, writing notes about the text, or answering questions (Graham & Hebert, 2010).

Problem Statement

P21 Century Learning (2015) and other researchers have suggested classrooms need to shift from the traditional mode of the teacher bestowing knowledge upon students to teachers who engage students to use a critical lens to examine texts (Coffey, 2008). The concern for teachers lies in identifying effective methods of instruction and curriculum that foster learning and innovative skills in students.

Wagner (2008) included critical thinking as one of seven survivor skills required to be successful in the workplace. Wagner concluded students should be taught how to be critical thinkers; and Geyer (2006) felt society needs critical thinkers for human existence. Educational programs should include critical thinking skills to increase the

achievement in all students (Nathan, 2008). Paul (1995) also believed critical thinking was the essential foundation to prepare students for the demands of personal, social, and professional expectations of the 21st century. Further, the U.S. Bureau of Labor Statistics (as cited by Law & Kaufhold, 2009) concluded critical thinking would be an important skill to possess for jobs in America. Law and Kaufhold (2009) stated critical thinking is an area of weakness in graduating high school students. Therefore, educators must find a balance of rigorous curriculum, the demands of high-stakes testing, and helping students acquire critical thinking skills to succeed in a competitive globalized world.

The researcher studied frameworks that supported the implementation of critical thinking and programs designed to support 21st century skills in the classroom. Snyder and Snyder (2008) explained the obstacles inhibiting integration of teaching critical thinking in schools: (a) teacher training, (b) shortage of information provided to educators, (c) preconceived ideas of critical thinking, and (d) lack of time to teach skills. The traditional role of education will need to be transformed to incorporate teaching the Four C's (creativity, communication, collaboration, and critical thinking) to prepare students to be critical thinking citizens. Paul (1992) suggested traditional classrooms emphasize covering content versus developing higher order thinking skills such as critical thinking. Sternberg and Martin (1988) held conversations with educators and determined many of them believed they "teach for thinking" however are unsure if their students are learning how to think (p. 570). Further, Hauff (2007) found students are concerned about being educated on how to think. Hauff recommended teaching should involve guiding students on how to think using questioning practices which lead to higher levels of thinking. As Costa (2010) stated, teachers will need to change the mindsets they have

regarding what is taught, how it is taught, and how students are assessed to determine what they have learned. Educators will need to have knowledge of critical thinking and best practices for teaching students to be critical thinkers (Williams, 2005).

Purpose of the Study

North Carolina State Board of Education has adopted a policy to infuse 21st century skills into classrooms across the state (NCDPI, 2012-2013). The policy utilizes the P21 Framework to support the instruction of the Learning and Innovation Skills, also referred to as the Four C's: collaboration, communication, critical thinking, and creativity. For the purposes of this study, the Framework for 21st Century Learning (P21 Century Skills, 2009) served as the foundation for research. The study focused specifically on critical thinking from the Learning and Innovation Skills section of the framework. These skills are needed for success in work, life, and citizenship represented on the Framework for 21st Century Learning.

The Write from the Beginning and Beyond: Response to Literature (WFTBB: RL) program integrates teaching reading and writing. The WFTBB: RL program creates a common focus for school-wide writing performance, helps teachers meet the needs of individual learners, and helps schools assess strengths and weaknesses of student reading comprehension (Buckner, 2011). The program is designed to help teachers guide students through the process of explaining and supporting their thinking about a particular piece of literature using three stages of implementation: oral responses, open-ended responses, and formal written responses. The three stages of the program were evaluated to determine the impact each has on the integration of critical thinking in planning, instruction, and assessment in the English Language Arts (ELA) classroom.

Using mixed-methods research, the study focused on the impact of critical

thinking through the WFTBB: RL program. The researcher and other practitioners at the site evaluated the integration of critical thinking through the stages of the program: oral responses, open-ended responses, and formal written responses. This study determined the impact of the integration of critical thinking through the WTFBB: RL program in planning, instruction, and assessment.

Research Questions

This study consisted of mixed-methods research combining quantitative and qualitative data to answer the questions related to the program evaluation. This study evaluated the medium outcomes of the logic model focusing on the overarching research question leading the study: How does the integration of critical thinking through the stages of the WFTBB: RL program (oral responses, open-ended responses, and formal written responses) impact planning, instruction, and assessment in the ELA classroom?

In order to answer the principal research questions, quantitative and qualitative data were used to answer the following research questions.

1. To what extent do the stages of the WFTBB: RL program align with the defined components of critical thinking?
2. To what extent are all the stages of the WFTBB: RL program integrated into planning, instruction, and assessment?
3. How can the integration of critical thinking using WFTBB: RL be described in planning, instruction, and assessment?
4. How does the integration of WFTBB: RL impact learning environments with regard to critical thinking?
5. How does integration of WFTBB: RL impact student learning with regard to critical thinking?

Researcher's Role

The researcher, as a fourth-grade teacher, has an established relationship with the teachers and students at Carsimad Intermediate School (a pseudonym). The researcher has created a respectful environment with the faculty and works cooperatively with all staff members. Previously, the researcher participated as an internal evaluator during the process evaluation of WFTBB: RL conducted at the site. The conclusion of the process evaluation determined staff participation in professional learning communities (PLCs) helped participating stakeholders understand the stages of the program and all were implementing each stage. Upon completion of the process evaluation, the stakeholders determined implementation of the WFTBB: RL program should continue to be supported and outcomes should be evaluated. During this study, the researcher participated as an internal evaluator at the same site to conduct a program evaluation focused on outcomes utilizing a logic model.

The researcher led professional development to support the stakeholders to support the continued implementation of the program. The researcher led the stakeholders to function as a PLC to analyze student work to discuss student outcomes.

The researcher completed an analysis of the program guide (Appendix A) to determine the extent to which the WFTBB: RL program aligned with components of critical thinking using Scriven and Paul's (1996) definition and attributes of critical thinking. The researcher also analyzed grade-level lesson plans to evaluate the extent to which all the stages of the WFTBB: RL program were integrated into planning, instruction, and assessment (Appendix B).

The researcher created an observation checklist (Appendix C) of critical thinking strategies using Scriven and Paul's (1996) description of critical thinking. The researcher

conducted classroom observations using the critical thinking observation checklist (Appendix C) to determine the extent to which all stages of the WFTBB: RL program were integrated into instruction and assessment. During classroom observations, the researcher described the integration of critical thinking throughout instruction and assessment.

The researcher conducted focus groups (Appendix D) with each grade level to collect teacher perceptions of the outcomes of the integration of critical thinking through the WFTBB: RL program. These data helped determine the extent to which the stages of the WFTBB: RL program were integrated into planning, instruction, and assessment. Focus-group data collected by the researcher also provided a description of the integration of critical thinking using WFTBB: RL in planning, instruction, and assessment. Further, the researcher collected teacher perception data in focus groups regarding the impact the integration of critical thinking with the WFTBB: RL program has on the learning environment and student learning.

The researcher created teacher surveys (Appendix E) used to gather the perceptions of the educators regarding the integration of critical thinking through the WFTBB: RL program. The surveys gathered data focused on the alignment of the stages of the WFTBB: RL program with the defined components of critical thinking. Teacher perceptions of the extent to which all stages of the program were integrated into planning, instruction, and assessment were collected through the surveys. The surveys gathered the perceptions of the teachers regarding the integration of critical thinking through WFTBB: RL in planning, instruction, and assessment. The surveys also focused on the impact on learning environments and student outcomes through the integration of WFTBB: RL with regard to critical thinking.

The researcher worked with the third-, fourth-, and fifth-grade teachers to analyze the data and determine the outcomes of the program evaluation. Positive relationships established within the school aided the research collection.

Theoretical Framework

The research is grounded in critical thinking theory and philosophies. Critical thinking dates back to Socrates's vision of critical thinking. He valued exploring questions about others' words and the actions taken by people (Foundation for Critical Thinking, 2015). The researcher studied Socratic Seminars and compared this program to WFTBB: RL. The methods related to Socratic Seminars were included in the literature review. According to the Foundations for Critical Thinking (2015), Socratic Questioning was developed to instill reflective practices in learners. This included examination of ideas, analysis, and determining implications. The WFTBB: RL program focuses on planning questions for instruction to help students progress through the three stages of the program: oral responses, open-ended responses, and formal written responses. Additionally, the WFTBB: RL program directs educators to develop student comprehension of literature by planning questions which help students though a progression of levels of understanding to continue to build comprehension.

Practices for teaching critical thinking have long been debated. This study focused on the use of the integration of critical thinking through the WFTBB: RL program to infuse critical thinking into ELA classrooms which is supported by Paul and Elder (1997) and Scriven and Paul (1996). The research was also grounded in the various definitions of critical thinking in education. Scriven and Paul's definition of critical thinking was used for the foundation of this research. Scriven and Paul stated, "critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing,

applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action" (para. 1).

Conceptual Framework

The conceptual framework for this study was designed using theories of critical thinking found during the review of literature. The conceptual framework included attributes of critical thinking determined by the researcher using Scriven and Paul's (1996) definition of critical thinking. The conceptual framework for this research was constructed by concentrating on the learning and innovation section of the 21st Century Student Outcomes and Support System Framework created by P21 Century Learning (2015) as shown in Figure 1.

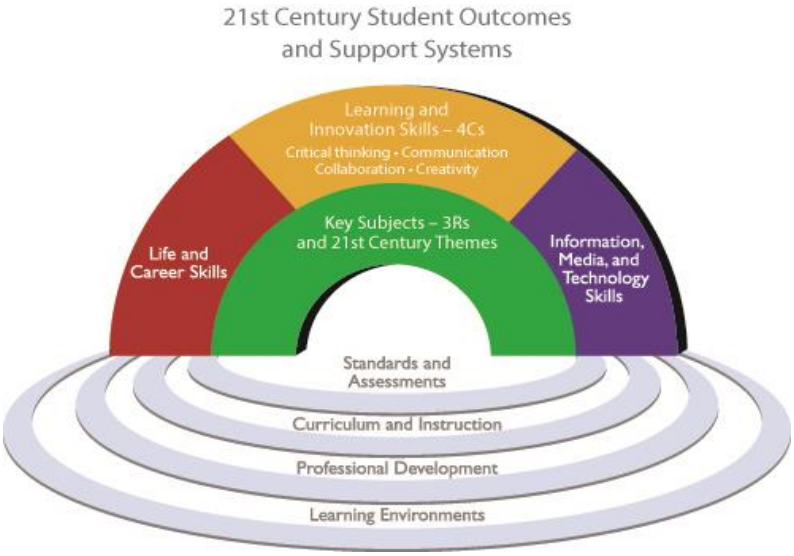

Figure 1. 21st Century Framework for connecting student outcomes with support systems. This framework was used during the study as part of the conceptual framework. Adapted from "Framework for 21st Century Learning," by P21 Century Learning, retrieved from www.p21.or/about-us/p21-framework. Copyright 2015 by P21 Century Learning.

The foundation of this study is critical thinking as a learning and innovation skill outlined by the P21 Framework and critical thinking attributes defined by Scriven and Paul (1996). P21 Century Learning (2015) includes standards, assessment, curriculum, instruction, professional development, and learning environments in their framework as "critical systems necessary to ensure student mastery of 21st century skills" (p. 7). The educators involved in the program evaluation used CCSS-ELA standards to plan instruction and assessment of the WFTBB: RL program. The stakeholders worked as a PLC to plan instruction and assessment of the program to support the continued implementation of the program. The conceptual framework was used as a resource for the researcher to guide the evaluation of the impact the integration of critical thinking through the stages of the WFTBB: RL program had on planning, instruction, and assessment.

Buckner (2011) stated the program intends to lead students through stages of understanding literature: initial, interpretative, reflective, and critical. The conceptual framework focused on the critical stage of understanding literature to evaluate the alignment with Scriven and Paul's (1996) attributes of critical thinking. The conceptual framework guided the evaluation to determine the impact of the integration of components of critical thinking through the three stages of WFTBB: RL: oral questioning, open-ended responses, and written responses. The framework was also used as a guide to evaluate the impact of the integration of critical thinking through the WFTBB: RL program on student outcomes; planning, instruction, and assessment; and the learning environment.

The conceptual framework displayed specific elements of the adapted P21 framework in relation to implementing the WFTBB: RL program, attributes of critical

thinking, and the stages of student understanding and instruction of WFTBB: RL. The conceptual framework, shown in Figure 2, illustrates the research process.

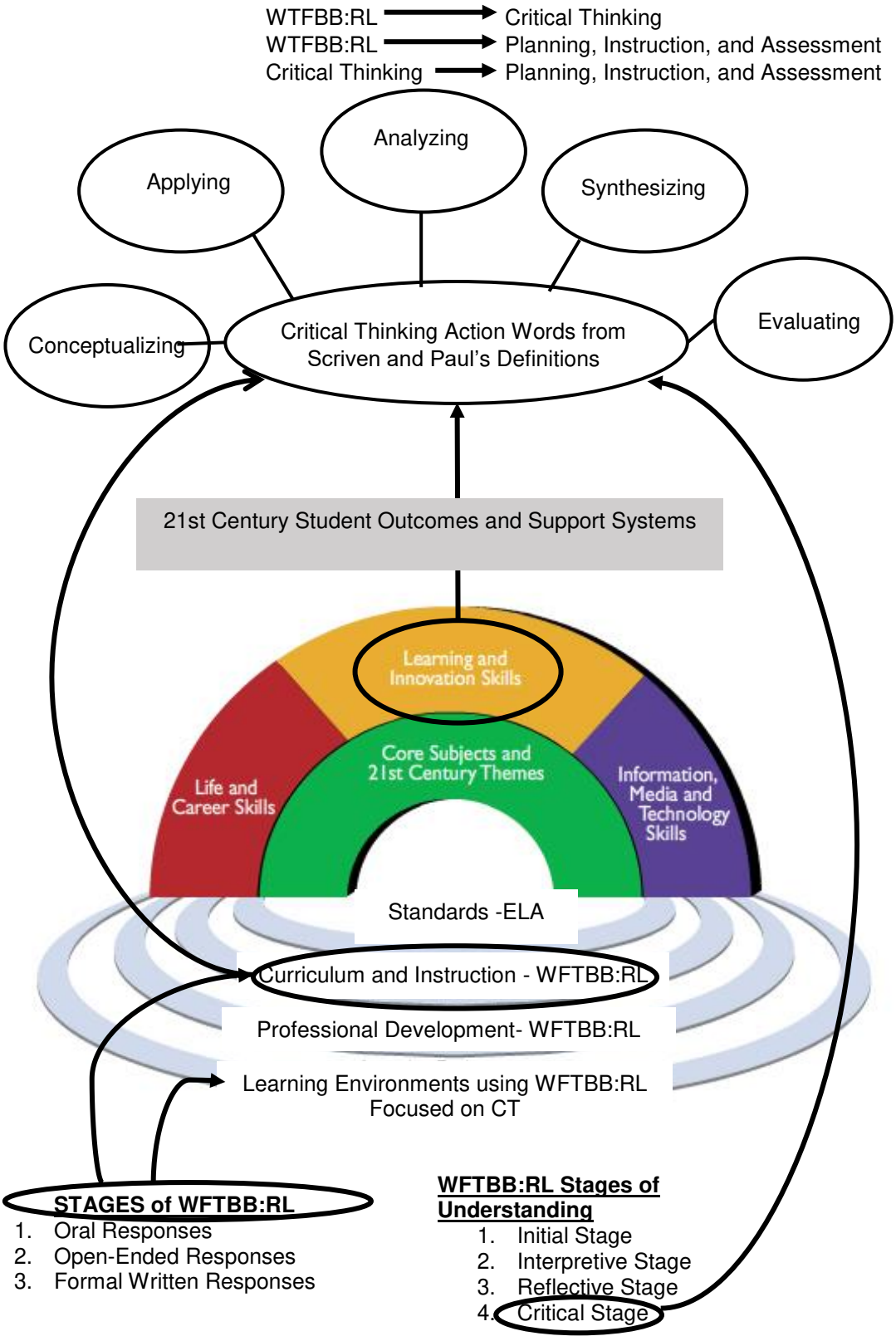
WTFBB:RL → Critical Thinking
WTFBB:RL → Planning, Instruction, and Assessment
Critical Thinking → Planning, Instruction, and Assessment
Analyzing
Applying
Synthesizing
Conceptualizing
Critical Thinking Action Words from Scriven and Paul's Definitions
Evaluating
21st Century Student Outcomes and Support Systems
Learning and Innovation Skills
Core Subjects and 21st Century Themes
Life and Career Skills
Information, Media and Technology Skills
Standards -ELA
Curriculum and Instruction - WFTBB:RL
Professional Development- WFTBB:RL
Learning Environments using WFTBB:RL Focused on CT
STAGES of WFTBB:RL
1. Oral Responses
2. Open-Ended Responses
3. Formal Written Responses
WFTBB:RL Stages of Understanding
1. Initial Stage
2. Interpretive Stage
3. Reflective Stage
4. Critical Stage

Figure 2. Adapted from components of the *Write from the Beginning and Beyond: Response to Literature* program by Buckner (2008, pp. 7-33). Copyright 2011 by Thinking Maps. Adapted from "Framework for 21st Century Learning," by P21 Partnership for 21st Century Learning, retrieved from www.p21.or/about-us/p21-framework. Copyright 2015 by the Partnership for 21st Century Learning.

The conceptual framework was constructed using the 21st Century Student Outcomes and Support Systems created by P21 Century Learning (2015). This research focused on critical thinking from the Learning and Innovation section of the P21 Framework. The impact of the integration of critical thinking through the WFTBB: RL program and the stages of understanding outlined in the program were connected to the action words from Scriven and Paul's (1996) definition of critical thinking. The conceptual framework also displayed the stages of the WFTBB: RL program that were evaluated to detemine the impact each has on curriculum and instruction (planning, instruction, assessment, and student outcomes) and the learning environment.

Logic Model

This study also used a logic model created previously by stakeholders to conduct a process evaluation of the WFTBB: RL program. Figure 3 shows the logic model used during the evaluation.

Logic Model of the use of Write from the Beginning and Beyond: Response to Literature (WFTBB: RL) to develop critical thinking skills to enhance comprehension of complex texts for students at Carsimad Intermediate.

Situation: Students at Carsimad Intermediate need to improve comprehension skills based on results of comprehensive needs assessment; stakeholders desire a program which provides common ground for teaching and improving comprehension skills; and the school has no additional funds to purchase new reading program and staff has WFTBB: RL program.

Inputs	**Output**		**Outcomes**		
Resources →	*Activities* →	*Participation* →	*Short-Term* →	*Medium-Term* →	*Long-Term*
Teachers					
WFTBB: RL program guide Training to use WFTBB: RL Literature to use with program Classroom Teachers Thinking Maps Resources	Teachers will implement the WFTBB:RL program during literacy Teachers will progress students through the stages of understanding Teachers will plan together using the provided planning guide	3rd, 4th, and 5th grade teachers	100% of teachers trained to use the program Implement WFTBB:RL with fidelity by progressing students through the stages of implementation PLC established to plan ELA plans using WFTBB:RL Decision-oriented evaluation.	Integration of all stages of WFTBB:RL program in the classroom in planning and instruction Formative assessment of student work during oral and open-ended responses. Summative assessment of student work during formal written responses Learning environments build critical thinking skills in students using the program WFTBB:RL	Improvement of instruction to increase students' abilities to comprehend complex texts Improved scores on classroom assessments Improved standardized reading test scores
Students					
Literature, Thinking Maps and other activities, writing prompts	Students will respond to literature through oral responses, open-ended responses, and formal written responses	3rd, 4th, and 5th grade students	Students will participate in stages of the program	Students working to progress to think critically using WFTBB:RL	Increased critical thinking skills in students Improved scores on classroom assessments Improved standardized reading test scores

External Factors: Teachers' time is limited to implement new program, limited time to plan, limited time to collaborate about overall program, student comprehension levels vary, students have various pull-out times, classrooms experience interruptions which disturb the classroom environment

Assumptions: All teachers use Thinking Maps. The program will provide students and teachers opportunties to connect with text they are reading. The oral questioning skills will increase student's ability to respond to open-ended responses with the use of Thinking Maps or other activities. Teachers will model how to write to a variety of prompts and students will learn to write to prompts referencing texts. Students critical thinking skills will increase and lead to improved comprehension of complex texts. Teachers will reflect on lessons and make improvements to the overall implementation of the program.

Figure 3. *Logic Model.*

In order to evaluate outcomes and answer research questions for this evaluation, it was important for the stakeholders to determine if the WFTBB: RL program was implemented as intended. The conclusions from the process evaluation determined short-term outcomes of the logic model had been accomplised. The short-term outcomes included all teachers were trained to use the program, teachers understood the stages of implementing the program, and a PLC was created to support the implementation of WFTBB: RL.

The logic model examines the situation that defines the problem to be addressed throughout the evaluation of the program. This study focused on the medium-term outcomes of the logic model to evaluate the outcomes of the integration of critical thinking through the WFTBB: RL program. The medium-term outcomes of the logic model were monitored throughout the collection and analysis of quantitative and qualitative data which were used to answer the research questions.

Nature of the Study

The research focused on teaching critical thinking through a reading and writing program. The research was conducted through a participatory program evaluation using mixed-methods research to examine the outcomes at one elementary school. Quantitative and qualitative data described the impact of critical thinking through the stages of the WFTBB: RL program in the ELA classroom. Classroom practices were used as the center of the research focused on planning, instruction, and assessment outcomes.

Critical thinking served as the theoretical groundwork for the study. The conceptual framework provided direction for the evaluation. According to Ravitch and Riggan (2012), conceptual frameworks provide justification for why the research is being conducted based on the findings in the literature. Further, the conceptual framework

aligned the process of research design with the process cycle used to answer the research questions (Ravitch & Riggan, 2012). Educators at the site used the logic model (Figure 3) as a guide for the program evaluation.

Definition of Terms

Critical stage of understanding. In this stage, readers analyze and respond to the writer's craft by standing back from the text and pondering how the piece was constructed (Buckner, 2011, p. 10).

Critical thinking. According to Scriven and Paul (1996), "Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action" (para. 1).

Explicit. Bessick (2008) compared explicit instruction to direct instruction.

Immersion. Immersion instruction does not directly teach students critical thinking skills, instead students must acquire critical thinking skills naturally as they engage with content (Ennis, 1989).

Implicit. According to Merriam-Webster Online Dictionary (2015), implicit means understood though not clearly or directly stated.

Infusion. The infusion approach involves instruction in the subject matter and explicit instruction of critical thinking dispositions (Ennis, 1989).

Initial stage of understanding. Buckner (2011) explained the initial stage of understanding involving "basic comprehension of the details" of text (p. 7).

Interpretive stage of understanding.

Readers must consider the entire work in order to respond to a question; however,

> students do not go beyond the pages of the text in this type of response. In other words, students are not required to connect this text to any other text or personal experience. (Buckner, 2011, p. 8)

Reflective stage of understanding. Buckner (2011) stated,

> When readers connect knowledge from the text with their personal knowledge, they have moved into the reflective stage of understanding. The questions at the reflective stage require students to go beyond the written page to their own knowledge and experience. As students reflect, they are making text-to-self, text-to-text, and text-to-world connections. (p. 9)

Response to literature. "Requires the comprehension of a piece of literature. This comprehension involves what is actually written in the text, as well as what is implied between the lines" (Buckner, 2011, p. 5).

Assumptions

The researcher reflected on and defined assumptions pertaining to planning, instruction, assessment, and outcomes of the WFTBB: RL program focusing on critical thinking. The logic model also listed many of these assumptions determined by stakeholders. One assumption from the logic model was teachers who use critical thinking will grow their students' abilities to comprehend and interpret complex text. Also, teachers will use question stems provided by the program and will engage students to think critically about text. A further assumption of the logic model stated students would be encouraged to engage in cooperative learning and encouraged to discover their own understanding in classrooms participating in critical thinking practices using the WFTBB: RL program.

Based on the findings of the process evaluation, the researcher assumed teachers

would teach the components of the program as intended. During the implementation of the program, it was anticipated that teachers would select rigorous texts per their grade level. Another assumption was oral questioning skills would increase student abilities to respond to open-ended questions utilizing Thinking Maps. Additionally, throughout the implementation of this program, the researcher assumed teachers would model how to write using a variety of prompts and students would learn how to write to prompts referencing the texts. The researcher assumed using this program would increase student comprehension skills and teachers would reflect on lessons and make improvements to the overall implementation of the program to achieve desired outcomes.

Scope and Delimitations

The researcher explored existing literature on critical thinking skills including controversies related to instructional methods of teaching critical thinking skills to students, various definitions of critical thinking, critical thinking instruction methods, and research findings related to critical thinking in the educational setting.

The researcher examined various definitions of critical thinking and decided to use Scriven and Paul's (1996) definition and attributes of critical thinking. This definition was also decided upon since NCDPI (2012-2013) supported Scriven and Paul's definition of critical thinking. Through the review of literature, the researcher studied methods for critical thinking instruction. The researcher studied various attributes and dispositions of critical thinking theory to determine the critical thinking components anchoring the conceptual framework. Through her studies, the researcher determined both NCDPI (2012-2013) and P21 Century Learning (2015) supported the infusion method of critical thinking; therefore, the integration of critical thinking skills through the WFTBB: RL program was used during planning, instruction, and assessment.

The researcher discovered different perspectives on the reasons critical thinking was not taught in schools and why it was difficult to teach in classrooms. The review of the literature provided reasons classrooms should teach critical thinking skills and why practicing critical thinking skills is valuable for students in the 21st century.

Further, the researcher investigated the WFTBB: RL program using the program guide, the Thinking Maps website, and through personal contact with the writer of the program. The teacher's guide was used to understand the implementation of the program and the specific stages of the WFTBB: RL program.

Limitations

The study occurred at one elementary school to determine the impact of critical thinking through the WFTBB: RL program in third- through fifth-grade classrooms. This researcher only collected data in third- through fifth-grade classrooms, and the study was only conducted at Carsimad Intermediate School; therefore, results are limited to this intermediate school. The WFTBB: RL program has been evaluated for fidelity with the staff participating in this evaluation; however, bias may have created limitations for the study. The researcher was considered an internal evaluator; therefore, it was important to take necessary steps to ensure the validity of the study.

Significance

Lang (2009) studied the effects of a cognitive-infusion intervention on critical thinking skills and dispositions of preservice teachers and recommended further research related to infusion of critical thinking skills with "more detailed attention on teachers' thought processes (schemata and metacognition) and practices" be conducted (p. 115). Alazzi (2008) explored the perceptions of critical thinking from other countries, and the findings from the study focused on secondary school settings. Alazzi suggested studies

on how to teach, learn, and define critical thinking skills were needed. Martin (1984) stated research on thinking skills, dispositions, and attitudes of teachers is rare to nonexistent. Steffen (2011) found few studies existed which delved into teacher perceptions regarding the practice of critical thinking skills. The data collection methods for this study included the collection of teacher perceptions related to the integration of critical thinking through the WFTBB: RL program on planning, instruction, and assessment. Law and Kaufhold (2009) concluded critical thinking was not being used within many classrooms to teach reading and language arts and many teachers were not aware of strategies to promote critical thinking skills. The program evaluated stated it integrates critical thinking through a reading and writing program.

The researcher evaluated the impact the integration of critical thinking through the WFTBB: RL program had on planning, instruction, and assessment. The outcomes determined during this participatory evaluation could add to the research on critical thinking instruction methods. This research could add value to the use of the P21 Framework to support the integration of 21st century skills into the ELA classroom. The implementation and evaluation of the program could promote teacher understanding of expected outcomes of the WFTBB: RL program at the site. Further, the stakeholders involved in the evaluation process could build their own knowledge of critical thinking and how to effectively integrate critical thinking skills into the ELA classroom.

Summary

Educators are currently teaching students who will be future citizens and workers of the 21st century. Many in the educational setting, the business world, and other experts have determined critical thinking is an important skill for students to be successful. This study will focused on the integration of critical thinking through an ELA

program to determine the impact it has on planning, instruction, and assessment in the classroom.

The link between the need for critical thinking instruction to prepare students for their future and the impact it has on classroom practices was stated as the purpose of this study. The alignment of the theoretical and conceptual frameworks served as the foundation for the study. In Chapter 1, research questions were presented which were examined through data collection to answer to the main research question. The researcher explained the nature of the study, included and defined key terms related to the study, and discussed assumptions related to critical thinking and the WFTBB: RL program. The researcher explained critical thinking theories and frameworks examined for the purposes of this research in the scope and delimitations section. Further, the researcher explained the limitations of the study and the significance the research could contribute to current research on critical thinking instruction.

In Chapter 2, the researcher addresses how current curriculum is not preparing future workers and citizens with skills needed for 21st century careers and citizenship. Likewise, the upcoming chapter concentrates on research related to critical thinking as a necessary skill to be taught to prepare students for college, the workplace, and life. Schmoker (2011) explained curriculum in today's schools should connect student knowledge and their ability to think critically through reading, speaking, and writing. Frameworks and educational programs focused on integrating critical thinking through instruction are included in the review of the literature. Finally, Chapter 2 focuses on the WFTBB: RL program which was evaluated as a major component of this study.

Chapter 2: Literature Review

Introduction

Educational systems across America are held accountable to prepare students for high-stakes testing, learning content standards, and being prepared for 21st century careers and work places. Pearlman (2006) indicated schools in the United States are having difficulties creating learning environments that foster 21st century skills. Glaser (1984) stated education is failing students due to the lack of educators encouraging students to think. Sternberg (2003) felt national achievement could be successful by creating effective thinkers. Many believe critical thinking is not emphasized in classrooms for various reasons.

Some feel educators focus much of their attention on teaching skills and concepts attributed to standardized tests (Grissmer, Flanagan, Kawata, & Williamson, 2000; Kohn, 2001; Snyder & Snyder, 2008). Berliner (2010) suggested the current use of standardized testing is not compatible with the goals of the 21st century or preparing students to be critical thinkers. Standardized tests do not test 21st century skills; therefore, educators do not focus on these skills (Dede, 2009). According to the California Department of Education (2009), the Public School Accountability Act brought forth in 1999 held schools accountable for academic performance based on standardized tests results. Further, NCLB focused on high-stakes testing and improving test scores in ELA and mathematics (Amrein &Berliner, 2002; Oliva, 2005; Rothenstein & Jacobson, 2009). Wagner (2008) emphasized the importance of preparing students to be productive citizens by addressing more than basic concepts and preparing students for tests. Abbott and Ryan (2001) felt standardized tests do not encourage higher order thinking, creativity, or problem solving.

Sternberg (2003) argued teachers remain in traditional roles of teaching by focusing too little on teaching students how to think critically and emphasizing rote memory. Willsen (1997) reasoned educators must stop teaching others what to think and focus on how to teach them to think for themselves and to think effectively about core concepts (Schafersman, 1991). According to Fox (2011), teachers are accustomed to 20th century instructional practices and are resistant to change to meet the needs of the 21st century. Traditional education does not yield students who will be prosperous for future jobs requiring critical thinking and problem solving (Elder, 2000). According to Prensky (2007), traditional curriculum is no longer relevant for today's students because they do not function or learn the same as past generations. Law and Kaufhold (2009) agreed American schools are going in the "opposite direction of fostering critical thinking skills" (p. 30). Landsman and Gorski (2007) argued students are often not taught to think or learn independently, and many students will not naturally be capable of learning to think critically on their own.

Innabi and Sheikh (2006) conducted a survey of 47 mathematics teachers and found teachers did not have a clear definition of critical thinking. According to Innabi and Sheikh, educators lacked the training to implement critical thinking in their classrooms and lacked specific skills and practices for teaching critical thinking in their classrooms. Innabi and Sheikh recommended, "the idea of critical thinking be transferred from the realm of rhetoric to the field of practice. In order to help students think critically, we have to teach for critical thinking" (p. 6). Dede (2009) stated there is not enough professional development to help educators and leaders "unlearn the beliefs, values, assumptions, and cultures underlying schools' industrial-era operating practices" (p. 4). Abrami et al. (2008) discovered critical thinking instruction and effectiveness of

critical thinking assessment were causes of concern for those in education.

Critical thinking has been designated as a learning and innovative skill necessary for students to utilize in 21st century classrooms. P21 Century Skills (2008) determined critical thinking should be infused into core subjects. Broadbear (2003) stated teachers do not receive training on critical thinking methodologies or how to teach this skill to students in their classrooms. Scriven and Paul (1996) addressed the lack of instructional materials teachers are provided to teach or infuse critical thinking into curriculum. Additionally, McGuire (2010) questioned methodologies to develop students' critical thinking abilities.

In this chapter, the researcher described the sources used to find research and the types of resources that were explored. The theoretical and conceptual frameworks used in the research are discussed and supported in this chapter. The literature review listed the various definitions of critical thinking and examined the methods for teaching critical thinking. Additionally, this section uncovered the reasons why critical thinking is not taught in schools and why it should be included in the curriculum. The literature review provided current research regarding the components of the ELA classroom and the WFTBB: RL program. Further, the researcher uncovered the research related to Socratic Seminars due to its similarities to the program being evaluated. The P21 Framework and the WFTBB: RL program were examined to provide the reader information related to the program evaluation.

Scope of the Literature

The researcher accessed search terms focused on critical thinking definitions and critical thinking methods. The research dated back to Socrates ideas which existed around critical thinking minds. The researcher included additional literature related to

critical thinking in the field of education. The researcher discovered the various methods for implementing critical thinking in the classroom. The researchers' literature review was created using a variety of writing including peer-reviewed literature, educational literature, educational thesis, meta-analysis, dissertations, and books. The candidate utilized ProQuest Flow to locate peer-reviewed documents, dissertations, thesis, and other educational literature. The candidate specifically focused on the P21 Century Learner website to study the P21 Framework and the NCDPI website to research educational frameworks.

The review of the literature helped the researcher define the underpinning theory for this study and learn what already existed in the field of critical thinking. Further, the literature review guided the researcher to combine knowledge discovered from the research, personal interest in critical thinking, and the determined needs of the site to conceptualize a framework for this study.

Theoretical Framework

The researcher selected Scriven and Paul's (1996) definition of critical thinking from the numerous definitions of critical thinking found during the review of literature. Scriven and Paul's definition is identified and supported by NCDPI (2012-2013) and the Center for Critical Thinking. Scriven and Paul's definition of critical thinking contains action words he used to define critical thinking. For the purpose of this study, the researcher used these words as attributes to describe critical thinking. The action words were used to determine the impact of the integration of critical thinking through WFTBB: RL on planning, instruction, and assessment.

Additionally, the researcher discovered different philosophies for the instruction of critical thinking. NCDPI (2012-2013) addressed infusing 21st century skills through

core subjects as modeled the P21 Framework; therefore, the educators integrated critical thinking skills during the instruction of the WFTBB: RL program. The methods for instructing critical thinking instruction were not evaluated during this research; however, the infused instructional method was used by the teachers at the site to integrate critical thinking through the WFTBB: RL program.

Conceptual Framework

Critical thinking is recommended by many as a skill needed for the 21st century. The researcher determined the 21st Century Student Outcomes and Support System Framework created by P21 Century Learning would be the foundation for the research to support the integration of critical thinking in the ELA WFTBB: RL program. The researcher concentrated on the student Learning and Innovations Outcomes section. The Learning and Innovations skills included critical thinking as one of the 4C's students need for the 21st century.

The conceptual framework was designed based on the theory of critical thinking obtained from the review of the literature. The researcher focused on Scriven and Paul's (1996) definition of critical thinking and the action words he used to describe critical thinking. The action words were used to define critical thinking and were used to determine the impact of the integration of critical thinking through the WFTBB: RL program in planning, instruction, and assessment.

The stakeholders worked collectively to conduct the comprehensive needs assessment of the school to determine the needs of the population at the site. Literacy instruction was determined to be an area of concern and the involved stakeholders decided to focus on the instruction of the WFTBB: RL program to help students build comprehension skills. The conceptual framework included the stages of instruction of

the program: oral responses, open-ended response, and formal written responses. Each stage was evaluated to determine the impact the integration of critical thinking through the WFTBB: RL program had on student outcomes; planning, instruction, and assessment; and the learning environment.

A logic model was also be used to evaluate research questions. The stakeholders worked collaboratively to create the logic model (Figure 3) to begin the evaluation process. Previously, the educators at the site utilized the logic model (Figure 3) to evaluate the implementation of the WFTBB: RL program. The involved stakeholders used the logic model to guide this evaluation to determine if medium-term goals are met. The medium-term goals were used to determine research questions for this study.

Definitions and Attributes of Critical Thinking

Critical thinking has been studied and defined by many theorists; however, the definition of critical thinking is not clearly defined in one definition (Chun, 2010; McGuire, 2010; Petress, 2004; Steffen, 2011). Bessick (2008) indicated critical thinking has so many dimensions, it is not possible to create one definition to include all components of the critical thinking concept.

Steffen (2011) conducted research on how teachers perceive their own teaching of critical thinking and how students perceive their own learning of critical thinking. Steffen concluded the themes of critical thinking consisted of "reasoned, open thinking fused with knowledge where one thinks about thinking" (p. 65). Chun (2010) explained regardless of the numerous definitions written for critical thinking, "it is a form of higher-order thinking, along with analytic reasoning and problem-solving" (p.20). Steffen also stated through her research that the actions involved in critical thinking are "reflective, making reasonable judgments and understanding that real problems are unclear" (p. 10).

Fisher (2001) stated critical thinking theories and dispositions have a common theme of "reasoned and reflective thinking" (p. 2). Lai (2011) stated that regardless of the lack of a cohesive definition of critical thinking by researchers, there are commonalities in skills including "analyzing arguments, making inferences by using inductive and deductive reasoning, judging or evaluating, and making decisions or solving problems" (p. 2).

Many definitions determined by critical thinking theorists are listed in Table 1.

Table 1

Definitions of Critical Thinking Theorists

Theorists	Definition of Critical Thinking
Socrates	Uses a process of questioning and reasoning (Paul, Elder, & Bartell, 1997)
Dewey	Thinking requiring reflection (Dewey, 1933)
Paul	Paul (1993) believed critical thinking was "actively and skillfully conceptualizing, applying, analyzing, synthesizing or evaluating information" (p. 3).
McPeck	McPeck (1981) explained critical thinking was "the propensity and skill to engage in an activity with reflective skepticism (p. 8)
Chance	Chance (1986) felt critical thinking was "the ability to analyze facts, generate and organize ideas, defend opinions, make comparison, draw inferences, evaluate arguments, and solve problems (p. 6).
Sternberg	Sternberg (1986) defined critical thinking as "the mental processes, strategies, and representations people use to solve problems, make decisions, and learn new concepts (p. 3).
Lipman	Lipman (1988) said critical thinking was "skillful, responsible thinking facilitates good judgment because it relies upon criteria, is self-correcting, and is sensitive to context (p. 39).
Halpern	Halpern (1999) defined critical thinking as "the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions" (p. 70).
Facione	In the Delphi Report, Facione (1990) suggested critical thinking was "the process of purposeful, self-regulatory judgement which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or conceptual considerations upon which judgment is based" (p. 3).
Glaser	Glaser (1941) defined the ability to think critically using Dewey's definition "an attitude of being disposed to consider in a thoughtful way the problems and subjects come within the range of one's experiences, knowledge of the methods of logical inquiry and reasoning, and some skill in applying those methods. Critical thinking calls for a persistent effort to examine any belief or supposed form of knowledge in the light of the evidence supports it and further conclusions to which it tends" (p. 5)
Ennis	Ennis (1985) defined critical thinking as "reflective and reasonable thinking focused on deciding what to believe or do" (p. 45).
Scriven and Paul	Scriven and Paul (1996) said critical thinking is "the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action" (para. 1)
Paul and Elder	Paul and Elder (2002) explained critical thinking as "that mode of thinking – about any subject, content, or problem – in which the thinker improves the quality of his or her thinking by skillfully taking charge of the structures inherent in thinking and imposing intellectual standards upon them" (p. 15).

The literature contained a multitude of definitions of critical thinking presented by different critical thinking theorists and other researchers. Many of the preceding definitions involve reflection, evaluation, analysis, judgment, problem solving, and application using individual thought processes. According to some of the definitions of critical thinking, specific skills are required by the individual to perform thought processes required during critical thinking.

Facione, Facione, and Giancarlo (1998) organized a critical thinking model including six critical thinking skills. The critical thinking skills they included were interpretation, analysis, testing, inference, explanation, and self-regulation. Additionally, Bloom (1956) created a framework for educators to organize thinking hierarchy from less to more difficult. The levels included knowledge, comprehension, application, analysis, synthesis, and evaluation (Bloom, 1956). However, Anderson and Krathwohl (2001) later revised Bloom's Taxonomy to advance the levels of the hierarchy to match a more modern education to the following: remember, understand, apply, analyze, evaluate, and create. Ennis (1985) expanded levels of critical thinking utilizing the top three levels of Bloom's Taxonomy to develop attributes and abilities of a critical thinker. Webb designed the Depths of Knowledge model to include four levels to show the level of understanding in order for students to complete activities (Olvera, Elkins, & Walkup, 2009) and included recall, skill/concept, strategic thinking, and extended thinking.

The need to focus on one definition of critical thinking and attributes that describe critical thinking became clear during the review of the literature on critical thinking. Scriven and Paul's (1996) critical thinking definition provided a list of action words within the definition. Due to the description provided by Scriven and Paul and because this definition is supported by NCDPI (2012-2013), the researcher selected Scriven and

Paul's definition to guide the research process and evaluation methods.

Critical Thinking Instruction

Methods of teaching critical thinking. According to Scherer (2008), teaching thinking skills through content has been a topic of debate in education for 2 decades. In fact, theorists such as Piaget and Dewey have been proponents of using critical thinking skills in schools. Critical thinking has become an area of increased attention since the 1980s (Ennis, 1993); critical thinking has been a component of human progression throughout time (Rotherham & Willingham, 2009). Bessick (2008) stated that a debate on how to best approach teaching critical thinking skills continues as well as controversy over effective instructional methods for teachers to utilize to instill critical thinking skills in students (McGuire, 2010).

The question for educators to consider is what method of instruction will be used to teach critical thinking. Bessick (2008) explained explicit instruction or infusion of critical thinking would occur "through course specific content or a course in critical thinking" (p. 7). Glaser's (1984) study reported students' critical thinking shows improvement when they are taught explicitly through a critical thinking course or through course specific content. Williams (2005), Hemming (2000), and McGuire (2010) concurred students should be provided explicit or direct instruction to be successful with thinking critically. Snyder and Synder (2008) believed critical thinking is a learned discipline which must be taught in the same respect that the scientific method is taught and must be continually integrated within the curriculum. Fisher (2001) reported the majority of students are expected to gain critical thinking skills through implicit instruction even though most teachers stated that this way is becoming less effective. Fisher also reported teachers felt that in order to gain student success, direct instruction in

critical thinking was important.

Silva (2008) believed information and thinking should be taught together; and according to some, critical thinking is the vehicle through which to teach curriculum (Case, 2005; Pithers & Soden, 2000). Dewey (1938) recognized learning should be promoted through meaningful activities which students can assign meaning. Swartz (2008) maintained students should be taught critical thinking skills directly and explicitly by infusing the skills into content lessons, and students should be taught to transfer these skills throughout curriculum. Teaching students thinking skills through direct instruction is considered an effective approach to improve student thinking abilities (Beyer, 2001). Thomas, Davis, and Kaslauskas (2007) stated research encourages teaching critical thinking skills and having students use these skills during content instruction in order to improve achievement scores and build critical thinkers. Steffen (2011) stated school districts which support and infuse critical thinking skills within curriculum would have teachers who incorporate critical thinking in all lessons which would become a routine for teaching and learning.

Zohar, Weinberger, and Tamir (1994) conducted a research study on the infusion of critical thinking in content area. The study consisted of 678 seventh-grade students at four different yet similar schools. During the study, the seventh-grade students were placed into two different groups using the same biology textbook. The experimental group also used the Biology Critical Thinking (BCT) project which included seven specific critical thinking skills related to the study of biology. Critical thinking skills were infused into biology content instruction after instructors received professional development on how to teach BCT activities. The findings of this study showed significant results using infusion of critical thinking skills in a seventh-grade biology

class compared to the control group that did not receive BCT activities.

The Delphi Report was created by a group of international experts with various scholarly backgrounds. The Delphi research lasted 2 years and determined 15 recommendations for critical thinking instruction and assessment. The Delphi Report (Facione, 1990) recommended Facione's definition of critical thinking: "we understand critical thinking to be purposeful, self-regulatory judgment that results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual methodological, criteriological, or contextual considerations upon which what judgment is based" (p. 2). The Delphi panel (Facione, 1990) also listed the characteristics of a critical thinker as

> habitually inquisitive, well-informed, trustful of reason, open-minded, flexible, fair-minded in evaluation, honest in facing personal biases, prudent in making judgments, willing to reconsider, clear about issues, orderly in complex matters, diligent in seeking relevant information, reasonable in the selection of criteria, focused in inquiry, and persistent in seeking results which are as precise as the subject and the circumstances of inquiry. (p. 2)

The Delphi report (Facione, 1990) stated explicit critical thinking instruction should be included in all K-12 curriculum.

Abrami et al. (2008) conducted a meta-analysis of 117 empirical studies on the effects of instructional interventions on student critical thinking skills and dispositions. The meta-analysis found a considerable amount of the variation in effect sizes across studies was based on teaching practices and intervention methods (Abrami et al., 2008). The mixed-methods approach to teaching critical thinking had the largest effect sizes, and the immersion approach had the smallest. The findings from the meta-analysis suggested

that educators should integrate critical thinking with content standards in addition to teaching critical thinking skills separately (Abrami et al., 2008). Abrami et al.'s findings encouraged explicitly instructing critical thinking to students rather than critical thinking skills simply being embedded into curriculum. Additionally, the meta-analysis of critical thinking suggested teachers who had participated in professional development focused on critical thinking instruction had the largest effect sizes compared to studies in which curriculum was aligned to critical thinking standards or objectives (Abrami et al., 2008).

The infusion approach involves direct instruction of critical thinking skills and the use of infusing critical thinking skills within the curriculum context (Ennis, 1989). Infusion integrates teaching critical thinking skills through content areas which is fundamental for students to be able learn 21st century skills (Regan, 2008; Thomas et al., 2007). "If we want instructors to teach in a way that students learn to think their way through the content . . . we must explicitly place critical thinking at the heart of the curriculum" (Elder, 2010, p. 1). Rupley (2009) agreed this form of instruction would assist students in understanding text. P21 Century Skills (2008) claimed students could learn 21st century skills through content-specific domains. For the purpose of this research, teachers at the site will integrate critical thinking skills through WFTBB: RL. P21 Century Skills (2007b) recommended infusing the Learning and Innovation Skills (including critical thinking) into core subjects.

Limits for teaching critical thinking. Costa (2001) stated the most dominant factor in curriculum is school reform. Karoly and Constantijn (2004) argued NCLB does not require the advancement of abstract reasoning, problem solving, communication, and collaboration which, they argued, are essential to prepare students for their future careers. As Paul (1995) stated, educators and school leaders must consider "what to teach and

how to teach it" (p. 312) when determining critical thinking instruction. Elder (2010) asked, "What, after all, is the purpose of education if not to emancipate the mind through critical thought" (p. 4)?

Further, the results from a study provided by Sanders and Horn (1994) which involved analyzing achievement scores of 100,000 students concluded effective teaching is a key component to enhancing the education of students. Langer (as cited by McGlinn, 2003) conducted a study in 25 schools within 88 classrooms and worked with 44 teachers to study effective teaching in sixth- through twelfth-grade classrooms. Langer (as cited by McGlinn, 2003) determined effective teachers

> integrate instruction within the context of a purposeful activity, integrate test preparation with the regular curriculum, teach strategies for thinking as well as doing, teach strategies for approaching reading and writing assignments, go beyond basic concepts to engage students in higher levels of thinking, and allow students to work collaboratively. (p. 707)

Students across the nation attend schools that focus on accountability standards rather than building outcome necessary for the 21st century. According to research, schools, educators, and leaders have been unable to keep up with the demands placed on them from higher teacher standards, higher student standards, and high-stakes testing (Merriman & Nicoletti, 2008). Accountability has increased in schools and high-stakes testing has become the focus for local and state assessments due to the enactment of the Elementary and Secondary Education Act, the Nation at Risk report, NCLB, and Race to the Top (Elmore, 2002; Taylor & Nolan, 2008). Jehlen (2007) reported classrooms that focus on testing and increasing standardized test scores could foster citizens who are able to retain information but cannot make better informed decisions or successfully solve

problems.

A study conducted by Wagner (2008) found standardized tests used to assess students do not align with workforce expectations, 21st century skills, or prospective colleges or universities. Wagner spent time with CEOs of businesses and found schools are not promoting what employers are looking for. Wagner determined seven skills needed for employment and survival skills needed for the future: (a) critical thinking and problem solving, (b) collaboration and leadership, (c) agility and adaptability, (d) initiative and entrepreneurialism, (e) effective oral and written communication, (f) accessing and analyzing information, and (g) curiosity and imagination. Wagner found many CEOs considered the thought processes of potential employees and discovered a reoccurring theme was the individual's ability to ask high-quality questions. According to Wagner, utilizing good questions was important for building higher-level thinking or critical thinking abilities. Corporations are flattened with networks or teams organized to work together to complete task, whereas in the past, businesses were arranged from the top down with hierarchies (Wagner, 2008). Wagner stated problem solving and critical thinking were the most important skills students need to be equipped to be prepared for a global society. In order to think critically, individuals need to be prepared to manage information, analyze it, and determine what to do with it by asking the right questions (Wagner, 2008). Wagner explained 21st century skills should be intertwined into curriculum. Wagner believed the first survival skill for students is critical thinking and problem solving, and this builds a foundation for students to become competitive in a global society.

In addition, Innabi and Sheikh (2006) discovered in their study of teacher perceptions of critical thinking, teachers were unclear of the constructs of critical

thinking and lacked information on how to teach this skill properly to their students. Teachers in their study did not have a concise definition of critical thinking or appropriate practices to instruct their students to think critically (Innabi & Sheikh, 2006). Likewise, Elder (2010) stated few teachers could clearly articulate the meaning of critical thinking or how to properly teach it to their students.

King (2012) emphasized promoting learning and innovative skills requires new approaches to pedagogy and student learning opportunities. In order to encourage skills needed for future careers and a global society, schools must deliberately teach critical thinking, collaboration, communication, and creativity (Halpern, 1996; McGuire, 2010; Rotherham & Willingham, 2009). Kennedy, Fisher, and Ennis (1991) were concerned with the continuous cycle of mediocre practices used in schools. Kennedy et al. pointed out if education continues along the same path, educators will continue to produce students not ready for society. Kennedy et al. also addressed concerns about textbooks not asking challenging questions, rather the questions require students to recall information. Lavere (2008) examined 13 U.S. History textbooks which claimed to contain critical thinking questions to determine if students were able to encounter higher order thinking opportunities using questions found throughout the books. He determined 91% of the questions simply required recall of information with the eighth- and eleventh-grade texts, and 98% of the elementary textbooks also relied on recalling of information (Lavere, 2008). Rote memorization simply relies on recalling factual information and does not encourage students to think critically to improve learning (Elder, 2000; Hemming, 2000). The findings from Kennedy et al. also discussed teachers simply cover material and "avoid thought-provoking work and activities" (p. 662). Teachers teach in the manner they were taught; and according to Kennedy et al., this makes changing the

educational system difficult.

Instructional methods may be an area of concern (Schafersman, 1991) because of traditional methods of teaching students what to think instead of how to think (Clement, 1979). Consistent with this idea, Norman (1981) questioned educators' philosophies of teaching students how to learn. Noddings (2008) stated it is important to help students build the ability to think which according to Kirby and Goodpaster (2002), is the capacity of the brain to communicate activities with others. According to King (2012), classrooms need to be environments which support student needs and help students reach the ultimate goal of thinking (Heidegger, 2011). Elder (2000) challenged the traditional classroom stating it does not foster the necessary intelligences needed for success. The National Education Goals Panel (1999) addressed the enhancement of thinking and reasoning: "every school in America will ensure all students learn to use their minds, so they may be prepared for responsible citizenship, further learning, and productive employment in our modern economy" (p. vi). Gardner (2006) stated, "students need to understand why they are learning, what they are learning, and how this knowledge can be put to constructive use" (p. 142). Thinking about one's own thinking can help students develop critical thinking skills (Paul, Fisher, & Nosich, 1993).

According to the American Management Association (AMA, 2010) survey data, 80% of participants agreed fusing reading, writing, and arithmetic with the Four C's (collaboration, creativity, critical thinking, and communication) would ensure students would be more prepared for the workplace. The survey also asked respondents to rate the ability of the K-12 education system in America to prepare students in the Four C's: 46.7% of the respondents responded the system was average; 33.8% responded the system was below average; and 10.9% responded the K-12 school system was above

average (AMA, 2010).

Reasons to teach critical thinking. Society has transformed from the Industrial Age to a knowledge age and this has changed what is required to become a prosperous adult, thus changing traditional school practices (Trilling & Hood, 1999). Junior Achievement (2013) stated the "rules of the house," referring to the ways in which to prepare students for the workforce, must be adapted from practices which prepared past generations to practices which will meet the new expectations for future generations (p. 9). According to Symonds, William, Schwartz, and Ferguson (2011), in 1973, only 72% of the workforce achieved a high school diploma and one of three employees dropped out of high school. Manufacturing jobs provided positions for the majority of the population; however, between 1995 and 2005, three million manufacturing jobs were lost (P21 Century Skills, 2008).

In a poll conducted in 2007 by P21 Century Skills (2007a), 80% of voters indicated workforce skills needed for the 21st century have changed from 20 years ago, and 99% agreed schools should include 21st century skills in their curriculum. Additionally, Levy and Murnane (2004) studied job skills workers needed in the workplace by analyzing job tasks from 1969 through 1999 and determined expert thinking and effective communication skills are significant. Moreover, Levy and Murane found a decrease in

> jobs that consist primarily of routine cognitive work and routine manual labor – the types of tasks that are easiest to program computers to do. Growing proportions of the nation's labor force are engaged in jobs that emphasize expert thinking or complex communication – tasks that computers cannot do. (pp. 53-54)

Further, the U.S. Department of Labor (1991) designed the Secretary's Commission on Achieving Necessary Skills (SCANS) in order to analyze the expectations of the workplace and determine necessary skills for future employment. According to the SCANS report, future generations would need to be skilled with communication, collaboration, and performance for the workforce (U.S. Department of Labor, 1991). Students will need to have basic skills, thinking skills, and interpersonal skills to perform successfully in the workplace (U.S. Department of Labor, 1991).

This idea was further addressed in the review of the literature. Robinson (2001) stated there was a large gap between what was addressed in American classrooms and what employers pursue in future employees. Friedman (2005) acknowledged the educational system did not groom future employees for the particular jobs they will likely face. Junior Achievement (2013) stated only half of high school students are prepared with basic skills, specifically "communication, problem-solving, and critical thinking" (p. 1), because students are not being taught skills crucial for a global economy (Schleicher & Stewart, 2008). Employees with abilities to apply skills versus being able to memorize information are sought by business leaders (Casner-Lotto & Barrington, 2006). According to Casner-Lotto and Barrington (2006) in a study conducted to determine the readiness of employees in the workforce, 69.9% of employers indicated employees directly out of high school lacked abilities to think critically and problem solve. Wagner (2008) concurred that high school students are inadequate in both critical thinking skills and abilities to problem solve.

Costa (2001) indicated individuals need to be taught to think for themselves in order to be prepared for their future. Critical thinking skills must be taught (Rothenstein, et al., 2007) and have been "identified as a national and international priority" (Halpern,

1996, p. 32) in order to prepare students "personally, politically, and vocationally" (Paul, Binker, Martin, & Adamson, 1995, p. 1).

Technology is an important component in the 21st century; on the other hand, the continued ease technology brings also contributes to the continued growth of higher level thinking aptitudes and being able to modify one's own thinking becomes a new life skill (Burkhardt et al., 2003). America needs people who have the ability to think independently and problem solve efficiently (Burke et al., 2007; Gardner, 2000; Wagner, 2008). Critical thinking skills are attributed to establishing self-sufficient adults capable of thinking carefully about situations and making informed decisions (Burke et al., 2007; Landsman & Gorski, 2007; Schafersman, 1991).

Further, teaching students critical thinking skills can provide students opportunities to learn grade-level material and ideas and concepts and achieve basic skills (Adler, 2003). Students who use critical thinking skills develop life skills and bridge success in future careers (Thomas, Faulkner, & Gray, 2009). According to Hunt, Touzel, and Wiseman (1999), students who practice critical thinking skills are able to produce, transfer, and restructure information. Students who are taught critical thinking skills are likely to function more proficiently on standardized tests (Beyer, 2008) and are able to think critically and problem solve more successfully (Snyder & Snyder, 2008).

The review of the literature led the researcher to see why educators may not be teaching critical thinking. The goal of the P21 Framework, as utilized in this research, was to (a) use ELA standards; (b) use WFTBB: RL focused on critical thinking to plan, instruct, and assess ELA curriculum and instruction; (c) conduct professional development through a PLC which focuses on planning, reflecting, and evaluating outcomes of WFTBB: RL; and (d) evaluate the integration of critical thinking skills using

the WFTBB: RL program to determine the impact it had on the learning environment. The literature review helped inspire the research questions included in this study. This study involved determining the impact of the WFTBB: RL program focused on critical thinking in the ELA classroom using Scriven and Paul's (1996) definition and attributes of critical thinking and the P21 Framework as an overall guide. The conclusions from the research could underscore the importance of integrating critical thinking into core subjects as supported by the P21 Framework and provide educators a support system for the integration of critical thinking into classroom planning, instruction, and assessment. The integration of critical thinking into general subjects supported by professional development and a conducive learning environment could lead to a paradigm shift for educators to infuse 21st century skills into curriculum and instruction. This shift in classroom instruction could help educators prepare students for the 21st century as recommended by researchers included in the review of literature.

Educational Frameworks

EnGuage framework. Theorists have identified 21st century skills, models, and frameworks to help educators and leaders in the field of education. The enGuage Framework was developed based on literature reviews, a review of trends in the workforce, and using data collected from educators participating in focus groups from 10 states. Burkhardt et al. (2003) included the following 21st skills needed for the digital age in the framework: digital-age literacy, inventive thinking, effective communication, high productivity, and state-of-the-art results. Additionally Burkhardt et al. stated the skills would refresh student academics and utilize technology to help students work in challenging, real-world ways to grow their knowledge. The enGuage Framework included the following inventive thinking skills: adaptability, managing complexity, and

self-direction; curiosity, creativity, and risk taking; and higher order thinking and sound reasoning. Burkhardt et al. defined higher order thinking and sound reasoning as "the cognitive processes of analysis, comparison, inference and interpretation, evaluation, and synthesis applied to a range of academic domains and problem-solving contexts" (p. 33). According to Burkhardt et al., students who are not provided instruction in 21st century skills are "being prepared for yesterday's world – not tomorrow" (p. 2).

P21 Framework. Business, education, community, and government leaders integrated 21st century skills and core subjects to create the P21 Framework (Zhao, 2009). The P21 Framework recognizes and organizes information for educators and leaders to use in schools to prepare and equip them for the future. P21 Century Skills (2009) along with frameworks created by Wagner (2008) and Burkhardt et al. (2003) highlighted the importance of infusing skills within core academics. The P21 Framework includes (a) core subjects and 21st century themes; (b) learning and innovation skills; (c) information, media, and technology skills; (d) life and career skills as important components students will need for the workplace and the world (P21 Century Skills, 2009). The framework addressed the proficiencies, abilities, and information students need as they become citizens in the world and part of the workforce (King, 2012).

Additionally the framework provides support structures to help educators offer students opportunities to build necessary skills to be prepared for their future in the 21st century. P21 Century Skills (2009) determined particular support systems were necessary components to promote 21st century classrooms and outcomes. The support systems included (a) standards, (b) assessments, (c) curriculum, (d) instruction, (e) professional development, and (f) learning environments. Dede (2007) described the importance of students needing both understandings and abilities in order to perform by

connecting important skills and information learned through standards.

Through the review of educational frameworks, the researcher decided to use the P21 Framework as the foundation for this study. This framework was selected for this study due to the emphasis of critical thinking as a 21st century student outcome supported by various systems. This framework was the base of the conceptual framework used to connect components of critical thinking and stages of the WFTBB: RL program. The framework was used to evaluate how the integration of critical thinking through the stages of the WFTBB: RL program impacted planning, instruction, and assessment; the learning environment; and student outcomes.

Critical Thinking Programs

Socratic Seminars. Socratic Seminars are considered a critical thinking program devised to enhance thinking skills necessary for achievement and to create prosperous citizens within society (Boekaerts & Minnaert, 2006). According to Paul et al. (1997), Socratic methods are a common practice for instructing critical thinking. The Socratic methods incorporate probing questions which require analysis, reasoning, forming assumptions, and determining a process utilizing logic to make conclusions (Paul et al., 1997). According to Paul et al. (1997), Socrates created Socratic questioning when he questioned the assumptions and beliefs of authority figures to determine reason and truth. Critical thinking is crucial in preparing students to be productive citizens, and educators need to be aware of how to implement these skills effectively in their classrooms using programs such as Socratic Seminars (Reid, 2010). Beyer (2008) concluded students who receive critical thinking instruction show improved and maintained assessment scores while also receiving skills to be prepared for the 21st century.

The Critical Thinking Program at Tufts University (2009) stated critical thinking

programs are created to improve student abilities to think critically about real-life topics in order to prepare students to be successful within the world. Socratic Seminars provide students opportunities to delve into issues which require them to think critically through active group discussions which encourage deep thinking and evaluation (Schwarze & Lape, 2001; Tredway, 1995). Socratic questioning is referred to as an important component of critical thinking instruction (Paul, 1995; Paul & Elder, 1997).

A qualitative study was conducted by Reid (2010) to investigate the critical thinking skills using 18 Socratic Seminars in a second-grade language arts classroom. Reid studied second-grade student comprehension scores in two classrooms. The study compared data from pre and postcriterion-referenced language arts tests from two classrooms. The treatment classroom implemented three 60-minute Socratic Seminars for 6 weeks to second-grade students. The control group did not receive language arts instruction utilizing the Socratic Seminars. After 6 weeks of receiving language arts instruction, the treatment and control group students took a postassessment. Reid determined the data showed a significant decrease in students' scores who did not receive the critical thinking instruction using Socratic Seminars compared to the students' scores who did receive this form of instruction. The null hypothesis was rejected which stated there was no difference between second-grade language arts assessment scores after receiving language arts instruction using critical thinking through Socratic Seminars. Reid eluded to the need for further studies which focus on the effects of critical thinking on achievement for all students and more effective instruction of critical thinking programs in schools.

WFTBB: RL. WFTBB: RL is a literacy program which requires comprehending in order to construct a response to text (Buckner, 2011). The teacher's guide encourages

teachers to guide their students to use Thinking Maps to organize information from literature to help in the process of responding to text. The program is intended for kindergarten through eighth-grade literacy classrooms. The goal of the program is to help students build literacy skills by connecting reading and writing. This program is orchestrated to help students build comprehension through connections made with a text as they read by responding to literature through various writing prompts. The goal of the implementation of this program is to increase student comprehension by teaching reading and writing together using the WFTBB: RL program (Buckner, 2011).

The program provides teachers a planning guide or framework to use when selecting oral questions which address the prompt, two open-ended responses/activities to build understanding before writing formally, and the response to literature prompt. When using this guide with students, Buckner (2011) recommended teachers should follow the guide in this particular order to help students prepare for their formal written response.

Additionally, the program includes suggested models for responding to literature and rubrics for assessing student work for grade levels K-8. The program also provides examples of oral questioning to guide students through their understanding. The teacher's manual contains grade-specific activities. Rubrics included are grade-level specific to help teachers determine if a child meets expectations, shows some evidence of understanding, or does not show present evidence of understanding.

Buckner (2011) also created sections for teachers to use with specific grade levels. Laying the Foundations section is designed specifically for kindergarten and first-grade classrooms. Second- and third-grade teachers focus on the section Building the Structure. Fourth- through eighth-grade student activities are included in Writing the Formal Responses.

The WFTBB: RL program creates a common focus for school-wide writing performance, helps teachers meet the needs of individual learners, and helps schools assess strengths and weaknesses of students' reading comprehension (Buckner, 2011). The program is designed to help teachers guide students through the process of explaining and supporting their thinking about a particular piece of literature. The program provides background information to help students respond to literature. The manual provides stages of understanding, oral and open-ended written responses, and various types of prompts (Buckner, 2011).

Purpose of the WFTBB: RL program. According to Buckner (2011), WFTBB: RL is a developmental program designed for school-wide writing success. This program was organized to help readers determine what texts say explicitly and use it to make inferences from the text (Buckner, 2011). Students use evidence from text they read to write or speak conclusions determined from the text. Likewise, students use Thinking Maps to engage with reading and connect with formal responses to literature (Buckner, 2011). Throughout this program, students determine main ideas and themes within a text and support their responses with details from the text (Buckner, 2011). Students interact with the text in order to understand characters and story events.

Teachers engage students in oral responses to begin developing a stronger focus on literary response (Buckner, 2011). Students progress throughout the use of the program to open-ended responses and then to formal responses using specific prompts. WFTBB: RL focuses on higher-level comprehension skills. Prior to beginning the program or using particular literature, Buckner (2011) recommended teachers should use the guidelines provided in the manual to determine quality literature. WFTBB: RL focuses on text complexity.

The program helps teachers engage students through the Stages of Understanding using quality literature from a variety of genres. The Stages of Understanding are initial, interpretive, reflective, and critical (Buckner, 2011). The initial stage of understanding requires basic comprehension of "right there in the text" questions and "involves only the basic comprehension of the details of what has been read" (Buckner, 2011, p. 7). During the interpretive stage of understanding, Buckner (2011) stated,

> Readers must consider the entire work in order to respond to a question; however students do not go beyond the pages of the text in this type of response. In other words, students are not required to connect this text to any other text or personal experience. (p. 8)

According to Buckner (2011), "When readers connect knowledge from the text with their personal knowledge, they have moved into the reflective stage of understanding. . . . As students reflect, they are making text-to-self, text-to-text, and text-to-world connections" (p. 9). In the critical stage of understanding, "readers analyze and respond to the writer's craft by standing back from the text and pondering how the piece was constructed" (Buckner, 2011, p. 10).

Reviewing Socratic Seminars provided knowledge for the researcher to understand a program deliberately created to teach critical thinking skills. Studying this program provided information on the components of Socratic methods in relation to components of WFTBB: RL. The researcher noticed both Socratic Seminars and WFTBB: RL focused on the design of questions to engage students in critical thinking and understanding. The WFTBB: RL program contains stages of understanding: initial, interpretive, reflective, and critical understandings. The stages of understanding were incorporated within the conceptual framework with the components of the WFTBB: RL

program. The critical stage of understanding was evaluated during the three stages of the WFTBB: RL program: oral responses, open-ended responses, and formal written responses. This evaluation included determining the extent of alignment between the stages of the program with the defined components of critical thinking.

English Language Arts and WFTBB: RL

Comprehension. The RAND Reading Study Group (RRSG, 2002) defined comprehension as "the process of simultaneously extracting and constructing meaning through interaction and involvement with written language" (p. 11). Harvey and Goudvis (2007) stated comprehension is "the process of constructing meaning by interacting with text" (p. 13). Davis (2010) defined comprehension strategies as "mental tools that readers use to aid their understanding of a text before, during, and after reading" (p. 1). Harvey and Goudvis extended this idea by suggesting good readers participate in comprehension strategies before, during, and after reading.

Davis (2010) discussed determining what strategies should be "selected, taught, practiced, and assessed . . . has made it difficult to identify the critical elements of effective strategy instruction that should make their way into practice" (p. 4). Geiselhofer (2010) suggested that due to the progression of the nature of literacy, educational practices must also evolve. Harvey and Goudvis (2007) recommended providing students with numerous reading strategies to practice while interacting with text in order to be successful while reading. Practicing reading strategies encourage text comprehension (Reutzel & Cooter, 2009).

Integration of reading and writing. Many classrooms approach the components of literacy as separate entities and teach them in isolation. Anderson and Briggs (2011) stated the cognitive processes used in reading and writing are the same, and the two

processes are reciprocal. Graham and Hebert (2010) suggested future research should be conducted on writing about text practices and specifically practices involving the interpretation of text or a written response to personal reactions to a text.

The National Council of Teachers of English (NCTE, 2011) are proponents of "making reading and writing instruction a shared responsibility" (p. 15). NCTE (2011) supported the belief that students will comprehend subject material more clearly if they must read and comprehend information about it and write about subject matter they are studying. Graham and Hebert (2010) suggested writing is an overlooked tool for improving student reading. In their meta-analysis, Graham and Hebert determined having students write about text improved their reading skills and increased student comprehension abilities. Graham and Hebert suggested writing can magnify comprehension and help students find a way to connect, analyze, and manipulate important information from text. The meta-analysis conducted by Graham and Hebert found having students respond to text as "extended writing has a strong and consistently positive impact on reading comprehension" (p. 14).

Allington and Gabriel (2012) included writing as a reading strategy because it promotes connections to what has been read. According to Allington and Gabriel, during the writing process, students practice reading strategies. Further, they stated that during writing, students practice spelling, grammar, thinking how to express ideas, which words go together, and where thoughts start and end (Allington & Gabriel, 2012).

The International Reading Association and Eunice Kennedy Shriver National Institute of Child Health and Human Development (IRA &NICHD, 2013) reported, "overall, there is a need to better understand the reading-writing connection across the developmental trajectory from preschool through high school, and beyond" (p. 7). IRA

and NICHD (2013) discussed the need for further research which focused on the relationship between reading and writing, when and how to teach these two literacy components together, and how students' developmental and achievement levels are effected by the reading and writing connection. IRA and NICHD (2013) stated the CCSS require an integration of reading and writing; however, teachers are not properly taught how to integrate the two effectively.

Facione (2013) found "significant correlation between critical thinking and reading comprehension" in a study including over 1,100 college students' critical thinking skills test scores (p. 21). The scores indicated a significant correlation to the students' college GPA (Facione, 2013). Steffen (2011) also expressed a similar connection between students who are taught critical thinking skills and an increase in comprehension skills through his study of teacher perceptions related to teaching critical thinking skills. Further, the National Reading Panel's meta-analyses of 205 studies led to seven strategies to support reading comprehension, including comprehension monitoring, cooperative learning, use of graphic organizers, question generation, question answering, summarization, and using multiple strategies (National Institute of Child Health and Human Development, 2000, p. 4).

Graphic organizers to support reading comprehension. Ritchhart, Turner, and Hadar (2009) determined concepts maps are "rich vehicles for uncovering students' conceptions of thinking in a way that is accessible both for teachers and students" (p. 156). Through their research, Ritchhart et al. found teaching students to think will help "students become more metacognitive, more self-directed as learners, and better thinkers" (p. 157). Additionally, Ritchhart et al. explained concept maps are "metacognitive tools used to illuminate one's thinking" (p. 148).

The use of graphic organizers is considered a classroom learning approach which supports critical thinking (Van Gelder, 2005). Carlson and Long (2011) conducted research on the effects of using Thinking Maps in an eighth-grade social studies classroom. The conclusions from the study (Carlson & Long, 2011) included (a) students who use Thinking Maps will see improvements in their academic success; (b) students and teachers would benefit from the use of the maps because they show how students link ideas and concepts; (c) students can draw inferences in academic content; (d) Thinking Maps help students organize their thoughts and ideas; (e) Thinking Maps helps them think critically; and (f) these maps will help students show academic growth.

The WFTBB: RL program recommends using Thinking Maps during open-ended response activities to help students connect reading and writing and to help students build comprehension skills. Miller and Calfee (2004) suggested teaching students to use organizational maps, graphic organizers, or other maps to plan thoughts before writing. Thinking Maps were designed for all K-12 students to help them generate and organize thoughts and ideas (Hyerle, 1995). Learners can use visual tools to help represent new concepts and interpret information (Hyerle, 1995). Using visual tools helps students practice metacognition strategies by organizing their thinking processes to solve problems (Hyerle, 1995). Hyerle (1995) concluded brainstorming, organizing information, and using process maps helps learners connect personally to content. Further, Hyerle acknowledged when Thinking Maps are used throughout an entire school, they assist in the transfer of student thinking abilities throughout their school experience. The purpose of Thinking Maps is the common visual language in a learning community for transferring thinking processes, integrating learning, and for continuously assessing progress (Carlson & Long, 2011).

Questions to support reading comprehension. Olvera et al. (2009) recommended creating prompts utilizing Bloom's Taxonomy and Webb's Depth of Knowledge. Bloom's Taxonomy is used by educational practitioners to promote higher levels of thinking (Olvera et al., 2009). In Bloom's Taxonomy, critical thinking skills are located at the top of the hierarchy and include analysis, synthesis, and evaluation (Kennedy et al., 1991). Webb's Depth of Knowledge organizes activities based on the required level of thinking (Olvera et al., 2009) and includes (a) recall, (b) skill/concept, (c) strategic thinking, and (d) extended thinking (Wiggins & McTighe, 2004).

Snyder and Snyder (2008) supported the development of questioning for instruction to advocate for critical thinking and help students scrutinize information. Formulating and asking appropriate questions is important in building critical thinking processes in students (Costa & Kallick, 2008; Gardner, 2000; Haynes & Bailey, 2003; Nosich, 2001; Steffen, 2011; Wagner, 2008). Further, this is clearly articulated by Paul and Elder's (2000) argument that questions encourage thinking because they "define tasks, express problems, and delineate issues" (p. 1).

Students need opportunities to think about text critically (McPeck, 1990) throughout classroom activities integrating thinking skills into classroom instruction. Burke et al. (2007) stated having students discuss and write about information would provide opportunities for them to apply critical thinking in the classroom. The WFTBB: RL program stresses the importance of using oral questioning to allow students opportunities to discuss text with their peers (Buckner, 2011). WFTBB: RL provides teachers with a list of question stems to use to create lessons to help students connect to the text.

The WFTBB: RL program encourages the integration of reading and writing;

therefore, for the purpose of this research, the integration of critical thinking through the WFTBB: RL program was evaluated to determine the extent to which all stages were integrated into ELA planning, instruction, and assessment. Student outcomes were used to evaluate the integration of the critical thinking through the WFTBB: RL program which could provide insight into the integration of reading and writing instruction to build student comprehension.

Summary

Costa (2008) reasoned humans are born with abilities to think; and according to Mansilla and Gardner (2008), children's developmental ideas and operations of their mind begin to develop quickly in life. According to Gelman and Markman (1986), critical thinking is appropriate for elementary students, it should be instructed (Kennedy et al., 1991) at a young age, and critical thinking opportunities should be provided for students (Burke et al., 2007).

Carsimad Intermediate School, along with many other schools, face similar issues regarding appropriate ELA programs to meet the needs required by national and state standards. Likewise, educators must determine programs which help build 21st century skills in their learners. Critical thinking has been determined to be a skill needed by all students to live in a complex world (Humbert, 2012). The skills needed to be prepared for life and the workforce are the Four C's: creativity, critical thinking, communication, and collaboration (P21 Century Skills, 2007b). Students must be taught more than basic content standards, and educators should incorporate learning and innovative skills (P21 Century Skills, 2007c).

Critical thinking can be defined in many ways and addressed in the classroom through various approaches. This research focused on the definition and descriptive

words provided by Scriven and Paul (1996), “Critical thinking is the intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action” (para. 1). Critical thinking action words were used to evaluate the impact of the integration of critical thinking skills through the WFTBB: RL program. In addition, the impact of the integration of critical thinking through WFTBB: RL on planning, instruction, and assessment was part of this research. This research discusses how the classroom learning environment and student learning outcomes were impacted using the ELA WFTBB: RL program focused on critical thinking.

Chapter 3: Methodology

Introduction

The teachers at Carsimad Intermediate School were trained to utilize the WFTBB: RL program. The educators participated in a process evaluation, and the results determined the teachers understood how to implement the stages of the program. The recommendation of the process evaluation focused on the medium-term outcomes of the logic model to continue to support the implementation of the WFTBB: RL program at the site to foster 21st century skills such as critical thinking as recommended by the National Education Association (NEA, 2002-2015). NEA (2002-2015) included collaboration, communication, creativity, and critical thinking as 21st century skills which prepare students for the workplace.

The purpose of this study involved evaluating the integration of the WFTBB: RL program to determine the impact the stages of the program had on planning, instruction, and assessment in the ELA classroom. The evaluation gathered the perceptions of the teachers at this site to determine the impact the components of the program had on infusing critical thinking instruction in the ELA classroom. Data were also collected through classroom observations to determine the extent to which all stages of the WFTBB: RL program were implemented during instruction. The researcher conducted data analysis of lesson plans to determine the extent to which stages of the WFTBB: RL program were integrated into planning. Data analysis was completed by the researcher to determine the extent to which attributes of critical thinking aligned with the stages of WFTBB: RL.

The evaluation utilized the P21 Framework as the foundational framework for the study. This study focused on critical thinking from the Learning and Innovation Skills

Student Outcomes section of the P21 Framework. The P21 Framework for 21st Century Learning involves infusing content and critical thinking. According to Landsman and Gorski (2007), elementary children need to be able to think critically in order to be productive citizens in a global economy. If students are not provided instruction on critical thinking skills, it could be troublesome when they enter the 21st century workplace (Thomas et al., 2009).

Lai (2011) reported that even though there is not an agreed upon definition of critical thinking, many researchers agree there are common components. P21 Century Learning (2015) determined critical thinking to include analyzing, synthesizing, conceptualizing, applying, and/or evaluating information based on the definition of critical thinking from Scriven and Paul (1996). For the purpose of this research, the P21 Framework for 21st Century Learning and Scriven and Paul's definition of critical thinking were used to determine the impact the integration of critical thinking through the WFTBB: RL program had on planning, instruction, and assessment.

In upcoming sections of Chapter 3, the researcher describes the setting of the school and provides information related to the participants who participated in the study. The research questions are stated again, and the research methods are described and justified. Data collection and instrumentation are discussed in Chapter 3. Throughout the chapter issues of threats to validity, trustworthiness, and ethical procedures are considered. Chapter 3 includes further information on the delimitations and limitations of the study. A summary is provided at the conclusion of Chapter 3.

Setting

The study focused on an intermediate school located within a rural area in the piedmont of North Carolina. According to PowerSchool (2016), Carsimad Intermediate

School had 343 students in third through fifth grade. The cultural makeup of the school was approximately 90% Caucasian, 5% Hispanic, 2% African-American, 2% Asian, and 2% Multi-Racial (PowerSchool, 2016).

The school consisted of 27 certified staff and 12 noncertified staff. The school had 22 classroom teachers who were fully licensed and were considered highly qualified (North Carolina School Report Cards, 2016). Twenty-one of the teachers were Caucasian and one teacher was African-American. Twenty-two certified teachers were female. Additionally, the school had one media coordinator, one guidance counselor, one EC Literacy Facilitator, and one school social worker. The school had one White female principal and one White female assistant principal. During the last 8 years, the school has had three different principals and two different assistant principals.

The site had four teacher assistants who are White females. The school also had one physical therapy assistant, one data manager, one financial secretary, and three custodians.

Table 2 shows the number of grade levels and special area classrooms that exist in the school.

Table 2

School Classrooms

Classrooms	Number of Classrooms
Third Grade	6
Fourth Grade	5
Fifth Grade	5
Self-Contained	2
Exceptional Children	2
Art	1
Media	1
Music	1
Physical Education	1
Guidance	1

Carsimad Intermediate School contains third-, fourth-, and fifth-grade students and is considered an intermediate elementary school. At the time of the study, there were six third-grade classrooms; five fourth-grade classrooms; five fifth-grade classrooms; two self-contained classrooms; two Exceptional Children's classes; and special area classes including art, guidance, media, music, and physical education.

Table 3 displays the population of the school and the number of students per grade level at the time of the study.

Table 3

2016-2017 Student Data

Student Information	Number of Students
School Population	343
Third Graders	116
Fourth Graders	113
Fifth Graders	114

The site contained a total of 343 students. At the time of the study there were 116 third-grade students, 113 fourth-grade students, and 114 fifth-grade students. Table 4 shows the average classroom size by grade level.

Table 4

2016-2017 Average Class Sizes

Grade Level	Average Class Size
Third Grade	19
Fourth Grade	23
Fifth Grade	23
School	22

The average third-grade class contained 19 students. The average fourth-grade classroom consisted of 23 students. The average fifth-grade class had 23 students. The average class size for the school was approximately 22 students.

Participants

The classroom teachers at Carsimad Intermediate School have all implemented the WFTBB: RL program; therefore, all classroom teachers (n=14) were included in this study. In order to be able to collect data from the teachers at the intermediate school, the first step was to gain permission from the school principal and the district office superintendent (Appendix F). Additionally, the teachers at the site were asked to participate in the research to evaluate the outcomes of the program (Appendix G). The identities of all respondents remained confidential. Table 5 provides a description of each stakeholder involved in the evaluation of the program.

Table 5

Stakeholders- Evaluation Team

Stakeholder	Description
Stakeholder A	Internal Evaluator; Fourth-Grade Teacher; 12 years of experience; Master's in Elementary Education
Stakeholder B	Third-Grade Teacher; Master's in Reading; 27 years of experience
Stakeholder C	Fifth-Grade Teacher; Master's in Reading; 16 years of experience
Stakeholder D	Fourth-Grade Teacher; Master's in Elementary Education; National Board Certified Teacher; 17 years of experience
Stakeholder E	Third-Grade Teacher; 20 years teaching experience, Master's Degree, National Board Certified Teacher
Stakeholder F	Third-Grade Teacher; 19 years teaching experience
Stakeholder G	Third-Grade Teacher; 7 years teaching experience
Stakeholder H	Fourth-Grade Teacher; Inclusion teacher; 26 years of experience
Stakeholder I	Fourth-Grade Teacher; Current Grade Level Chair; 22 years of experience
Stakeholder J	Fourth-Grade Teacher; 18 years teaching experience
Stakeholder L	Fifth-Grade Teacher; 31 years teaching experience
Stakeholder M	Fifth-Grade Teacher; 13 years teaching experience
Stakeholder N	Fifth-Grade Teacher; 12 years teaching experience
Stakeholder O	Fifth-Grade Teacher; 18 years teaching experience; National Board Certified Teacher

The candidate selected these regular education classroom teachers because they had all been trained to use the WFTBB: RL program and due to their participation in the process evaluation of the program which previously occurred at the site. The individuals

were also selected based on their agreement to participate in the study. Stakeholder K was removed from the list of participants because the teacher was no longer teaching at the school at the time of the study.

Table 6 summarizes the years of experience of the teachers who participated in the evaluation at Carsimad Intermediate.

Table 6

Years of Teaching Experience

Years of Experience	n	Total Percentage
0-3 years	0	0%
4-10 years	0	0%
10+ years	14	100%

The evaluation included regular education classroom teachers in Grades 3-5. All 14 (100%) teachers had 10 or more years of experience in the classroom. The stakeholders had experience in the classroom ranging from 7-31 years of experience in the field of education (North Carolina Teacher Working Conditions, 2014). Many had advanced degrees or certifications which showed their continual growth in education. Table 7 shows the advanced degrees held by the educators participating in the evaluation.

Table 7

Teachers with Advanced Degrees

Degree	n	Total Percentage
Master's Degree or Higher	5	35.7%
National Board Certified	3	21.4%

Five of 14 (35.7%) classroom teachers had advanced degrees, and three of 14 (21.4%) classroom teachers were National Board Certified (North Carolina School Report Cards, 2016).

Research Questions

This research study focused on the impact critical thinking through the WFTBB: RL program had on planning, instruction, and assessment in the ELA classroom. The researcher used quantitative and qualitative data to answer the following research questions.

1. To what extent do the stages of the WFTBB: RL program align with the defined components of critical thinking?
2. To what extent are all the stages of the WFTBB: RL program integrated into planning, instruction, and assessment?
3. How can the integration of critical thinking using WFTBB: RL be described in planning, instruction, and assessment?
4. How does the integration of WFTBB: RL impact learning environments with regard to critical thinking?
5. How does integration of WFTBB: RL impact student learning with regard to critical thinking?

Research Design and Rationale

Participatory evaluation. The researcher evaluated the integration of critical thinking through the WFTBB: RL program with the involved stakeholders through a participatory evaluation to determine how the stages of the program (oral responses, open-ended responses, and formal written responses) impacted ELA classroom planning, instruction, and assessment. The research was designed to evaluate how WFTBB: RL focused on critical thinking impacted planning, instruction, and assessment in the ELA classroom. Additionally, the three major components of the program were evaluated by the involved educators to determine the impact the integration of critical thinking through

the use of WFTBB: RL had on classroom environments and student outcomes.

Fitzpatrick, Sanders, and Worthen (2011) stated the most important part of a program evaluation is understanding the purpose. Involving stakeholders in an evaluation uses the participative approach. According to Fitzpatrick et al., involving stakeholders in the evaluation increases the stakeholders' understanding of the program and how it affects the organization of the school. The involvement of teachers in the evaluation process grows their participation with the program and can create opportunities for open dialogue. According to Graham (2007), meaningful conversations which focus on "curricular and instructional practices are the lifeblood of any successful learning community" (p. 6). Discussions with instructional staff about perceptions of the program helped find things that may have gone "unnoticed and unappreciated" (Fitzpatrick et al., 2011, p. 141). Marsh and Willis (2007) suggested communication among members affects the favorable reception educators have with a change. Drago-Severson (2009) stated environments should support risk-taking and support critical dialogue which will allow professional learning, new programs, and strategies to be evaluated fairly. Fitzpatrick et al. stated stakeholders become more empowered as active evaluators due to the nature of their involvement of learning more about the program during the evaluation.

Participatory evaluations involve stakeholders in developing and implementing the evaluation of a program (Fitzpatrick et al., 2011; Zukoski & Luluquisen, 2002) and in determining research questions, gathering and analyzing data, and determining conclusions from the data (Zukoski & Luluquisen, 2002). Guba and Lincoln (1981) were evaluation theorists who brought light to the use of participant-oriented evaluations and believed in including involved stakeholders throughout evaluations to engage in

conversations and form action plans to support the program. Zukoski and Luluquisen (2002) stated the involvement of stakeholders in a participatory evaluation allows reflection of the processes and outcomes of the program, builds a sense of ownership of evaluation results, enhances stakeholder knowledge of the site, can lead to the transformation and improvement of the learning environment and development of leadership skills, and builds stronger teams.

Logic model. A logic model guided the participatory evaluation to find the impact of the integration critical thinking through the WFTBB: RL program. According to Butin (2010), an evaluative dissertation helps connect descriptive design to components of the program and evaluative aspects by using a program design model. The logic model was used to examine the integration of critical thinking through the WFTBB: RL program to determine if the three stages of the program (oral questions, open-ended responses, and formal written responses to literature) aligned with the critical thinking action words. Further, each stage of the program was evaluated to determine the extent to which each one was integrated into planning, instruction, and assessment in the ELA classroom. Figure 4 contains the medium-term outcomes of the logic model used to evaluate the program.

Logic Model of the use of Write from the Beginning and Beyond: Response to Literature (WFTBB: RL) to develop critical thinking skills to enhance comprehension of complex texts for students at Carsimad Intermediate.

Situation: Students at Carsimad Intermediate need to improve comprehension skills based on results of comprehensive needs assessment; stakeholders desire a program which provides common ground for teaching and improving comprehension skills; and the school has no additional funds to purchase new reading program and staff has WFTBB: RL program.

Inputs	**Output**		**Outcomes**		
Resources	*Activities*	*Participation*	*Short-Term*	*Medium-Term*	*Long-Term*
Teachers					
WFTBB: RL program guide Training to use WFTBB: RL Literature to use with program Classroom Teachers Thinking Maps Resources	Teachers will implement the WFTBB:RL program during literacy Teachers will progress students through the stages of understanding Teachers will plan together using the provided planning guide	3rd, 4th, and 5th grade teachers	100% of teachers trained to use the program Implement WFTBB:RL with fidelity by progressing students through the stages of implementation PLC established to plan ELA plans using WFTBB:RL Decision-oriented evaluation.	Integration of all stages of WFTBB:RL program in the classroom in planning and instruction Formative assessment of student work during oral and open-ended responses. Summative assessment of student work during formal written responses Learning environments build critical thinking skills in students using the WFTBB:RL program	Improvement of instruction to increase students' abilities to comprehend complex texts Improved scores on classroom assessments Improved standardized reading test scores
Students					
Literature, Thinking Maps and other activities, writing prompts	Students will respond to literature through oral responses, open-ended responses, and formal written responses	3rd, 4th, and 5th grade students	Students will participate in stages of the program	Students working to progress to think critically using WFTBB:RL	Increased critical thinking skills in students Improved scores on classroom assessments Improved standardized reading test scores

External Factors: Teachers' time is limited to implement new program, limited time to plan, limited time to collaborate about overall program, student comprehension levels vary, students have various pull-out times, classrooms experience interruptions which disturb the classroom environment

Assumptions: All teachers use Thinking Maps. The program will provide students and teachers opportunties to connect with text they are reading. The oral questioning skills will increase student's ability to respond to open-ended responses with the use of Thinking Maps or other activities. Teachers will model how to write to a variety of prompts and students will learn to write to prompts referencing texts. Students critical thinking skills will increase and lead to improved comprehension of complex texts. Teachers will reflect on lessons and make improvements to the overall implementation of the program.

Figure 4. Logic Model.

The program logic model helps link short- and long-term outcomes with program activities and processes with the theoretical assumptions and principles of the program (Fitzpatrick et al., 2011). The program logic model helps map out the process of completing the evaluation of the program in a sequential fashion. The evaluator used the logic model as a visual tool to help the team of stakeholders involved in the evaluation of the WFTBB: RL program answer the research questions of the study by focusing on the outcomes addressed by the medium-term goals. The medium-goals of the logic model were evaluated using data gathered from document analysis of the program (Appendix A), document analysis of lesson plans (Appendix B), observation checklist (Appendix C), teacher focus groups (Appendix D), student work samples, and teacher surveys (Appendix E) to help determine the impact of the integration of critical thinking instruction during the three stages of the WFTBB: RL program.

Historical data. According to historical data, students at Carsimad Intermediate School struggle with reading comprehension. According to the North Carolina School Report Cards (2012, 2013), for the years 2012 and 2013, students performed lower on the North Carolina end-of-grade reading tests compared to the end-of-grade math tests. Table 8 shows the percentage of achievement levels considered at or above grade level on the end-of-grade reading and math tests for the school during the 2012 and 2013 school years.

Table 8

2012-2013 End-of-Grade Tests Results

Achievement level 3 and 4 by grade levels	2012		2013	
	Reading	Math	Reading	Math
Third	80.0%	91.4%	65.1%	61.6%
Fourth	72.6%	86.8%	58.7%	74.0%
Fifth	79.6%	90.3%	43.8%	64.8%

The table above conveys how the students overall perform lower on reading tests compared to math tests. Likewise, the percentages of students who scored at or above grade level decreased in reading between the years of 2012 and 2013 for third, fourth, and fifth grade. The State Board of Education adopted a new five-level achievement scale which replaced the previous four-level scale. The state and the school used the five-level achievement proficiency scale for the first time during the 2013-2014 school year. According to NCDPI (2015), students who scored a level 4 or 5 were considered CCR and showed a solid and superior command of subject material. Students who scored a level 3, 4, or 5 overall on the end-of-grade tests reflected grade level proficiency (GLP) and showed sufficient command of subject material (NCDPI, 2015). Table 9 compares Carsimad Intermediate School's 2013-2014 North Carolina end-of-grade reading and math test proficiency scores with that of the district (North Carolina School Report Cards, 2014).

Table 9

2014 End-of-Grade Tests Proficiency Scores

	Grade 3				Grade 4				Grade 5			
	Reading		Math		Reading		Math		Reading		Math	
	CCR	GLP	CCR	GLP	CCR	GLP	CCR	GLP	CCR	GLP	CCR	GLP
School	53.0	67.5	60.2	75.9	69.6	73.9	64.1	76.1	51.0	65.3	73.5	80.6
District	57.5	68.6	54.8	68.2	60.3	69.2	61.3	67.9	48.2	63.2	63.9	70.2

The analysis of these data continued to show there was a discrepancy in the school's reading and math scores. The students performed slightly higher on the end-of-grade reading tests compared to the district-level scores in Grades 4 and 5; however, the third-grade students performed lower compared to the district's scores. Carsimad Intermediate School performed higher than the district level in Grades 3-5 on the math end-of-grade test. Sixty-five percent of the students scored a level 4 or 5 on the end-of-grade tests and were considered CCR by showing a solid command or superior command of subject material. Seventy-six percent of Carsimad Intermediate students scored a level 3, 4, or 5 on the end-of-grade tests. These students reflect GLP. Students who scored an achievement level 3 showed proficiency standard and showed sufficient command of subject material.

The percentages show students performed higher in math compared to reading in all grade levels except fourth grade. Students in fourth grade who earned a 4 or 5 in reading, which is considered CCR, performed higher than students who received a 4 or 5 in math, which is considered CCR.

The previous data underscore the need for the site to focus on literacy and reading comprehension. Additionally, it supported the need for the logic model to guide the site

in evaluating the WFTBB: RL program.

Fitzpatrick et al. (2011) recommended using mixed-methods research which utilizes more than one method of collecting data to answer the research questions. According to Fitzpatrick et al., most evaluations use both qualitative and quantitative measures based on the evaluation questions and goals of the program evaluation. According to Butin (2010), data can be reflected differently depending on the research tools used. The researcher used both qualitative and quantitative data to help make the research stronger and triangulated (Butin, 2010). Triangulation of data was important to increase validity of the evaluation and recommendations based on the data (Fitzpatrick et al., 2011).

Both qualitative and quantitative data were collected to determine how the integration of critical thinking through the three stages of the WFTBB: RL program impacted planning, instruction, and assessment in the ELA classroom. Data were collected to determine if the program integrated with critical thinking impacted the learning environment and student learning. The stages of the program were evaluated to determine their alignment with the defined components of critical thinking and to determine the extent to which all stages of the program were implemented in planning, instruction, and assessment in the ELA classroom.

Instruments, Procedures, and Data Collection

Mixed methods. Creswell (2014) stated that combining qualitative and quantitative data increases the understanding of the research and the outcomes determined from data collection. The researcher used a convergent design method to collect and analyze data. According to Creswell, convergent design methods incorporate collecting qualitative and quantitative data separately and later comparing results (which

should represent similar findings) to determine the outcomes of the research. The qualitative data collection included document analysis of the program guide, document analysis of lesson plans, observational checklists (Appendix C), focus-group interviews (Appendix D), and student work samples. Quantitative data were collected through teacher surveys (Appendix E).

Creswell (2014) stated that the researcher focuses on individual meaning by exploring, questioning, and interpreting the meaning of data when conducting qualitative research. This form of research has a constructivist worldview and a background in anthropology, sociology, and humanities. Qualitative research uses narrative research and, according to Creswell, the key idea behind qualitative research is to focus on a problem or an issue from participants and to address the research to obtain information.

Quantitative research tests objective theories and uses variables to analyze numbered data represented through statistical analyses (Creswell, 2014). These data are collected using instruments which allow numbered data to be analyzed (Creswell, 2014).

Data collection and analysis. Prior to beginning research, teachers at Carsimad Intermediate School were provided information explaining the procedures of the program evaluation, data collection, and analysis. Likewise, teachers were provided professional development by the researcher to share and provide a rationale for the determined definition of critical thinking and the P21 Framework. The researcher assured the teachers who participated in the research that confidentiality would be maintained at all times throughout the study and they had the option to change their minds about participating at any time throughout the study. According to Creswell (2014), researchers should think ahead to anticipate ethical issues early and throughout all stages of research. Participants should be considered volunteers, and an informed consent form should be

completed prior to participating (Creswell, 2014). Prior to conducting any data collection, consent was collected; and throughout the process, confidentiality remained a priority for the researcher (Appendix G).

Data were collected using the same sample size for both qualitative and quantitative data. The researcher used document analysis to examine the program and lesson plans. In addition, classroom observations, focus-group interviews, and teacher surveys were conducted with all involved stakeholders. Table 10 explains the data collection methods employed to answer each research question.

Table 10

Research Questions Matrix

Research Question	Document Analysis of the WFTBB: RL Teacher's Guide	Document Analysis of WFTBB: RL Grade Level Lesson Plans	Student Work Samples	Classroom Observations	Focus-Group Interviews	Teacher Survey
1. To what extent do the stages of the WFTBB: RL program align with the defined components of critical thinking?	yes	yes	no	yes	yes	yes
2. To what extent are all the stages of the WFTBB: RL program integrated into planning, instruction, and assessment?	no	no	no	yes	yes	yes
3. How can the integration of critical thinking using WFTBB: RL be described in planning, instruction, and assessment?	no	yes	no	yes	yes	yes
4. How does the integration of WFTBB: RL impact learning environments with regard to critical thinking?	no	no	no	no	yes	yes
5. How does integration of WFTBB: RL impact student learning with regard to critical thinking?	no	no	yes	no	yes	yes

The researcher used document analysis of the program guide, document analysis of lesson plans, classroom observations, and focus-group interview responses as qualitative data to answer the first research question. Responses to the teacher survey

were used quantitatively to answer Research Question 1.

In order to answer Research Question 2, the researcher converged the data analysis of classroom observations and focus-group interview responses with the responses from the teacher survey.

The researcher analyzed grade-level lesson plans, classroom observations, and focus-group interview responses as qualitative data to answer Research Question 3. The researcher then compared this information with the results from the teacher survey to determine if the data revealed the same information and answered the third research question.

The fourth research question was answered by using focus-group interview responses compared to the results of the teacher survey.

Finally, the researcher used focus-group interviews as qualitative data to compare to the quantitative data provided from the teacher survey. This information was used to determine the answer to the fifth research question.

Table 11 explains the evaluation plan for data collection and analysis for the study at the site.

Table 11

Evaluation Action Plan Indicators and Timeline

Research Question	Indicators	Timing
1. To what extent do the stages of the WFTBB: RL program align with the defined components of critical thinking?	Internal Evaluator/Researcher Document Analysis, Classroom Observations, and Participant Perceptions (Focus Group Interviews and Surveys)	September - November 2016
2. To what extent are all the stages of the WFTBB: RL program integrated into planning, instruction, and assessment?	Classroom Observations and Participant Perceptions (Focus Group Interviews and Surveys)	October - November 2016
3. How can the integration of critical thinking using WFTBB: RL be described in planning, instruction, and assessment?	Internal Evaluator/Researcher Document Analysis, Classroom Observations, and Participant Perceptions (Focus Group Interviews and Surveys)	October - November 2016
4. How does the integration of WFTBB: RL impact learning environments with regard to critical thinking?	Participant Perceptions (Focus Group Interviews and Surveys)	October – November 2016
5. How does integration of WFTBB: RL impact student learning with regard to critical thinking?	Student Work Samples and Participant Perceptions (Focus Group Interviews and Surveys)	October – November 2016

The researcher began data collection and analysis in September and finished in November. The analysis of the program guide was completed in September and used to answer the first research question. The researcher analyzed grade-level lesson plans in October to help answer the first and third research questions. The researcher observed each teacher one time using the observation checklist in October. These data were used to answer Research Questions 1, 2, and 3. Grade-level focus-group interviews were conducted in October to gather teacher perceptions and were used to answer all research questions. Finally, all teachers participated in completing teacher surveys in November to gather their perceptions, and these data were utilized to answer all research questions.

Table 12 further examines the evaluation action plan for data collection.

Table 12

Evaluation Action Plan Data Collection

Research Question	Data Collection		
	Sources	Methods	Instruments
1	WFTBB: RL Teacher Guide, Grade Level Lesson Plans, Document Analysis Form for evaluating program guide and lesson plans, Classroom Observation Form, Focus Group Interview Questions, Teacher Survey, Internal Evaluator, and Participants	Document Analysis, Classroom Observations, Focus Group Interviews with Grade Levels, Teacher Survey (SurveyMonkey)	Document Analysis Form for Program Guide and Lesson Plans; Observation Form; Focus Group Interview Sheet; Audiotape; Teacher Survey
2	Classroom Observation Form, Focus Group Interview Questions, Teacher Survey, Internal Evaluator, and Participants	Classroom Observations, Focus Group Interviews with Grade Levels, Teacher Survey (SurveyMonkey)	Observation Form; Focus Group Interview Sheet; Audiotape; Teacher Survey
3	Grade Level Lesson Plans, Document Analysis Form for evaluating lesson plans, Classroom Observation Form, Focus Group Interview Questions, Teacher Survey, Internal Evaluator, and Participants	Document Analysis, Classroom Observations, Focus Group Interviews with Grade Levels, Teacher Survey (SurveyMonkey)	Document Analysis Form for Lesson Plans; Observation Form; Focus Group Interview Sheet; Audiotape; Teacher Survey
4	Focus Group Interview Questions, Teacher Survey, Internal Evaluator, and Participants	Focus Group Interviews with Grade Levels and Teacher Survey (SurveyMonkey)	Focus Group Interview Sheet; Audiotape; Teacher Survey
5	Student Work Samples, Focus Group Interview Questions, Teacher Survey, Internal Evaluator, and Participants	Focus Group Interviews with Grade Levels, Student Work Sample Reviews, and Teacher Survey (Survey Monkey)	Focus Group Interview Sheet; Audiotape; Teacher Survey

Document analysis. Document analysis of the program (Appendix A) was completed in September by the researcher using the attributes of critical thinking

provided by Scriven and Paul's (1996) definition of critical thinking to determine the extent of the alignment to the stages of the WFTBB: RL program. The researcher analyzed each stage of the WFTBB: RL program (oral questioning, open-ended responses to literature, and formal written responses to literature) using the action verbs in Scriven and Paul's definition. Additionally, the researcher analyzed grade-level lesson plans (Appendix B) in October to determine the extent to which all stages of the WFTBB: RL program were integrated into planning. Butin (2010) considered document analysis very powerful for data collection.

Classroom observations. Additional data were collected to evaluate the impact of integration of critical thinking instruction through the WFTBB: RL program by conducting classroom observations in October using an observation checklist (Appendix C). Butin (2010) suggested creating observation protocols to help focus the purpose of the observation; therefore, the researcher formulated an observation checklist (Appendix C) using recommended critical thinking strategies provided from the research presented in the literature review. The researcher used Scriven and Paul's (1996) definition and attributes of critical thinking and the stages of the WFTBB: RL program to formulate the observation checklist (Appendix C) to assist the internal evaluator in remaining focused during classroom observations. The checklist (Appendix C) was used to collect data specifically related to the integration of critical thinking instruction during the three stages of the WFTBB: RL program and the components of Scriven and Paul's definition of critical thinking. The data from the observation checklist (Appendix C) were collected and analyzed as qualitative data.

Focus groups. Butin (2010) stated there are two ways to conduct interviews: one-on-one and during focus groups. Interviews may seem simple, but they require

practice and refraining from bias. Questions should reflect the literature and connect to research questions from the study. During an interview, the person conducting the interview must be careful with the way in which they are conducted. Interviews can be a great way to dig deeper and ask follow-up questions. According to Butin, researchers need to be very aware of their body language, questions, and gestures during an interview due to the "response effect bias" which suggests interviewers can cause interviewees to say what they would like to hear (p. 97).

Interview questions were structured using open-ended (Appendix D) responses versus simple yes or no answers (Butin, 2010). Additionally, the researcher formulated questions to help interviewees dig deep for meaning. Butin (2010) made this recommendation for interviewers: "You want them to talk about their experiences, their feelings, and their intuitions surrounding the issue you are examining" (p. 97). Interviews have the potential to provide qualitative data to help explain the perspectives of those interviewed. It was imperative to be prepared with particular cues and responses to lead the interviewee to provide further information. The richer conversations and more detailed responses provided better and a greater quantity of data to be analyzed. The researcher used a recording device during focus-group interviews so she could be fully immersed in the conversation and able to pay attention to body language (Butin, 2010). Data were transcribed to allow accurate data collection and analysis (Butin, 2010).

The researcher determined three focus groups would be interviewed in October to gather qualitative data to address the three individual components of the program to determine the impact of infusing critical thinking instruction through the WFTBB: RL program. The three focus groups consisted of the three grade levels at the school. Each grade level was interviewed as a focus group. The researcher hoped using grade-level

focus groups would invite rich conversations due to established relationships and commonalities specific to each grade level. Grade-level focus groups were selected because they had common planning time together and had shared responsibilities to teach grade-level standards. Focus groups were used to collect perceptual data from the classroom teachers evaluating the program.

Qualitative data collected during focus-group interviews were aimed at determining the extent each stage of the WFTBB: RL program was integrated into planning, instruction, and assessment. Focus groups also helped determine a description of the integration of stages of the WFTBB: RL program focused on critical thinking in planning, instruction, and assessment. The educators' perceptions were gathered during focus groups to determine the impact critical thinking through the WFTBB: RL program had on the learning environment and student learning.

Teacher surveys. Quantitative data were gathered using teacher surveys (Appendix E) in November to determine teacher perceptions related to the alignment of the stages of WFTBB: RL with the attributes of critical thinking. The survey also measured the extent the stages of the program were integrated into planning, instruction, and assessment. The survey was used to gather the perceptions of the teachers regarding the integration of critical thinking through WFTBB: RL in planning, instruction, and assessment. Teacher surveys also determined the impact of the integration of critical thinking with WFTBB: RL on learning environments and student outcomes.

Surveys (Appendix E) were created based on the research questions and the literature reviewed (Butin, 2010). Surveys (Appendix E) were built from the literature included in the study and linked directly to the specific research questions. The researcher constructed the teacher survey (Appendix E) specifically to help answer all

research questions. The survey contained 25 statements using a Likert scale which ranged from strongly agree to strongly disagree (Butin, 2010).

Student work samples. Teachers collected samples of student work to evaluate the integration of critical thinking using WFTBB: RL and analyzed how it impacted student learning with regard to critical thinking.

Field tests audience. The researcher met with three elementary education teachers and one literacy facilitator from the district in which the study took place. The educators did not participate in the program evaluation. The educators reviewed all data instruments created by the researcher. The group reviewed the document analysis forms and the observation checklist the researcher used during the study.

Likewise, the group field tested the surveys so the researcher could retrieve feedback to make the survey stronger and better for the participants. Butin (2010) recommended testing surveys on others prior to actually using the survey to collect data. The educators provided feedback to help the researcher avoid bias, determine the length of time required to complete the survey, and ensure the objectives of the survey were clear (Butin, 2010). The researcher used all feedback from the test audience to confirm that the intentions of the survey were defined and all survey statements were clearly written. Statements that were not clearly written were rewritten using the feedback from the test audience. Additionally, the researcher used feedback from her committee to narrow down the number of survey statements. This process helped the researcher focus on specific statements that would help answer each research question in the study without overwhelming the participants.

Further, the researcher field tested the interview questions used in focus groups. The researcher pilot tested the interview questions with educators not participating in the

study to make them as effective as possible. Gaining feedback regarding the interview questions afforded the researcher to make necessary adjustments to questions to ensure each was clearly written and would retrieve responses to help answer the research questions. The interview questions (Appendix D) were reconstructed to help gather responses related specifically to the literature and research questions. The researcher also utilized the recommendations provided by her committee to narrow down the number of interview questions and promote richer conversations with participants. Statements were narrowed to develop and focus specifically on collecting qualitative data that would help answer the research questions. Pilot testing focus-group questions and receiving feedback from educators provided the researcher the opportunity to create statements that engaged the participants in conversations that helped answer the questions for this study. Moreover, this opportunity ensured focus-group interviews could be conducted in a timely manner.

The researcher's committee reviewed all data collection methods. The number of questions and statements were shortened, and feedback was used to increase the productivity of the focus-group interviews and teacher surveys used during the study.

Data analysis and interpretation. The researcher used a convergent parallel mixed-methods design to analyze and interpret data. Table 13 shows how data were analyzed and interpreted to answer the five research questions.

Table 13

Evaluation Action Plan Data Analysis and Interpretation

Research Question	Data Analysis	Data Interpretation
All	QUAN + QUAL	Summarize QUAN + QUAL results; Determine if results converge or diverge, relate to each other, and answer the research questions

A convergent parallel mixed-methods design was used during this study to collect and analyze qualitative and quantitative data. Both data were collected and analyzed separately (Creswell, 2014). According to Creswell (2014), this type of data collection and analysis can be used to determine if the qualitative and quantitative data yield the same results. All data collection instruments were constructed using the same concepts; however, data were measured differently. Qualitative and quantitative sample sizes were the same for all data collection. The two data sets were analyzed separately and then compared in a side-by-side comparison as shown in Figure 5. In Chapter 4, the researcher discusses the findings from both data methods and compares the results to determine how data converges or diverges. Results were interpreted and used to answer the research questions.

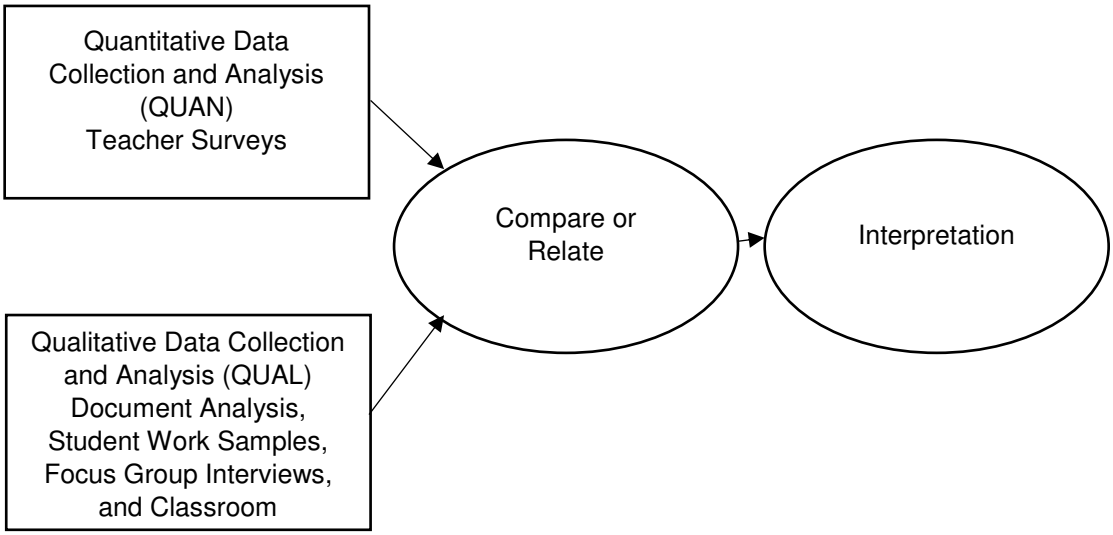

Figure 5. Convergent parallel mixed methods data collection was used in this study (adapted from Creswell, 2014, p. 220).

Delimitations

The researcher only studied the impact of the integration of critical thinking through the WFTBB: RL program on classroom planning, instruction, and assessment at this specific intermediate school. Additional reading methods used by the educators, in addition to this particular literacy program, that may or may not have influenced the students and teachers were not studied.

Limitations

The results only apply to the research at this particular intermediate school, and no generalizations to the larger educational community were addressed. The researcher considered her own biases while participating in the research as an internal evaluator and took all precautions to ensure the validity of the study.

Summary

P21 Century Learning (2015) created a framework for educational systems to support Learning and Innovation student outcomes through core subjects. The

Framework defined Learning and Innovation outcomes as 21st century skills including creativity, critical thinking, communication, and collaboration. This study was constructed using the concept of critical thinking as a desired Learning and Innovation student outcome for the 21st century as proposed by the P21 Framework (P21 Century Learning, 2015). The study's theoretical foundation was based on Scriven and Paul's (1996) definition of critical thinking selected from the abundance of definitions which exist in the literature. Action verbs, provided through Sciven and Paul's definition of critical thinking, guided the creation of data instruments which were used to determine the impact of critical thinking integrated through the WFTBB: RL program.

The purpose of this study was to examine the impact the integration of critical thinking through the WFTBB: RL program had on the ELA classroom (planning, instruction, and assessment) through a program evaluation. The stakeholders used a logic model which was created using historical data to determine the needs of the site and the short-, medium-, and long-term outcomes for the school. The need of the site was to improve comprehension skills; therefore, the WFTBB: RL program was selected to meet the needs of the school based on the claim it supported critical thinking in students. The medium outcomes of the logic model were used to construct the research questions for the study and were monitored to ensure research questions were being answered through data collection methods. This study focused on the impact the integration of critical thinking through the WFTBB: RL program had on planning, instruction, and assessment. The mixed-methods data analysis was triangulated to determine the impact the integration of critical thinking through the WFTBB: RL program had on the ELA classroom to answer the research questions.

Chapter 4: Findings

The purpose of this study was to determine the impact of critical thinking through the WFTBB: RL program at Carsimad Elementary School through planning, instruction, and assessment. The study was completed by teachers in third-, fourth-, and fifth-grade classrooms. Fourteen teachers participated in the program evaluation focused on the outcomes of critical thinking through the WFTBB: RL program. The conceptual framework which guided the research was based on previous research conducted by the researcher on critical thinking, educational frameworks, and the WFTBB: RL program. All participants participated in four professional development opportunities to work collaboratively as a PLC to plan and discuss critical thinking through the WFTBB: RL program. The researcher defined critical thinking using Scriven and Paul's (1996) definition of critical thinking explained the 21st Century Student Outcomes and Support Systems Framework and presented the five research questions that would be answered during the study by all participants. Prior to collecting data, the researcher provided all participants handouts containing the timeline for the study, the research questions, data collection instruments, and the conceptual framework.

The study focused on the impact the integration of critical thinking through the WFTBB: RL program had on planning, instruction, and assessment in the ELA classroom. The researcher used quantitative and qualitative data to answer the following research questions.

1. To what extent do the stages of the WFTBB: RL program align with the defined components of critical thinking?
2. To what extent are all the stages of the WFTBB: RL program integrated into planning, instruction, and assessment?

3. How can the integration of critical thinking using WFTBB: RL be described in planning, instruction, and assessment?
4. How does the integration of WFTBB: RL impact learning environments with regard to critical thinking?
5. How does integration of WFTBB: RL impact student learning with regard to critical thinking?

Explanation of the Study

In order to explore the impact the integration of critical thinking through the WFTBB: RL program had on planning, instruction, and assessment, the researcher collected qualitative and quantitative data. The participatory research included five data collection methods to answer the overarching research question. Predetermined codes and themes were identified during research related to critical thinking to help integrate data from the five different collection methods. According to Fereday and Muir-Cochrane (2006), thematic analysis provides emerging themes used as codes for analyzing data. The actionable critical thinking words established using Scriven and Paul's (1996) definition of critical thinking, which guided this study, included conceptualize, apply, analyze, synthesize, and evaluate. The researcher further defined the five key indicators to provide explanation and clarification for each critical thinking action word to guide the study as shown in Table 14.

Table 14

Definition of Critical Thinking Action Words

Critical Thinking Action Words	Definition of Critical Thinking Action Words
Conceptualize	to form into a concept; make a concept; develop a concept, visualize mentally (Dictionary.com, 2016)
Apply	to make use of as relevant, suitable, or pertinent (Dictionary.com, 2016)
Analyze	examine & determine; break down; to separate into parts or elements; determine essential features; examine critically; examine carefully and in detail to identify causes, key factors, possible results; clarify; explain (Dictionary.com, 2016)
Synthesize	to form by combining parts of elements to make or form a synthesis; combine; make whole; arrange; blend; integrate (Dictionary.com, 2016)
Evaluate	to judge or determine the significance, worth, or quality of; assess; to determine or set the value or amount of; judge; classify; criticize; decide; gauge (Dictionary.com, 2016)

The researcher used the determined codes to analyze the program guide and lesson plans. The program guide was analyzed using the indicators of critical thinking established to guide this study to determine the extent the stages of the WFTBB: RL program aligned with the defined components of critical thinking. The researcher collected and analyzed four lesson plans written using the WFTBB: RL program. Third-, fourth-, and fifth-grade teams provided the researcher with 12 lesson plans. The lesson plans were examined using the five predetermined critical thinking themes to determine the extent the stages of the program were integrated into planning, instruction, and assessment. Lesson plans were also evaluated to explain the integration of critical thinking using the WFTBB: RL program described in planning, instruction, and assessment.

Additionally, the researcher used the defined critical thinking themes to analyze classroom observations. The researcher conducted 13 classroom observations using an observation checklist. The observation checklist was used to help the researcher remain focused on the five determined critical thinking actionable key words during all observations. Classroom observation data were collected to determine the extent the stages of the WFTBB: RL program aligned with the defined components of critical thinking and to what extent the stages of the program were integrated into instruction and assessment. Moreover, classroom observations were conducted to describe the integration of critical thinking using WFTBB: RL in planning, instruction, and assessment.

Third-, fourth-, and fifth-grade teams participated in focus-group interviews to collect additional qualitative data which were combined with other data to determine the impact the integration of critical thinking through the stages of the WFTBB: RL program had on planning, instruction, and assessment in the ELA classrooms at Carsimad Intermediate School.

Finally, the participants completed a survey to collect quantitative perceptual data used to triangulate with other data sources to determine if results converged or diverged and to answer the leading research question.

The data collected from the document analysis of the program guide, document analysis of lesson plans, classroom observations, focus-group interviews, and teacher surveys related to the integration of critical thinking through the WFTBB: RL program are discussed in this chapter.

Results

Research Question 1: To what extent do the stages of the WFTBB: RL

program align with the defined components of critical thinking? To clearly answer Research Question 1, document analysis of the program guide, document analysis of lesson plans, classroom observations, focus-group interviews, and surveys were utilized to collect and analyze information related to the alignment of the defined components of critical thinking with the stages of the WFTBB: RL program.

Document analysis of program guide used to answer Research Question 1. The researcher conducted document analysis of the WFTBB: RL program guide using a tool created by the researcher to review the stages of the program and indicators of critical thinking using Scriven and Paul's (1996) definition of critical thinking. Initially, the researcher stated this process would be completed solely by the researcher; however, upon completion of document analysis, Stakeholder H reviewed the researcher's document analysis of the program guide. Collaboratively, the researcher and Stakeholder H agreed on the data collected from the document analysis of the program guide.

The stages of the WFTBB: RL program guide was read and reread in order to examine each stage for actionable critical thinking components. Each stage of the program (oral, open-ended responses, and formal written responses) was analyzed to determine if it indicated conceptualizing, applying, analyzing, synthesizing, or evaluating. Table 15 organizes oral response questions from the program used during the oral response stage into the five defined key indicators of critical thinking.

Table 15

Oral Response Stage of WFTBB: RL Aligned with Critical Thinking

Critical Thinking Indicator	Alignment of Critical Thinking with Oral Response Stage of the Program	
	Number Aligned	Percent
Conceptualizing	8	11.8%
Applying	10	14.7%
Analyzing	22	32.4%
Synthesizing	8	11.8%
Evaluating	20	29.4%

The oral response stage of the program was coded using the five critical thinking action words. The program guide included 68 oral responses. The researcher determined the guide included eight of 68 (11.8%) oral responses which involved conceptualizing. The WFTBB: RL program guide contained 10 of 68 (14.7%) oral responses that required application. Twenty-two of 68 (32.4%) oral responses promoted analyzing information. Through document analysis of the oral response stage, the researcher discovered eight of 68 (11.8%) questions required students to synthesize information. Finally, the oral response stage included 20 of 68 (29.4%) evaluation questions.

Table 16 displays the number of instances open-ended responses indicated conceptualizing, applying, analyzing, synthesizing, and evaluating.

Table 16

Open-Ended Response Stage of WFTBB: RL Aligned with Critical Thinking

Critical Thinking Indicator	Alignment of Critical Thinking with Open-Ended Response Stage of the Program	
	Number Aligned	Percent
Conceptualizing	18	13.8%
Applying	15	11.5%
Analyzing	60	46.2%
Synthesizing	22	16.9%
Evaluating	15	11.5%

The researcher utilized the five critical thinking action words to code the open-ended response stage included in the WFTBB: RL program guide. The program contained 130 open-ended response activities. Eighteen of 130 (13.8%) open-ended responses required students to conceptualize text. The open-ended response stage included 15 of 130 (11.5%) activities that required application. Sixty of 130 (46.2%) open-ended responses included analyzing information from text. Open-ended responses included 22 of 130 (16.9%) synthesizing activities and 15 of 130 (11.5%) evaluating activities.

Table 17 indicates the alignment of the formal written responses from the WFTBB: RL program with the defined components of critical thinking.

Table 17

Formal Written Response Stage of WFTBB: RL Aligned with Critical Thinking

Critical Thinking Indicator	Alignment of Critical Thinking with Formal Written Response Stage of the Program	
	Number Aligned	Percent
Conceptualizing	10	8.5%
Applying	19	16.1%
Analyzing	30	25.4%
Synthesizing	25	21.2%
Evaluating	34	28.8%

The WFTBB: RL program guide included 118 formal written response activities. The formal written response stage of the WFTBB: RL program included 10 of 118 (8.5%) conceptualizing prompts, 19 of 118 (16.1%) applying prompts, 30 of 118 (25.4%) analyzing prompts, 25 of 118 (21.2%) synthesizing prompts, and 34 of 118 (28.8%) evaluating prompts.

Document analysis of lesson plans used to answer Research Question 1.

Twelve lesson plans provided by the third-, fourth-, and fifth-grade teams were analyzed by the researcher to provide further data to determine the extent to which the stages of the WFTBB: RL program were integrated into planning, instruction, and assessment. This data collection was utilized to complement other research methods and answer the research question (Bowen, 2009). Table 18 shows the integration of critical thinking through the oral response stage of the program indicated in the 12 grade-level lesson plans.

Table 18

Analysis of Lesson Plans and the Integration of Critical Thinking through the Oral Response Stage of the WFTBB: RL Program

Critical Thinking Indicator	Integration of Critical Thinking through the Oral Response Stage of the Program in Lesson Plans	
	Number Indicated	Percent
Conceptualizing	10	16.9%
Applying	9	15.3%
Analyzing	26	44.0%
Synthesizing	2	3.4%
Evaluating	12	20.3%

Lesson plans provided by the three grade levels included a total of 59 oral response questions. The researcher analyzed the oral response questions included in the 12 lesson plans and coded them as conceptualizing, applying, analyzing, synthesizing, or evaluating. Ten of the 59 (16.9%) questions included in the 12 lesson plans required students to conceptualize information. Nine of 59 (15.3%) questions indicated students would apply information from the assigned text reading. Twenty-six of 59 (44.0%) oral responses required students to analyze the text. Lesson plans included two of 59 (3.4%) questions that provided opportunities for students to synthesize information from their reading. Twelve of 59 (20.3%) questions asked students to evaluate text.

Table 19 displays the data collected and analyzed in grade-level lesson plans written using the WFTBB: RL program regarding the integration of critical thinking through open-ended responses.

Table 19

Analysis of Lesson Plans and the Integration of Critical Thinking through the Open-Ended Response Stage of the WFTBB: RL Program

Critical Thinking Indicator	Integration of Critical Thinking through the Open-Ended Response Stage of the Program in Lesson Plans	
	Number Indicated	Percent
Conceptualizing	2	5.7%
Applying	3	8.6%
Analyzing	15	42.9%
Synthesizing	4	11.4%
Evaluating	11	31.4%

The 12 lesson plans provided by the third-, fourth-, and fifth-grade teams included 35 open-ended responses. Two of the 35 (5.7%) open-ended responses indicated students would conceptualize information from the text read. The lesson plans included three of 35 (8.6%) application open-ended responses. Fifteen of the 35 (42.9%) open-ended responses required students to analyze the text. Four of the 35 (11.4%) open-ended responses included synthesizing information. The 12 lessons required students to evaluate the text 11 times (31.4%).

Table 20 includes data collected while conducting document analysis of the 12 lesson plans in relation to the integration of critical thinking through the formal written response stage of the WFTBB: RL program.

Table 20

Analysis of Lesson Plans and the Integration of Critical Thinking through the Formal Written Response Stage of the WFTBB: RL Program

Critical Thinking Indicator	Integration of Critical Thinking through the Formal Written Response Stage of the Program in Lesson Plans	
	Number Indicated	Percent
Conceptualizing	0	0.0%
Applying	1	7.1%
Analyzing	2	14.3%
Synthesizing	1	7.1%
Evaluating	10	71.4%

The lesson plans included a total of 14 formal written response prompts. None of the 14 formal written response prompts indicated conceptualizing information. One of 14 (7.1%) formal written response prompts required students to apply information from the text. Two of the 14 (14.3%) formal written responses would entail students to analyze the text they read to respond to the prompt. The lesson plans included one of 14 (7.1%) formal written response prompts that required students to synthesize information read. Ten of 14 (71.4%) formal written responses included in the 12 lesson plans involved students evaluating the text.

Classroom observation data used to answer Research Question 1. In order to gain further insight into the extent to which the stages of the WFTBB: RL program aligned with the defined components of critical thinking, the researcher conducted 13 classroom observations. The researcher used the classroom observation checklist she created to guide her observations and to remain focused on the five critical thinking action words during the stages of the implementation of the program. The researcher utilized the five critical thinking action words and the specific definition of each word (as shown in Table 14) throughout the 13 classroom observations. Table 21 displays the data

collected through the 13 observations. The critical thinking action words were indicated based on the stage of the WFTBB: RL program observed or used in the participants' classrooms during the observations and are indicated in the following table.

Table 21

Critical Thinking Action Words Observed in Classrooms through the Stages of WFTBB: RL

Stage of the Program	Conceptualizing		Applying		Analyzing		Synthesizing		Evaluating	
	#	%	#	%	#	%	#	%	#	%
Oral Responses	4	12.5%	5	15.6%	10	31.3%	5	15.6%	8	25.0%
Open-Ended Responses	1	5.6%	4	22.2%	6	33.3%	2	11.1%	5	27.8%
Formal Written Responses	0	0.0%	1	33.3%	0	0.0%	1	33.3%	1	33.3%

Classroom observations were conducted to help determine the alignment of critical thinking with the stages of the WFTBB: RL program. Teachers used 32 oral responses during classroom observations using the program. Four of the 32 (12.5%) oral responses encouraged students to conceptualize information. Five of the 32 (15.6%) oral responses required students to apply information read in literature. Ten of the 32 (31.5%) oral response questions aligned to analyzing information. Five of the 32 (15.6%) oral responses required students to synthesize the text. Eight of the 32 (25.0%) observed oral responses involved evaluating a piece of literature.

During the 13 classroom observations, the researcher observed teachers utilizing 18 open-ended responses. One of the 18 (5.6%) open-ended responses included

conceptualizing. Four of the 18 (22.2%) open-ended responses required students to apply information from the text read. Six of the 18 (33.3%) open-ended responses involved students analyzing text. Two of the 18 (11.1%) open-ended responses needed students to synthesize information from their reading. Five of the 18 (27.8%) open-ended responses required students to evaluate the text.

During the classroom observations, three formal written responses were observed. One of the three (33.3%) formal written responses required applying information from the text to their response. One of the three (33.3%) formal written responses utilized synthesizing the text. One of the three (33.3%) formal written responses involved students evaluating what they read. Throughout the 13 observations, the formal written responses observed or used did not require conceptualizing or analyzing text.

Focus-group interview data used to answer Research Question 1. Additional qualitative data were collected to examine the extent the stages of the WFTBB: RL program aligned with the defined components of critical thinking through grade-level focus-group interviews. The researcher interviewed each grade level to gather teacher perceptions. Teachers were asked to "Describe questions, activities, and writing prompts from the program that promoted critical thinking."

The researcher coded the responses from interview statement 1 using the five critical thinking action words (conceptualizing, applying, analyzing, synthesizing, and evaluating) provided by Scriven and Paul's (1996) definition. In addition, the researcher found reoccurring themes in the qualitative data. These themes included using the teacher's program guide as a resource, Thinking Maps, teachers working collaboratively to plan, the need for nonfiction questions in the program guide, questions that go beyond recall, and questions that require referencing the text. The number of times the primary

themes were addressed by each grade level during focus-group interviews is included in Table 22.

Table 22

Primary Themes Describing Questions, Activities, and Writing Prompts from WFTBB: RL that promoted Critical Thinking

Primary Themes Addressed	# of times addressed by each grade level		
	Third	Fourth	Fifth
Conceptualizing	0	0	1
Applying	1	0	2
Analyzing	10	4	6
Synthesizing	0	3	1
Evaluating	5	3	2
Using the teacher's program guide as a resource	3	0	1
Using Thinking Maps	4	0	1
Teachers working collaboratively	3	0	0
Need for nonfiction questions in the WFTBB: RL program guide	0	3	2
Questions that go beyond recall	1	2	0
Questions that require referencing the text	0	0	2

The researcher coded all responses using the critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating. The third- and fourth- grade teachers did not discuss questions, activities, or writing prompts that conveyed conceptualizing. A fifth-grade teacher stated one activity related to conceptualizing by stating,

> They (students) started thinking how do I see myself, not as a student but this character. If the author did this to make me see it, how can I make another person see it in my writing? They had to write from their (author's) perspective. (Stakeholder M, personal communication, October 17, 2016)

Third-grade teachers mentioned one application question, activity, or writing prompt that promoted critical thinking. Fourth-grade teachers did not discuss applying activities during their interview. Fifth-grade teachers discussed this critical thinking action word two times. One third-grade teacher stated that when students use text and "Apply it to their daily life," it involves critical thinking (Stakeholder E, personal communication, October 25, 2016). A fifth-grade teacher discussed application questions and activities that used critical thinking:

> When students have to apply information from another text or outside character, any of that because they are taking stuff from their own information and trying to analyze the text and apply it to something new and see how it fits the question that involves outside resources or outside connections. (Stakeholder M, personal communication, October 17, 2016)

Analyzing texts was mentioned 10 times by third-grade teachers as a way to promote critical thinking. Fourth-grade teachers stated analyzing promoted critical thinking four times during the interview, and fifth-grade teachers mentioned this concept six times.

During the third-grade teachers' focus group, one teacher responded by stating, "I think anything that's not right there in the book where they are comparing characters" (Stakeholder J, personal communication, October 25, 2016) to explain critical thinking. Another third-grade teacher said, "They have a hard time with reflective questions . . .

they must be more reflective in their thinking about the ways characters feel" (Stakeholder E, personal communication, October 25, 2016). Additionally a third-grade teacher stated, "If they (students) can explain their thinking, not just recall or retell, but explain why you feel that way or explain why you think the character acted a certain way or how it would be different" required analyzing text and promoted critical thinking (Stakeholder J, personal communication, October 25, 2016). Stakeholder F stated questions from the program which supported critical thinking and related to analyzing texts included "Why did this happen or what caused this to happen?" In addition, she defined it as, "If students are explaining their thinking" (Stakeholder F, personal communication, October 25, 2016). A third-grade teacher focused on the critical thinking action word "analyzing," stating, "Analyzing texts makes them (students) think critically. Analyzing brings in cause and effect which we said was a hard skill for them (students), so I think by creating those questions it is making them think critically" (Stakeholder E, personal communication, October 25, 2016).

Analyzing questions, activities, and writing prompts that promoted critical thinking were discussed during the fourth-grade interview. Stakeholder I explained her idea of critical thinking questions and activities by stating, "Did any of the characters behave unexpectedly? So I think that this kind made them dive deeper into the character . . . examine the character's behavior" (Personal communication, October 19, 2016). One fourth-grade teacher stated her ideas of critical thinking activities: "When we thought about the different characters and their point of view . . . analyzing each character" (Stakeholder H, personal communication, October 19, 2016).

A fifth-grade teacher responded by explaining the types of questions and activities that promoted critical thinking: "Compare and contrasting questions because they

(students) have to think about how well they know characters. How they (characters) are the same and how they (characters) are different" (Stakeholder C, personal communication, October 17, 2016). A teacher added more to the conversation by stating, "Seeing how the author conveyed the character, that will take a lot of scaffolding. How did the author portray or how did the author make you see . . . they must think outside of themselves and makes you think like the author" (Stakeholder O, personal communication, October 17, 2016). One teacher compared student writing summaries not using the program to writing prompts using the program by stating, "They were just copying things, yet they wanted to give the summary of what had gone on; now they are examining" (Stakeholder M, personal communication, October 17, 2016).

Fourth-grade teachers described synthesizing activities from the program that promoted critical thinking three times. Third- and fifth-grade conversations did not relate to this critical thinking action word. A fourth-grade teacher focused on the questions that promoted critical thinking by saying, "What did the meaning, or message have for students?"; and then stated again, "the message of the story" (Stakeholder I, personal communication, October 19, 2016). Stakeholder H stated, "When a student's way of thinking changes about something and putting it all together, summarizing" (Personal communication, October 19, 2016).

The final critical thinking action word the researcher examined in participant responses for was evaluation. Third-grade teachers discussed this critical thinking action word five times, fourth-grade teachers addressed it three times, and the fifth-grade teachers mentioned evaluation activities twice.

One third-grade teacher suggested, "What characters could be removed without affecting the story? They really have to do some deep thinking to answer those types of

questions" (Stakeholder E, personal communication, October 25, 2016). A teacher expanded on what indicated critical thinking: "Evaluating the significance, like why is that so important to the story? Why did that have such an impact on the story?" (Stakeholder J, personal communication, October 25, 2016). Stakeholder F stated, "When students have to evaluate or judge the significance of the story" (Personal communication, October 25, 2016). Two third-grade teachers provided specific Thinking Maps that require students to think critically: "cause and effect" (Stakeholder F, personal communication, October 25, 2016) and "classifying maps" (Stakeholder E, personal communication, October 25, 2016) which support evaluation.

A fourth-grade teacher stated, "evaluating the character" (Stakeholder H, personal communication, October 19, 2016) supported critical thinking. The conversation continued with a teacher stating, "Finding the significance of something . . . I think that evaluating is the key" (Stakeholder I, personal communication, October 19, 2016).

A fifth-grade teacher said, "Any type of cause and effect (questions) are critical thinking. What was the impact and in your opinion questions promote critical thinking" (Stakeholder C, personal communication, October 17, 2016).

Using the teacher's program guide as resource. The teacher responses contained six additional themes. The third-grade teachers addressed utilizing the teacher's program guide as a resource when describing questions, activities, and writing prompts to promote critical thinking three times. Fourth-grade teachers did not discuss this theme and fifth-grade teachers talked about this topic one time. A third-grade teacher summarized the use of the WFTBB: RL teacher's guide: "I like that the book gave examples of questions and activities. Sometimes it can be difficult to find the right questions to foster critical thinking. I like having examples of questions at my finger-tips to choose from"

(Stakeholder G, personal communication, October 25, 2016). Further, a third-grade teacher added to these thoughts: "The sample writing activities that show how to transition from questions (oral responses) to Thinking Maps (open-ended responses) to written products (formal written responses) are also very helpful" (Stakeholder B, personal communication, October 25, 2016). A fifth-grade teacher stated, "I try to use different levels of questions. I try to pick critical thinking questions. I follow Bloom's Taxonomy. The questions that are in the book (WFTBB: RL program guide) give you different levels of questions" (Stakeholder C, personal communication, October 17, 2016).

Using Thinking Maps. Additionally, teachers mentioned Thinking Maps as a way to promote critical thinking using the program. This was discussed four times by the third-grade teachers and once by a fifth-grade teacher. Fourth-grade teachers did not state this in their responses. A third-grade teacher focused on the impact of using Thinking Maps: "The maps were created for thought processes" (Stakeholder F, personal communication, October 25, 2016). Two particular Thinking Maps were specifically stated: "cause and effect" (Stakeholder F, personal communication, October 25, 2016) and "classifying maps" (Stakeholder E, personal communication, October 25, 2016). As stated previously, Stakeholder B explained how she used the program: "The sample writing activities that show how to transition from questions (oral responses) to Thinking Maps (open-ended responses) to written products (formal written responses) are also very helpful" (Personal communication, October 25, 2016). A fifth-grade teacher stated, "Using a frame of reference with the Thinking Maps to help think about what you (students) know and so what does it mean" (Stakeholder C, personal communication, October 17, 2016) promoted critical thinking.

Teachers working collaboratively. Third-grade teachers stated the significance of working collaboratively as a component to promote critical thinking while using the WFTBB: RL program. Fourth- and fifth-grade teachers did not discuss this coded theme in their responses to interview statement 1. The teachers discussed the importance of working collaboratively as a PLC: "I think having professional development helps a lot, because otherwise I don't know that I would have taken time to use and apply it (the program)" (Stakeholder E, personal communication, October 25, 2016). Stakeholder F also stated, "It (planning using the program) has been a lot easier planning it together as a grade level and as a group" (Personal communication, October 25, 2016). Lastly, a teacher stated,

> I've used it (WFTBB: RL program) much more than when it was a one shot, here's what it is, here's a couple hours training on it . . . this is much more meaningful to have real professional development and something rather than just a one shot deal and there's not follow up or help on understanding it. (Stakeholder B, personal communication, October 25, 2016)

Need for nonfiction questions in the WFTBB: RL program guide. Fourth- and fifth-grade teachers discussed the importance of including nonfiction questions to promote critical thinking. Third-grade teacher responses did not align with this theme. A fourth-grade teacher commented on the types of questions included in the teacher's guide:

> I don't find that there's a section for nonfiction things . . . I was trying to pull out nonfiction questions. Every question didn't correspond to nonfiction. I felt like there wasn't really much to pull from in regards to nonfiction and I feel like a large part of tests are nonfiction. (Stakeholder J, personal communication,

October 19, 2016)

One fifth-grade teacher commented, “There were a lot of fiction questions but there wasn’t any for nonfiction. I had to adjust the questions to make them work” (Stakeholder M, personal communication, October 17, 2016). Another fifth-grade teacher added to this thought by stating, “We need some deeper ones for some issues and there’s a lot more for fiction than for nonfiction” (Stakeholder O, personal communication, October 17, 2016).

Questions that go beyond recall. One comment from a third-grade teacher discussed the need to include questions, activities, and writing prompts that go beyond recall to promote critical thinking. The fourth-grade interview responses included two comments related to this theme. Fifth-grade dialogue did not include this topic. A third-grade teacher emphasized, “If they (students) can explain their thinking, not just recall or retell, but explain why you feel that way or explain why you think the character acted a certain way or how it would be different” (Stakeholder J, personal communication, October 25, 2016) was important. One fourth-grade teacher summarized her ideas for creating questions that promoted critical thinking: “I’m not asking questions just to see if they read it. I want them (students) to think about what they have read . . . not just for recall” (Stakeholder H, personal communication, October 19, 2016). Another teacher echoed by saying, “It is not just for recall” (Stakeholder I, personal communication, October 19, 2016).

Questions that require referencing the text. Further, a fifth-grade teacher discussed the importance of questions that require referencing the texts to support responses two times. Third- and fourth-grade interview responses did not relate to this topic. One fifth-grade teacher stated,

> I think getting them (students) to look back in the text I think is one of the critical thinking pieces that we're still building. They (students) can give you an unsupported blanket answer, but they need to give evidence to support it. (Stakeholder O, personal communication, October 17, 2016)

The researcher coded the three focus-group interviews using the five critical thinking action words provided by Scriven and Paul's (1996) definition of critical thinking. Table 23 organizes the coded key words revealed through the responses of the participants when asked to "Describe questions, activities, and writing prompts from the program that promoted critical thinking."

Table 23

Focus-Group Interview Statement 1 – Critical Thinking Action Words

Critical Thinking Indicator	# of times Critical Thinking Key Words were Discussed
Conceptualizing	1
Applying	3
Analyzing	20
Synthesizing	4
Evaluating	10

The focus-group interviews revealed teachers believed the program promoted analyzing (20 times) and evaluating (10 times) text most often. Applying was discussed three times and synthesizing four times during the interview with the classroom teachers regarding the questions, activities, and writing prompts from the program that promoted critical thinking. Teachers mentioned the use of conceptualizing once for questioning, activities, and writing prompts used from the program to promote critical thinking during the interviews.

The researcher recognized six themes throughout the teacher responses to interview statement 1. Table 24 shows the number of times the themes occurred in the

qualitative data collected from the focus-group interviews.

Table 24

Focus-Group Interview Statement 1 – Additional Coded Themes

Coded Themes	# of Occurrences in Responses
Using the teacher's program guide as a resource	4
Using Thinking Maps	5
Teachers working collaboratively	3
Need for nonfiction questions in the WFTBB: RL program guide	5
Questions that go beyond recall	3
Questions that require referencing the text	2

Third-, fourth-, and fifth-grade teacher responses were coded using six repeated themes that occurred in responses to interview statement 1. Using the teacher's program guide as a resource was stated on four occasions. Teachers discussed using Thinking Maps in their replies five times. The responses from interview statement 1 expressed positive perceptions regarding teachers working collaboratively to promote critical thinking using the WFTBB: RL program. Five comments presented the need for nonfiction questions in the WFTBB: RL program guide. Teachers also discussed questions that go beyond recall to promote critical thinking three times during the focus-group interviews. Likewise, teachers explained twice that questions, which require referencing the text, promoted critical thinking.

Teacher survey results used to answer Research Question 1. All 14 participants participated in surveys designed to collect quantitative data. Survey responses were anonymous and utilized a Likert scale. They were collected as the final

component of data collection. Survey statements 1, 2, 3, and 18 were utilized to help triangulate data to determine the extent the stages of the WFTBB: RL program aligned with the defined components of critical thinking.

Survey statement 1 stated, "The oral response stage of the program supported critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating." Table 25 displays teacher responses to the first survey statement.

Table 25

Survey Statement 1 – The oral response stage of the program supported critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	6	42.9%	8	57.1%

Note. Retrieved from surveymonkey.com. N=14 SD 0.49 M 4.57 Mdn=5.00.

Respondents either agreed or strongly agreed to survey statement 1. Six of 14 (42.9%) teachers agreed with survey statement 1. Eight of 14 (57.1%) teachers strongly agreed.

Survey statement 2 stated, "The open-ended response stage of the program supported critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating." Table 26 shows the responses to survey statement 2.

Table 26

Survey Statement 2 – The open-ended response stage of the program supported critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	5	35.7%	9	64.3%

Note. Retrieved from surveymonkey.com. N=14 SD=0.48 M=4.64 Mdn=5.00.

All participants responded either agree or strongly agree with the second survey statement. Five of 14 (35.7%) teachers agreed and nine of 14 (64.3%) strongly agreed with survey statement 2.

Survey statement 3 stated, "The formal written response stage of the program supported critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating." Table 27 presents the data from the respondents regarding survey statement 3.

Table 27

Survey Statement 3 – The formal written response stage of the program supported critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	7	50.0%	7	50.0%

Note. Retrieved from surveymonkey.com. N=14 SD=0.50 M=4.50 Mdn=4.50.

Seven of 14 (50.0%) of the stakeholders indicated they agreed with survey statement 3. Seven of 14 (50.0%) of the stakeholders stated they strongly agreed with the survey statement regarding the formal written response stage of the program supporting the critical thinking action words.

Survey statement 18 stated, "In all stages of the program (oral, open-ended, and written responses), the critical stage of understanding questions aligned with the defined

attributes of critical thinking: conceptualizing, applying, analyzing, synthesizing, and evaluating." Table 28 arranges the data from participant responses to survey statement 18.

Table 28

Survey Statement 18 – In all stages of the program (oral, open-ended, and written responses), the critical stage of understanding questions aligned with the defined attributes of critical thinking: conceptualizing, applying, analyzing, synthesizing, and evaluating

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	9	64.3%%	5	35.7%

Note. Retrieved from surveymonkey.com. N=14 SD=0.48 M=4.36 Mdn=4.00.

Nine of the 14 (64.3%) participants indicated they agreed with survey statement 18, and five of the 14 (35.7%) respondents stated they strongly agreed with survey statement 18.

The data collected to answer Research Question 1 showed the defined components of critical thinking are clearly aligned throughout all stages of the WFTBB: RL program. The program guide supported the use of all five key critical thinking terms through the three stages of the program. The researcher noticed throughout document analysis of the program guide that the program offered more opportunities for users to analyze text compared to the other five key terms for critical thinking, especially during open-ended responses. Lesson plans and classroom observations revealed very similar data in both the oral and open-ended responses. In addition, teacher lesson plans included a significant amount of formal written responses requiring the evaluation of text compared to the other four critical thinking action words. Teacher perceptions gathered during interviews showed the analysis of text using the WFTBB: RL program was a

strong critical thinking component.

In contrast, conceptualizing text was least likely to be used during the oral response or formal written response stages using the program guide. Classroom observations confirmed this statement. The coded lesson plans affirmed this conclusion for the formal written responses included in the lessons but not for the oral responses written in the plans. Further, coded responses from the focus-group interviews continued to support this conclusion regarding the use of conceptualizing information using the WFTBB: RL program.

Teacher lesson plans and classroom observations continued to show the alignment of the defined components of critical thinking. Further, teacher survey results indicated the teachers perceived all stages of the program aligned with the five critical thinking action words.

Research Question 2: To what extent are all the stages of the WFTBB: RL program integrated into planning, instruction, and assessment? In order to answer Research Question 2, the researcher used classroom observations, focus-group interviews, and teacher surveys.

Classroom observation data used to answer Research Question 2. During classroom observations, the researcher collected data related to the instruction of the stages of the program. The researcher used the classroom observation checklist to remain focused on the integration of the program during classroom instruction and assessment. Table 29 shows the stages of the program observed during the 13 classroom observations.

Table 29

Stages of the Program Observed

Stage of the Program	Number of Occurrences of	
	Instruction	Assessment
Oral Response Stage	32	32
Open-Ended Response Stage	18	18
Formal Written Response Stage	3	3

The researcher observed the oral response stage being utilized and/or assessed in the 13 classrooms 32 times. Teachers were noted to be listening to individual responses as a whole class, individually in small group responses, and monitoring small-group conversations to formatively assess students' understanding. The open-ended response stage was observed and assessed in the 13 classrooms 18 times. The researcher indicated teachers assessed student knowledge of the content throughout this stage by visiting small groups of students or pairs of students completing open-ended activities together. The formal written response stage was observed and assessed in the 13 observations three times. The researcher stated on the observation checklist that the teacher assessed each student's understanding by conducting brief conversations with students, reading individual student's written responses, and by students sharing their written responses as a whole group.

Focus-group interview data used to answer Research Question 2. Additional qualitative data were collected during the focus-group interviews with each grade level to determine the extent each stage of the WFTBB: RL program was integrated into planning, instruction, and assessment at Carsimad Intermediate School. The researcher conducted three separate grade-level focus-group interviews to encourage conversations between teachers in a grade level. Teachers were asked to "Talk about the use of the

WFTBB: RL program." The researcher recognized six themes throughout the qualitative data collected from grade-level interviews. The primary themes discussed by teachers included sequence of planning, sequence of instruction, structure of the program, program benefits for the students, focus for teachers, and organization the program provided for the teachers. Table 30 organizes main themes addressed throughout grade-level focus-group interviews regarding interview statement 2.

Table 30

Primary Themes Regarding the Use of WFTBB: RL

Primary Themes Addressed	# of times addressed by each grade level		
	Third	Fourth	Fifth
Sequence of Planning	3	1	1
Sequence of Instruction	2	3	0
Structure of the Program	3	3	1
Program Benefits for Students	3	5	2
Focus for Teachers	1	5	0
Organization for Teachers	1	0	1

Sequence of planning. Third-grade teachers addressed using the sequence of the program to plan their instruction three times. Fourth- and fifth-grade teachers discussed this one time each while responding to the second interview statement. One third-grade teacher stated,

> I think if I were looking at the story it would be harder for me, but using the different elements of questions, especially because we started to look at it like what skills or what questions could we use to guide us in the story to help us. We use it to develop the questions that we could use for discussions. We start with the prompt and then come up with our questions (oral responses) and then we look at the skills we want to touch through the Thinking Maps and that's when we put that into the activities (open-ended responses). (Stakeholder E, personal

communication, October 25, 2016)

Stakeholder F spoke about the use of planning the program: “So it’s just it’s been a lot easier planning it together as a grade level using the program” (Personal communication, October 25, 2016).

One fourth-grade teacher spoke on the sequence of planning using the program:

> I think that planning, prior to doing the selection (reading the selection in class), the questions and especially the big ideas (formal written response) and what the response that we’re looking for, it is a guide for me during instructional time and it helps keep me focused because I tend to be here and there a lot. (Stakeholder I, personal communication, October 19, 2016)

Additionally one fifth-grade teacher addressed using the sequence of the program for planning literacy: “We came up with the big question (formal written response), and then we’d go back and build up the questions (oral questions) to promote the big question (formal written response). It (the planned guide) helped us get to the point, narrow down, to answer that question (formal written response)” (Stakeholder M, personal communication, October 17, 2016).

Sequence of instruction. During the interviews, the participants focused on sequencing their instruction utilizing the program five times. Third-grade teachers discussed this two times, and fourth-grade teachers talked about this theme four times. Fifth-grade teachers did not discuss sequencing their instruction using the WFTBB: RL program.

A third-grade teacher discussed using the sequence of the program during instruction by stating,

> As we’re going through the week and we’re doing the activities with the story,

> we're starting with these questions (oral response questions) and we're gearing it towards them being able to answer that question (formal written response) so that they're successful with that question (formal written response). We're guiding them. (Stakeholder F, personal communication, October 25, 2016)

Another third-grade teacher reiterated, "It's (the WFTBB: RL planning tool) been a good tool for us to use to really guide our reading instruction in a sequential order" (Stakeholder F, personal communication, October 25, 2016).

A fourth-grade teacher stated,

> For every (reading) selection I start with the oral questions after the reading and use the oral questions in various ways. Sometimes in groups sometimes with partners, which leads to the activity, which leads to us responding to the text. (Stakeholder H, personal communication, October 19, 2016).

A different fourth-grade teacher remained focused on the implementation of the plan by saying,

> I structure almost the same way. We start with doing oral discussion questions throughout the week with a partner and then to the activities . . . and pulling it all together to help us do our response (formal written response) at the end of the week. (Stakeholder D, personal communication, October 19, 2016)

Stakeholder J spoke about the flow of utilizing the plan in her instruction: "I really like how it does structure the response as well and I think it helps because you already have preplanned questions you are going to ask which flows into the maps (Thinking Maps)" (Personal communication, October 19, 2016).

Structure of the program. An additional theme the researcher identified in the teacher responses to interview statement 2 focused on the structure of the program.

Teachers addressed this idea on seven occasions throughout the grade-level interviews. Third-grade teachers discussed the structure of the WFTBB: RL program three times during the focus-group interview. Fourth-grade teachers addressed this theme three times, and the fifth-grade teachers spoke on the structure of the program one time.

A third-grade teacher expressed her thoughts regarding the structure of the program: "These are good quality questions (from the program). I'm not having to rely on myself or the textbook, so I think that really helps with planning but I like to get it (plan) from the prompt to the question" (Stakeholder B, personal communication, October 25, 2016). Stakeholder B discussed the WFTBB: RL program as a support system: "Teachers have a resource that provides appropriate, current questioning to use" (Personal communication, October 25, 2016). An additional third-grade teacher focused on the structure of the program: "It is a great program and an easy way to plan for reading while integrating higher level thinking skills" (Stakeholder G, personal communication, October 25, 2016).

A fourth-grade teacher discussed the benefits the structure of the WFTBB: RL program provided:

> Prior to using the program it was just a mix of things with no rhyme or reason or you were just giving it to your students, but I think with the structure of doing the oral questioning, doing the activities and the responses, it's just like building or putting those layers on so that your house is more stable. (Stakeholder D, personal communication, October 19, 2016)

Another fourth-grade teacher stated how she felt regarding the structure of using the program: "I really like how it does structure the response" (Stakeholder J, personal communication, October 19, 2016). This led to one teacher stating, "The structure of the

program provides structure for them (students)" (Stakeholder D, personal communication, October 19, 2016).

One fifth-grade teacher discussed the structure of the WFTBB: RL program: "The program makes us look deeper at what we want them (the students) to get out of it" (Stakeholder M, personal communication, October 17, 2016).

Program benefits for students. The responses provided by the teachers from the focus-group interview revealed benefits for students while using the WFTBB: RL program. Teachers discussed this theme nine times while responding to interview statement 2. Third-grade teachers remarked about the benefits for their students using the program three times. Fourth-grade teachers discussed this theme most often by referring to the topic five times. Fifth-grade teachers discussed the theme two times.

A third-grade teacher discussed the benefits of using the plan to guide students by stating, "Following the plan we've come up with does really help us guide them to be able to answer that specific type of question (formal written response)" (Stakeholder F, personal communication, October 25, 2016). Further, the same teacher focused on using the structure and sequence of the program as a benefit for their students: "This is a good way to help build up to what they're (the students) expected to be able to do" (Stakeholder F, personal communication, October 25, 2016). Stakeholder F stated, "Using the oral questions through discussions and listening to them feed off of each other's responses" (Personal communication, October 25, 2016) was a benefit of using the program. Similarly, a teacher said, "I gave each a group a question and then they discussed the question in their group . . . it's a good formative piece to see their thinking and is a good discussion" (Stakeholder E, personal communication, October 25, 2016).

One fourth-grade teacher discussed the benefits of oral responses: "Oral questions

help build the foundation, they are the building blocks which lead you to the next part" (Stakeholder D, personal communication, October 19, 2016). A fourth-grade teacher further discussed the benefits of using oral responses to build student understanding: "It allows the students to feel more sure of themselves. They're more confident in their responses" (Stakeholder D, personal communication, October 19, 2016). A fourth-grade teacher discussed her observations of the implementation of the program with her students: "They are being guided to be more independent. I think telling them upfront the guiding question (formal written response prompt) to help them know this is where we're going right away helps" (Stakeholder H, personal communication, October 19, 2016). A fourth-grade teacher summarized the benefits for students by stating,

> They're more willing to sit down and really think about each piece (literature) and what it's (prompt) asking and they are more willing to write because they know what's expected of them and they're just not guessing what is the teacher wanting me to do, they know ahead of time. (Stakeholder D, personal communication, October 19, 2016)

A fifth-grade teacher commented on the benefits the program provided for her students: "The kids would talk and then we would move into a writing piece, but the questions would build up to where they would have all the information they needed before they would start writing" (Stakeholder O, personal communication, October 17, 2016). An additional fifth-grade teacher discussed ways she used the program to benefit her students' thinking:

> I also took my readers' response journals and took some of the questions (from the program) and put them into it (journals) so that the kids can interact with the questions with their nightly reading that they're doing, to try and get them to think

> deeper about what book they read. (Stakeholder M, personal communication, October 17, 2016)

Focus for teachers. The third- and fourth-grade teachers discussed how the implementation of the WFTBB: RL program provided focus. Third-grade teachers discussed this theme one time, fourth-grade teachers mentioned the topic five times, and the fifth-grade teachers did talk about this topic. During the third-grade focus group, one teacher stated,

> I use the written plan in instructing in my classroom. I can keep referencing back to it (plan), so having it right there is making sure I stay on task because I jump everywhere in my instruction so it does help my instruction. (Stakeholder B, personal communication, October 25, 2016)

The fourth-grade teachers addressed this topic most often. A fourth-grade teacher discussed the use of the planning tool to remain focused:

> It (planning tool) helps keep me focused because I tend to be here and there a lot and it helps keep me focused in my instruction and it helps keep the activities to the point. You're doing activities (open-ended responses) toward your response (formal written response). You're not doing activities for the sake of doing activities, but toward your response, toward your purpose. (Stakeholder I, personal communication, October 19, 2016)

An additional fourth-grade teacher remarked, "Those questions (oral responses) help me with my read aloud, so I have a focus and it has helped me" (Stakeholder H, personal communication, October 19, 2016). A different teacher added, "If you already have pre-planned you definitely don't forget what you want to ask, where your end goal is" (Stakeholder J, personal communication, October 19, 2016).

Organization for teachers. The organization was discussed two times throughout the focus-group interviews. A third-grade teacher and one fifth-grade teacher discussed how the program provided organization for the teachers. Fourth-grade teachers did not discuss this theme. One third-grade teacher felt the program provided organization for planning by stating, "When we have a story specifically that we were working on it helped us tremendously to come up with questions and then we came up with our activities" (Stakeholder E, personal communication, October 25, 2016). A fifth-grade teacher also commented on using the planning tool to be organized, and two other teachers agreed with her comment (Stakeholders L & N): "It (the planning guide) can help us organize it (lessons)" (Stakeholder M, personal communication, October 17, 2016).

The researcher used the three stages of the program (oral, open-ended, and formal written responses) to code the interview statements provided by the teachers regarding the teachers being asked to "Talk about the use of the WFTBB: RL program." This statement was used to determine the extent the stages of the program were integrated into planning, instruction, and assessment at Carsimad Intermediate School. Table 31 arranges the number of times each stage of the program was discussed during the interview regarding focus-group interview statement 2.

Table 31

Focus-Group Interview Statement 2 – Stages of the Program

Stages of the Program	# of times Stages of WFTBB: RL were Discussed
Oral Responses	24
Open-Ended Responses	13
Formal Written Responses	22

The teachers discussed the use of oral responses with regard to planning,

instruction, and assessment 24 times during the focus-group interview. The participants mentioned open-ended responses 13 times while responding to interview statement 2. During the focus-group interviews, the teachers discussed the use of formal written responses 22 times when talking about the use of the program in their planning, instruction, and assessment.

The researcher analyzed the interview responses regarding planning, instruction, and assessment using the WFTBB: RL program. Table 32 shows the number of times each component of the ELA classroom was discussed while responding to focus-group interview statement 2.

Table 32

Focus-Group Interview Statement 2 – ELA Classroom Components

ELA Classroom Components	# of times components of the ELA classroom were discussed regarding the integration of WFTBB: RL
Planning	13
Instruction	19
Assessment	2

The qualitative data presented in the interviews related to focus-group interview statement 2 were coded into the three components of the ELA classroom: planning, instruction, and assessment. The researcher coded comments focused on the integration of the program in the ELA classroom. Teachers thoroughly discussed the instruction using the WFTBB: RL program in their ELA classrooms. The participants mentioned instructing using the program on 19 occasions. Planning was mentioned 13 times during the discussion regarding the integration of the WFTBB: RL program in their ELA classrooms. Assessment was discussed two times in terms of the integration of the program.

As mentioned previously, the researcher combed the interview responses for additional themes related to the integration of the program in teachers' planning, instruction, and assessment. Focus-group interview statement 2 showed six reoccurring themes discussed by the teachers. The number of times these themes were discussed by all grade levels is displayed in Table 33.

Table 33

Focus-Group Interview Statement 2 – Additional Coded Themes

Coded Themes	# of Occurrences in Responses
Sequence of Planning	5
Sequence of Instruction	5
Structure of the Program	7
Program Benefits for Students	10
Focus for Teachers	6
Organization for Teachers	2

When asked to discuss the integration of the stages of the program in their ELA classroom, the teachers positively discussed the sequence of planning using the WFTBB: RL program five times during the focus-group interviews. Teachers also reflected on how utilizing the planning tool provided by the program benefitted their sequence of instruction five times. The structure of the program was mentioned during the interview on seven occasions. The teachers remarked on the benefits of integrating the program in their ELA classrooms 10 times including preparing students, helping them understand expectations, improving understanding, and building student confidence and independence. Teachers spoke on how using the planning tool helped keep them focused during planning and instruction six times. Teachers also spoke two times about how the program provided organization for teachers in the ELA classroom.

Teacher survey results used to answer Research Question 2. The researcher also collected quantitative data through teacher surveys to determine if the data stated

similarities or differences regarding the extent each stage of the WFTBB: RL program was integrated into planning, instruction, and assessment. The survey was designed to collect the perceptions of the teachers utilizing the WFTBB: RL program in their ELA classrooms. Three survey questions aligned to answering the second research question. Survey statements 4, 5, and 6 were used in addition to the previous qualitative data to answer the second research question.

Table 34 shows the teacher perceptions regarding survey statement 4.

Table 34

Survey Statement 4 – Oral response questions were included in lesson plans, instruction, and assessment

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	4	28.6%	10	71.4%

Note. Retrieved from surveymonkey.com. N=14 SD=0.45 M=4.71 Mdn=5.00.

All 14 teachers responded to survey statement 4 by agreeing or strongly agreeing that oral response questions were included in lesson plans, their instruction, and assessment. Four of 14 (28.6%) agreed with survey statement 4, and 10 of 14 (71.4%) teachers strongly agreed with the statement.

Table 35 displays the data collected from survey statement 5.

Table 35

Survey Statement 5 – Open-ended response activities were included in lesson plans, instruction, and assessment

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	7	50.0%	7	50.0%

Note. Retrieved from surveymonkey.com. N=14; SD=0.50 M=4.50 Mdn=4.50

Fourteen of 14 teachers agreed or strongly agreed that open-ended response

activities were included in lesson plans, instruction, and assessment. Specifically, seven of 14 (50.0%) teachers agreed with survey statement 5, and seven of 14 (50.0%) teachers strongly agreed with the statement.

Table 36 arranges the perceptions of the educators who participated in the study concerning formal written responses being included in lesson plans, instruction, and assessment.

Table 36

Survey Statement 6 – Formal written responses were included in lesson plans, instruction, and assessment

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	10	71.4%	4	28.6%

Note. Retrieved from surveymonkey.com. N=14 SD=0.45 M=4.29 Mdn=4.00

Survey statement 6 indicated all teachers agreed or strongly agreed formal written responses were included in lesson plans, instruction, and assessment. Ten of 14 (71.4%) teachers agreed with the statement, and four of 14 (28.6%) strongly agreed with survey statement 6.

The data analyzed to answer Research Question 2 demonstrated the stages of the WFTBB: RL program (oral, open-ended, and formal written responses) were clearly integrated into the teachers' planning, instruction, and assessment at Carsimad Intermediate School.

Classroom observations presented clear integration of the stages of the program, specifically oral responses and open-ended responses. The two stages were observed numerous times in the 13 classrooms. Oral responses were observed most often, and formal written responses were observed least often; however, all stages were utilized in

the ELA classrooms. Additionally, interview responses from the participating teachers continued to support the integration of the stages of the program in planning, instruction, and assessment. Oral responses and formal written responses were discussed more frequently than open-ended responses when teachers were asked to "Talk about the use of the WFTBB: RL program" during the focus-group interviews. All stages of the program were discussed by the educators. Additionally during this conversation, teachers focused heavily on their instruction using the program compared to their assessment using the program in their ELA classroom.

The teacher surveys continued to support the integration of the stages of the WFTBB: RL program in the third-, fourth-, and fifth-grade ELA classrooms at the school where the study occurred. Three survey statements focused on the inclusion of the stages of the program in lesson plans, instruction, and assessment. Responses for all three survey statements triangulated with the data provided qualitatively. The teachers agreed or strongly agreed oral responses, open-ended responses, and formal written responses were included in their ELA classrooms.

Research Question 3: How can the integration of critical thinking using WFTBB: RL be described in planning, instruction, and assessment? The researcher triangulated both qualitative and quantitative data to assist in answering the third research question. Qualitative and quantitative data were collected separately and later were used together to determine if the data provided converging or diverging results. In order to answer Research Question 3, the researcher utilized four of the five data collection methods used during this study including document analysis of the WFTBB: RL lesson plans, classroom observation data, focus-group interview responses, and teacher survey results.

Document analysis of lesson plans used to answer Research Question 3. As previously discussed to answer Research Question 1, the researcher collected a total of 12 lesson plans written using the WFTBB: RL program. Each grade level (third, fourth, and fifth) provided the researcher with four lesson plans written collectively as a team. The researcher analyzed the lessons for the five actionable critical thinking words used to guide the research. All 12 lesson plans were analyzed for the integration of critical thinking through the three stages of WFTBB: RL (oral, open-ended, and formal written responses). The researcher used the five critical thinking words to code the lesson plans. Oral responses, open-ended responses, and formal written responses included in the lesson plans were coded as conceptualizing, applying, analyzing, synthesizing, and evaluating. Table 37 shows the integration of critical thinking using the five action words from all stages of the program included in the 12 lesson plans.

Table 37

Analysis of Lesson Plans and the Integration of Critical Thinking through the WFTBB: RL Program

Critical Thinking Indicator	Integration of Critical Thinking through the WFTBB: RL Program Lesson Plans	
	Number Indicated	Percentage
Conceptualizing	12	11.1%
Applying	13	12.0%
Analyzing	43	39.8%
Synthesizing	7	6.5%
Evaluating	33	30.6%

The 12 lesson plans included a total of 108 oral responses, open-ended responses, and formal written responses. Twelve of the 108 (11.1%) oral responses, open-ended responses, and formal written responses provided students opportunities to conceptualize information read in literature. Thirteen of the 108 (12.0%) oral responses, open-ended

responses, and formal written responses indicated students would apply information from a text. Forty-three of the 108 (39.8%) oral responses, open-ended responses, and formal written responses required students to analyze their text. Seven of the 108 (6.5%) oral responses, open-ended responses, and formal written responses involved synthesizing literature. Thirty-three of 108 (30.6%) oral responses, open-ended responses, and formal written responses included in the 12 lesson plans required students to evaluate their reading.

Classroom observation data used to answer Research Question 3. The researcher observed 13 classroom teachers utilizing the WFTBB: RL program to collect data pertaining to the integration of critical thinking action words through the use of the program. The researcher used the five critical thinking indicators (conceptualize, apply, analyze, synthesize, and evaluate) specifically listed on the observation checklist to focus on collecting data to answer Research Question 3. Table 38 arranges the data collected from the 13 classroom observations by listing the number of times each critical thinking indicator was observed in the ELA classroom (planning, instruction, and assessment) using the WFTBB: RL program.

Table 38

Critical Thinking Action Words Observed in Classrooms using the WFTBB: RL Program

Critical Thinking Indicator	Number of times observed
Conceptualizing	5
Applying	10
Analyzing	16
Synthesizing	8
Evaluating	14

Students were asked to conceptualize or develop a concept using text read on five instances during the 13 classroom observations. Likewise, students applied information

from their text 10 times throughout the classroom observations. Students were asked to synthesize material from their reading on eight occasions as the researcher conducted classroom observations. Analyzing and evaluating the text were used most often in the 13 ELA classrooms. The researcher recorded students analyzing text 16 times and evaluating literature 14 times throughout the observations.

Focus-group interview data used to answer Research Question 3.

Additionally, the researcher collected qualitative data in the form of focus-group interviews to provide further data to answer Research Question 3. Grade levels met with the researcher for approximately 30 minutes to discuss the impact of critical thinking through the WFTBB: RL program. The researcher asked each grade level to "Discuss the integration of critical thinking through the stages of the program during planning, instruction, and assessment." The researcher noticed six primary themes addressed during the three grade-level interviews which included awareness, purpose, intention, benefits, integration of reading and writing, and focus on texts. Table 39 displays the data organized by the number of occurrences themes were discussed during grade-level focus-group interviews.

Table 39

Primary Themes Regarding the Integration of Critical Thinking through the Stages of WFTBB: RL

Primary Themes Addressed	# of times addressed by each grade level		
	Third	Fourth	Fifth
Awareness	2	4	1
Purpose	3	4	1
Intention	3	4	0
Benefits	4	1	3
Integration of Reading and Writing	2	2	0
Focus on Texts	0	2	0

Awareness. The teachers suggested the program provided awareness for various reasons during interviews. Third-grade teachers alluded to this theme two times, fourth-grade teachers discussed it four times, and the fifth-teachers spoke about awareness once.

A third-grade teacher communicated that the integration of critical thinking through the WFTBB: RL program has helped instill more awareness in her by saying, "I think probably for me, it (program) helped me be more aware of the types of questions I was asking" (Stakeholder F, personal communication, October 25, 2016). An additional third-grade teacher explained, "It's (the program) made me more aware to lead us (teachers) to get writing in there" (Stakeholder F, personal communication, October 25, 2016). A third-grade teacher stated, "I think these (critical thinking) action words (conceptualize, apply, analyze, synthesize, and evaluate) correlate with the activities" (Stakeholder E, personal communication, October 25, 2016).

A fourth-grade teacher discussed the awareness she had regarding the types of critical thinking questions:

> I think we do a lot of analyzing and evaluating and you're making connections applying them to your own life. Conceptualizing is a little harder for me to write a question about, how to visualize and it's always been hard for me to figure out exactly the meaning of synthesizing and how to write a question for it. Conceptualized could just come in as they're (students) reading the selection. They're visualizing mentally as they are reading the story. (Stakeholder H, personal communication, October 19, 2016)

Stakeholder H continued discussing how using the program created awareness in planning by suggesting, "We're not just focused on one type of critical thinking and that our activities cover more than just analyzing" (Personal communication, October 19,

2016). Further she stated, "So we might be doing less activities, but deeper types of activities that involve critical thinking" (Stakeholder H, personal communication, October 19, 2016). Moreover one stakeholder stated, "I'm more aware of what I'm including (plans) it's not just questioning for the sake of questioning it's with a purpose in mind" (Stakeholder D, personal communication, October 19, 2016).

> A fifth-grade teacher addressed how the program has helped her be more aware: As you listen to the answers from the group, you can see when they are getting off base, bring the conversation back, then you know the next day that you need to have a longer conversation about what they were missing. You can kind of catch it before they begin their writing piece. Whereas before, I think if we just gave them the story and gave them the writing piece some of them were missing time to fix some of their errors. (Stakeholder O, personal communication, October 17, 2016)

Purpose. Responses from the interview revealed that teachers found purpose in planning and instructing using the WFTBB: RL program. Third-grade teachers discussed this theme three times. Fourth-grade responses contained four comments regarding the purpose of their planning and instruction using the integration of critical thinking through WFTBB: RL. The fifth-grade teachers mentioned this theme during their interview once.

A third-grade teacher mentioned, "I feel like it's just helped make me be . . . more effective in reaching our end result" (Stakeholder B, personal communication, October 25, 2016). A teacher stated that using the program helped her purposefully "Make sure I was asking the higher level thinking questions to help them (students) develop those (critical) thinking skills" (Stakeholder F, personal communication, October 25, 2016). A different third-grade teacher stated the program provided purpose, because "You're able

to think critically as a class while modeling critical thinking skills eventually allowing students to answer independently through a written response" (Stakeholder G, personal communication, October 25, 2016).

A fourth-grade teacher discussed how their planning using the program had purpose by communicating, "I think as we labeled them (questions as conceptualize, apply, analyze, synthesize, and evaluate) that helps us pick out different types of critical thinking and making sure we're not just focused on one type of critical thinking and that our activities cover more than just analyzing" (Stakeholder H, personal communication, October 19, 2016) which provided the team purpose in their planning. Stakeholder D addressed the purpose of using oral responses: "It's not just questioning for the sake of questioning, it's with a purpose in mind" (Personal communication, October 19, 2016). Further, thinking about the purpose of the open-ended response stage of the program, a fourth-grade teacher stated,

> I think it (WFTBB: RL) helps me make sure that I include them (critical thinking activities); before (using the program) we were doing other things and other activities that might not be critical thinking we were just getting as many activities into it as we could and this eliminates and it replaces it with more critical thinking. (Stakeholder H, personal communication, October 19, 2016)

Further, a fourth-grade teacher mentioned, "Using the thoughtful questions instead of those basic right there (questions)" was utilizing critical thinking and that students then were "applying it to their writing and it's not just writing what they think the teachers want you to write or just copying what the texts says, they're putting their thoughts and their opinions into their writing" (Stakeholder D, personal communication, October 19, 2016).

A fifth-grade teacher spoke on the purpose she observed while using the program in her ELA classroom (planning, instruction, and assessment):

> I think as you move through the oral questions and then they're taking them and making Thinking Maps into writing pieces. You're starting at conceptualize and then you're moving through each of the critical thinking skills (the teacher indicated conceptualize, apply, analyze, synthesize, and evaluate by pointing to the critical thinking action words chart provided to all teachers at the onset of the professional development) to where hopefully by the time you get to the writing piece they (students) either synthesize or do an evaluation. (Stakeholder O, personal communication, October 17, 2016)

Intention. Teachers commented on being intentional during their planning and instruction through the integration of critical thinking through the WFTBB: RL program. Third-grade teachers discussed this topic three times, fourth-grade teachers addressed it four times, and the fifth-grade responses did not relate to the theme.

A third-grade teacher discussed how she was intentional about the types of questioning she included: "I was able to focus on them (questions) and make sure I was asking the higher level thinking questions" (Stakeholder F, personal communication, October 25, 2016). With regard to planning, a teacher added, "This has made me even more intentional in my questioning and making sure I have higher level questioning. I feel like it's just helped made me be more intentional in questioning" (Stakeholder B, personal communication, October 25, 2016).

Fourth-grade teachers also focused on their intentions while selecting questions from the program during planning. One fourth-grade teacher stated, "(We) picked out different types of critical thinking questions and making sure we're not just focused on

one type of critical thinking and that our activities do cover more than just analyzing" (Stakeholder H, personal communication, October 19, 2016). Stakeholder H also mentioned, "Using the thoughtful questions instead of those basic right there (questions)" was utilizing critical thinking and that students then were "applying it to their writing" (Personal communication, October 19, 2016). She further stated how the open-ended response stage of the WFTBB: RL program helped her be more intentional: "I think it (WFTBB: RL) helps me make sure that I include them (critical thinking activities)" (Stakeholder H, personal communication, October 19, 2016).

Benefits. The responses from the focus group regarding interview statement 3 showed that teachers addressed the benefits of integrating critical thinking through the stages of the WFTBB: RL program. Third-grade teachers discussed this topic in their responses four times. Fourth-grade teachers addressed the benefits the least amount of times by mentioning the topic one time. The fifth-grade team remarked about the benefits of integrating critical thinking through the stages of the program three times during the interview.

A third-grade teacher discussed a benefit of the oral response stage: "The types of questions I was asking impacted you know their level of thinking because they would have to put more into their thoughts to answer those types of questions" (Stakeholder F, personal communication, October 25, 2016). A teacher discussed the benefits of using the stages of the program for their students: "Doing this (oral responses) over and over throughout the week then they can answer that response in a written form . . . able to get their thoughts together more . . . talking helps them to put it into a written response" (Stakeholder E, personal communication, October 25, 2016). An additional third-grade teacher added, "All the conversation helps . . . they are hearing it from stronger peers and

then that I think triggers more thoughts" (Stakeholder B, personal communication, October 25, 2016). Further, a teacher responded about the benefits for students through the stages of the program: "You're able to think critically as a class while modeling critical thinking skills eventually allowing students to answer independently through a written response" (Stakeholder G, personal communication, October 25, 2016).

One fourth-grade teacher referenced planning time as beneficial by saying, "Having that pre thought, us (fourth-grade PLC) sitting around and talking about that beforehand and writing them down (on planning guide), makes a huge difference (she continued on to discuss distractions in the classroom that can interrupt instruction)" (Stakeholder I, personal communication, October 19, 2016).

A fifth-grade teacher addressed the benefits of oral response conversations: "As you listen to the answers from the group, you can see when they are getting off base" (Stakeholder O, personal communication, October 17, 2016). Another teacher indicated a benefit of assessing using the WFTBB: RL program: "I think it shows which ones (students) are able to synthesize and evaluate and which ones (students) aren't there" (Stakeholder N, personal communication, October 17, 2016). An additional fifth-grade teacher added to this conversation by stating she is able to determine "How much critical thinking they are capable of doing" (Stakeholder C, personal communication, October 17, 2016).

Integration of reading and writing. An additional theme the researcher discovered while analyzing interview statement 3 was the integration of reading and writing using the WFTBB: RL program. Third- and fourth-grade teachers mentioned this topic two times each. The responses from the fifth-grade focus-group interview did not reveal responses that aligned with the theme integration of reading and writing through

the program.

One third-grade teacher emphasized how the program "Helps us really see the true connection between the reading and the writing" (Stakeholder B, personal communication, October 25, 2016). An additional third-grade teacher continued speaking about the integration of writing: "It's (the program) made me more aware to lead us (teachers) to get writing in there and to integrate writing" (Stakeholder F, personal communication, October 25, 2016). A fourth-grade teacher stated, "It (WFTBB: RL) puts reading and writing together. So it's not, we are doing reading with this story and then for writing time we are writing a story, it's putting their reading and writing components together" (Stakeholder H, personal communication, October 19, 2016).

Focus on texts. The researcher also discovered that the theme focusing on texts was included throughout the responses from interview statement 3 two times. Fourth-grade teachers were the only stakeholders who discussed this topic.

A fourth-grade teacher discussed using the WFTBB: RL program requires "Thinking beyond just what's in the text and reading verbatim . . . I think they're (students) really reading between the lines . . . understanding like what the meanings of things mean" (Stakeholder J, personal communication, October 19, 2016). An additional fourth-grade teacher added to her comment and discussed briefly what students can essentially do: "focus more on the text" (Stakeholder H, personal communication, October 19, 2016).

The researcher coded the responses of the focus-group interview related to the integration of critical thinking through the WFTBB: RL program in planning, instruction, and assessment provided by the participants. The researcher reviewed the qualitative data and coded all responses related to each component of the ELA classroom (planning,

instruction, and assessment) discussed in relation to the integration of critical thinking. These data are displayed in Table 40.

Table 40

Focus-Group Interview Statement 3 – ELA Classroom Components

ELA Classroom Components	# of times components of the ELA classroom were discussed regarding the integration of Critical Thinking
Planning	6
Instruction	13
Assessment	4

Teachers discussed the integration of critical thinking using WFTBB: RL in their planning six times. The participants discussed critical thinking through the program integrated into their ELA instruction 13 times. Also, the educators spoke on assessing students through the integration of critical thinking through WFTBB: RL four times.

Additionally, the researcher coded the number of instances the five critical thinking action words were stated during the third-, fourth-, and fifth-grade teachers' conversations during the interviews related to the integration of critical thinking using WFTBB: RL in the ELA classrooms at Carsimad Intermediate School. Table 41 shows the critical thinking action words discussed during the focus-group interviews.

Table 41

Focus-Group Interview Statement 3 – Critical Thinking Discussed in Interview

Critical Thinking Terms	# of instances terms were stated
Conceptualize	5
Apply	2
Analyze	4
Synthesize	3
Evaluate	3
General Critical Thinking Reference	16

During the focus-group interviews, teachers discussed the integration of the

defined critical thinking action words in their planning, instruction, and assessment 17 times. Five references focused on conceptualizing. Applying was stated two times. Teachers referred to analyzing in their ELA classrooms four times. Teachers discussed synthesizing during the interview three times in reference to the integration of critical thinking through the WFTBB: RL program in their planning, instruction, and assessment. Evaluating was also discussed three times. Further, there were 16 additional generic references to critical thinking while discussing the integration of critical thinking through the implementation of the WFTBB: RL program in planning, instruction, and assessment. In total, teachers discussed critical thinking on 33 occasions while responding to focus-group interview statement 3.

As discussed previously, the researcher noticed six themes that occurred while teachers responded to the third focus-group interview statement. The researcher coded the responses to the integration of critical thinking through the WFTBB: RL program in planning, instruction, and assessment using the following reoccurring themes: awareness, purpose, intention, benefits, integration of reading and writing, and focus on text. Table 42 shows the themes coded from the responses from interview statement 3.

Table 42

Focus-Group Interview Statement 3 – Additional Coded Themes

Coded Themes	# of Occurrences in Responses
Awareness	7
Purpose	8
Intention	7
Benefits	8
Integration of Reading and Writing	4
Focus on Texts	2

Teachers discussed their awareness of integrating critical thinking through the use of the WFTBB: RL program seven times. The educators focused on their awareness of

the types of questions and activities they were planning to help students think critically while utilizing the program seven times. Additionally, the participants reflected on the purpose of their planning and instruction using the integration of critical thinking through the program eight times. Seven responses were discussed by the teachers regarding being intentional during planning and instruction through the integration of critical thinking using the stages of WFTBB: RL. During the focus-group interviews, teachers focused on the benefits of integrating critical thinking using the program eight times. The participants referred to the integration of reading and writing four times in relation to the integration of critical thinking through the stages of the program. Finally, the teachers mentioned the integration of critical thinking through WFTBB: RL helped students focus on texts two times.

Teacher survey results used to answer Research Question 3. Teacher surveys were conducted to gather quantitative data concerning the integration of critical thinking using the WFTBB: RL program in teacher planning, instruction, and assessment. Survey data were collected to confirm qualitative data collected related to Research Question 3. The survey included 10 statements developed to describe the integration of critical thinking using the program. These statements included survey statements 7, 8, 9, 17, 19, 21, 22, 23, 24, and 25.

Table 43 shows the results of teacher responses to survey statement 7.

Table 43

Survey Statement 7 – Critical thinking was integrated through the oral response stage of the program during planning, instruction, and assessment

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	6	42.9%	8	57.1%

Note. Retrieved from surveymonkey.com. N=14 SD=0.49 M=4.57 Mdn=5.00.

According to survey statement 7, six of 14 teachers (42.9%) agreed critical thinking was integrated through the oral response stage of the program during planning, instruction, and assessment. Eight of 14 (57.1%) teachers who participated in the study strongly agreed with statement 7.

Table 44 displays the data for survey statement 8.

Table 44

Survey Statement 8 – Critical thinking was integrated through the open-ended response stage of the program during planning, instruction, and assessment

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	8	57.1%	6	42.9%

Note. Retrieved from surveymonkey.com. N=14 SD=0.49 M=4.43 Mdn=4.00.

Eight of 14 (57.1%) teachers agreed and six of 14 (42.9%) teachers strongly agreed critical thinking was integrated through the open-ended response stage of the WFTBB: RL program during planning, instruction, and assessment.

Table 45 presents survey statement 9.

Table 45

Survey Statement 9 – Critical thinking was integrated through the formal written response stage of the program during planning, instruction, and assessment

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	11	78.6%	3	21.4%

Note. Retrieved from surveymonkey.com. N=14 SD=0.41 M=4.21 Mdn=4.00.

All 14 teachers either agreed or strongly agreed with survey statement 9. Eleven of 14 (78.6%) respondents agreed critical thinking was integrated through the formal written response stage of the program during planning, instruction, and assessment; and three of 14 (21.4%) teachers strongly agreed with the statement.

Table 46 displays the results from statement 17 from the teacher survey.

Table 46

Survey Statement 17 – During the stages of the program (oral, open-ended, and written responses) critical thinking skills were observable

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	9	64.3%	5	35.7%

Note. Retrieved from surveymonkey.com. N=14 SD=0.48 M=4.36 Mdn=4.00.

Nine of 14 (64.3%) teachers who participated in the study agreed during the stages of the program (oral, open-ended, and written responses) critical thinking skills were observable. Additionally, five of 14 (35.7%) participants strongly agreed with statement 17.

Table 47 presents the data collected using survey statement 19 from the teacher perceptions survey related to integration of critical thinking through the WFTBB: RL program in the ELA classroom.

Table 47

Survey Statement 19 – WFTBB: RL is a curriculum support system that integrates critical thinking in the ELA classroom (planning, instruction, and assessment)

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	5	35.7%	9	64.3%

Note. Retrieved from surveymonkey.com. N=14 SD=0.48 M=4.64 Mdn=5.00.

All 14 teachers either agreed or strongly agreed WFTBB: RL is a curriculum support system that integrates critical thinking in the ELA classroom which includes planning, instruction, and assessment. Five of 14 (35.7%) participants agreed with survey statement 19, and nine of 14 (64.3%) participants strongly agreed with the statement.

Table 48 displays the perceptions of the 14 teachers who participated in the study regarding survey statement 21.

Table 48

Survey Statement 21 – During planning, critical thinking was integrated using the program

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	6	42.9%	8	57.1%

Note. Retrieved from surveymonkey.com. N=14 SD=0.49 M=4.57 Mdn=5.00.

Six of 14 (42.9%) teachers agreed that during planning, critical thinking was integrated using the program. Eight of the 14 (57.1%) teachers strongly agreed with survey statement 21.

Table 49 shows the data collected from survey statement 22.

Table 49

Survey Statement 22 – During instruction, I was able to integrate critical thinking using the program

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	8	57.1%	6	42.9%

Note. Retrieved from surveymonkey.com. N=14 SD=0.49 M=4.43 Mdn=4.00.

The 14 teachers either agreed or strongly agreed with survey statement 22. Eight of 14 (57.1%) teachers agreed that during instruction they were able to integrate critical thinking using the WFTBB: RL program. Additionally, six of 14 (42.9%) teachers strongly agreed with this statement.

Table 50 presents the data collected from survey statement 23.

Table 50

Survey Statement 23 – I was able to assess students' critical thinking skills during the stages of the program

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	10	71.4%	4	28.6%

Note. Retrieved from surveymonkey.com. N=14 SD=0.45 M=4.29 Mdn=4.00.

Ten of 14 (71.4%) teachers who participated in the study agreed they were able to assess their students' critical thinking skills during the stages of the program. Four of 14 (28.6%) teachers strongly agreed with survey statement 23.

Survey statement 24 is shown in Table 51.

Table 51

Survey Statement 24 – The program integrates critical thinking skills

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	7	50.0%	7	50.0%

Note. Retrieved from surveymonkey.com. N=14 SD=0.50 M=4.50 Mdn=4.50.

All teachers indicated they either agreed or strongly agreed with survey statement 24. Seven of 14 (50.0%) respondents agreed the program integrates critical thinking skills, and seven of 14 (50.0%) respondents strongly agreed with the statement.

The responses to survey statement 25 are presented in Table 52.

Table 52

Survey Statement 25 – Oral response questions, open-ended activities, and formal written responses planned, instructed, and assessed using the program promoted the integration of critical thinking

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	6	42.9%	8	57.1%

Note. Retrieved from surveymonkey.com. N=14 SD=0.49 M=4.57 Mdn=5.00.

Six of 14 (42.9%) teachers agreed with survey statement 25. Eight of 14 (57.1%) teachers strongly agreed oral response questions, open-ended activities, and formal written responses planned, instructed, and assessed using the program promoted the integration of critical thinking.

The researcher used data collected from four sources to answer Research Question 3. These included document analysis of the lesson plans, classroom observations, focus-group interview responses, and teacher survey results. The researcher focused on the integration of critical thinking through the WFTBB: RL program pertaining to planning, instruction, and assessment to answer the third research

question.

Lesson plans and classroom observations showed all five critical thinking action words were integrated through the use of the WFTBB: RL program. Analyzing and evaluating were coded most often in lesson plans and classroom observations. Synthesizing and conceptualizing were coded the least amount of times in lesson plans and observations. Teacher perceptions collected through focus-group interviews continued to support the integration of critical thinking through the WFTBB: RL program in their planning, instruction, and assessment. Specifically, teachers discussed the use of critical thinking in their planning, instruction, and assessment using the WFTBB: RL program 33 times. Further, teacher survey results also positively supported the integration of critical thinking through the WFTBB: RL program by responding to 10 survey statements related to Research Question 3. The quantitative and qualitative data showed a convergence of data results.

Research Question 4: How does the integration of WFTBB: RL impact learning environments with regard to critical thinking? To answer Research Question 4, the researcher utilized qualitative data collected from the focus-group interviews and quantitative results obtained from teacher surveys. The results from both data methods were compared to determine if the results converged or diverged.

Focus-group interview data used to answer Research Question 4. During the focus-group interviews, the participating teachers were asked to "Tell me your thoughts about the stages of the program with regard to a critical thinking learning environment." The researcher used the four learning and innovative skills (critical thinking, collaboration, communication, and creativity) provided by P21 Framework (P21 Century Learning, 2015) to analyze the responses from the stakeholders regarding a 21st century

learning environment. Furthermore, the researcher found five additional themes provided by the teachers in response to the fourth interview statement. The themes included students reflecting on thinking, students making connections to the text, students' future, going beyond traditional practices, and more is needed. Table 53 combines the primary themes addressed during the responses from the participants regarding the stages of the program in relation to a critical thinking learning environment.

Table 53

Primary Themes Regarding the Stages of WFTBB: RL and a Critical Thinking Learning Environment

Primary Themes Addressed	# of times addressed by each grade level		
	Third	Fourth	Fifth
Critical Thinking	5	9	2
Collaboration	1	2	0
Communication	1	0	0
Creativity	0	0	2
Students Reflecting on Thinking	0	3	0
Students Making Connections to the Text	2	0	0
Students' Future	0	2	0
Going Beyond Traditional Practices	0	0	6
More is Needed	0	1	1

Third-grade teachers spoke about critical thinking five times during their responses to interview statement 4. Fourth-grade teachers discussed the use of critical thinking through the stages of the program regarding a critical thinking learning environment most often. Fifth-grade teachers mentioned critical thinking twice during the focus-group interview.

A third-grade teacher stated,

> Because you have the critical thinking in there (classroom) and we're looking at also making that personal connection in the application, and that's what they need to be able to do is thinking beyond right here, and being able to make those

> connections and the applications to life. I think the questioning helps. (Stakeholder B, personal communication, October 25, 2016)

A fourth-grade teacher discussed how students are using critical thinking by stating, "I think they're writing more about their thinking" (Stakeholder H, personal communication, October 19, 2016). Another teacher added to how the WFTBB: RL program promoted critical thinking in students:

> They're (students) writing and analyzing what they're writing in a sense and also giving explanations and characterizations of the individual characters and how they affect the story. They are supporting how that characteristic influenced the person or how it affected the plot of the story. (Stakeholder J, personal communication, October 19, 2016)

One fifth-grade teacher stated, "They are going to do an activity to apply it, taking it even a step further. So it's teaching them to problem solve" (Stakeholder C, personal communication, October 17, 2016).

The three other learning and innovative skills were also discussed during the focus-group interviews. Collaboration and communication were discussed by the third-grade team once during the interview. Fourth-grade teachers mentioned collaboration two times, and the fifth-grade team spoke on creativity twice.

One third-grade teacher discussed how the program supported communication and collaboration by saying, "They've learned so much from each other" (Stakeholder F, personal communication, October 25, 2016). A fourth-grade teacher focused on the collaboration the program utilizes by saying, "I think they're collaborating more with each other" (Stakeholder H, personal communication, October 19, 2016). An additional fourth-grade teacher discussed the program with regard to critical thinking in the

classroom: “I think it (WFTBB: RL program) enriches it (learning environment). I think it’s (WFTBB: RL program) a great organizer. I think it’s (WFTBB: RL program) great collaboratively” (Stakeholder I, personal communication, October 19, 2016). Further, a fifth-grade teacher discussed creativity:

> I mean the idea is to get kids to take information, create something new, and go further with it. You have to take the information through modeling or whatever you’re asking them for in a final piece (final written response). And it’s not just read a statement and answer questions. It’s not regurgitation any more. It is I wanting you to create a new product from this information. (Stakeholder M, personal communication, October 17, 2016)

Students reflecting on thinking. The fourth-grade teachers presented statements regarding students reflecting on their own thinking three times during the focus-group interview. Third- and fifth-grade teacher responses did not align with this theme. One fourth-grade teacher’s statement, previously mentioned, related to students reflecting on their own thinking: “I think they’re writing more about their thinking” and then she reiterated, “write their thinking” (Stakeholder H, personal communication, October 19, 2016).

Students making connections to the text. Third-grade teachers discussed students making connections to the text twice in their responses. Fourth- and fifth-grade teachers did not discuss this theme. A third-grade teacher stated, “We’re looking at also making that personal connection in the application” while using the program; and she continued to say students using the program are “Being able to make those connections and the applications to life” (Stakeholder B, personal communication, October 25, 2016).

Students’ future. Fourth-grade teachers addressed how the WFTBB: RL program

related to student futures on two occasions. Third- and fifth-grade responses did not correspond with this theme. A fourth-grade teacher discussed this topic by stating,

> I think they're writing more about their thinking. And I think that is something they'll always have to do even in certain jobs they'll have to write certain things, write their thinking, write their explanations. There's a big part of that, that writing will help them in the future. (Stakeholder H, personal communication, October 19, 2016)

Going beyond traditional practices. Fifth-grade teachers discussed how utilizing the program promoted students going beyond typical traditional classroom practices. Third- and fourth-grade responses did not relate to this theme. A fifth-grade teacher explained,

> We have to do more than just read and answer questions. They have to really take complex text and not just answer questions; they are going to do an activity to apply it taking it even a step further. So it's teaching them to problem solve. (Stakeholder C, personal communication, October 17, 2016)

An additional teacher extended upon her thought by saying (mentioned previously),

> I mean the idea is to get kids to take information, create something new, and go further with it. You have to take the information through modeling or whatever you're asking them for in a final piece (final written response). And it's not just read a statement and answer questions. It's not regurgitation any more. It is I wanting you to create a new product from this information. (Stakeholder M, personal communication, October 17, 2016)

More is needed. The researcher noted an additional theme mentioned two times throughout the responses to interview statement 4. Two teachers recommended

additional support to promote the ELA classroom. One fourth- and one fifth-grade teacher commented regarding this theme. A fourth-grade teacher stated, "There are definitely things, ways we could add to it (the planning guide) maybe tier vocabulary words" (Stakeholder I, personal communication, October 19, 2016). One fifth-grade teacher spoke about the program as a support program: "I think this (WFTBB: RL program) is one component (of the ELA classroom). I think we have to have something else in there (ELA classroom) that's going to be modeling those comprehension strategies" (Stakeholder O, personal communication, October 17, 2016).

The researcher analyzed the qualitative data for themes revealed in the response to the fourth focus-group interview statement. Teachers were asked to "Tell me your thoughts about the stages of the program with regard to a critical thinking learning environment." The researcher coded the critical thinking data discussed previously using the five critical thinking action words. The data is displayed in Table 54.

Table 54

Focus-Group Interview Statement 4 – Critical Thinking Discussed in Interview

Critical Thinking Terms	# of instances terms were stated
Conceptualize	0
Apply	5
Analyze	5
Synthesize	0
Evaluate	5
Critical Thinking	1

The responses from focus-group interview statement 4 revealed teachers discussed the specific integration of critical thinking through the WFTBB: RL program in the learning environment 16 times. Five responses focused on application, five responses indicated analysis, five responses stated evaluation, and one stated critical thinking specifically. Teachers did not discuss conceptualizing or synthesizing during their

responses to interview statement 4.

The researcher used the responses from the fourth interview statement to code the responses using the four learning and innovative skills designated by the P21 Framework. The P21 Framework (P21 Century Learning, 2015) defines the learning and innovative skills as critical thinking, communication, collaboration, and creativity. The researcher used the four learning and innovative skills as themes to code the responses from the focus-group interview as shown in Table 55.

Table 55

Focus-Group Interview Statement 4 – Learning and Innovative Skills Discussed

Learning and Innovative Skills	# of instances terms were referenced
Critical Thinking	16
Communication	1
Collaboration	3
Creativity	2

The researcher utilized the P21 Framework (P21 Century Learning, 2015) in the conceptual framework which guided this study. In order to determine if the learning environment is impacted through the integration of critical thinking through WFTBB: RL, the researcher coded the responses from interview statement 4. Critical thinking was referenced 16 times. Communication was discussed once, and creativity was discussed two times. Collaboration was mentioned three times throughout the conversation regarding the impact the integration of critical thinking through the program has on the learning environment.

Further, the researcher noticed the teachers who participated in the focus-group interview had similarities in their responses to the fourth interview statement. These similarities were used as themes to code the responses. The reoccurring themes included students reflecting on thinking, students making connections to the text, students' future,

and going further in thinking. Table 56 displays the number of times the coded themes occurred during the responses teachers provided while discussing the impact the integration of critical thinking through the stages of the program had on the learning environment.

Table 56

Focus-Group Interview Statement 4 – Additional Coded Themes

Coded Themes	# of Occurrences in Responses
Student's Reflecting on Thinking	3
Student's Making Connections to the Text	2
Students' Future	2
Going Beyond Traditional Practices	6
More is Needed	2

The respondents provided similar responses during the fourth interview responses. The teachers responded three times that students were spending time reflecting on their own thinking. Likewise, two responses showed students were making connections to text. On two instances, teachers discussed students' futures regarding the integration of critical thinking through the WFTBB: RL program. In addition, teachers discussed how the integration of critical thinking through the program impacted the learning environment causing students to go further or beyond their typical thinking six times. Finally, two responses provided by the stakeholders indicated that the implementation of the WFTBB: RL program in the ELA classroom needed additional support to promote a 21st century learning environment.

Teacher survey results used to answer Research Question 4. Teacher perceptions were collected through the survey. Four survey statements were created by the researcher to collect quantitative data to compare to qualitative data collected through the focus-group interviews to triangulate data to answer Research Question 4. Survey

statements 10, 11, 12, and 20 were designed to help answer how the integration of the WFTBB: RL program impacted the learning environment with regard to critical thinking. The four survey statements were analyzed and displayed in Tables 57-60. Table 57 shows teacher responses to survey statement 10.

Table 57

Survey Statement 10 – The oral response stage of the program promoted a critical thinking learning environment

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	6	42.9%	8	57.1%

Note. Retrieved from surveymonkey.com. N=14 SD=0.49 M=4.57 Mdn=5.00.

Six of 14 (42.9%) teachers stated they agreed with survey statement 10. Eight of 14 (57.1%) teachers strongly agreed the oral response stage of the program promoted a critical thinking learning environment.

Table 58 arranges the teacher perception data collected from survey statement 11.

Table 58

Survey Statement 11 – The open-ended response stage of the program promoted a critical thinking learning environment

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	6	42.9%	8	57.1%

Note. Retrieved from surveymonkey.com. N=14 SD=0.49 M=4.57 Mdn=5.00.

All 14 teachers either agreed or strongly agreed with survey statement 11. Six of 14 (42.9%) teachers agreed the open-ended response stage of the program promoted a critical thinking environment. Eight of 14 (57.1%) teachers strongly agreed with the statement.

Table 59 shows the data from survey statement 12 from the teacher survey.

Table 59

Survey Statement 12 – The formal written response stage of the program promoted a critical thinking learning environment

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	7	50.0%	7	50.0%

Note. Retrieved from surveymonkey.com. N=14 SD=0.50 M=4.50 Mdn=4.50.

Seven of 14 (50.0%) teachers who completed the survey agreed with survey statement 12. Seven of 14 (50.0%) teachers strongly agreed the formal written response stage of the program promoted a critical thinking learning environment.

Table 60 displays the data collected from survey statement 20.

Table 60

Survey Statement 20 – The program promotes a critical thinking learning environment

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	6	42.9%	8	57.1%

Note. Retrieved from surveymonkey.com. N=14 SD=0.49 M=4.57 Mdn=5.00.

All 14 teachers agreed or strongly agreed with survey statement 20. Six of 14 (42.9%) teachers agreed the program promotes a critical thinking learning environment. Eight of 14 (57.1%) teachers strongly agreed with the statement.

The researcher used qualitative data collected from focus-group interviews and quantitative data gained through teacher surveys to answer Research Question 4. The data from both sources converged and revealed the teachers perceived the learning environment is positively impacted through the integration of critical thinking through the WFTBB: RL program.

Research Question 5: How does integration of WFTBB: RL impact student

learning with regard to critical thinking? In order to answer Research Question 5, the researcher collected data from focus-group interviews and teacher surveys. The data were collected and analyzed separately, then compared to determine if the results merged.

Focus-group interview data used to answer Research Question 5. During the grade-level focus-group interviews, the researcher asked the teachers to "Discuss the development of critical thinking skills in students during the implementation of the stages of the program." The researcher noticed six themes presented in the responses to interview statement 5. The themes included changes in mindset on how students think or learn, teachers modeling helps students learn, peer discussions help students learn, evidence from the texts supports responses, improved learning using WFTBB: RL, and independent thinkers. Table 61 displays the number of times each grade level discussed themes.

Table 61

Primary Themes Regarding the Development of Critical Thinking in Students through the Stages of WFTBB: RL

Primary Themes Addressed	# of times addressed by each grade level		
	Third	Fourth	Fifth
Changes in mindsets on how students think or learn	3	2	1
Teachers modeling helps students learn	0	2	0
Peer discussions help students learn	2	4	0
Evidence from texts supports responses	2	1	1
Improved learning using WFTBB: RL	7	6	0
Independent Thinkers	0	2	0

Changes in mindsets on how students think or learn. Third-grade teachers discussed the changes in mindset on how students think or learn three times during their responses to interview statement 5. The fourth-grade team discussed this theme two

times. Fifth-grade teachers talked about how the changes in students' critical thinking or learning were developed during the stages of WFTBB: RL.

One third-grade teacher stated, "I've really seen a lot of improvement with them (students) being able to provide the evidence from the story to support their answer. I mean they had to really learn how to do that" (Stakeholder F, personal communication, October 25, 2016). The same teacher continued by explaining,

> The different activities, like all the thinking activities, led them to know that the open-ended responses are not multiple choice . . . and they have to be able to think through that to be able to respond to those questions and be able to do a writing piece. (Stakeholder F, personal communication, October 25, 2016)

A different third-grade teacher responded, "Students are transitioning from surface level or literal thinking to inferential thinking" (Stakeholder B, personal communication, October 25, 2016).

A fourth-grade teacher discussed how she has students create their own questions based on questions they have used during oral responses: "They're really going outside the box not just writing a question that has a right there answer" (Stakeholder D, personal communication, October 19, 2016). A teacher summarized her thoughts on the development of critical thinking through the WFTBB: RL program and changes in her students' thinking:

> I think before students were more apt to just regurgitate what the text said instead of applying. It (WFTBB: RL) is making it meaningful for them and I've seen that they're able to take it (understanding from discussions) and put it in their own thoughts and create their response (formal written response) rather than just coping from the text. (Stakeholder D, personal communication, October 19,

2016)

Further, a fifth-grade teacher discussed the changes in mindset of her students through the stages of the program, saying,

> They (students) have to get used to what you're trying to get out of them and out of the whole yes-no answers or multiple choice answers. I try to make the questions (oral responses) harder throughout the week so they can go into it (text) a little deeper. As they had more practice with that they were able to answer the questions easier. (Stakeholder M, personal communication, October 17, 2016)

Teachers modeling helps students learn. One fourth-grade teacher discussed how teachers modeling during the stages of the program promoted students learning two times. Third- and fifth-grade teacher replies did not focus on this theme. A fourth-grade teacher discussed the impact of using the writing framework provided by the teacher's guide:

> We start them (students) out together using the model (writing framework provided by the teacher's guide) and then they do it together and then they're more independent. So I think if we do a lot of this together, they can be more independent and then do the final written page because of the work together and organize it the way the author has organized the program. (Stakeholder H, personal communication, October 19, 2016)

Likewise, teachers discussed the use of peer discussions to help students learn while implementing the program. Third-grade teachers discussed this theme two times, and fourth-grade teacher responses indicated the theme four times. Fifth-grade teachers did not discuss this topic.

Peer discussions help students learn. One third-grade teacher focused on peer

discussions: “It also led into students thinking critically in groups with great discussions. Students are then able to independently answer written questions with deep thoughts” (Stakeholder G, personal communication, October 25, 2016). Another third-grade teacher stated, “I think they are answering better (formal written responses) because of all of the discussions and activities we’ve done prior” (Stakeholder E, personal communication, October 25, 2016).

One fourth-grade teacher focused on the benefits of peer discussions during the oral response stage:

> I think their (students) explaining it gets them used to telling their reasoning behind their opinion or what they say and so they get used to explaining to someone else. And also going back and thinking more deeply about questions. (Stakeholder H, personal communication, October 19, 2016)

A teacher interjected, “Breaking it down to what is relevant, so that they can apply it” (Stakeholder I, personal communication, October 19, 2016). A fourth-grade teacher discussed how peer discussions help students learn and prepare for independent work through the stages of WFTBB: RL:

> I think some students struggle with critical thinking questions first, then they can talk and hear each other and they can even help each other with the critical thinking part and then that can help them later on when they respond (formal written response). I think their end product (formal written response) is not off task, it’s (formal written response) more on topic. (Stakeholder H, personal communication, October 19, 2016)

Evidence from the texts supports responses. Another theme the researcher noted was using evidence from the text to support student responses. Third-grade teachers

stated this theme two times during their responses. Fourth- and fifth-grade participants stated this topic one time in their responses to interview statement 5.

A third-grade teacher stated,

> I've really seen a lot of improvement with them (students) being able to provide the evidence from the story to support their answer. I think there's been a lot of progress with just learning how to describe a character based on the actions in the story. (Stakeholder F, personal communication, October 25, 2016)

A fourth-grade teacher stated a similar thought about what students must think about while using the program:

> What's most important about the text . . . makes them (students) really think deeply and put it all together. I think they are also judging what they want to put into their written piece and what they want to leave out and that is part of critical thinking. (Stakeholder H, personal communication, October 19, 2016)

Further, a fifth-grade teacher discussed her intentional planning utilizing the program to encourage her students to refer to evidence in the text (as mentioned previously): "I try to make the questions (oral responses) harder throughout the week so they can go into it (text) a little more deeper" (Stakeholder M, personal communication, October 17, 2016).

Improved learning using WFTBB: RL. Third- and fourth-grade teachers discussed improvements in their students' learning while using the WFTBB: RL program. Third-grade teachers discussed this topic seven times, and fourth-grade teachers addressed the theme on six occasions. Fifth-grade participant responses did not correlate to this theme.

One third-grade teacher responded, "The oral questions during whole group really helped students think critically" (Stakeholder G, personal communication, October 25,

2016). Stakeholder F added improvements she noticed with her students:

> I've really seen a lot of improvement with them (students) being able to provide the evidence from the story to support their answer . . . I think there's been a lot of progress with just learning how to describe a character based on the actions in the story. (Personal communication, October 25, 2016)

Another third-grade teacher explained (as discussed earlier), "I think they are answering better (formal written responses) because of all of the discussions and activities we've done prior" (Stakeholder E, personal communication, October 25, 2016). Stakeholder F added, "They (students) are learning to carry it (knowledge) over not just when we do stories, but to other activities" (Personal communication, October 25, 2016). A third-grade teacher added a final thought regarding the improvement of critical thinking in her students through the use of the program: "Students are thinking at an advanced level, using critical thinking, making connections, and learning to organize thoughts. Students are transitioning from surface level or literal thinking to inferential thinking" (Stakeholder B, personal communication, October 25, 2016).

A fourth-grade teacher focused on her planning and instruction regarding students' improvement of critical thinking skills through the stages of the program:

> I think it makes me more aware of what I'm using in my lessons and I see my students starting to see the same things (in their questions) when I ask them to come up with their own questions. They're really going outside the box not just writing a question that has a right there answer. They're really trying to extend beyond the text. They (students) were able to come up with more defined questions to ask other students. It wasn't necessarily those right there questions and they really put thought into them. (Stakeholder D, personal communication,

October 19, 2016)

Independent thinkers. Fourth-grade teachers also discussed how the WFTBB: RL program has helped build independent thinkers. Third- and fifth-grade responses did not state this theme. A fourth-grade teacher stated how using the stages of the program and modeling developed independent thinkers (as previously mentioned):

> We start them (students) out together using the model (writing framework provided by the teacher's guide) and then they do it together and then they're more independent. So I think if we do a lot of this together, they can be more independent and then do the final written page because of the work together and organize it the way the author has organized the program. (Stakeholder H, personal communication, October 19, 2016)

The researcher coded the responses to the fifth interview statement using the stages of the program. The data is displayed in Table 62.

Table 62

Focus-Group Interview Statement 5 – Stages of the Program

Stages of the Program	# of times Stages of WFTBB: RL were Discussed in Regard to Critical Thinking
Oral Responses	6
Open-Ended Responses	4
Formal Written Responses	7

Data from the fifth research question revealed teachers discussed the impact on student learning through the integration of critical thinking during the oral response stage of the WFTBB: RL program six times. The impact of student learning through the integration of critical thinking using the open-ended response stage of the program was discussed four times. Further, the formal written response stage was discussed seven times regarding the impact of student learning through the integration of critical thinking

using the WFTBB: RL program.

Likewise, the researcher coded the qualitative data collected from the responses to the fifth statement of the focus-group interview using the five critical thinking action words included in the conceptual framework which guided this study. The data are displayed in Table 63.

Table 63

Focus-Group Interview Statement 5 – Critical Thinking Discussed in Interview

Critical Thinking Terms	# of instances terms were stated
Conceptualize	0
Apply	3
Analyze	4
Synthesize	4
Evaluate	2
Critical Thinking	9

Throughout the interviews with the participating teachers, critical thinking was discussed a total of 22 times with regard to the development of critical thinking skills in students during the integration of critical thinking through the WFTBB: RL program. Zero responses discussed conceptualizing. Three responses focused on applying. Four comments related to analyzing, and four conveyed synthesizing. Two responses during the interview focused on evaluating. A general reference to critical thinking was referred to nine times.

Additional themes were consistent throughout the responses to interview statement 5 as presented earlier. Teachers repeated similar discussions related to six categories including changes in mindset on how students think or learn, teacher modeling helps student learn, peer discussions help students learn, evidence from the text was used to support responses, improvements in learning, and independent thinkers. Additional coded themes presented by the teachers while responding to the fifth interview statement

are presented in Table 64.

Table 64

Focus-Group Interview Statement 5 – Additional Coded Themes

Coded Themes	# of Occurrences in Responses
Changes in mindsets on how students think or learn	6
Teachers modeling helps students learn	2
Peer discussions helps students learn	6
Evidence from the texts supports responses	4
Improved learning using WFTBB: RL	13
Independent thinkers	2

The responses to the interview statement "Discuss the development of critical thinking skills in students during the implementation of the stages of the program" provided reoccurring themes in teacher responses. Six responses indicated students' mindsets regarding how they must learn or think had changed during the integration of critical thinking through the stages of the program. The educators stated on two occurrences that teachers' modeling using the program helped students learn to think critically. The participants also discussed the impact peer discussions through the oral response stage of the program had on the development of students' critical thinking six different times during the interview. Four discussions occurred regarding how the program encouraged students to use evidence from the text to support their responses. Thirteen responses from the fifth interview statement focused on the improved learning of their students with regard to critical thinking using the WFTBB: RL program. Finally, two teachers spoke about the growth of independent thinkers during the integration of critical thinking through the stages of the program.

Teacher survey results used to answer Research Question 5. Fourteen teachers participated in the teacher survey to collect perceptual data to answer Research

Question 5ive. This was the final component of data collection and was compared to qualitative data collected through focus-group interviews to determine if the data converged or diverged to answer the fifth research question.

Table 65 shows the responses teachers provided for survey statement 13.

Table 65

Survey Statement 13 – The oral response stage of the program supported the development of critical thinking skills in students

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	7	53.9%	6	46.2%

Note. Retrieved from surveymonkey.com. N=13 SD=0.50 M=4.46 Mdn=4.00.

One teacher skipped survey statement 13. Seven of 13 teachers (53.6%) who responded to survey statement 13 agreed the oral stage of the program supported the development of critical thinking skills in students. Six of the 13 teachers (42.6%) strongly agreed with this statement.

Table 66 displays the results of survey statement 14.

Table 66

Survey Statement 14 – The open-ended response stage of the program supported the development of critical thinking skills in students

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	7	50.0%	7	50.0%

Note. Retrieved from surveymonkey.com. N=14 SD=0.50 M=4.50 Mdn=4.50.

Fourteen teachers either agreed or strongly agreed with survey statement 14. Seven of 14 (50.0%) teachers agreed the open-ended response stage of the program supported the development of critical thinking skills in students. Seven of 14 (50.0%) teachers strongly agreed with the statement.

The results of survey statement 15 are shown in Table 67.

Table 67

Survey Statement 15 – The formal written response stage of the program supported the development of critical thinking skills in students

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	8	57.1%	6	42.9%

Note. Retrieved from surveymonkey.com. N=14 SD=0.49 M=4.43 Mdn=4.00.

The teachers responded to survey statement 15 by either agreeing or strongly agreeing. Eight of 14 (57.1%) teachers agreed the formal written response stage of the program supported the development of critical thinking skills in students. Six of 14 (42.9%) teachers strongly agreed with survey statement 15.

The responses to survey statement 16 are displayed in Table 68.

Table 68

Survey Statement 16 – The program developed critical thinking skills in students

Strongly Disagree		Disagree		Neither Agree nor Disagree		Agree		Strongly Agree	
#	%	#	%	#	%	#	%	#	%
0	0.0%	0	0.0%	0	0.0%	7	50.0%	7	50.0%

Note. Retrieved from surveymonkey.com. N=14 SD=0.50 M=4.50 Mdn=4.50.

Fourteen teachers agreed or strongly agreed with survey statement 16 from the teacher survey. Seven of 14 (50.0%) teachers agreed and seven of 14 (50.0%) teachers strongly agreed the program developed critical thinking skills in students.

The researcher utilized data collected and analyzed from the focus-group interviews and teacher surveys to answer Research Question 5. The focus-group interview responses revealed the integration of critical thinking through the WFTBB: RL program had positive effects on student learning. Data from the teacher surveys showed

teachers agreed or strongly agreed that the integration of critical thinking impacted student learning. The interpretation of the data shows a solid convergence of data.

Summary

During the 2014-2015 school year the third-, fourth-, and fifth-grade teachers determined the WFTBB: RL program was being implemented with fidelity; however, they stated the importance of continuing to evaluate the outcomes of the program through professional development. The researcher developed professional development to guide the teachers to evaluate critical thinking through the WFTBB: RL program as a PLC. The evaluation was guided using Scriven and Paul's (1996) five actionable description words: conceptualize, apply, analyze, synthesize, and evaluate. Additionally, the conceptual framework utilized the 21st Century Student Outcomes and Support Systems Framework to answer the five research questions using the components of the WFTBB: RL program.

Qualitative data gathered from the analysis of the WFTBB: RL program showed the program supported the five critical thinking action words. Based on the analysis of qualitative data from teacher lesson plans, teachers were able to include defined components of critical thinking throughout all stages of the program (oral responses, open-ended responses, and formal written responses). Document analysis of the lesson plans suggested critical thinking was integrated using WFTBB: RL in teachers' planning, instruction, and assessment at Carsimad Intermediate School.

Additionally, classroom observations in third-, fourth-, and fifth-grade classrooms indicated the stages of the program aligned with the components of critical thinking and were integrated into the teacher's planning, instruction, and assessment. Focus-group interviews with the 14 participants continued to support the alignment of critical thinking

through the WFTBB: RL program. The perceptions of teachers expressed through the interviews revealed the integration of critical thinking in their ELA classroom (planning, instruction, and assessment). Qualitative data collected and analyzed through focus-group interviews suggested the WFTBB: RL program is a support system for 21st century learning environments and promotes critical thinking in students.

Quantitative data collected from the teacher surveys were compared with the four qualitative data methods to answer all of the research questions. The summary of the data related and converged indicating the integration of critical thinking through the stages of the WFTBB: RL program (oral responses, open-ended responses, and formal written responses) positively impacted the teachers' planning, instruction, and assessment in the ELA classroom at Carsimad Elementary.

Chapter 5: Conclusions, Discussions, and Recommendations

Introduction

The purpose of this study was to determine the impact of the integration of critical thinking through the stages of the WFTBB: RL program (oral responses, open-ended responses, and formal written responses) on planning, instruction, and assessment at Carsimad Elementary School in third-, fourth-, and fifth-grade ELA classrooms. Qualitative data were collected through document analysis of the WFTBB: RL teacher's guide, document analysis of grade-level lesson plans, classroom observations, and focus-group interviews. Additionally, quantitative data were collected through teacher surveys. Data were collected and analyzed separately and compared to determine the findings. Prior to collecting data, it became evident that the researcher needed to define the five critical thinking action words to effectively analyze the data.

This chapter includes a summary of the study, a brief interpretation and discussion of the results, recommendations from the researcher, and implications of the study. Additionally, the results were related directly to the conceptual framework which guided the research related to the integration of critical thinking through the ELA WFTBB: RL program. The findings are organized using themes from the review of literature and components of the conceptual framework including how the stages of the WFTBB: RL program aligned with the defined components of critical thinking; how the stages of the WFTBB: RL program are integrated into planning, instruction, and assessment in the ELA classroom; how the integration of critical thinking is described in planning, instruction, and assessment; and how the integration of critical thinking impacted learning environments and student learning.

Summary of the Study

The researcher conducted document analysis of the WFTBB: RL teacher's guide. The researcher coded the program guide using the five critical thinking action words and then analyzed each category. The researcher analyzed the oral responses, open-ended responses, and formal written responses included in the WFTBB: RL program guide using the document analysis form to code response activities as conceptualize, apply, analyze, synthesize, and/or evaluate. Next, the researcher obtained four lesson plans per grade level written utilizing the WFTBB: RL program. The researcher coded the lesson plans using the five critical thinking words and analyzed the plans using an instrument created to record applicable oral responses, open-ended responses, and formal written responses into the five critical thinking action word categories. Classroom observations were arranged with each of the 13 participants. The researcher used the observation checklist created specifically to document observable critical thinking action words during the three stages of the WFTBB: RL program (oral, open-ended, and formal written responses) to conduct the observations. Classroom observations were then analyzed. Additionally, all teachers participated in focus-group interviews with their grade levels. All responses were recorded, transcribed, and analyzed for common themes. The participants completed a teacher survey as the final point of data collection. The survey was utilized to triangulate and confirm results. The researcher compared the qualitative and quantitative data, and the findings converged.

Interpretation and Discussion of Results

WFTBB: RL aligns with critical thinking. Through this study, the stages of the WFTBB: RL program (oral, open-ended, and formal written responses) were determined to align with the five critical thinking action words provided by Scriven and Paul's

(1996) definition: conceptualize, apply, analyze, synthesize, and evaluate. The qualitative data collected through document analysis of the program guide showed strong alignment with the defined critical thinking action words through all stages of the WFTBB: RL program. Further qualitative and quantitative data collected through document analysis of lesson plans, classroom observations, focus-group interviews, and teacher surveys continued to show the alignment of critical thinking through the program. The teachers communicated through the focus-group interviews and surveys stating the program aligned with the five action thinking words; however, the researcher noticed fewer opportunities for students to conceptualize text in lesson plans and observations. Likewise, this deficit was also pinpointed in the analysis of focus-group interviews. The data converged and showed consistent alignment of critical thinking through the WFTBB: RL program.

Steffen (2011) recommended teacher perceptions regarding the use of critical thinking skills should be collected. Teacher perceptions were used to determine the alignment of critical thinking through the WFTBB: RL program using data collected from focus-group interviews and teacher surveys. The results from these two data methods converged, providing results which further supported the alignment of the five critical thinking action words through the use of the WFTBB: RL program.

The WFTBB: RL program integrated critical thinking in the ELA classroom which was recommended in the review of literature by Scriven and Paul (1996), Paul and Elder (2002), and P21 Century Skills (2007b). Further, through professional development at Carsimad Intermediate School, the participants of this study focused on how the ELA WFTBB: RL program supported the defined actionable words of critical thinking. The results of the program evaluation at the site of the study supported the

program's expectations to integrate critical thinking through reading and writing. The results of this study can be used to address the concerns presented by Law and Kaufhold (2009) regarding the integration of critical thinking through reading and language arts. The WFTBB: RL program provides educators opportunities to integrate critical thinking through reading and writing.

WFTBB: RL integrated into planning, instruction, and assessment. According to data collected through document analysis of lesson plans, classroom observations, focus-group interviews, and teacher surveys, the teachers at Carsimad Intermediate School are integrating the components of the ELA WFTBB: RL program into planning, instruction, and assessment. Friedman and Mandelbaum (2011) stated the most significant way to enhance outcomes is to focus on improving teaching methods. The third-, fourth-, and fifth-grade teachers at Carsimad Intermediate School participated in professional development and functioned as a PLC to continue to implement and evaluate the WFTBB: RL program. During the focus-group interviews, several teachers commented on the value of having time to plan together and participate in professional development to feel successful with implementing the literacy program.

The goal of this study also involved addressing the medium-term goals of the logic model specifically formulated based on data collected from the school's CNA results. The medium-term goals of the logic model focused on the integration of the program in the teachers' planning, instruction, and assessment. Additionally, the medium-term goals of the logic model assessed through this study focused on the student outcomes presented through the stages of the program. The goals of the school's logic model focus on evaluating outcomes using the ELA WFTBB: RL program to determine if the ELA program helps the teachers implement CCSS and promote literacy

achievement as recommended by Goatley and Hinchman (2013). The data from the document analysis of lesson plans, classroom observations, focus-group interviews, and teacher surveys converged showing teachers integrated all stages of the WFTBB: RL program into their planning, instruction, and assessment.

The teachers stated during focus-group interviews that the use of the plan they created using the program promoted instruction in their classrooms. Additionally, teacher perceptions gathered through focus-group interviews and surveys indicated the teachers believed the program guided students through the process of explaining and supporting their thinking about text as stated by Buckner (2011). Likewise, teachers also conveyed that the WFTBB: RL program helped students grow their understanding of text through the stages of the program (oral, open-ended, and formal written responses) in order to formulate their understanding as recommended by Harvey and Goudvis (2007).

Specifically, the teachers indicated the use of oral responses was considered valuable for guiding student understanding through collaborative group discussions during focus-group interviews. The literature review pointed to the importance of using questions to develop student thinking (Hauff, 2007). Teachers utilized questions from the program to guide student understanding of text (as indicated in lesson plans, observations, focus-group interviews, and surveys) and commented on the benefits of using the questions provided by the WFTBB: RL program during focus-group interviews. The literature on using appropriate questions to build critical thinking in students (Costa & Kallick, 2008; Gardner, 2000; Haynes & Bailey, 2003; Nosich, 2001; Steffen, 2011; Wagner, 2008) aligns with the perceptual data collected during focus-group interviews and teacher surveys from this study.

Finally, the WFTBB: RL program integrated reading and writing instruction as

stated by many teachers during the focus-group interviews. NCTE (2011) suggested the integration of reading and writing, and Allington and Gabriel (2012) included writing as a reading strategy to help students connect to what they have read. The results of this study addressed the recommendation to conduct further research by Graham and Herbert (2010) regarding the outcomes associated with writing about texts since their results found that writing about texts improved student reading skills and increased student comprehension abilities. Teacher responses during the focus-group interviews and surveys during this study aligned with the program's intentions to guide students' processes of explaining and supporting their thinking about literature through the stages of the program by integrating reading and writing. Further, IRA and NICHD (2013) found CCSS require an integration of reading and writing, but they also stated teachers do not know how to do this effectively. The teachers stated during focus-group interviews that the WFTBB: RL program integrates reading and writing; therefore, this program can be used at Carsimad Intermediate School to meet expectations of CCSS.

Critical thinking with regard to planning, instruction, and assessment. The analysis of the program guide showed clear alignment to the five critical thinking action words. Additionally, the oral and open-ended responses included in teacher lesson plans and data collected from classroom observations indicated strong alignment with the five critical thinking action words. However, formal written responses included in lesson plans and observed showed less alignment with conceptualizing information in texts. Focus-group interview data continued to reflect the alignment of critical thinking in teachers' planning, instruction, and assessment. The interview responses also continued to indicate that conceptualizing was the least mentioned critical thinking action word discussed during participant responses. The teacher surveys maintained that critical

thinking was integrated through the planning, instruction, and assessment of the stages of the WFTBB: RL program.

Lang's (2009) recommendation to collect further research on teacher perceptions of critical thinking infused into classrooms is presented in this study. Critical thinking is considered a learning and innovation skill needed for the 21st century (P21 Century Skills, 2007c); and according to the data collected from this study, teachers at Carsimad Intermediate School believe the WFTBB: RL program can be used in their ELA classroom to promote this 21st century skill.

In order for educators to integrate critical thinking through core subjects as recommended by P21 Century Skills (2007b), teachers will need knowledge of critical thinking and best practices to utilize in their classrooms as stated by Williams (2005). This study was guided using the five actionable words of critical thinking for all data collection methods and for leading the research with the participants in part because of information provided in the literature review regarding the inconsistency of one definition of critical thinking for educators to use (Elder, 2010; Innabi & Sheikh, 2006). Bessick (2008) stated in her research that critical thinking has many definitions and it is not possible to determine a definition that incorporates all attributes of critical thinking; however, the researcher and the educators who participated in this research were able to evaluate the impact of critical thinking through the WFTBB: RL program using one definition of critical thinking. This study contributes to the literature by providing educators information regarding how to define critical thinking and integrate critical thinking in their ELA classroom as recommended by Alazzi (2008). The researcher concluded that determining one definition of critical thinking for all stakeholders at Carsimad Intermediate School was beneficial for integrating critical thinking in the ELA

classroom.

Integration of critical thinking through WFTBB: RL impacted the learning environment and student learning. Nathan (2008) recommended educational programs should include critical thinking skills to improve student achievement. The teachers at Carsimad Intermediate School agreed that the integration of critical thinking through the WFTBB: RL program promoted a 21st century learning environment and improved student learning gathered through teacher interviews and surveys. The perceptions of the participants of this study implied that utilizing the stages of the WFTBB: RL program was an effective strategy for instilling critical thinking in students. The results of this study add to the debate and controversy over effective instructional methods for teachers to utilize in their classrooms to promote critical thinking skills as discussed in literature by Bessick (2008) and McGuire (2010).

The teachers indicated during the teacher survey that the stages of the WFTBB: RL program promoted critical thinking in their planning, instruction, and assessment. Teacher survey data were triangulated with the responses from the teacher interviews; the results showed similarities. The participants stated that using the sequence of the stages of the WFTBB: RL program (oral, open-ended, and formal written responses) provided opportunities for students to think critically about texts through reading, writing, and collaborating to build their own knowledge as suggested by Schmoker (2011). Further, this study addressed concerns presented in the literature regarding 21st learning environments and instruction since the results indicated the integration of critical thinking through the WFTBB: RL program provided a learning environment which fostered 21st century skills and helped students think critically on their own.

Recommendations

The participants at Carsimad Intermediate School have implemented the WFTBB: RL program for 3 years after receiving training provided by the school and district. Additionally, the 14 participants completed a process evaluation during the 2015-2016 school year and the results showed the program was being implemented with fidelity. Further, the 14 participants evaluated the short- and medium-term outcomes of the logic model created by the teachers based on the school's CNA. During this evaluation, the third-, fourth-, and fifth-grade teachers worked collaboratively as a PLC to evaluate the outcomes of the WFTBB: RL program.

According to Hall and Hord (2006), changes in education take approximately three to five years; need guidance, encouragement, trainings, reflection time, and time for them to be effective; and should be supported by colleagues, administration, and the district. Therefore, the classroom teachers at Carsimad Intermediate School should continue to implement the WFTBB: RL program through the support of grade-level PLCs and administration. Participants should continue to focus on the integration of critical thinking action words (conceptualize, apply, analyze, synthesize, and evaluate) during their planning, instruction, and assessment. The participants should continue to work as a PLC to plan, instruct, and assess the ELA program to evaluate the long-term outcomes of the logic model using state standardized reading test scores. The 2015-2016 reading achievement scores at Carsimad Intermediate School should be compared with the 2016-2017 scores to determine improvements using the program. This process should continue at the site for the 2017-2018 school year to address the long-term outcomes of the logic model and continue to improve the implementation of the WFTBB: RL program in the ELA classroom as a support system.

The researcher recommends that future research should focus on the impact the WFTBB: RL program has on the learning environment. This research focused specifically on the impact the WFTBB: RL program has on a critical thinking learning environment. Future research should focus on gathering perceptual data aligned with the three additional learning and innovation skills recommended by the P21 Framework (P21 Century Learning, 2015) including communication, collaboration, and creativity.

The researcher recommends the selection of one critical thinking definition to guide school-wide planning, instruction, and assessment. Additionally, the researcher recommends the integration of critical thinking skills through the alignment of CCSS and core subjects. The 21st Century Student Outcomes and Support System Framework (P21 Century Learning, 2015) provides an effective framework for supporting the integration of critical thinking. ELA programs can be evaluated to determine if they align with critical thinking using Scriven and Paul's (1996) action words for critical thinking: conceptualize, apply, analyze, synthesize, and evaluate. The integration of critical thinking through the stages of the WFTBB: RL program (oral, open-ended, and formal written responses) positively impact planning, instruction, and assessment in the third-, fourth-, and fifth-grade ELA classrooms at Carsimad Intermediate School.

Implications

Critical thinking, as defined by Scriven and Paul (1996), provides five action words (conceptualize, apply, analyze, synthesize, and evaluate) that can be utilized as a guide for educators to use in their ELA classrooms including their planning, instruction, and assessment. The critical thinking action words used as part of the conceptual framework which guided this study can be used to evaluate ELA programs to determine their alignment with critical thinking. Educators and educational leaders can use the

critical thinking action words provided in Scriven and Paul's definition to determine if learning environments promote 21st century student outcomes. The P21 Framework (P21 Century Learning, 2015) was used as a component of the conceptual framework for this study. The researcher focused on support systems to promote the learning and innovation skills included in the framework. Critical thinking was integrated through the stages of the WFTBB: RL program (oral, open-ended, and formal written responses). Through this study, the program was determined to be a support system for educators to use to promote critical thinking in their planning, instruction, and assessment.

Limitations of the Study

The results of the study are limited to the ELA classes at Carsimad Intermediate School, and generalizations cannot be determined for the other educational fields. In addition, the researcher is a teacher and colleague with the other 13 participants. She participated as an internal evaluator and this could have affected participant responses while contributing during focus-group interviews. The researcher took all precautionary steps to avoid bias; however, due to the nature of qualitative research methods, this should be considered a limitation in this study.

Summary of Findings

The findings from this study indicated the WFTBB: RL program integrated the five critical thinking action words through the stages of the program (oral, open-ended, and formal written response). Data collected from document analysis of the WFTBB: RL program guide and lesson plans created using the program indicated the alignment and integration of critical thinking. Teachers at Carsimad Intermediate School utilized all stages of the WFTBB: RL program in their ELA classroom (planning, instruction, and assessment) as determined through lesson plans, classroom observations, interviews, and

teacher surveys. The P21 Framework (P21 Century Learning, 2015) encouraged critical thinking as one of four learning and innovation skills students need for success in the 21st century. WFTBB: RL is a support system to assist in the integration of critical thinking in the ELA classroom. Professional development implemented as a PLC positively developed the teachers' continued understanding of using the WFTBB: RL program and encouraged the continued implementation of the program in the ELA classroom. Likewise, establishing one definition of critical thinking provided guidance and unified understanding for the participating teachers. Critical thinking integrated through the WFTBBL: RL program was observable in the teachers' planning, instruction, and assessment. Further, critical thinking integrated through the stages of the WFTBB: RL program (oral, open-ended, and formal written responses) positively impacted the teachers' planning, instruction, and assessment.

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Appendix A

Document Analysis of the Program

Document Analysis of the WFTBB: RL program used to answer the following research question:

1 - To what extent do the stages of the WFTBB: RL program align with the defined components of critical thinking?

Program Stage	**Indicators of Components of Critical Thinking with WFTBB: RL Program in Lesson Plan**	**Comments:**
Oral Responses	○ Conceptualizing	
	○ Applying	
	○ Analyzing	
	○ Synthesizing	
	○ Evaluating	
Open-Ended Responses	○ Conceptualizing	
	○ Applying	
	○ Analyzing	
	○ Synthesizing	
	○ Evaluating	
Formal Written Responses	○ Conceptualizing	
	○ Applying	

	○ Analyzing ○ Synthesizing ○ Evaluating	

Appendix B

Document Analysis of Lesson Plans

Document Analysis of the lesson plans using integration of critical thinking through the stages of the WFTBB: RL program. This analysis will help answer the following research questions:
1 - To what extent are all the stages of the WFTBB: RL program integrated into planning, instruction, and assessment?
3 - How can the integration of critical thinking using WFTBB: RL be described in planning, instruction, and assessment?

Program Stage	**Integration of Critical Thinking through stages of the WFTBB: RL program**
Critical Thinking integration through Oral Responses Stage: ___ instruction ___ assessment	Conceptualizing
	Applying
	Analyzing
	Synthesizing
	Evaluating

Critical Thinking integration through Open-Ended Responses: ___ instruction ___ assessment	Conceptualizing
	Applying
	Analyzing
	Synthesizing
	Evaluating

Critical Thinking integration through Formal Written Responses Stage: ___ instruction ___ assessment	Conceptualizing
	Applying
	Analyzing
	Synthesizing

Appendix C

Observation Checklist

Teacher _____Date _____Literature _____

Pre-Conference Information/Objectives of the Lesson (provided by the teacher):
_____
_____
_____
_____

Classroom Observation Checklist of WFTBB: RL used to help answer the following research questions:
1 - To what extent do the stages of the WFTBB: RL program align with the defined components of critical thinking?
2 - To what extent are the stages of the WFTBB: RL program integrated into instruction and assessment?
3 – How can the integration of critical thinking using WFTBB: RL be described in planning, instruction, and assessment?

	Mark all which occurred during the lesson		Indicate which critical thinking action words (defined by Scriven and Paul) are observed or used during the integration of critical thinking with WFTBB:RL				
Stages of the Program	Instruction of stage:	Assessment of stage	Conceptualizing	Applying	Analyzing	Synthesizing	Evaluating
Oral Responses							

Description of Oral Response							
Open-ended Responses							
Description of Open-Ended Response							
Written Responses							
Description of Written Response							

Appendix D

Focus-Group Interview Questions

Focus Group Interview

Thank you for participating in the focus group interview. The data collected during this interview will be used to answer research questions to determine the impact the integration of critical thinking through the program Write from the Beginning and Beyond: Response to Literature has on planning, instruction, and assessment. Please be completely honest in your responses. Your participation in this interview is optional and you may change your mind about participating at any time. Please know that your name and your responses during the participation in this study will remain confidential and remain protected. All responses will remain anonymous.

1. Please talk with me about the use of the program Write from the Beginning and Beyond: Response to Literature.

2. Discuss the development of critical thinking skills in students during the implementation of the stages of the program.

3. Describe questions, activities, and writing prompts from the program that promoted critical thinking.

4. Tell me your thoughts about the stages of the program with regard to a critical thinking learning environment.

5. Let's discuss the integration of critical thinking through the stages of the program during planning, instruction, and assessment.

Appendix E

Teacher Survey

Teacher Survey – Write from the Beginning and Beyond: Response to Literature Implementation

Please complete the teacher survey regarding your experience using the program Write from the Beginning and Beyond: Response to Literature. The data collected during this survey will be used to answer research questions to determine the impact the integration of critical thinking through the program Write from the Beginning and Beyond: Response to Literature has on planning, instruction, and assessment. Please be completely honest in evaluating the integration of critical thinking through the program. Your participation in this survey is optional and you may change your mind about participating in this research study at any time. Please know that your name and your responses during the participation in this study will remain confidential and remain protected. All responses will remain anonymous.

Please rate the following statements using the Likert scale 1-5. Circle 1 – strongly disagree, 2 – agree, 3 – neither agree nor disagree, 4 – agree, 5- strongly agree

	1 – Strongly Disagree	2 - Disagree	3 – Neither Agree nor Disagree	4 - Agree	5 – Strongly Agree
The oral response stage of the program supported critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating.	1	2	3	4	5
The open-ended response stage of the program supported critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating.	1	2	3	4	5
The formal written response stage of the program supported critical thinking action words: conceptualizing, applying, analyzing, synthesizing, and evaluating.	1	2	3	4	5
Oral response questions were included in lesson plans, instruction, and assessment.	1	2	3	4	5
Open-ended response activities were included in lesson plans, instruction, and assessment.	1	2	3	4	5

Formal written responses were included in lesson plans, instruction, and assessment.	1	2	3	4	5
Critical thinking was integrated through the oral response stage of the program during planning, instruction, and assessment.	1	2	3	4	5
Critical thinking was integrated through the open-ended response stage of the program during planning, instruction, and assessment.	1	2	3	4	5
Critical thinking was integrated through the formal written response stage of the program during planning, instruction, and assessment.	1	2	3	4	5
The oral response stage of the program promoted a critical thinking learning environment.	1	2	3	4	5
The open-ended response stage of the program promoted a critical thinking learning environment.	1	2	3	4	5
The formal written response stage of the program promoted a critical thinking learning environment.	1	2	3	4	5
The oral response stage of the program supported the development of critical thinking skills in students.	1	2	3	4	5
The open-ended response stage of the program supported the development of critical thinking skills in students.	1	2	3	4	5
The formal written response stage of the program supported the development of critical thinking skills in students.	1	2	3	4	5
The program developed critical thinking skills in students.	1	2	3	4	5
During the stages of the program (oral, open-ended, and written responses), critical thinking skills were observable.	1	2	3	4	5

In all stages of the program (oral, open-ended, and written responses), the critical stage of understanding questions aligned with the defined attributes of critical thinking: conceptualizing, applying, analyzing, synthesizing, and evaluating.	1	2	3	4	5
Write from the Beginning and Beyond: Response to Literature is a curriculum support system that integrates critical thinking in the ELA classroom (planning, instruction, and assessment).	1	2	3	4	5
The program promotes a critical thinking learning environment.	1	2	3	4	5
During planning, critical thinking was integrated using the program.	1	2	3	4	5
During instruction, I was able to integrate critical thinking using the program.	1	2	3	4	5
I was able to assess students' critical thinking skills during the stages of the program.	1	2	3	4	5
The program integrates critical thinking skills.	1	2	3	4	5
Oral response questions, open-ended activities, and formal written responses planned, instructed, and assessed using the program promoted the integration of critical thinking.	1	2	3	4	5

Appendix F

Informed District Consent

Dear Superintendent and Participating Principal:

I am currently working to complete a doctorate in Curriculum and Instruction at Gardner-Webb University. A requirement for the doctorate is to write a dissertation and I have decided to conduct research on critical thinking. My research will focus on the integration of critical thinking through the English Language Arts program Write from the Beginning and Beyond: Response to Literature. The school utilizes the program as a component of their literacy program. I am planning to conduct a participatory evaluation involving the classroom teachers. Research will be collected using document analysis, classroom observations, grade level focus group interviews, and using an online surveys. All data will be collected and triangulated to determine the impact the integration of critical thinking through the ELA program has on planning, instruction, and assessment.

Data collected throughout the research related to the school and school district will remain confidential and anonymous. The classroom teachers will be invited to participate; however, all participation is voluntary.

If you have any concerns or questions please contact the researcher, Ginger C. Black, by phone at XXXXX or by email at XXXXX. Any questions regarding the research or requirements for Gardner-Webb University may be directed toward the chair of the dissertation committee, Dr. Sydney Brown at XXXXXX.

If all parties are in agreement of the proposed study, please sign below. Thank you for your time and your interest in this study.

Sincerely,

Ginger C. Black

Doctoral Candidate, Gardner-Webb University

_____ _____

Superintendent Signature Date

_____ _____

Principal Signature Date

Appendix G

Teacher Permission Letter

Dear Teacher:

My name is Ginger Black and I am doctoral candidate at Gardner-Webb University. I am currently finishing the requirements for my degree by completing a dissertation researching the integration of critical thinking through the program Write from the Beginning and Beyond: Response to Literature and the impact it has on planning, instruction, and assessment in the English Language Arts classroom. I have chosen to conduct my research at the school site and you have been selected to participate in this study as a teacher at this site. You were selected due to your previous participation in the fidelity of implementation evaluation of the program Write from the Beginning and Beyond: Response to Literature.

As a research participant, you will be asked to participate as a professional learning community (PLC) to plan lessons with your grade level. You will be asked to participate in classroom observations during the implementation of lessons utilizing the program. Additionally, you will be asked to complete an online survey and take part in a focus group interview. All information collected will be confidential and remain anonymous. No teacher names or information will be used in the research report other than to collect permission to participate. Further, at any time during the research you always have the option to decline your participation.

Please respond to this letter by indicating one of the following options and sign your name.

_____ I agree to participate in the research study.

_____ I do not agree to participate in the research study.

Signature _____

Thank you for your time. If you have any questions or concerns, you may contact me through email XXXXXXXXXXX or by phone XXXXX.

Sincerely,

Ginger Black
Doctoral Candidate, Gardner-Webb University