

CULTURALLY RESPONSIVE SELF-REGULATED STRATEGY DEVELOPMENT IN
WRITING FOR COLLEGE STUDENTS WITH DISABILITIES

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ABSTRACT

Students with disabilities and culturally and linguistically diverse (CLD) students typically struggle more with writing than their non-disabled and English proficient peers. Although the reasons for the challenges are different, students with disabilities and CLD students often face similar difficulties and produce less and lower quality writing. Self-Regulated Strategy Development (SRSD) was founded on the cognitive-behavioral theory that students need explicit strategy instruction paired with self-regulation techniques to become proficient writers. SRSD has been identified as an evidence-based practice for students with disabilities. Mostly absent from the research, however, are studies investigating its impact on college students with disabilities and CLD students with disabilities.

To address the needs of college students with disabilities and CLD college students with disabilities, SRSD was adapted to add culturally responsive elements and language development. Culturally Responsive and Evidence-based Approach to Excellence, or CREATE, in Writing is the adapted intervention.

A mixed methods design was used to investigate the effect of the CREATE in Writing intervention on 10 college students with disabilities, five of whom were CLD, during a two-week writing workshop. This study explored two research questions.

1. For these students, to what degree does CREATE in Writing improve their academic writing in:
 - a. the overall quality?
 - b. the fluency (number of words written)?

2. What are perceptions and experiences of the participants with respect to how they responded to and felt about the writing intervention?

The quantitative data included pre and posttest writing to determine changes in quality and fluency and pre and post questionnaires to examine changes in students' understanding of the expectations of academic writing and perceptions of their writing. The qualitative data included a document analysis, field notes, and interviews.

Outcomes indicated that students had statistically significant increases in quality and fluency. In addition, students' perceptions of the intervention and their writing also improved. The results may not be generalizable to all college students with disabilities and CLD students with disabilities due to the small number of participants and their individual characteristics; however, these positive results suggest that further research should explore CREATE in Writing with this population.

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CHAPTER I

INTRODUCTION

This study addresses the need to support the increasing number of college students with disabilities who are not prepared for college-level writing. Culturally Responsive and Evidence-based Approach to Excellence (CREATE) in Writing will integrate an evidence-based writing practice, Self-Regulated Strategy Development (SRSD) (Steve Graham & Harris, 1989; Harris & Graham, 1996), within a culturally responsive framework to provide comprehensive and supportive writing instruction to develop the writing proficiency and independence of college students, including culturally and linguistically diverse (CLD) college students, with disabilities.

The CREATE in Writing intervention addresses a current area of importance for a number of reasons. This study was conducted in Hawai‘i, and approximately 49% of community college students in Hawai‘i need remedial writing instruction at the post-secondary level (HIDOE, 2010). Another challenge facing educators nationally, as well as in Hawai‘i, is meeting this need for the large number of students with disabilities and CLD students with disabilities in these remedial courses. Students enrolled in remedial college courses are less likely to persist and attain a degree (Bettinger & Long, 2009), as are students with disabilities (Murray, Goldstein, Nourse, & Edgar, 2000). For this reason, CREATE in Writing aims to improve outcomes for college students with disabilities, particularly CLD students, by providing students with an accessible evidence-based approach to writing to help them become college-level writers.

The number of CLD students in public schools in the U.S. is rapidly increasing, (Enright & Gilliland, 2011), and like students with disabilities, CLD students often lack opportunities to develop academic writing skills due to placement in remedial ESL classes and limited explicit

writing instruction (Ortmeier-Hooper & Enright, 2011). As a result, an alarming number of these students are failing to graduate from high school or are graduating under-prepared for the rigors of post-secondary education. These challenges are also demonstrated in the most recent results of the National Assessment of Educational Progress (NAEP) test of writing achievement, which scores students in the categories of Advanced, Proficient, Basic, and Below Basic (NAEP, 2011). To illustrate, 62% of students with disabilities and 80% of English language learners in high schools performed below basic (two levels below proficiency) in writing, in contrast to the 21% of high school students overall who fell below basic (NAEP, 2011). Although the scores are not disaggregated specifically for CLD students with disabilities, this population appears to be in dire need of additional support to improve writing proficiency.

Therefore, the purpose of this dissertation study was to determine if providing instruction through CREATE in Writing improved writing outcomes for college students with disabilities, including CLD students, who struggled with academic writing. I specifically examined the impact of CREATE on (a) overall quality, (b) fluency (number of words written in a time period), and (c) students' perceptions of themselves as writers. One of the factors that makes writing challenging is the dynamic and complex nature of writing itself. To write skillfully students need to (a) apply specific writing strategies through the writing process, which includes prewriting (including brainstorming and outlining), drafting, revising, editing, and publishing; (b) construct sentences using specific writing skills such as writing with syntactic accuracy (including grammar, punctuation, capitalization, and spelling) and complexity (including sentence combining and vocabulary choice); (c) write appropriately for different genres, which requires understanding of different genres and their organizational requirements; (d) organize

and structure writing logically and coherently at the sentence, paragraph, and essay levels; and finally, (e) write or type written responses, which if this mechanical task is difficult will detract from focus on overall quality (Fogelman, Harrington, Kenney, Pacheco, Panofsky, Santos, & Smith, 2005; Graham & Harris, 2009). In addition to the content and form of writing, the writer's identity and understanding of the reader's identity also need to be balanced, posing additional challenges for many second language writers (Raimes, 1991). CREATE in Writing combines the specific strategy instruction of SRSD through the writing process, including explicit instruction on genre expectations for academic writing, self-monitoring to attend to student affect and motivation (Graham & Harris, 2009), specific language instruction, and cultural relevancy to address the complex writing needs of CLD students with disabilities.

Research Questions

This dissertation studied the impact of the CREATE in Writing intervention on the writing of select college students with disabilities, including CLD college students with disabilities, by investigating the following research questions.

1. For these students, to what degree did CREATE in Writing improve their academic writing in:
 - a. the overall quality?
 - b. the fluency (number of words written)?
2. What are perceptions and experiences of the participants with respect to how they responded to and felt about the writing intervention?

Due to the success of SRSD, as demonstrated by its designation as an evidence-based practice for students with and at risk for learning disabilities (Baker, Chard, Ketterlin-Geller,

Apichatabutra, & Doabler, 2009), and the similar nature of some of the challenges that culturally and linguistically diverse writers and students with learning disabilities face in writing, I hypothesized that when delivered with consideration of a culturally responsive framework, that CREATE in Writing would improve the outcomes of select college students with disabilities and CLD college students with disabilities in overall quality and fluency of their writing and that their perceptions of themselves as writers will improve.

Definition of Terms

Cognitive-Behavioral Theory. Cognitive-behavioral theory synthesizes principles from cognitive theory and behavioral theory, but also includes the additional underlying assumption that cognition, behavior, and affect are inextricably related and must all be addressed and supported in order for instruction to be maximally effective (Harris, Graham, & Pressley, 1992). This theory was developed, in part, as a reaction to behavioral theory, which emphasizes repetition and external rewards and incentives as a method to develop learning (Skinner, 1957), without attention to cognition or motivation. This theory adds a focus on cognition and the need for specific strategy instruction to address how the brain learns best. In addition, affect, including student motivation, is also a priority in instruction, leading to the addition of self-regulation strategies to improve student performance (Hupp, Reitman, & Jewell, 2008, p. 263).

Culturally and linguistically diverse (CLD) students. Culturally and linguistically diverse students (CLD) students are students who have cultural or linguistic backgrounds that are different from the mainstream or majority population. These students often have limited English proficiency and can be labeled “Limited English Proficient” (LEP), “English Language Learner” (ELL), “Ethnically Diverse”, “Ethnically and Linguistically Diverse”, and “Culturally and

Linguistically Diverse” (CLD) (Rhodes, Ochoa, & Ortiz, 2005). Providing a simple definition of the characteristics of CLD students is problematic because although there are similarities, such as bilingualism or biculturalism between students, there are also vast differences in those identities (Garcia, 1991) that result in varying strengths and challenges. In this study, CLD students are defined as any student whose cultural or linguistic background is different than the mainstream and who speak a language other than English in the home whether or not their English proficiency is limited.

Culturally responsive instruction (CRI).

Although there are many ways to conceptualize culturally responsive instruction (CRI), for this study CRI will be defined as instruction that supports all students by being connected to students’ prior knowledge and cultural discourse patterns and makes the content relevant to their lives and experiences (Au, 2005; Rueda, MacGillivray, Monzó, & Arzubiaga, 2001). This can be done in part, through student-centered and designed instruction that is infused with the students’ cultures, histories, and literature (Orosco & Klingner, 2010). In addition, culturally responsive teachers value and respect students’ cultures and encourage students to build new knowledge on their foundations rather than replacing their culture and language with what they are learning (August & Hakuta, 2000).

Evidence-based practice (EBP). Evidence-based practices are instructional practices that significantly improve student outcomes, and have been identified and designated as such by multiple rigorous research studies meeting specified guidelines for quality. They are not a guaranteed solution for every student (Gallagher, 2004); however, when selected to align the practice to the student characteristics, and delivered within a framework of effective instruction,

they can eliminate some of the trial and error that teachers often go through when trying to find a practice or strategy that will work (Cook, Tankersley, Cook, & Landrum, 2008).

In order to be classified as an EBP, a practice needs to have the support of multiple high-quality research studies showing positive student outcomes as a result of the practice. Different organizations define EBPs slightly differently, but widely accepted guidelines are two high-quality or four acceptable quality group experimental or quasi-experimental studies with a weighted effect size above zero (Gersten et al., 2005). Additionally, five or more high-quality single subject studies with a total of 20 or more participants, implemented by three or more different researchers can be used to qualify a practice as evidence-based (Horner et al., 2005). A practice can also be determined to be an EBP using a combination of group and single case studies that show positive effects, provided that at least half of the criteria for group study and half of the criteria for single case study determination are met. (Council for Exceptional Children, 2014). While qualitative studies can provide valuable information on implementation and adaptation of a practice, because their designs do not show causality, they are not used in determining EBPs (McDuffie & Scruggs, 2008).

Self-regulation. Self-regulated learning involves both cognition and behavior. The cognitive aspect of self-regulation is when students monitor their own thought processes and strategy use in order to assess and make adjustments to support their academic performance (Pintrich & De Groot, 1990). Behavioral self-regulation relates to students' self-assessment of effort, including their ability to remain focused on tasks and set cognitive and behavioral goals (Ley & Young, 2001; Pintrich & De Groot, 1990).

Self-regulated strategy development (SRSD). SRSD is an identified EBP for writing for students with learning disabilities that was created by Steve Graham and Karen Harris (Baker et al., 2009). They argue that students need to be clearly taught strategies and then supported through implementation resulting in a six-step strategy, which supports students to understand and manage the complex processes involved in writing, as well as to regulate their own behavior and motivation.

Strategy Instruction. A strategy is defined as a method or technique that the teacher uses (Duffy, 2002) to meet a learning objective. Explicit strategy instruction, on the other hand, involves direct instruction on the strategy being used in order for the learners to develop the ability to use and manipulate the strategy themselves to meet the learning objectives (Duffy, 2002). Effective strategy instruction is done by teaching a strategy for a particular skill coupled with explicit instruction on why the strategy is effective for the target skill. Research suggests that strategy instruction also should include instruction on self-regulation of the use of the strategy as well as identifying other contexts for which the strategy is appropriate (Sawyer, Graham, & Harris, 1992).

Students with disabilities. Students with disabilities in this study refers to those with disabilities who are eligible for disability support services in college. Disability is defined by the Americans with Disabilities Act (ADA) as “*a physical or mental impairment that substantially limits one or more major life activities of such individual,*” one of which is learning (ADA, 2008) and thus applies to individuals with disabilities in college.

Delimitations

This study is specifically focusing on the writing achievement of college students with disabilities, including culturally and linguistically diverse college students with disabilities. One delimitation of this study is that the focus was only on the quality of information included and the structure as well as fluency (number of words written) of the students' writing and did not focus on vocabulary development, voice, or other aspects of writing.

In order to have participants with these characteristics, students who were part of a grant-supported program for college students with disabilities were invited. As a result, another delimitation of the study is that the participants volunteered to participate, and so are not representative of all college students with disabilities. Another delimitation is that the program these individuals were recruited from was designed for students pursuing Science, Technology, Engineering, and Math (STEM) majors, so this narrowed participant pool even further.

Overview of the Dissertation

This dissertation is organized into five chapters. The overview, significance of the problem, context, and specific research questions are presented in Chapter I. Chapter II includes a literature review related to writing instruction, students with disabilities, and CLD students as well as the theoretical frameworks for the study. Chapter III outlines the methodology including research design, sample, intervention, and procedures. Chapter IV of the dissertation includes a presentation of the data, and Chapter V includes an analysis of the results and conclusions.

CHAPTER II

LITERATURE REVIEW

A large number of students in Hawai‘i and nationally are beginning college unprepared to produce college-level writing as evidenced by approximately half of the students in Hawai‘i who are required to enroll in remedial writing courses (HIDOE, 2010). This need for remediation delays progress towards a degree, for some students for several years (HIDOE, 2010). These numbers as well as results on the NAEP test of writing (2011), make it clear that an overwhelming majority of high school ELL students (82%) and students with disabilities (65%) are not being adequately prepared for post-secondary writing demands. Preparation for high stakes testing and other demands on instructional time result in teachers often not allocating any or much time to writing instruction (McCarthy, 2008). This was demonstrated in a recent study of 20 middle and high schools in five states, identified as providing high quality writing instruction, that revealed that for a nine-week semester students in these schools received an average of less than two and a half hours of writing instruction total, and only 19% of all assignments involved writing one paragraph or more (Applebee & Langer, 2011). This study also showed that in the participating high schools, most teachers rarely assigned multi-paragraph writing that required different skills and strategies (Applebee & Langer, 2011). Thus, these students had not been given specific instruction or assignments that would prepare them for college-level writing.

Without the opportunities to write in academic genres and receive feedback and instruction, it is no surprise that beginning college students are struggling to write well. In addition, even many teachers who are able to make time for writing instruction or assignments

don't have the expertise or knowledge necessary to provide effective and high quality writing instruction (Harklau & Pinnow, 2011; Harris & Graham, 1999; National Commission on Writing, 2003). This lack of time allocated to writing in addition to teachers' inability to provide quality writing instruction also results in high school graduates beginning college without the skills or knowledge of strategies to become skillful writers. In addition, most college programs designed to help English language learners (ELL) develop their writing skills are designed for international students who have very different writing profiles and needs than do the many ELL and CLD students who graduate from high school and attend community colleges (Harklau, Losey, & Siegal, 1999). This further intensifies the need for writing support for students with disabilities and CLD college students with and without disabilities who are US high school graduates.

Culturally and Linguistically Diverse Students

English language learners and CLD students are often thought of as a group with homogeneous challenges; however, like students with disabilities, CLD students are all unique individuals with highly variable strengths and challenges. For example, many CLD students are bilingual, although at varying levels of proficiency in both languages (Garcia & Cuéllar, 2006). Approximately 20% of the population in the United States is CLD, as determined by the 2011 US Census Bureau, and reported that they speak a language other than English at home (Ryan, 2013). This diversity can pose challenges to teachers of these students. Another challenge that CLD students often face is a limited (or lack of) knowledge of the mainstream culture and thus assumed background knowledge for instruction (Au, 2005). In addition, these students are often navigating the transition to adulthood, while at the same time are faced with the challenges of

learning and balancing the expectations for belief and behavior in two or more cultures and languages (Garcia & Cuéllar, 2006) at home, at school, and in their communities.

Challenges for Students with Disabilities in College

Students with disabilities also face a difficult transition when beginning college. In addition to the challenges facing most beginning college students, students with disabilities need to make the transition from having a team dictating and managing their educational support and accommodations to learning how to advocate for themselves and take the initiative to seek out and receive support in college (Hadley, 2011). This transition requires students to not only understand their individual disability and resulting challenges, but also to be able to articulate that to college disability support service personnel in order to receive academic accommodations and support. Students with disabilities have also typically received less college preparatory instruction during high school, and begin college less prepared academically (Sparks & Lovett, 2009). For these reasons and others, students with disabilities are more likely to require remedial or developmental courses in college than their non-disabled peers (Peterson, 2003), and they are likely to receive fewer and less individualized accommodations at the college level than they received in high school (Stodden, Jones, & Chang, 2002). While there is a lack of empirical studies documenting the specific challenges facing college students with disabilities in writing (Li & Hamel, 2003), the research on students with disabilities and writing in secondary settings can be used as a predictor for the writing specific challenges students will face as they transition to college.

Challenges in Writing for Students With Disabilities and CLD Students

The limited writing instruction in schools is even more dire for students with disabilities and CLD students, including ELLs, who struggle more to be successful in school than their non-disabled and English proficient peers (Garcia, 1991; Owings, Hennes, Lachat, Neiman, & Facchina, 1990). In writing, students with disabilities often struggle with generating and organizing ideas as well as writing in appropriate academic genre or style, and their writing is also characterized overall by much lower quality and quantity than that of their non-disabled peers (Baker et al., 2009).

Fluency in writing (also referred to as quantity) is a challenge for CLD students and students with disabilities who may not have extensive vocabularies or experience in expressing themselves in writing. Fluency and development of ideas has also been shown to be something that many students ADD and ADHD struggle with (De la Paz, 2001) and this challenge negatively impacts the overall quality of their writing. In addition to trying to remember language and vocabulary, the physical act of writing or typing to provide written response also taxes the processing capability of students and can result in decreased performance if the physical act of writing has not been internalized and automatized (McCutchen, 2000). This can result in limited fluency in particular for ELLs who still need to expend significant processing resources to recall and form letters in the English alphabet, or for students who struggle with the pen and paper or technological mechanics of writing. For these reasons as well as the importance of developing ideas in writing, fluency is an important component to writing instruction and assessment.

Cultural and linguistic differences can also cause barriers to understanding the expectations and methods for organizing and writing an academic essay. CLD students with disabilities may face the additional challenge posed by the complex processes involved in the organization, structure, and mechanics writing. Students' first language structures and cultural discourse patterns can have a huge impact on their writing production (Au, 1980; Connor, 1996; Kaplan, 1966), and if students are not taught the structure and patterns expected in academic English, they may be unable to present arguments and essays in an acceptable or understandable fashion. For this reason, instruction and assessment on overall writing quality and the elements that make up academic writing are important for instruction with CLD students. Overall writing quality usually includes assessment of (a) ideas, (b) development, (c) organization, (d) coherence, and (e) quality and correct usage of vocabulary. The development, organization, and coherence directly relate to understanding of essay structure, which as mentioned above, is something on which the majority of CLD students need instruction. In addition, this understanding of essay structure for different genres of writing includes the explicit instruction of the elements that need to be included for each genre, which are also challenges for CLD students. Many holistic measures of overall writing quality also include the quality and appropriate use of vocabulary, which are also concerns for many CLD students who have limited vocabularies, and as such, explicit instruction on vocabulary is also an important part of instruction for CLD students (August, Carlo, Dressler, & Snow, 2005).

In addition to vocabulary, CLD students, specifically second language learners, need specific instruction on grammar and the structure of the English language as well as explicit error correction (Ferris & Hedgcock, 2005; Norris & Ortega, 2000), which may or may not be a need

of some students with disabilities. Grammar is a vast topic, so research on the “gravity” of errors has been conducted to determine which grammatical errors cause the most negative reaction from readers, and those are a good starting point for instruction. Using this research, explicit instruction on word order, verb tense, word morphology, and subject-verb agreement should be included in writing instruction for CLD students with and without disabilities; punctuation and spelling are not viewed as grave errors and therefore, do not need to be prioritized in instruction (Hinkel, 2004). Even though they are often not prioritized in instruction, the attention that CLD students give to the cognitive processes needed to avoid or identify and correct grammatical errors, such as subject-verb agreement, take away from their ability to compose quality writing (Fayol, Largy, & Lemaire, 1994), and as such can impact outcomes in fluency and overall quality.

Immigrant learners, who have been learning English at the middle and high school level for five or more years become classified as long-term English learners and have characteristics distinct from learners who progress through the stages of language acquisition and acquire English on a more typical timeline (Menken & Kleyn, 2010). A recent report states that approximately 13% of ELLs in New York middle and high schools are long term English learners, and that nearly half of those ELLs have an IEP due to a diagnosed disability (New York City Department of Education, 2013). California data shows that more than half of all ELLs in 7th-12th grade are long term ELLs, and often these long-term English learners have limited literacy in their first language, which inhibits the acquisition and proficiency in a second language (Callahan, 2005). These students are also often called “ear learners,” because they have learned the language mostly through listening, and face additional challenges with grammar

due to limited writing instruction as well as their limited first language literacy (Matsuda, Canagarajah, Harklau, Hyland, & Warschauer, 2003; Reid, 1997). U.S. born English learners of immigrant parents who speak their first language in the home often share these characteristics and can be classified as ELLs even though they are not immigrants themselves. These challenges are intensified at the college level, and as a result many schools are beginning to design specialized English composition classes to meet the different needs of the diverse language learners in college (di Gennaro, 2013). Comparisons of international college students learning English and English learners who graduated from US schools show that the ELL US high school graduates earned lower GPAs in their first three years of college (di Gennaro, 2013), and it would be logical to conclude that these language learners who also have disabilities might struggle even more. As a result, these students need extensive and specialized writing instruction to develop proficiency.

Characteristics of Students with Disabilities and CLD Students' Writing

Writers with LD often don't develop their writing as well as their non-disabled peers, demonstrate less cohesion, complexity, and their writing is overall less polished (Harris & Graham, 1999; Koutsoftas & Gray, 2012). Similarly, students with disabilities often don't know how to analyze writing for its essential elements, and so frequently are unable to produce such writing themselves.

Skilled writers connect to their prior knowledge, plan, and monitor their writing and progress by reading back and assessing what they have written to aid in planning what to write next (Beach, 1979). Unskilled writers, however, plan less and are less comfortable and able to review and revise their plans (Flower & Hayes, 1981). Some studies suggest that unskilled

writers writing in a second language do not review and edit or revise their writing as much as skilled or first language writers, but focus more on selecting the correct words to express their meaning (Raimes, 1985). We can't, however, paint one picture of all struggling CLD writers or the writing of students with disabilities. Depending on their first language literacy and academic knowledge, CLD students' writing characteristics and processes will vary drastically. The same is true for students with disabilities, who depending on their individual disability or disabilities and other background characteristics, their writing characteristics and processes will also vary immensely. In order to better understand the skills, strategy use, and abilities of students with disabilities, including CLD students with disabilities, in writing, we need to examine both their processes as well as their written products.

Characteristics of The Writing Process

Research on writing instruction has investigated the importance of the writing process and planning as a part of the that process (Ellis & Yuan, 2004). Ellis and Yuan suggest that there are three distinct processes involved in writing, which are (a) formulation, in which planning and organizing take place; (b) execution, in which the ideas are typed or handwritten; and (c) monitoring, in which the writer reads and edits what they have written (2004). It is also suggested that the working memory that governs these processes is limited (Kellogg, 1996). Thus, students need to make decisions and often formulation will be prioritized over execution and monitoring resulting in under-developed and inaccurate writing. In addition, for students whose language ability or vocabulary is extremely limited, they may need to expend more working memory on translation and vocabulary selection, which detracts from their ability to organize and edit (De Larios, Marin, & Murphy, 2001). Skills and strategies for these processes

should be included explicitly in instruction, so that as students automatize and internalize some, they can devote focus to other aspects allowing their writing to be more polished and developed. For example, instruction often fails to focus on strategic behavior, factors influencing motivation, and basic foundational skills such as handwriting. These factors can cause students to intensely dislike writing, which negatively impacts their achievement. Furthermore, CLD students and students with disabilities are less likely to engage in meaningful revision than their peers (Graham, Schwartz, & MacArthur, 1993; Porte, 1997), and thus, explicit instruction on how to revise and edit writing is also essential, yet is typically lacking in instruction.

Cultural Influence on Writing

The development of writing abilities is strongly influenced by a student's individual identity, identity within the culture, and perceived connection to the culture (Ortmeier-Hooper & Enright, 2011). However, this is often not addressed in writing instruction, and thus, students are constrained by the culturally inflexible standards in which they are expected to develop mastery. In addition to lacking cultural relevance, writing instruction typically hasn't supported student motivation through developing self-regulating strategies. It is essential to support student motivation and persistence in writing because often students attitudes towards writing worsen as they progress through their school careers all too frequently resulting in school failure and high dropout rates (Pajares, 2003).

Cultural and linguistic differences can cause barriers to understanding the expectations and methods for organizing and writing an academic essay. CLD students with disabilities or at-risk for disabilities may face the additional challenge posed by the complex processes involved the organization and processes involved in writing. In addition, the majority of writing

instruction does not account for differences or support CLD writers' academic identity development as well as their need to develop language (Ortmeier-Hooper & Enright, 2011). Many schools do provide sheltered or specialized instruction for their ELLs; however, the writing instruction in these classes is often cognitively unchallenging with limited opportunity for student expression outside of following a scripted pattern (Ortmeier-Hooper & Enright, 2011). In addition, the focus for ELLs is often on oral fluency and development of content knowledge, and often the language used to deliver the content is simplified (Callahan, 2005) further hampering students' writing abilities. For writing in particular, students' first language structure and cultural discourse patterns can have a huge impact on their writing production (Connor, 1996; Kaplan, 1966), and if students are not taught the structure and patterns expected in academic English, they may be unable to present arguments and essays in an acceptable or understandable fashion. For example, in the Hawaiian culture, "talk story" is an important and common form of discourse, in which seemingly unstructured narrative is co-constructed as two or more people take turns talking (Au, 1980). This discourse pattern is also common in many other cultures, and is in direct contrast to the linear structure required of academic thinking and writing in English. Without explicit instruction on genre and style, instruction on paragraph structure and organization have limited value. This is because learning the mechanics without the ability to select and respond in relevant and appropriate genres will not allow students to determine their individual sociocultural directions in writing (Prior, 2006) and remain in alignment with the expectations of the learning environment. Additionally, although most students learn to write in school, the act of writing and the ideas surrounding writing are thought to be situated and deeply rooted in the culture of the home and how writing was viewed and used

prior to schooling. This first learning environment can either complement or conflict with the writing instructed in school, highlighting the idea that school settings and instruction cannot be viewed as isolated environments and events, but rather influenced and situated in social and cultural contexts (Heath, 1983 cited in Prior, 2006). This aligns with Vygotsky's suggestion that reading and writing tasks should be meaningful and have relevant value for the students, should be taught naturally, and should be connected contextually to the students' environments (Vygotsky, 1978).

The increasing standardization of instruction and assessment limits the expression of CLD individuals and moves further away from relevancy resulting in students receiving remediation for deficiencies rather than development of individual skills (Enright & Gilliland, 2011). Teachers who provide culturally responsive instruction will not see students as lacking background knowledge; they will instead recognize that all students have background knowledge, but that CLD students may need instruction on background knowledge related to academic content in the U.S. (Orosco & Klingner, 2010). In addition, acquisition of a second language and development of the related literacy and writing skills should be viewed in an additive and not subtractive way, in which students first language and literacy are valued and used as a foundation rather than viewed as something that should be replaced (August & Hakuta, 2000; Kana'iaupuni, Ledward, & Jensen, 2010). Another challenge that many students, especially CLD students face is that they may not have been exposed to or have access to models of academic writing in English, and may have a very different perception of what quality writing is and how it is structured.

Current Needs in Writing Instruction

Much of student success in writing is contingent on the preparation of teachers, the effectiveness of their writing instruction, and the amount of time spent on writing instruction and student writing practice (Applebee & Langer, 2011). CREATE attempts to address the limitations in current writing practices through instructional procedures that use a cycle of planning, writing, and revising that will increase the amount of time that students spend writing as well the effectiveness of that instruction.

CREATE uses the evidence-based practice, Self-Regulated Strategy Development (SRSD), as the basis for the intervention because of its proven effectiveness for students with disabilities (Baker et al., 2009). Writing includes a variety of complex organizational and procedural processes, which can be especially challenging for CLD students with disabilities (e.g., Graham, 2007). Students' writing performance is highly correlated with the ability to plan and revise (Graham, 2011); therefore, planning and revising must be taught explicitly within writing instruction. Thus, the combination in SRSD of self-regulating strategies to improve motivation, attention, and success with organization, process oriented tasks, and strategic instruction on planning, organizing, and revising meets many of the demands for effective writing instruction.

Common Core State Standards. A further educational demand for students stems from the increased rigor in writing standards in the Common Core State Standards (CCSS). The CCSS have only recently been adopted by state education agencies, and as such, writing instruction needs to be modified to reflect the elements that are a requirement for all genres of writing. The CCSS elements that underpin writing in all genres are introduction, development,

cohesion, and conclusion (National Governors Association & Council of Chief State School Officers, 2012). The CCSS 12th grade standards outline what college and career ready writing should look like, and thus what students beginning and enrolled in college should be able to do. The CCSS includes three genres of writing; however, persuasive, or argumentative writing, is the most commonly required genre of writing in college and careers (Wagner, 2011), and as such, should be prioritized in college writing instruction.

In college and career ready argumentative writing as outlined in the CCSS (National Governors Association & Council of Chief State School Officers, 2012), an introduction is expected to precisely state and clearly demonstrate the significance of a claim. The introduction should also outline a clear organizational pattern that the essay will follow as well as differentiate the writer's claim from other arguments or viewpoints. The expectations for the development of an essay are that the claim and counterclaims will be well developed with appropriate support and explanation, while considering potential characteristics of the readers. College and career ready writers are expected to construct cohesive essays by using specific transitional words and phrases to connect ideas and paragraphs as well as to make explicit the connections between claims, counterclaims, and their support. Finally, the conclusion should provide closure that logically follows and reinforces the argument that was developed throughout the essay. In order to meet these expectations and be college-level writers, students need the most effective instruction in order to learn what the expectations are and how to meet them.

Addressing Current Needs in Writing Through Evidence-Based Practices

Evidence-based practices are instructional practices that significantly improve student outcomes, and have been identified as such by several rigorous research studies meeting

specified guidelines for quality. When EBPs are carefully chosen to match the students' characteristics and needs and paired with effective teaching, they can often reduce the amount of unsuccessful practices that a teacher tries before finding an effective practice (Cook, Tankersley, Cook, & Landrum, 2008). EBPs may not, however, be the right fit for every student (Gallagher, 2004). College students with disabilities and CLD college students with disabilities need effective instruction to support their academic development and achievement in the face of dual challenges, and for this reason, using evidence-based practices as the foundation of instructional practice is a responsible and wise professional decision.

Evidence-based writing instruction. Extensive research on effective practices in writing have resulted in identifying the following practices as evidence-based: (a) strategy instruction: planning, (b) teaching grammar/usage, (c) strategy instruction: editing, (d) word processing, (e) prewriting activities, (f) sentence construction, (g) strategy instruction: paragraph construction, (h) self-monitoring (Rogers & Graham, 2008). These discrete practices should not be implemented in isolation, but rather in conjunction with each other to produce the desired outcomes (Danoff, Harris, & Graham, 1993). While not identified as an evidence-based practice, one high-quality study (assessed using quality indicators for single-subject research) (Horner et al., 2005), showed positive effects for Direct Instruction Expressive Writing for CLD students with disabilities (Viel-Ruma, Houchins, Jolivette, Fredrick, & Gama, 2010). It breaks down and introduces key elements of the writing process, and has students practice the discrete skills, including writing at the sentence and paragraph level as well as using a cycle of drafting, revising, and editing to refine their writing. These skills are presented in a focused and intentional manner and are repeated to foster mastery of the skills and the writing process

(Walker, Shippen, Alberto, Houchins, & Cihak, 2006). This method further supports the importance of the above evidence-based components, especially for CLD students with disabilities.

Self-Regulated Strategy Development. The majority of the above outlined evidence-based practices in writing are components in the SRSD intervention. SRSD is a multicomponent evidence-based practice in writing for students with disabilities that was created by Steve Graham and Karen Harris (Graham & Harris, 1996) through extensive research and review of the literature on effective practices in writing for students with learning disabilities. They argue that students need to be clearly taught strategies and then supported through their implementation resulting in the six steps of the strategy. The six steps are as follows: (a) Students are explicitly taught background knowledge; (b) the strategy is described to students in conjunction with an explanation of the purpose and possible benefits; (c) the teacher explicitly models the strategy; (d) students use a mnemonic device to memorize the strategy and steps involved in an effective writing process; (e) the teacher supports the students with appropriate supports as they implement the strategy; and (f) the students use the strategy independently (Graham & Perin, 2007). This process supports students to understand and manage the complex processes involved in writing, as well as to regulate their own behavior and motivation.

To establish SRSD as an evidence-based practice, 21 studies of kindergarten through 12th grade students with or at risk for learning disabilities were used (Baker et al., 2009). At present, there is limited research on using SRSD with college students. In fact, in a recent meta-analysis, only two such studies were identified, but due to not meeting inclusion criteria were not included (Graham et al., 2013). While not explicitly outlined as such, several aspects of SRSD are aligned

to culturally responsive instructional practices (see Appendix A for the SRSD alignment to culturally responsive elements).

Addressing Current Needs in Writing Through Culturally Responsive Instruction

Culturally responsive, or culturally relevant, education recognizes cultural gaps between home and school as part of the achievement gap and calls for increased cultural relevance in education to engage, support, and empower learners (Castagno & Brayboy, 2008). Cognitive Theory, which laid the foundation for much of the cognitive-behavioral theory, states that students learn more readily when prior knowledge is activated and connected to new information they are learning (Demmert, Grissmer, & Towner, 2006), hence supporting the importance of cultural relevance. In CREATE, this will be achieved through the inclusion of the seven standards for culturally responsive instruction, developed by The Center for Research on Education, Diversity, and Excellence (CREDE), which use interaction to emphasize cooperation while developing language and valuing the diversity and different contexts that students come from and are comfortable with (2004). These standards have also been shown to be effective in reducing referrals for special education services for CLD students in K-12 settings (Hoover, 2012).

The seven standards of culturally responsive instruction. Initially, there were five instructional standards for educating CLD learners through Culturally Responsive Instruction developed and tested by CREDE (Center for Research on Education, Diversity, & Excellence (CREDE), 2004) and supported by the What Works Clearinghouse (Appendix B). After the center moved from the University of California at Berkeley to the University of Hawai‘i at Mānoa, an additional two standards were added to meet the needs of Hawai‘i’s diverse students

as well as to address the needs of early childhood education (Center for Research on Education, Diversity & Excellence (CREDE) Hawai'i Project, 2015). The standards are: (a) Joint Productive Activity, (b) Language Development (Hawai'i Project: Language and Literacy Development), (c) Contextualization, (d) Challenging Activities (Hawai'i Project: Complex Thinking), (e) Instructional Conversation, (f) Modeling, and (g) Child [student] Directed Activity (CREDE), 2004; CREDE Hawai'i Project, 2015). The first five standards for effective culturally responsive instruction have been shown to improve academic outcomes, particularly for CLD students at risk for academic failure. For example, positive effects were found with diverse groups of students across the country including, Native Hawaiian, Navajo, Alaskan Native American, and Latino to name a few (Doherty, Hilberg, Pinal, & Tharp, 2003). Teachers' use of Joint Productive Activity was related to higher usage of effective reading strategies and subsequent gains on standardized tests of comprehension. Proficient English speakers as well as students learning English achieved at higher levels through the use of Instructional Conversations, and Contextualizing instruction has shown to positively impact organizing and remembering new information (Doherty et al., 2003). "The findings here suggest that transforming pedagogy is necessary for improving the achievement of ELL students, but it alone is not sufficient. Both pedagogy and organization must be transformed to maximize the effectiveness of the Standards for Effective Pedagogy" (Doherty et al., 2003, p. 18). This dissertation project was implemented in Hawai'i, whose population embodies many different cultures, so the inclusion of more diverse populations, Native Hawaiian in particular, in the testing of these standards may further validate their inclusion in CREATE in Writing.

Several components of culturally responsive instruction are already integrated into SRSD, but to best support CLD students, this framework will be more deeply and pervasively integrated into the intervention. CREATE extends this effective intervention with additional Common Core-aligned, culturally responsive elements to better meet the needs of twice-exceptional students facing the dual challenge of language development and disability.

Theoretical Framework

CREATE in Writing was designed by blending cognitive-behavioral theory, which SRSD is grounded in, and sociocultural theory, which has shaped much of the research in the field of second language acquisition. Cognitive-behavioral theory works on the assumption that learners, specifically unskilled writers, lack the sophisticated self-regulation strategies of skilled writers and the specific understanding of strategies involved in successful writing processes. Cognitive-behaviorists also assume that the cognitive process, behavior, and affective factors such as motivation are interwoven, and thereby, interventions should be designed to facilitate progression in each of these domains (Harris et al., 1992). When studying the characteristics of struggling writers, it has been noted that they experience challenges in these same areas of cognition; behavior, which often manifests as the lack of effective strategy use, and affect, which can be seen as lack of motivation or understanding of how to sustain difficult processes (Harris, Graham, & Mason, 2003). Interventions designed with a cognitive-behavioral foundation focus on specific instruction in discrete skills and processes.

Cognitive-Behavioral theory. Cognitive-behaviorist views of writing instruction focus on training students to learn and successfully use specific strategies in order to improve academic performance while supporting motivation and self-efficacy (Harris et al., 1992). This evolved

due to the success of behavioral interventions, yet dissatisfaction of the limited scope interventions targeting discrete skills and behaviors (Harris et al., 1992). The basic premise of cognitive-behavioral theory is that behavior and thoughts, or cognition are different, and that learning includes “(a) learning from direct experience, (b) social learning, and (c) cognitive and emotional mediation” (Hupp et al., 2008, p. 263). This expands on the behavioral model of learning and focuses on self-regulation within the individual student to improve performance.

Cognitive-behaviorism is rooted in the belief that in learners, the cognitive process, behavior, and affective factors such as motivation are interwoven, and that for this reason, interventions should be designed to facilitate progression in each of these domains (Harris et al., 1992; Hupp et al., 2008). In addition, the learners’ beliefs are seen as being of paramount importance to the success of the learning process, which is why self-management techniques, such as self-regulation are such an integral part of cognitive-behavioral learning approaches (Hupp et al., 2008). This interconnectedness can be seen in the self-regulation, or lack of, in students’ writing. When studying the characteristics of struggling writers, it has been noted, that they experience challenges in these same areas of cognition, behavior, which often manifests as the lack of effective strategy use, and affect, which can be seen as lack of motivation or understanding of how to sustain difficult processes (Harris et al., 2003). Cognitive-behavioral theory aligns to students’ challenges with writing as demonstrated in extensive research showing that learners, specifically unskilled writers, lack the sophisticated self-regulation strategies that skilled writers do, and additionally lack specific understanding of strategies involved in successful writing processes (Harris & Graham, 1999; Koutsoftas & Gray, 2012).

These cognitive-behavioral assumptions of the interplay of learners' cognitive, behavioral, and affective domains lead directly into assumptions of how the learning process does and should proceed. Self-regulation is one manifestation of the interdependence of cognitive, behavioral, and affective factors in proficient writers. Self-regulated students are able to be active participants in their own learning metacognitively and motivationally, and if this is done through the use of specific strategies and perceptions of self-efficacy it will encourage and sustain their performance and participation in learning activities (Zimmerman, 1989).

Sociocultural theory. Sociocultural theory, on the other hand, posits that all learning is socially mediated and knowledge is constructed through collaborative social interactions (Vygotsky, 1969). This connection between the construction of meaning through social interactions is evident in Vygotsky's (1969) notion of the Zone of Proximal Development (ZPD). The ZPD describes the range of complexity beyond what a child can do independently, but in which a child can be successful with the support or collaboration of an adult or more capable peer (e.g., scaffolding). Additionally, the application of sociocultural theory to writing instruction highly values developing the individual and the individual's culture in the process of writing (John-Steiner & Mahn, 1996), which can seem to run counter to the cognitivist practice of explicitly teaching skills and components of the writing process.

Blend of cognitive-behavioral and sociocultural theories. A focus on self-regulation and specific instruction to build student understanding of specific strategies is seemingly in contrast to the sociocultural theory that learning is socially mediated and developed through experience and collaboration with other more capable peers or adults, and not individual processes. Although the cognitive-behaviorist framework for learning emphasizes an

individualistic, self-directed view of learning, it is in alignment with social learning theory, which suggests that there is a reciprocal relationship not only between students' cognition and behavior, but also with their external social influences and models in their environment (Bandura, 1969; Kalkstein, Kleiman, Wakslak, Liberman, & Trope, 2016). This also clearly aligns with the idea of instructional scaffolding and more proficient peer models (based on the ZPD) to increase, through support, what the learner can do independently (Walqui, 2006) as well the importance of affective variables in learning such as motivation. In fact, cognitive-behavioral theory and related instructional approaches naturally build on social learning theory and the students' responses to the interventions and collaboration (Harris, Graham, & Pressley, 1992). If teachers can balance the added cultural dimension of students' sociocultural identities with supporting academic success, they will foster language learners to skillfully make meaning through writing. Implementing SRSD with an understanding of sociocultural recommendations for writing instruction for ELLs may be an excellent option for bringing together cognitive behavioral and sociocultural theories, and may be a framework for success in writing for ELLs with disabilities.

It is with this hope in mind that these two theories have been merged to build the foundation for CREATE in Writing and its key components, which are grounded in the use of EBPs and CRI. These elements underpin the SRSD strategy, and intentional and proactive supports are integrated into this this effective strategy through the culturally responsive framework, and as such, this provides strong promise for improved student outcomes in writing for college students with disabilities, and CLD college students with disabilities in particular.

Summary

This literature review provides background related to writing in regards to students with disabilities, CLD students, and CLD students with disabilities. The review is organized into three main categories of information related to writing, which are challenges, characteristics, needs, and a theoretical framework. The challenges reviewed include challenges that students with disabilities face when attending college and challenges that they, CLD students, and CLD students with disabilities face with academic writing. The characteristics explored include typical features of academic writing produced by students with disabilities and CLD students as well as their writing process itself. In addition, the characteristics of writing that are influenced by culture are also described. The current needs in writing instruction as well as using EBPs, specifically SRSD, through a culturally responsive educational framework to address those needs are also reviewed. Finally, a theoretical framework blending cognitive-behavioral theory and sociocultural theory is laid out. The goal of implementing CREATE in Writing is to try to use this theoretical framework enhanced by implementing the adapted EBP, SRSD, in a culturally responsive way to meet the needs and support the challenges that students with disabilities, CLD students, and CLD students with disabilities face in college-level writing.

CHAPTER III

METHODS

This dissertation studied the impact of the CREATE in Writing intervention on the writing of a select group of college students with disabilities, including CLD college students with disabilities, by investigating the following research questions.

1. For these participants, to what degree does CREATE in Writing improve their academic writing in:
 - a. the overall quality?
 - b. the fluency (number of words written)?
2. What are the perceptions and experiences of select participants with respect to how they responded to and felt about the writing intervention?

Design

To answer the research questions, a Mixed Methods Embedded Design (Creswell & Plano Clark, 2007) was used to examine the intervention's impact on the writing of college students with disabilities and how the students perceive the intervention and themselves as writers. A Mixed Methods Embedded Design situates one of the methods within the other in order to support and further clarify the results of the data, and one of the principles is that the supplementary, or embedded data, would not be meaningful if it were not in the context of the results from the primary design (Creswell & Plano Clark, 2007). In this study, the qualitative design was concurrently embedded within the quantitative design (also represented as, QUANT + qual), and the qualitative data supported the analysis of and added meaning to the qualitative results. In this study, I analyzed quantitative data from the participants' writing samples prior

to and after the intervention. In addition, I used qualitative methods, including semi-structured interviews with the students after the intervention, student questionnaires before and after the intervention, field notes during the intervention, and information from their written reflections (Maxwell, 2005).

The primary reason for using a mixed methods design in this study was to develop a deeper understanding of the data. Mixed methods designs have often been used to serve as verification or triangulation to lend more validity to study outcomes by using the results from one method with the results from another (Greene, Caracelli, & Graham, 1989). However, in addition to enhanced credibility that the complementary results provide, mixed methods designs may also be used to investigate ways in which results differ in interesting and meaningful ways (Brown, 2014). Students with disabilities and students who are culturally and linguistically diverse are highly individual in their challenges and responses to interventions due to their diverse backgrounds. For this reason, among others, a mixed methods design is the most effective way to allow for the examination of a variety of qualitative and quantitative data to look for commonalities as well as differences. In addition to examining these convergences and divergences, mixed methods designs also provide the opportunity for analysis and deeper understanding of data from one source by other data sources through elaborating, clarifying, exemplifying, and finally, interacting –using the interplay between the analysis of quantitative and qualitative data– through these techniques (Brown, 2014). Qualitative measures were essential in this study to obtain data on self-regulatory behavior and metacognitive strategies because most aspects of these behaviors are not observable. Qualitative data also provides the opportunity for participants to explain their perceptions and processes of the covert, or

unobservable behaviors and to provide explanation to inform analysis and categorization rather than only relying on the researchers' assumptions (Patrick & Middleton, 2002). In an embedded design, I collected and analyzed both quantitative and qualitative data concurrently. Pre- and posttest data are not sufficient to paint a full-picture of the impact of the intervention; therefore, qualitative data were used as a supplemental, supportive strand added to enhance the overall design. The most common embedded design is to embed qualitative data within an experimental design (Creswell & Plano Clark, 2007), but due to the small sample size and lack of control group, this study instead embedded the qualitative data within a quasi-experimental design. The embedded qualitative data were collected before the intervention (questionnaire), during the intervention (observations, field notes, and content analysis of participant work samples), and after the intervention was complete (questionnaire and interviews).

Participants

The participants in this study were selected using purposeful sampling with the goal to “deliberately examine cases that are critical for the theories that you began the study with” (Maxwell, 2005, p. 90). Purposeful sampling was used to ensure that all of the participants were college students with disabilities, and as such to allow an in-depth investigation with participants whose characteristics aligned to the central purpose of the study (Patton, 2002). Specifically, purposeful, intensity sampling was used. Intensity sampling involves purposefully selecting participants who “manifest the phenomenon of interest intensely (but not extremely)” (Patton, 2002, p.234), and in this study, the phenomenon of interest was college students with disabilities and CLD college students with disabilities making this the most appropriate method of sampling. Participants were recruited from a pool of college students with disabilities who had been

participants in a grant-funded series of workshops through the Pacific Alliance for Supporting Individuals with Disabilities (IWD) in STEM Fields Partnership (Pacific Alliance), a 5-year project housed at the Center on Disability Studies (CDS) at the University of Hawai‘i at Manoa and funded by NSF (HRD #09-29079). The aim of this project was to support students with disabilities in Science, Technology, Engineering, and Mathematics degree programs and future careers (Center on Disability Studies, 2012). A total of 184 incoming or current college student participants from the Pacific Alliance were invited to attend the summer writing workshop and received a stipend through the Pacific Alliance for doing so. Students self-selected, and all of the students participating in the intervention reported feeling that they needed additional support with writing. Students were invited to attend the workshop even if they had previously attended college-level English classes (English 100) and if they had complete part of all of a college degree if they still felt that their writing needed help. Applications were collected throughout the month of May and acceptance packets were sent out to registered participants in June. Fourteen college students signed up for the two-week workshop, and all were asked to participate in the study. Eleven students provided written consent for the study, but the three students who did not provide written consent still participated in all of the workshop activities with the exception of the interviews, and their data were not included in the findings. One of the participants discontinued the workshop after the first day due to health problems, so the study included ten participants total (Table 1). The participants consisted of six males and four females, and they ranged in age from 18 years old to 49 years old, some of whom had only recently begun college while others had completed many semesters of college and had even earned degrees and certificates. Five of the participants spoke a language other than English at home and for the

purposes of this study are described as culturally and linguistically diverse. The remaining five participants were also culturally diverse, but reported speaking only English in their homes. Eight had reached or completed a college level English class, but two were still at the developmental levels for writing in English 18 and English 21, which along with other courses below the English 100 level do not count towards their degree. Although some of the participants had reached the English 100 level, many of them had not successfully passed with a high enough grade. In the University of Hawai'i system, English 100 requires a grade of C or better (not C-) in order to be used as a prerequisite for upper-level college classes. The participants also had a range of disabilities, which they self-reported including Autism Spectrum Disorder (ASD), Attention Deficit Disorder (ADD) and Attention Deficit Hyperactivity Disorder (ADHD), Anxiety Disorders, Auditory Processing Disorder, Obsessive Compulsive Disorder (OCD), Learning Disability (LD), and Mental Impairment. In order to maintain confidentiality, pseudonyms have been used for all of the participants.

The participants varied dramatically in terms of their backgrounds and writing abilities. Of the five CLD students, their disabilities included ASD, ADHD, and LD. Three of the CLD students were 20 years old and two of them were 49 years old. The writing of all 10 participants was analyzed, but the five CLD students were selected for more in-depth analysis as case study participants.

Table 1

Participant Demographics

	Student	Gender	Age	College Semesters completed	English level	Additional Language Spoken at Home*	Disability
CLD Students	Drew	M	20	4	Eng 100	Chinese	ASD
	Makani	M	49	9	Eng 100	Pidgin	ASD
	Ikaika	M	49	12	Eng 100	Hawaiian	ADHD
	Arthur	M	20	2	Eng 100	Chinese	ASD
	Dahlia	F	20	4	Eng 21	Chinese	LD
Non-CLD Students	Roland	M	19	2	Eng 100	None	ADD, OCD, Anxiety Disorder
	Casey	F	20	4	Eng 18	None	Not specified, Anxiety
	Maggie	F	19	2	Eng 100	None	Auditory Processing Disorder
	Bella	F	49	10+	Eng 100	None	Mental Impairment
	Adrian	M	18	2	Eng 100	None	ADHD, ASD

CLD participants. Drew was a 20-year old male student who was a second-generation immigrant who spoke both Chinese and English at home with his family. He reported that he had been diagnosed with ASD, but while all of the other participants discussed their disabilities and resulting challenges, he did not. He completed four semesters of college and was a computer science major. He reached the level of English 100; however, had taken it twice unsuccessfully receiving an F on his first attempt and a C- on his second attempt, so because of the university requirement of receiving a C or higher, he will need to retake it again. He was very good at expressing his ideas both verbally and in writing, but had difficulty with the mechanics of handwriting, so preferred to type. He was always very quick to answer questions in class, and often requested clarification or checked to make sure that he was correct. He was very engaged throughout, but if he finished something early, quickly began working on creating electronic music on his computer, which was one of his passions. He prided himself on his success in

school, and worked very hard to develop relationships and make friends, which he became successful with towards the end of high school. He was very goal-oriented and sometimes felt that people underestimated his ability to reach those goals. As he described it, “Many people say that I am shooting for the moon, and it is not surprising to me that they believe it. It is because I want to accomplish great things through innovation in computer science. Most people think that such a goal will not be easy to accomplish, but I think that it just takes time.” In addition to this confidence, he also shared concerns that, “prior to participating in this workshop, I felt that my writing was very inferior to what others at my level were writing.”

Makani was a 49 year-old male student who reported that he spoke Pidgin (Hawai‘i Creole English) at home with his family when he was growing up and identified Pidgin as his first language. He reported that he had been diagnosed with ASD at an early age and often referred to it as a social disorder. He had just finished his Associate’s degree at community college, which included successful completion of English 100 and was preparing to transfer to a four-year university in the fall. He decided to attend college to pursue a degree in science to promote the medicinal use of native plants after working for 20 years in the restaurant industry immediately following high school. He was the first person in his family to attend college, and had been encouraged to enter the workforce immediately following high school instead of attending college. He described his childhood as, “not good at all, and maybe a little disturbing” due to having to cope with having ASD. He worked very hard and developed an extensive set of coping skills, such as looking at a spot on someone’s forehead instead of looking them in the eye in order to not miss non-verbal social cues. He also said that school had always been a challenge for him because of his disabilities, and at first, college was not different. He felt that he had to

teach himself different ways to learn because he did not learn the way that the other students were learning and being taught. After his first two semesters in college, he learned to advocate for himself and find resources that have helped him to find more success in college. He was working full time to support himself, and because of this worked very hard to develop time management skills. He was very easily distracted and often became frustrated if other students in the class were noisy or disruptive. Part of his frustration was that it was very hard for him to start again once he stopped and lost his train of thought. He was recently asked to present his science fair hands-on demonstration at a national conference. These successes made him very proud of himself and began to give him the confidence to believe that he could be successful in college.

Ikaika was also a 49 year-old male student who speaks Hawaiian at home with his one and a half year-old son. He described himself as having ADHD, which caused him to have a lot of difficulty focusing on his work and staying on task. After high school, he didn't attend college for many years, but had begun college a few years prior to this workshop and was taking community college classes to work towards professional certification as a medical laboratory technician. He had also successfully completed his English 100 requirement. In addition to reporting that he had ADHD, he also described struggling with learning and having a hard time remembering what he was supposed to do or what he had learned from previous instruction. He struggled to write and form letters from an early age, and felt that writing was still a long and arduous process for him. He struggled not just with what to say, but also how to form the letters and where to put the punctuation. He shared that struggling with his disabilities became harder as he got older, and eventually became overwhelming in high school "because the labels that

followed me through elementary and middle schools. Labels like you're "mental" or he's in the "slow" class. This led him to leave school and get his GED. He had always worked manual labor jobs, but after an injury, decided that "with nothing left to lose, ... why not try looking into college?" For these reasons, he felt that "trying to pursue a career in a STEM related field [which he was doing] was something that might be considered a little out of my reach," but, he was experiencing success in college and developing a love for science. He had to take a few semesters off for personal reasons, but was back in the medical laboratory technician program and working toward his goal at the time of the workshop.

Arthur was a 20 year-old male, first generation immigrant who spoke Chinese in the home with his parents. He had ASD and described himself as a "lone wolf." He successfully completed two semesters of community college, including English 100. He described in depth how his disability made him different from everyone else and as a result he felt that everyone bullied him, "despised" him, and refused to help him. Some of his behaviors that he described as not normal were wanting to stick his tongue out at times for no reason and giving people a "creepy" smile when it was not appropriate. For this reason, he preferred to be alone most times and did not ever ask for help even if he needed it. During the workshop, he went in and out of the classroom regularly and did not seem to be comfortable sitting for extending periods of time. He was very inquisitive and asked a lot of questions that seemed to clarify boundaries and expectations for him. For example, for almost all of the activities that we did in class, he would typically ask what would happen if he didn't do the activity or assignment. He did not ask the questions in a defiant tone, and always did all of the activities even though my response always was that he did not have to do it, but would not be able to improve as much if he did not

participate. He was pursuing a major in Computer Sciences and his goal was to have a job in which he would wear a suit, work at a computer, and attend important meetings. He described college as “an obstacle that I must breach, and to do that I must push forward and break limits. With all of the critical classes out of the way, I can surpass the limits of college.” He described his hardships and social isolation as the impetus to develop his own academic skills and independence in order to not need to rely on others.

Dahlia was a 20 year-old female student who spoke Chinese as her first language and spoke it in her home her whole life. She reported having a learning disability, and that this combined with struggling to learn English made school very challenging for her from elementary school through college. She had attempted four semesters of community college unsuccessfully, and was transferring to a different community college after being released from the college she had been attending. Her writing placement was in English 21, which is a developmental course two levels below English 100, which is college level writing. She struggled to learn English in elementary school and was always afraid of making mistakes or not being understood. At the beginning of the workshop, she was very shy and skittish, but became more comfortable and spoke more freely by the end of the workshop. Her goal was to get a degree in Culinary Arts, specifically pastry, and to open a bakery in Sydney, Australia. She said that this was her dream because she would like to make people smile when they ate her food.

Measures

The independent variable is defined as the CREATE in Writing intervention. CREATE in Writing introduced aspects of overall writing quality (development, cohesion, and introduction & conclusion of an essay) and grammar instruction (verb tense, subject-verb agreement, and

pluralization of nouns). To determine changes that occur following the intervention, two dependent variables were used: (a) overall writing quality, and (b) fluency, or number of words written. The overall writing quality was assessed using a researcher-designed holistic rubric (Appendix C), and fluency was measured by counting the number of words written during 30-minute periods.

The pretest measure consisted of a timed academic essay written in 30 minutes. Each subsequent writing assignment and the final posttest were also timed 30-minute academic essays. All students handwrote the 30-minute writing samples with the exception of Drew, who typed his writing. Although comparisons within individuals are often conducted using rigorous single case designs (Kazdin, 2011), the intervention in the present study was designed to explicitly teach writing strategies and develop language. Therefore, any design requiring a withdrawal, such as in an ABAB reversal design would not be appropriate because students can't unlearn what they have learned to have an appropriate withdrawal condition (Kazdin, 2011). In addition, because the summer writing workshop was a two-week intensive writing program for the participants, delaying the intervention for some, as is done in multiple baseline designs, would not have been ideal.

As in a single-group pretest-posttest design in which the pre- and posttest scores are compared for differences in outcomes within the individuals (Creswell, 2009; McMillan, 2008), each participant's scores were analyzed and described. In a single-group pretest-posttest design, "Each subject serves as his own control, and the difference between his pre- and posttest scores represents a stringent measure of the degree to which "real life" program goals have been achieved" (Gottman, McFall, & Barnett, 1969, p. 299).

Writing was assessed with a pretest, four writing probes during the intervention, and one posttest, for a total of six writing samples (Appendix D). Quality of writing was assessed with a holistic rubric and examined the (a) inclusion of an introduction and elements of the introduction, (b) inclusion of a conclusion and elements of the conclusion, (c) development, which includes the ability to attend to all criteria, and (d) cohesion and use of transitional devices. Fluency was assessed by calculating the number of words written in the 30-minute time period. Grammatical accuracy was assessed on the pretest, and the students averaged 1.3 verb tense errors with a range of 0-3, 0.4 subject-verb agreement errors and 0.6 noun pluralization errors both with a range of 0-2. Due to this limited number of grave (verb tense, subject-verb agreement, and pluralization of nouns) errors, continued assessment was not done or included in the analysis.

In addition, participants completed a pre-intervention questionnaire with demographic information and open-ended questions, which were used to assess their knowledge of the writing process and their feelings about themselves as writers. They also participated in a semi-structured interview after the intervention to assess any change in their knowledge and feelings about writing. The post-intervention questionnaire also assessed how they felt and what they liked about the intervention to help determine social validity. In addition, the researcher took field notes during the intervention noting challenges, frustrations, distractions, and successes of the participants. Field notes are an essential part of observing behavior, and in this study were taken about the day's session while participants were writing, during breaks, and after each session, so that note-taking did not interfere with the interaction with students (Patton, 2002). Reflections in their writing were also used to further illustrate changes in their perception of the writing intervention.

Writing quality. Overall quality of writing was measured using a holistic rubric. A large number of research studies have been used to establish the evidence base for SRSD (Baker et al., 2009), most of which focused on (a) overall writing quality as assessed using holistic rubrics, (b) fluency (number of words written), (c) number of elements included in essays (e.g. story elements or persuasive elements), (d) time spent planning (some evaluated the quality of the plans), (e) overall knowledge and use of writing strategies, and (f) self-efficacy (Baker et al., 2009). Some of the studies also included an additional revising component focusing on overall quality as well as grammar and mechanics (e.g., Graham & MacArthur, 1988). One other study also focused on word choice, in particular the use of action verbs, action helpers, and descriptive words (Harris & Graham, 1985). Similar to many of the high quality studies on SRSD and other writing interventions, this study measured overall writing quality and fluency. The overall writing quality was measured using a detailed researcher-developed holistic rubric that mirrors the CREATE instruction with explicit descriptors for each, so that participants could also use the rubric as a self-regulation and assessment tool.

The first measure, the holistic rubric, is organized into the categories (a) Introduction, (b) Development, and (c) Conclusion, which are aligned to the instruction in CREATE. (Table 2, Appendix C). The intervention includes instruction and practice related these categories. The introduction section of the rubric has three specific indicators with three possible points. The points for the introduction are for the inclusion of a thesis statement, the alignment of the thesis to the topic and essay, and the inclusion of a hook, or statement to engage the reader. The development section has 15 possible points, which are calculate through the three main paragraphs that students were expected to include in their essays. These points were for

Table 2

Holistic Rubric Scoring

Holistic Rubric Categories	Points
Introduction <ul style="list-style-type: none"> • Thesis statement (1) • Thesis states claim/ argument (1) • Engages the reader (1) 	3
Development <ul style="list-style-type: none"> • Topic sentence for each of the 3 paragraphs (3) • Reason/ argument in each of the 3 paragraphs supports the topic (3) • Reason/ argument in each of the 3 paragraphs has at least 2 supports (6) <ul style="list-style-type: none"> ○ Explain, expand, or provide an example • Each of the 3 paragraphs ends with a concluding/transitional statement (3) 	15
Conclusion <ul style="list-style-type: none"> • Final message (1) • Connection to the thesis (1) 	2
Total	20

including a topic sentence in each paragraph, the alignment of the topic sentence to the overall paragraph, sufficient support to expand and explain the idea, and a concluding statement or transitional statement to connect to the next paragraph. The conclusion section has two possible points for the inclusion of a final message and a connection to the thesis statement. The scores in these three sections result in scores from 0-20. For each writing sample (with the exclusion of the pretest), participants completed the self-assessment and received feedback using the holistic rubric.

A large number of research studies involving writing use and recommend the use of a holistic rubric in order to have a way to assess the overall quality of writing (Baker et al., 2009). The researcher-designed holistic rubric was pilot tested with other student groups prior to use for the study and was adjusted based on instructor and student feedback.

Fluency. Fluency was measured by calculating the number of words that each participant wrote during the 30 minute time periods. This demonstrates their ability to convert their ideas into words smoothly as well as their ability to develop their ideas and arguments in writing. This was assessed because the elaboration and development of ideas, as well as the ability to put ideas into writing, is challenging for both CLD students and students with disabilities as evidenced in their writing, which is typically lower quality and quantity than proficient writers (Baker et al., 2009).

Document review. In addition to the pretest and posttest, the participants completed four writing prompts during the intervention for a total of six writing samples. All of the writing prompts involved some self-reflection, so the document review involved reviewing and coding the content of their writing for themes related to their writing ability, self-perception as writers, and opinions about the necessity of writing in relation to their future goals. This information offered insight into challenges that they have faced with writing in the past as well as their motivation to improve their writing. In addition, the reflections created a more in-depth profile of the participants and their individual characteristics that also illuminated factors leading to their success or challenges with writing and the intervention.

Field notes. The researcher observed the participants' behavior and responses to the intervention each day during the workshop. Each day while they were writing, during breaks, and after the session, the researcher took notes about any challenges or confusion that they displayed and questions or comments regarding understanding. This provided more information on how the participants responded to different elements of the intervention. Some information won't be revealed simply through questioning because the researcher doesn't ask the right

questions or because the interviewee doesn't know how to answer a question (Blommaert & Jie, 2010), so the observations captured in field notes were essential for getting a clearer picture of participants' responses to the intervention.

Questionnaires and semi-structured interviews. An analysis of the characteristics of the participants was included to better understand changes in their writing performance. Participants completed a pre-intervention questionnaire including demographic information such as first language, length of time in the country, age, and English level (college placement test or highest level of class taken), disability, and accommodations received in school (Appendix E). This information is discussed in relation to their writing performance. Pre and post questionnaires, as well as a semi-structured interview after the intervention, and field notes were also used to assess how the participants felt about the intervention and themselves as writers and if that changed throughout the course of the intervention. In addition to demographic information, the open-ended pre-intervention questionnaire assessed participants' existing knowledge of the writing process and academic expectations of writing. The questions were adapted from questions designed to align to SRSD (Harris, Graham, Mason, & Friedlander, 2008), and additional questions were also added such as, "What kinds of writing do you think will be important for success in college and a future career?," "What are the steps in the writing process? (How do you prepare to write an essay?)," and "What should be included in an academic essay?." A scale of 0-100 was used for the closed response efficacy statements because smaller scales, such as a 1-5 Likert scale may miss differences in student perceptions, and as such a 100 point scale is a more accurate indication of students' perceptions (Bandura, 2006; Sawyer et al., 1992). Students ranked their perceptions of themselves as writers on the closed response efficacy

statements on both the pre-intervention and post-intervention questionnaire by responding to statements including, “When writing an essay, I know what I am supposed to include.” and “When writing an essay, I feel confident about my ability to do the assignment well.” (Appendix F).

The semi-structured interview was conducted with participants individually following the intervention to explore their opinions about the helpfulness of the intervention and how they liked it, as well as their use of the intervention (Appendix G). The semi-structured interviews and the post-intervention questionnaire include questions for social validity such as “Describe what you liked about the strategies.,” “Tell me about ways that the strategies helped you write better.,” “Tell me about any parts of the strategies that you would change.,” and “Tell me how you might continue to use the strategies in the future.” These questions addressed the importance and usefulness of the measure as well as how acceptable it was to the participants (Wolf, 1978). This is important because it gave insight into how the participants felt about how likely they were to continue using the strategy and how future students may perceive the strategy.

Intervention

The goal of CREATE in Writing is to develop students’ understanding of the expected components of academic writing as well as teaching them how to self-regulate and monitor their own progress. SRSD has been established as an evidence-based practice for students with learning disabilities (Baker et al., 2009), and some studies have also shown positive effects with students who are culturally diverse and students with speech and language impairments (e.g., De la Paz, 2001). SRSD outlines the expectations of organization and content for academic writing (Graham & Perin, 2007), and because cultural discourse patterns vary widely in different

languages, and especially in writing (Kaplan, 1966), culturally and linguistically diverse students with disabilities will benefit from explicit instruction on organizational and content expectations in writing. This is done in SRSD by teaching the students how to plan and organize their essays prior to writing, and they memorize this process through the use of the mnemonic POW (Plan, Organize, Write). In CREATE, to help students write at the college level, POW has been augmented to PO²WER (Plan, Organize, Outline, Write, Edit, Revise) (Appendix H). Additional text deconstruction is included to assist students in analyzing proficient essays for organization, structure, content, and the elements of academic writing. These samples were also used as a vehicle for explicit vocabulary and grammar instruction in academic vocabulary and grammatical forms relevant to the type of writing that they were developing.

In addition, genre specific writing requirements also vary culturally and in different contexts in college, and thus need to be explicitly taught to students (Prior, 2006), and in particular, college students with disabilities and CLD college students with disabilities. To support college students, CREATE focuses on argumentative, or persuasive essays, because to succeed in college, students need to be able to formulate, develop, and support arguments and not just present information or tell a story (Conley, 2008). In addition to the instruction on the introduction, development, and conclusion of an essay, the self-regulation techniques in SRSD of graphing the elements included in the writing also supported students to handle the demands of higher-level independent writing. While SRSD includes a variety of components that align with culturally responsive principles, additional linguistic supports are added to CREATE to support struggling writers and cultural and linguistic diversity. Culturally responsive strategies such as collaboration, contextualization, and additional modeling (CREDE, 2004) were also integrated to

maximize accessibility of the intervention for all students (see Appendix A for alignment of CREDE Standards).

SRSD is comprised of six stages, which make up the foundation for the CREATE in Writing. A comparison chart shows the components of SRSD and what was added in the development of CREATE in Writing (Table 3). CREATE in Writing, like SRSD, consists of a series of six stages, that follow the same progression of building background knowledge, describing the importance of the intervention, modeling use of the intervention, and then supporting guided and independent practice as well as helping students generalize the strategy to additional settings and tasks. The enhancements to SRSD that make up the CREATE in Writing intervention integrate effective practices for culturally responsive instruction to maximize the access and achievement college CLD students with disabilities. CREATE in Writing was developed in 2014 and pilot tested during a three-week, college summer bridge program and during a 16-week community college ESL writing course. The summer bridge program included 15 CLD high school students, all of whom had limited English proficiency, and two of whom self-identified as having a disability, and the writing course included 27 local immigrant English language learner students, two of whom had documented disabilities. Based on feedback from students and instructor observation some elements of CREATE were refined, and the revised form and measures were used in the present study.

Stage One: Preview It

The first component of SRSD is to Develop Background Knowledge, which entails assessment of whether students have the necessary requisite skills to implement the six stages, helping students build those skills, and a task analysis of the writing process. CREATE includes

Table 3

SRSD and Additional Components for CREATE in Writing

SRSD Components	+	Additional Components to = CREATE
1. DEVELOP BACKGROUND KNOWLEDGE <ul style="list-style-type: none"> • Identify requisite skills • Assess if students have skills • Help students develop skills • Task analysis 	+	1. PREVIEW IT <ul style="list-style-type: none"> • Pre-teach key academic and content vocabulary • Collaborate to identify students' strategy use and cultural expectations of writing • Create a welcoming classroom environment • Set clear expectations
2. DISCUSS IT <ul style="list-style-type: none"> • Explain benefits of strategy • Teach how & when to use • Emphasize effort & motivation • Describe self-monitoring 	+	2. DISCUSS IT <ul style="list-style-type: none"> • Contextualize learning by connecting students prior knowledge and strategy use to SRSD strategies • Foster student effort and motivation through support for student identity and affirmation
3. MODEL IT <ul style="list-style-type: none"> • Model thought process • Show how to perform steps • Demonstrate necessity of steps 	+	3. MODEL IT <ul style="list-style-type: none"> • Explicit instruction: academic & content vocabulary • Explicit instruction: language and grammar forms for the target genre • Explicit instruction on paragraph construction • Contextualize
4. MEMORIZE IT <ul style="list-style-type: none"> • Memorize mnemonics for steps & process <ul style="list-style-type: none"> ○ POW <ul style="list-style-type: none"> ▪ Plan, Organize, Write ○ mnemonic for persuasive & narrative 	+	4. MEMORIZE IT <ul style="list-style-type: none"> • PO²WER <ul style="list-style-type: none"> ○ Plan, Organize, OUTLINE, write, EDIT, REVISE • Collaborate to memorize & adapt for relevance
5. SUPPORT IT <ul style="list-style-type: none"> • Collaboratively use strategy • Use strategy charts & graphic organizers • Gradually increase goals • Provide feedback • Fade support to promote independence • Support use in different settings 	+	5. SUPPORT IT <ul style="list-style-type: none"> • Connect content to student experience & include higher order thinking • Collaborate to give peer feedback • Provide extensive opportunities for practice and timely feedback • Provide opportunity for self-expression, brainstorming, and planning • Provide experience writing with technology
6. ESTABLISH INDEPENDENT PRACTICE <ul style="list-style-type: none"> • Incorporate activities for maintenance & use of strategies in other settings 	+	6. USE IT <ul style="list-style-type: none"> • Connect to prior writing experiences • Promote individually and culturally relevant writing topics • Provide students collaborative writing opportunities • Include higher order thinking in writing • Provide flexibility and student choice in topic

Stage Two: Discuss It

Discuss It, stage two, entails discussing the strategy and teaching students when and how it can be applied. Also important is the focus on student motivation and effort as it applies to writing performance and self-regulation. In this phase, students are introduced to the self-regulated aspect of the strategy, and they begin to understand how to monitor their own progress through the writing process and check for inclusion of the required elements. The culturally responsive components of Contextualization (CREDE Hawai'i Project, 2015; Doherty et al., 2003) and making connections to students' prior experiences occurs through collaboration and identification of situations in which the students engage in goal setting or self-monitoring, formally or informally. Another critical element of the Discuss It phase is discussion of how culture and identity can be expressed in the writing process to foster student identity building and affirmation in local community and culture.

Stage Three: Model It

Model It, the third stage of SRSD includes explicit modeling of the strategy including teacher think-alouds to provide students with a model of proficient thought process for the writing expectations. The adaptations in CREATE add explicit modeling and clarification of grammar and usage as well as paragraph structure through text deconstruction. This supports struggling writers who may not be aware of the expectations for grammar and structure in English academic writing.

Stage Four: Memorize It

The next stage in the process is for students to Memorize It. This refers to the use of mnemonics to internalize the name for each part of the writing process as well as the parts of the

essay. The mnemonic, POW, represents the planning, organizing, and writing phases of the writing process. CREATE expands this phase to adapt to the needs of college students with disabilities to add, organizing ideas, outlining, and revising with feedback,, which results in the mnemonic PO²WER (Appendix H). CREATE focused on persuasive writing because that is the majority of the writing that students will be required to do in college. This helps students to understand what elements are required in academic writing and how they should be organized and structured both at the paragraph and essay level. The mnemonic for the required elements in a persuasive essay is TREE (Thesis statement/ Topic Sentence, Reasons, Explain/ Expand, Ending) (Appendix H). Students are taught that an essay should have a thesis statement that clarifies the purpose of the essay. At the paragraph level, this becomes a topic sentence, which focuses the content of each individual paragraph in an essay. Reasons reminds students to provide reasons and support for their ideas and arguments, and Explain/ Expand is to provide supporting details or explanation for their arguments and ideas. Finally, each essay should conclude with a sense of closure as should paragraphs that should also conclude with a transition to the next idea.

Stage Five: Support It

Support It is the fifth stage in which students begin using the practice with help from the instructor. This process follows the gradual release of responsibility model involving (a) modeling/ direct instruction, which is one of CREDE's standards for culturally responsive instruction (CREDE Hawai'i Project, 2015), (b) guided practice, and (c) collaborative and independent practice (Frey & Fisher, 2008). In this guided practice phase, the students also use the self-regulation goal-setting, and graphing techniques (Appendix I) to monitor their progress

through the writing process and check that they are implementing all necessary elements.

CREATE includes a more structured and strategic approach for providing comprehensive and timely feedback and revision. Students graph their progress on both the first and revised drafts for overall quality based on the holistic rubric, fluency, and grammatical error types. Students are provided with the holistic rubric at the beginning of each writing assignment and are asked to self-asses prior to turning in their essay (Appendix C). Again, adapting a Frey and Fisher model, a three part feedback cycle includes: (a) raising awareness of an element of writing (this is also a form of modeling); (b) providing explicit and focused feedback on that one target point, and (c) providing additional feedback as the students continue to practice (Fisher & Frey, 2009). This cycle is essential for developing language.

The three-part feedback cycle is implemented by providing explicit instruction on selected elements of writing and grammar (e.g. transitional devices or verb tense). After students write, they are provided with specific feedback in the form of editing marks on grammar. For example, after instruction on verb tense, the instructor highlights all of the verbs in the students' essays and mark "vt" above any that are in the incorrect tense. Any sentences missing verbs receive a carat (^) with a "v" above it. This allows the students to focus specifically on the error types related to the instruction that they just received. The students also receive feedback on the holistic rubric with specific comments related to the instruction. The students revise their writing and submit the new writing with corrections related to the feedback. They receive feedback again to see if they were able to revise correctly. At this point, the instructor provides the correction if the revision is not accurate.

Stage Six: Use It

The final stage, Establish Independent Practice, is the phase in which the instructor supports the maintenance and transfer of the writing process to other contexts through students' independent use of the strategies. This stage in CREATE is renamed Use It, to mirror the pattern of the names for the other steps, to model parallelism, and to facilitate memorization. In this stage, CREATE includes a focus on Contextualization (CREDE Hawai'i Project, 2015; Doherty et al., 2003) through student choice and connections through topic choices. In addition the CRI standard Challenging Activities (or Complex Thinking) (CREDE Hawai'i Project, 2015; Doherty et al., 2003), supports and requires higher order thinking skills such as analysis, evaluation, and synthesis in their writing. Evaluation, in particular, lends itself to students taking a topic and making connections and judgments based on their prior knowledge and experiences. Students graph their scores for each of these measures and set personal goals for the next writing assignments. They then receive targeted instruction and feedback to use to revise their writing. They also engage in collaborative text deconstruction, to analyze proficient texts and use them as models for how to write their own effective introductions and conclusions, how to develop and support their ideas well (development), and how to employ cohesive devices.

Procedures

The recommendation for SRSD to have a positive impact is eight to 12 lessons lasting 30 to 40 minutes (Harris et al., 2008) ranging from a total of 240 minutes to 480, or four to eight hours. Taking into consideration the added challenges faced by college students and CLD students with disabilities, this intervention was delivered in a two-week workshop in which participants met for three hours each day with one 15-minute break for five days both weeks.

The writing instruction occurred Monday through Thursday of each week with the last half hour on six of those days reserved for writing, resulting in eight sessions of the intervention for 135 minutes each of the six the days that they wrote essays, 165 minutes on one day that they did not write an essay, and 105 minutes on two days when one hour was used for a resume workshop and scholarship exploration activity respectively (See below and Table 4 for complete schedule). This resulted in an approximate total of 1,185 instructional minutes, or 19 $\frac{3}{4}$ hours. The intervention was delivered through readings used as models of writing and then essay topics related to the readings. All of the readings and writing topics were designed to help the participants develop their writing and themselves overall to be successful in college and beyond. The content included growth mindset (Mindsetworks, 2010), willpower (Walton & Dweck, 2011), taking initiative, skills for success in STEM fields, and participants wrote essays reflecting on this content as well as a personal statement, a scholarship application essay, and a resume that comprised an electronic portfolio for each participant at the end of the workshop. The resume is the only writing that was not in essay format, but it was used to support language development.

Week One

Week one, day one (Monday). On the first day of the summer bridge program, there was an introduction to the course and icebreakers to create the welcoming classroom environment needed to implement the intervention. The participants then completed the Pretest writing about their educational history and experiences with writing. This provided the researcher with additional background information as well as information on their use of verb tenses in English. The pretest was a timed 30-minute writing session. After a short break, the

intervention began with an explanation (Preview It) of the intervention, which is the first step in CREATE. Participants were taught key vocabulary and concepts that they needed to know to meet the expectations for academic writing. They also collaborated and brainstormed writing strategies that they had learned previously and were already using. After this, the benefits and application of the strategy were discussed and the graphing process for self-monitoring was introduced. The writing process was then modeled and the importance of verb tense in English was introduced. Then, they were introduced to the mnemonic PO²WER and TREE. Finally, they were given a short article on growth mindset to read for homework.

Week 1, day 2 (Tuesday). On the second day, the modeling started by deconstructing an article that the students had read for homework. Participants collaborated to identify and discuss the structure and included elements in the academic essay by completing an outline template aligned to the article. They spent a long time deconstructing the article, so instead of returning their pretests and risking overwhelming them, the essays were given back the following day. This meant that they did not graph their progress until the following lesson. After a 15-minute break, with the next writing probe, they collaborated to go through the PO²W part of the PO²WER process. They collaborated to Plan, by analyzing the prompt and determining what needed to be included and then Organized their ideas. Each participant then independently created an Outline using a template that is the same as the template that was used to deconstruct the text earlier in the day. Then, they were given 30 minutes to write their essay after which they completed the self-assessment.

Week 1, day 3 (Wednesday). The third day began with direct instruction on the structure of an introduction. Then participants collaborated to identify the elements of an

introduction (hook, thesis, and connection between the hook and thesis) through text deconstruction. They then practiced writing thesis statements for the essay they had written the previous day. After a 15-minute break, there was direct instruction on English verb tenses and usage. Participants then collaborated again to identify the verb tenses and usage patterns in the text. Finally, they received the essays that they had written the previous day as well as their pretest essays. With teacher modeling, they graphed their progress on both essays for overall writing quality based on the rubric score, fluency, and grammar error types. For each of these categories, they set goals for the next writing assignments. Finally, they worked on revising the essays. For homework, they read a short sample personal statement.

Week 1, day 4 (Thursday). The fourth day began with direct instruction on what a personal statement is, why students write them, and what should be included. This was an identified need for the participants and so was included to meet the objectives of the grant-funded program that the participants were all a part of. Then, participants collaborated to deconstruct the personal statement that they had read for homework, and they identified the academic structure as well as the content. They analyzed the introduction, including the hook and thesis statement, the development, including topic sentences, how ideas were explained and expanded, and transitional devices, and they also analyzed the conclusion. They took a break, and then once again collaborated on the planning and organizing parts of the PO²WER process, and then outlined and wrote independently. Again, they had 30 minutes to write their essays after which they completed the self-assessment. For homework, they read an article about 21st century skills and success in science, technology, engineering, and math (STEM) fields.

Week 1, day 5 (Friday). Friday of the first week began with participants receiving their personal statement essays from the day before with feedback. They then graphed their progress and set goals. Then they collaborated to deconstruct the article about success in STEM looking for academic vocabulary and strong verbs. They then participated in a resume building workshop where they reflected on the qualities and skills that they had been reading about and identified which qualities and skills they possess, and then made a chart of which skills they still needed to develop and how they planned to do so. They also analyzed sample resumes and completed their own resume template with their information. After a 15-minute break, participants went into a computer lab and learned the computer formatting basics, and typed their resumes. Resume building and computer basics were also included as identified needs of the students. Those who finished quickly used the remaining time to type their revised essays, which had received two rounds of instructor feedback. Their homework was to read a sample scholarship application.

Week Two

Week 2, day 1 (Monday). The first day of the second week began with explicit grammar instruction on subject-verb agreement followed by text deconstruction to analyze usage patterns. After that, participants received their essays with feedback, graphed their progress, and set new goals. Then, they explored different available scholarships and determined their eligibility and the scholarship requirements. They took their break during this activity and completed it after. The scholarship workshop was also included as an identified need of the students. Their homework was to read a second sample scholarship essay.

Week 2, day 2 (Tuesday). Tuesday of the second week began with collaboration to deconstruct one of the scholarship essays to analyze the structure. Additional direct instruction

on writing a strong introduction and conclusion was embedded in this activity. They took a break, and once again collaborated on planning, brainstorming, and organizing how to exemplify positive characteristics in their persuasive scholarship essay. They then outlined and wrote independently for 30 minutes after which they completed the self-assessment. For homework, participants read an article on taking initiative.

Week 2, day 3 (Wednesday). Wednesday of the second week began with direct instruction on cohesion in academic essays, specifically focusing on transitional devices. The participants collaborated to deconstruct the article on initiative for cohesion and transitional devices. After their 15-minute break, they graphed their progress, set goals, and revised their scholarship essays from the previous day. Then, they received the next writing prompt. The instructor prompted them to go through each step of the PO²WER writing process, but did not do it with them or have them collaborate in order to transition them to using the intervention independently. They then had 30 minutes to write their essay.

Week 2, day 4 (Thursday). On the fourth day of the second week, class commenced with a verb tense review and then the final grammar lesson on pluralization of nouns. Participants collaborated on a brief text deconstruction analyzing the noun patterns and then graphed, set goals, and revised their essays from the previous day. Following that, they took a break, and then completed the academic writing post-questionnaire. Finally, they wrote their 30-minute posttest without any reminders or prompting of the PO²WER writing process.

Week 2, day 5 (Friday). The final day of the workshop was conducted entirely in the computer lab to allow the participants to type all of their revised essays and end the workshop with an electronic portfolio. At the beginning of the class, the instructor gave a brief lesson and

resources on how to write a letter asking for a recommendation, and then how to write a thank you letter after receiving a recommendation or a scholarship. After the brief introduction and instruction, the instructor, with the help of one other instructor, conducted the individual interviews. The other instructor was the one who had done the implementation fidelity checks for the study, and as such was familiar to the participants. All participants completed the workshop with an electronic portfolio containing their work from the two weeks.

Implementation Fidelity

During the two-week workshop, implementation fidelity was measured daily through researcher self-reported fidelity checklists and on three occasions by an outside instructor. It is recommended in education research to measure implementation fidelity of both surface and quality (Gersten et al., 2005). Therefore, the outside instructor used an implementation fidelity checklist to document the surface implementation fidelity (Appendix J) and how well the procedures were implemented. The checklist was adapted from an observation protocol checklist (Echevarria, Vogt, & Short, 2004; Henk, Moore, Marinak, & Tomasetti, 2000), in which the observer scored a possible two points for each of the intervention procedures; two points if the step was implemented, one if it was partially implemented, and zero if it was not implemented. The percentage of elements of the intervention implemented are calculated to result in an implementation fidelity score (Gersten et al., 2005). In this study, the implementation fidelity was rated at 100% by the outside observer. Instructor field notes were also used to support in determining if the intervention components were also implemented during all of the other sessions and with quality, which is also essential to establishing a relation between the intervention and student outcomes (Gersten et al., 2005). The instructor self-reported moving the

Table 4

Intervention Schedule

Day	Schedule
Week 1	
Week 1 Monday	<ul style="list-style-type: none"> • Introduction; Pre-test-Educational History (Writing 1) • Academic writing pre-questionnaire • CREATE Intro; PO²WER
Week 1 Tuesday	<ul style="list-style-type: none"> • Instruction on essay structure • Text Deconstruction - structure – Growth Mindset • POWER; Writing 2 - Growth Mindset
Week 1 Wednesday	<ul style="list-style-type: none"> • Instruction on essay structure – focus on introduction • Text Deconstruction – structure • Instruction on grammar – verb tense • Text Deconstruction - grammar • Graph progress, set goals, revise writing 1 & 2
Week 1 Thursday	<ul style="list-style-type: none"> • Instruction on writing a personal statement • Text Deconstruction structure – Personal Statement • PO²WER; Writing 3 – Personal Statement
Week 1 Friday	<ul style="list-style-type: none"> • Graph progress, set goals, revise writing 3 • Instruction on academic vocabulary and grammar • Resume workshop • Computer Formatting; Type resume; Type revised essays
Week 2	
Week 2 Monday	<ul style="list-style-type: none"> • Graph progress, set goals, revise the 2nd draft essays • Instruction on grammar – subject-verb agreement • Text Deconstruction – structure and grammar • Scholarship overview and exploration
Week 2 Tuesday	<ul style="list-style-type: none"> • Text Deconstruction structure – Instruction/ review on introductions and conclusions, and overall essay structure • PO²WER; Writing 4 – Scholarship Essay
Week 2 Wednesday	<ul style="list-style-type: none"> • Instruction on cohesion & transitional devices • Text Deconstruction - cohesion & transitional devices • PO²WER – transition to independence; Writing 5 – Goal setting and future career success
Week 2 Thursday	<ul style="list-style-type: none"> • Review of verb tense and instruction on grammar – nouns • Text Deconstruction – grammar • Academic writing post-questionnaire • Independent planning; Writing 6 – Posttest Personal Reflection
Week 2 Friday	<ul style="list-style-type: none"> • Instruction on requesting a recommendation & thank you letter • Type revised essays and resume • Interviews

graphing part of the intervention to the next day on two occasions to avoid overwhelming the participants resulting in 98% implementation fidelity. The instructor made these adjustments because it has been suggested that responding to student needs can improve the effectiveness of an intervention more than rigid adherence to fidelity as long as the core elements are not altered (Harn, Parisi, & Stoolmiller, 2013). Finally, measures should be taken over time and regularly to establish that the fidelity measurements are an accurate representation of the instruction (Gersten et al., 2005), so implementation fidelity was measured three times during the two weeks, or 38% of the intervention sessions.

Scoring reliability. Interrater reliability was assessed on 35% of the pretest and posttest writing samples (i.e. 7 of 20 student writing samples) by photocopying the writing prior to giving feedback and having another instructor score the samples using the same rubric. The rater was given a sample of rubric and each component was explained in relation to a sample essay. The interrater asked clarifying questions to ensure that she understood the rubric. This instructor has used some of the same writing intervention materials in her instruction, and as a result easily understood with the explanation and questions asked. Initial interrater reliability was calculated at 83% with agreement on 116 out of 140 possible marks on the writing rubric. One measure of a high quality study is that interrater reliability, or interobserver agreement, is at least 80% (Horner et al., 2005), so this was determined to be an acceptable rate for the interrater reliability.

The additional four writing prompts were also scored by the researcher to provide feedback to the students and were included in the document analysis, but only the pretest and posttest were analyzed for interrater reliability. After providing feedback, the writing samples were then scanned again, so that any discrepancies between the raters, could have been discussed.

The scanned writing samples were stored on the researchers password-protected computer and hard copies in a locked drawer to ensure the safety and confidentiality of the participants' work.

Feedback on overall quality was given using the rubric and additional written comments as needed. The grammar feedback was provided by using editing marks for the elements of grammar included in instruction and explicit correction of other errors.

Interrater reliability was not calculated for fluency because it is simply counting the words written. The researcher administered all of the writing probes during the writing workshop. For each probe, the participants were given a prompt, which the researcher distributed and read out loud. They had thirty minutes to write, and all of the prompts were equivalent in terms of complexity and number of elements that they were required to address in their response. The complexity of the prompts were made consistent by ensuring that the prompts included the same number of cognitive demands, or elements that students need to address in their essay, so thus, required a similar amount of development. It is important to include both of these measures, because the quality of writing cannot be assessed without the use of a dynamic, holistic rubric; however, it alone is not enough because fluency is also an important area of writing in which college students with disabilities and CLD college students with disabilities need to improve.

Social validity. Subjective evaluation, or expert evaluation, can be used to determine if others also perceive the same change after an intervention (Kazdin, 2011). This method was used in the present study to determine if other college English teachers would evaluate their posttest results more highly than the pretest results, which would translate into the likelihood of improved performance in college-level writing classes. A community college faculty member

who has taught both English as a Second Language and English composition courses conducted a subjective evaluation of all of the CLD participants' essays using her own grading system to establish the grade the essays would receive at the English 100 level.

In addition, a qualitative approach was used to examine the process of any change in writing outcomes as well as individual profiles. This mixed method approach allowed both the quantitative outcomes of the pre and post writing and questionnaires as well as the qualitative description (from student writing and interviews) of the processes that demonstrated what students went through in the workshop to be studied (McMillan, 2008). Due to the highly individual nature of student disabilities and diversity, the qualitative data were used to illuminate factors related to the participants' performance as well as to investigate questions that arose. The qualitative information provided an in-depth look at characteristics and change and complemented the numerical data to give a more complete picture of the intervention and effects (Patton, 2002). Combining the quantitative with the qualitative information provided more balanced and useful results (Johnson & Onwuegbuzie, 2004) relating to the change in writing in connection to their individual characteristics. Through the interviews and post-intervention questionnaire, participants shared their thoughts and opinions of the intervention as well as established the social validity of the intervention.

Data Analysis

Quantitative methods. Due to the small sample size and extreme variability in participants characteristics and pretest scores, the data from the pre- and posttests were analyzed by using a non parametric repeated measures test (McMillan, 2008) to establish whether there was a difference between the pretest and posttest scores of the individuals (Ellis, 1999).

Different minimum sample sizes have been proposed for using parametric tests ranging from greater than 30 to greater than 10, so because this study included only 10 participants, a nonparametric measure was most appropriate (Corder & Foreman, 2014). In addition, the participants were not randomly sampled further increasing the likelihood of data that are not normally distributed (Johnson & Onwuegbuzie, 2004). This lack of normal distribution coupled with the small sample size led to the choice of the Wilcoxon Signed Ranks Test to test the significance of the differences between the pretest scores and posttest scores (Blair & Higgins, 1985; Corder & Foreman, 2014) on the quality and fluency measures.

In addition to these calculations for the CLD participants, the pretest and posttest quality and fluency scores were graphed for the CLD participants to provide a visual display of the data. The individual difference scores were also calculated for quality and fluency as well as for the quantitative measures on the pre and post questionnaires for all participants.

Qualitative methods. A combination of data analysis methods were used for the analysis of the questionnaires, field notes, writing samples, and interviews. All of the interviews were audio recorded and the researcher also took notes. All audio recordings were transcribed and used in combination with the interview notes, questionnaire results, and field notes to synthesize the information. Grounded theory drove the in-depth qualitative data analysis, so that patterns, categories, and themes, and relationships emerged through an inductive approach to coding (Patton, 2002). A form of marginal notes (Huberman & Miles, 1994) was used throughout the coding process to help create and maintain organization within categories, themes and examples from transcripts, questionnaire, and field notes. Following the recommendation of Creswell (2007), identified categories became themes and were used to group the information.

The identified categories were used to create a conceptually-clustered matrix (Miles & Huberman, 1984) in which the content of participants essays, researcher field notes, qualitative survey question results, and interviews were organized. This allowed data from this variety of sources to “cohere into columns” (Brown, 2014, p. 99) while juxtaposing the similarities and differences in separate rows for the individual students. Through this process, further subcategories also emerged that helped focus the overall results. A deductive analysis was then used to examine the applicability of the categories and any hypotheses that resulted from the initial analysis. To compare the different responses of the individuals, all of the data for each participant were compiled to create a case, including the comparison of their pre and post-intervention questionnaires. After creating a case for each participant, a cross-case analysis and comparative analysis were done to examine variations in individuals’ responses to the intervention as well as their perception of writing and themselves as writers (Patton, 2002).

Triangulation. The quantitative and qualitative data were integrated to paint a more complete picture of each participant’s response to the intervention because “it is common that quantitative methods and qualitative methods are used in complementary fashion to answer different questions that do not easily come together to provide a single, well-integrated picture of the situation” (Patton, 2002, pp. 556–557). The qualitative data sources themselves were triangulated to check for consistency by comparing the observations (recorded in the field notes), responses to the questionnaires and interviews, and content of the reflections. This triangulation of the data serves to improve the trustworthiness of the findings from the study.

CHAPTER IV

RESULTS

In this chapter, the research questions will be explored, and in this exploration, the stories of the participants will unfold through description from their essays, interviews, observations, and questionnaires.

Research Question 1. Overall Quality and Fluency of the Writing

1. For these students, to what degree does CREATE in Writing improve their academic writing in:
 - a. the overall quality?
 - b. the fluency (number of words written)?

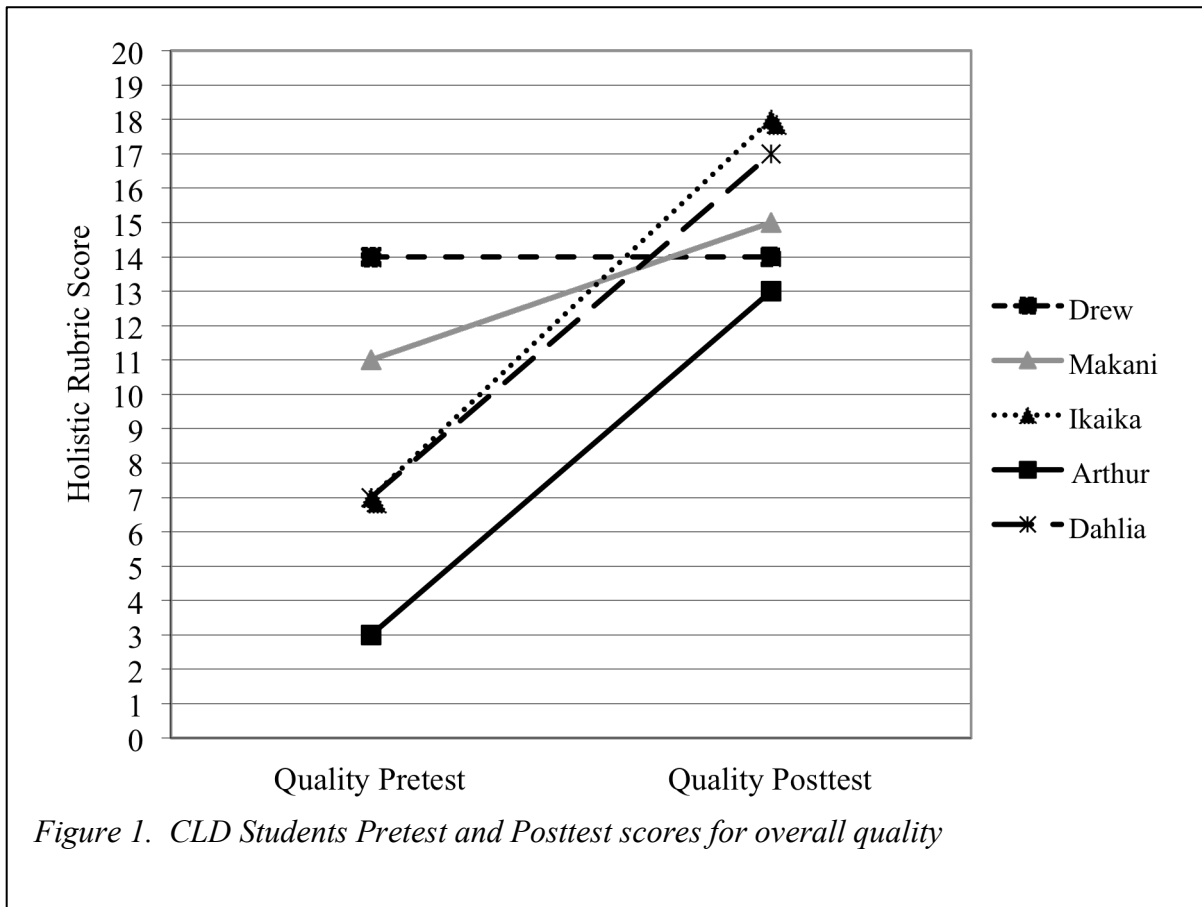
The overall quality was calculated using a 20-point rubric with descriptors for (a) inclusion and components of the introduction, (b) development, including all criteria and required elements or writing, (c) inclusion of a conclusion, (d) cohesion and use of transitional devices. The overall fluency, or number of words written, was also measured for each student (Table 5).

Table 5

Students' Pretest and Posttest scores for fluency and quality

		Quality			Fluency			
		Participant	Pretest	Posttest	Difference	Pretest	Posttest	Difference
CLD Students	Drew		14	14	0	300	345	+45
	Makani		11	15	+4	236	192	-44
	Ikaika		7	18	+11	173	196	+22
	Arthur		3	13	+10	115	149	+34
	Dahlia		7	17	+10	126	258	+132
Non-CLD Students	Roland		6	19	+13	184	218	+34
	Casey		12	18	+6	207	223	+16
	Maggie		9	20	+11	169	408	+239
	Bella		7	14	+7	149	202	+53
	Adrian		11	20	+9	208	268	+60

Overall quality. All of the participants improved the overall quality of their essays as measured by the rubric with the exception of one (Figure 1). Three participants had modest gains ranging from 4-7 points and six had large gains ranging from 9-13 points on the 20-point scale. The one who did not improve had a pretest score of 14, which was the highest for all the participants and he scored a 14 again on the posttest. His ideas were better developed and more cohesive on the posttest; however, he didn't finish.



Visual inspection of the data for the CLD students shows no change for one student and accelerating slopes for the other four students (Figure 1). The visual inspection of the data for the non-CLD students showed accelerating slopes for all five students with two of the students experiencing a possible ceiling effect with scores of 20 (Figure 2).

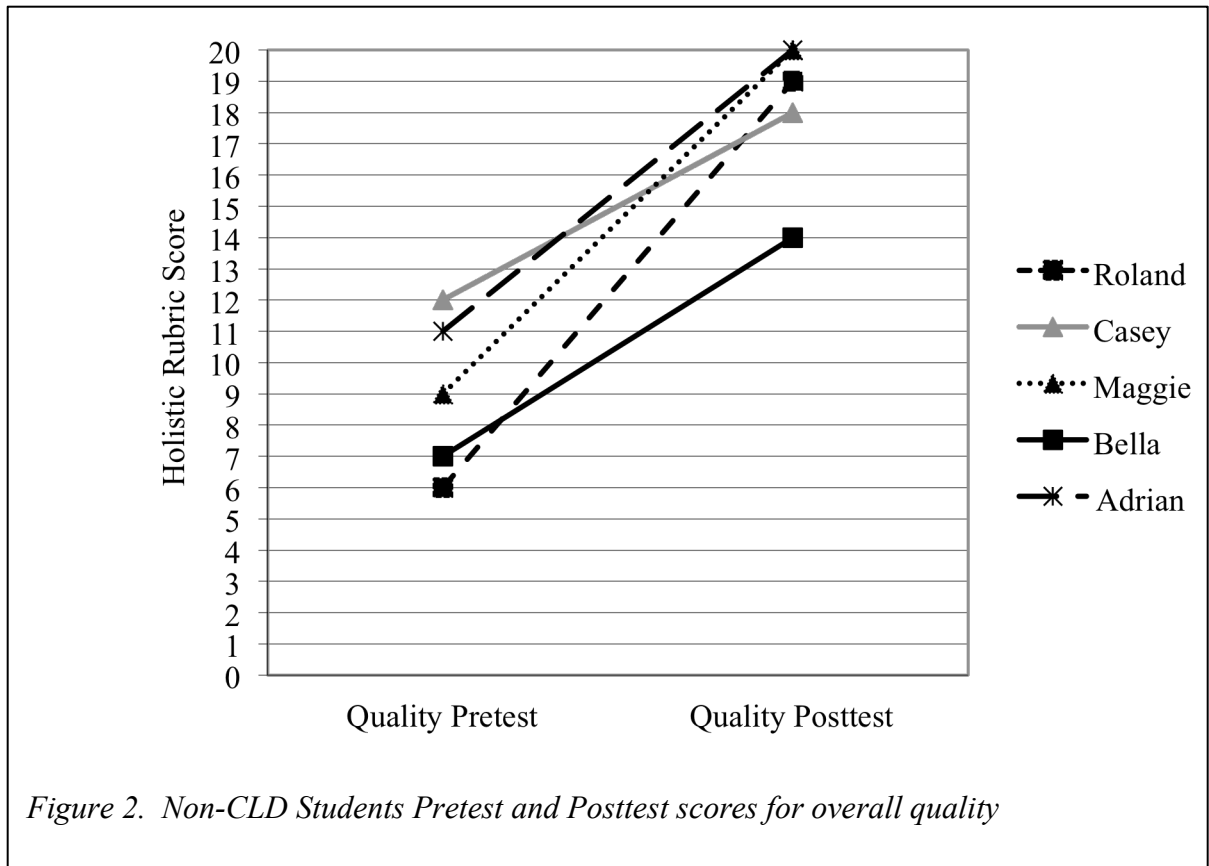


Figure 2. Non-CLD Students Pretest and Posttest scores for overall quality

The Wilcoxon Signed Ranks Test was conducted to determine if the participants' posttest scores were significantly higher than their pretest scores. Based on this test, we can reject the null hypothesis that the mean difference between the pretest scores and the posttest scores were equal. The test indicated that the quality posttest scores were statistically significantly higher (Mdn = 17.5; range 13-20) than the pretest scores (Mdn = 8, range 3-14), $z = -2.67, p = .008$. The magnitude of change can be seen in the range of the scores. On the pretest, the scores ranged from 3-14 and on the posttest, the scores ranged from 13-20, making the lowest score only one point lower than the highest score from the pretest. So, all but one of the posttest scores was higher than all of the pretest scores for all the students. The formula $r = \frac{z}{\sqrt{N}}$, also expressed as $r = \frac{z}{\sqrt{N_1+N_2}}$ was used to calculate effect size (Corder & Foreman, 2014; Green, 2013). To

determine the N for a Wilcoxon Signed Ranks Test, the number of observations are counted, but any matched pairs with a zero difference score, or tie, should be deleted (Green, 2013; Ott & Mendenhall, 1994). Thus, in this study there were 10 participants, so $N = 18$ for quality because one matched pair had a zero difference score, but the fluency $N = 20$ because there were no matched pairs with a zero difference score on that measure. Cohen's (1988) definition for the strength of effect sizes (ES) can be used to determine the ES for the results of a Wilcoxon Signed Ranks Test as well as its parametric equivalent (Corder & Foreman, 2014; Green, 2013). According to Cohen (1988), an ES greater than or equal to 0.5 is considered to be a large effect (Corder & Foreman, 2014); therefore, in this study, the effect size for quality was large ($r = 0.63$).

Overall, the element with the most improvement was the inclusion of the thesis statement with only two participants including this element on their pretest, but all 10 participants included one on the posttest (Table 6). The element with the least improvement was the conclusion. On the pretest, only one participant included a complete conclusion, five included some form of concluding statement, and four did not have any conclusion. In contrast, four participants were able to include a complete conclusion on the posttest, four included some form of concluding statement, and two did not include any conclusion. Of the two who did not include a conclusion, one of them reported that he did not have time to finish. Another student reported that he did not have enough time to finish, but when he had only a few minutes left, he added a concluding statement, so received one point. Four out of the five CLD participants improved their scores on overall quality. Drew had the strongest pretest of the group and included 14 out of 20 points in his essay, and this did not increase on the posttest. His pretest writing was well thought out and organized into paragraphs; however, he did not include transitions between ideas and paragraphs.

His ideas were all related to the writing prompt, but his writing lacked cohesion and clear connections between ideas and phrases to show how ideas were related to each other. He

Table 6

CLD Students Pretest and Posttest scores for each element on the quality rubric

	<i>Introduction</i>	<i>Topic Sentence</i>	<i>Alignment to Criteria</i>	<i>Explanation & Expansion of idea</i>	<i>Transitional Statements</i>	<i>Conclusion</i>	<i>Total</i>
<i>Student</i>	<i>Introduction</i>	<i>Development</i>			<i>Conclusion</i>		
Possible Points	3	3	3	6	3	2	20
Drew pretest	3	2	2	3	1	1	14
Drew posttest	3	3	2	4	2	0	14
Change	0	1	0	1	1	-1	0
Makani pretest	1	2	2	4	2	0	11
Makani posttest	3	2	2	4	2	2	15
Change	2	0	0	0	0	2	4
Ikaika pretest	3	0	1	2	0	1	7
Ikaika posttest	2	3	3	6	3	1	18
Change	-1	3	2	4	3	0	11
Arthur pretest	0	0	1	1	1	0	3
Arthur posttest	3	2	2	4	2	0	13
Change	3	2	1	3	1	0	10
Dahlia pretest	0	0	3	3	0	1	7
Dahlia posttest	2	3	3	6	2	1	17
Change	2	3	0	3	2	0	10

reported in his interview, that he would just write “off the top of his head,” which would sometimes result in chaotic and undeveloped or underdeveloped ideas. He stated that learning the writing strategies in the workshop helped him to structure and plan his essays so that they were more organized. This was seen on his posttest because he marked each part of the topic

that he needed to write about and then spent time planning each part before beginning to write (Figure 3). His ideas were much more clearly connected and more cohesive with stronger transitions. He was not able to complete his essay in the time frame, so did not receive points for incomplete sections, which may be why his quality score did not improve. His planning sheet shows, however, that he had planned all of the elements with the exception of the conclusion, and the overall quality improved. The improvement in quality is apparent because he included an introduction, development, and conclusion on his pretest resulting in the 14 point score. However, in the posttest, he added in transitions and structured his introduction better, there is even evidence that he planned a hook to engage the reader, and the additional points for those quality elements offset the missing conclusion allowing him to score 14 points again on the posttest.

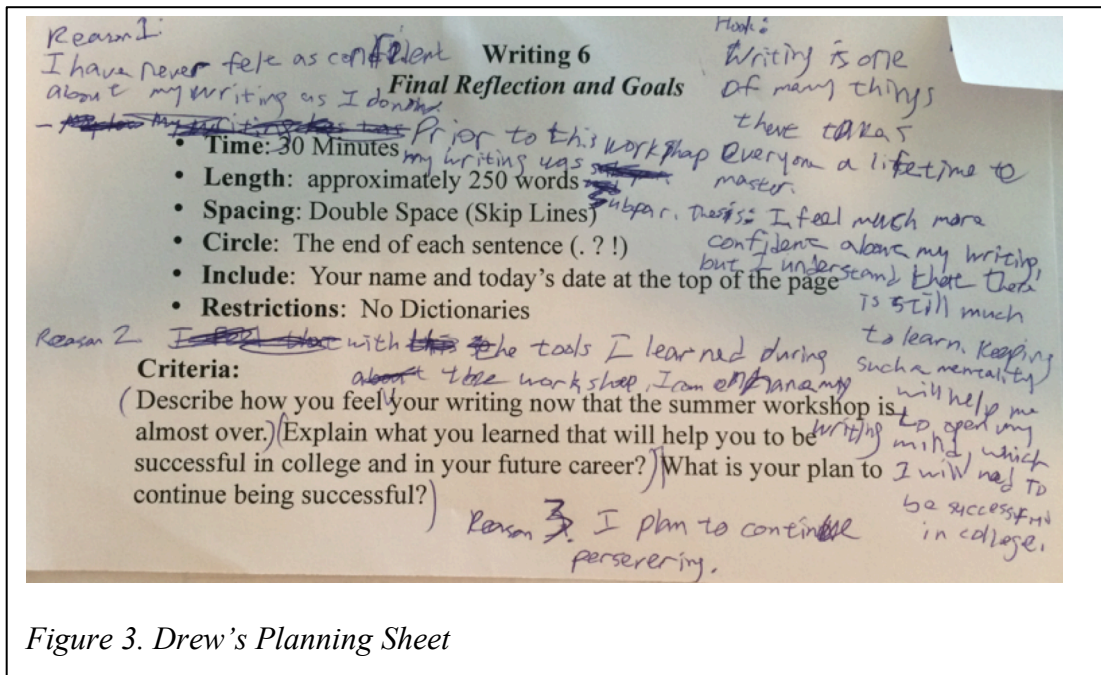


Figure 3. Drew's Planning Sheet

Makani also was not able to finish in the time frame, but increased his score from 11 to 15 on the posttest. In the pretest, Makani had a hard time generating and developing ideas and

reported that he “got stuck” a lot. This resulted in him not writing about all parts of the topic, and he also did not include a conclusion. Oftentimes when he had a hard time thinking of an idea, he just stopped and was not be able to figure out how to continue without help and prompting. He also struggled to connect his ideas and use transitions. Even though he wrote less in his posttest essay, the ideas he did write about were much more developed and included clear transitions between his ideas. These elements were lacking initially and are part of the increase in his posttest score. Also, he planned his posttest essay before starting to write, so when he was stuck or became distracted (at one point he had a brief conversation with one of the visitors to the classroom), he was able to remember what he had been writing about and continue without prompting. He started by numbering the parts of the topic as we had practiced, and then wrote an outline. In his posttest essay, he included a well-developed introduction with a clear thesis, which his pretest essay was lacking. In his posttest, he also did not write about one part of the topic, but he had planned to, and made a note that part was “missing.” He did, however, make sure to include a conclusion with a strong final message related to the topic.

Ikaika more than doubled the number of points for overall quality on his posttest essay from seven to 18, even with the distraction of having his baby there while he was writing the posttest. The writing on his pretest essay lacked organization and focus, and while his basic grammar was good, he wrote very long sentences with many ideas that sometimes became unclear. In addition, he only wrote about one part of the topic, and most of the essay was not focused on the topic. His posttest essay, however, included nearly all of the required elements and was very well organized. His introduction and conclusion both would have benefitted from a clearer connection to the overall topic, but he wrote about all parts of the topic, introduced each

of the paragraphs clearly, and ended each with a smooth transitions to the next idea. His writing also was much clearer and well developed, and he did not combine too many ideas in his sentences. He also took time to plan before beginning to write, and as he got distracted, referred back to his planning sheet to help himself continue and “get back on track.”

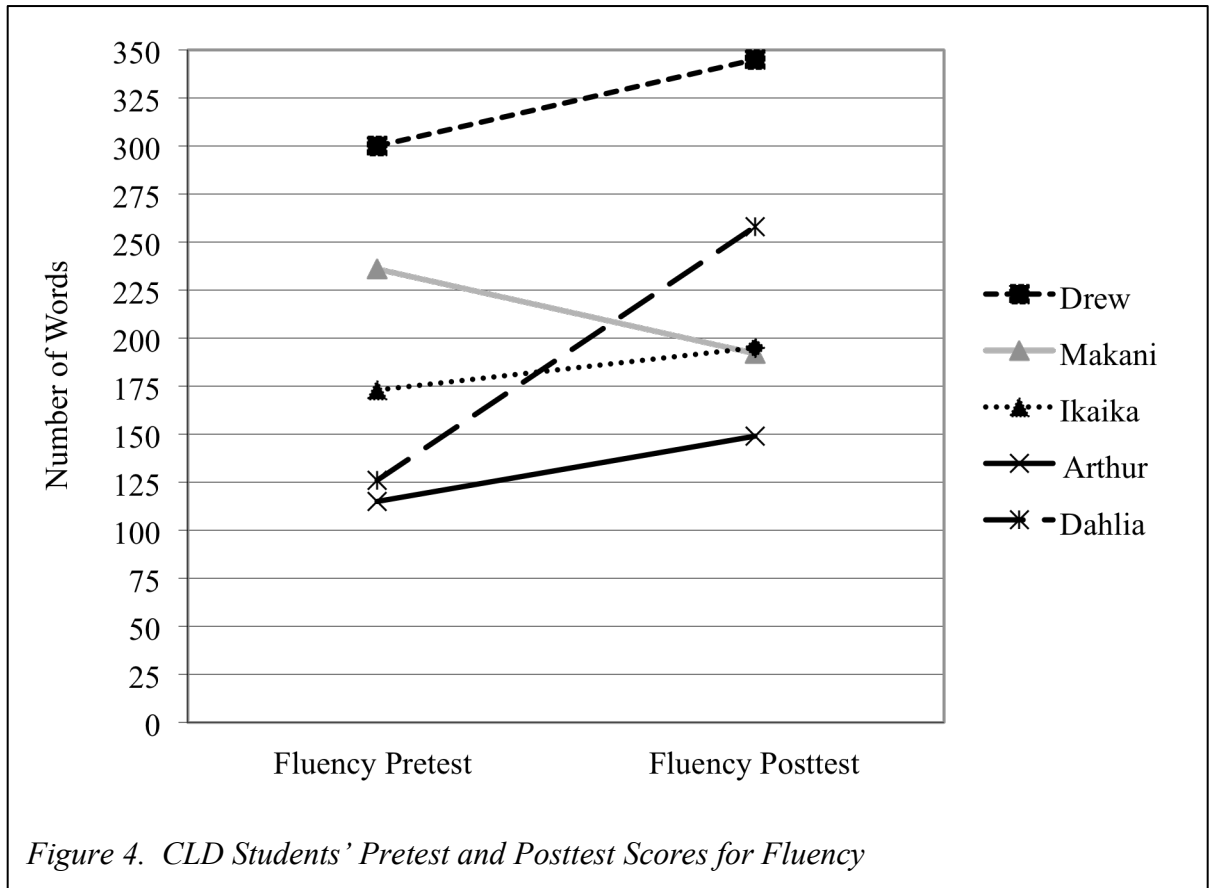
Arthur also made big improvements on his posttest writing increasing his overall quality score from three to 13. In his pretest, Arthur did not organize any of his ideas into separate paragraphs, and did not write about the topic. He wrote a string of very simple sentences and did not develop his ideas. In addition, he did not include an introduction or conclusion to his essay. Initially, he left the room when it was time to write, and then returned three minutes later. He then wrote for about seven minutes, following which he crossed his arms and sat for five minutes. After that he wrote for about seven more minutes and then turned in his paper before the time was up. In the posttest, Arthur remained more focused on his writing and was able to improve in spite of the fact that he had a new set of braces put on his teeth the day before the posttest and was in a lot of pain. He was repeatedly stretching out his mouth and drinking cold water out of the fountain to try to relieve some of the discomfort. Even though this was distracting to him, his whole posttest essay was focused on the topic. He did omit one part of the topic and a conclusion; however, all of his ideas were organized into distinct paragraphs with an introduction and transitions to connect the paragraphs. He also included very clear transitions and connections between his ideas, which were much more developed than in his first essay. For example, he connected sentences in his final essay with the cohesive technique that we studied of repetition and connection to previous ideas with reference words (i.e., this); “With this knowledge, my mind will continue to grow. This growth will aide me in my work on surpassing

college...” [underlining added]. In addition, his writing throughout the workshop began to take on a more poetic and creative tone.

Dahlia wrote one paragraph with simple sentences for her pretest essay. She did not include an introduction or conclusion, and did not develop her ideas. After 20 minutes, she left the classroom and didn't return until the writing was finished. For the posttest, she wrote for the entire time and improved from a score of seven for overall quality on her pretest to 17 on her posttest. She shared in her interview that she had never been taught how to write before and so didn't know how to organize her ideas. For her posttest, she first underlined and numbered the different parts of the prompt, which we had practiced, and then used a separate piece of paper and wrote a detailed outline including an introduction, three separate paragraphs for her ideas and support for each part of the prompt, and a conclusion. In this writing, she followed her outline and organized her ideas into separate paragraphs with an introduction to start and a conclusion at the end. Her introduction and conclusion could both have been a little more focused on the topic, but their inclusion was an improvement. Each paragraph in the posttest also included development of her ideas, which had been lacking in her pretest essay.

Fluency. Nine of the ten students in both groups (CLD and Non-CLD) increased their fluency score from the pretest to the posttest. Four students had modest fluency gains ranging from 16-34 words, three students had moderate fluency gains ranging from 45-60 words, and two students had large fluency gains with an increase of 132 and 239 words. These two students made gains so large that they increased by 205% and 240% respectively. Their increases in fluency were greater than the total number of words that they each wrote on the pretest.

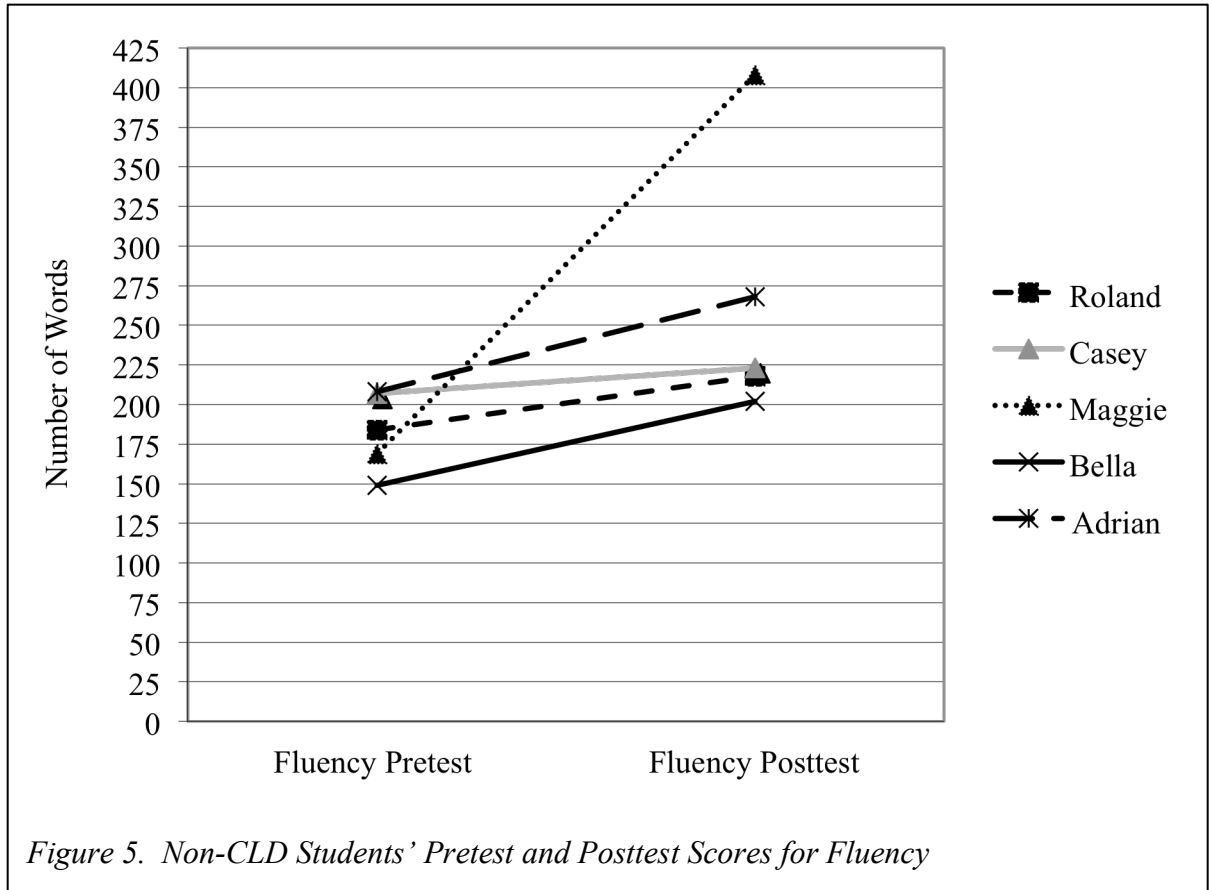
The visual inspection of the fluency scores for the CLD students are accelerating for four of the students, but the slope of one of the students' fluency is decelerating (Figure 4). The visual inspection for the non-CLD students' fluency scores shows all of their lines accelerating, one with a dramatic increase from 169 to 408 (Figure 5).



The Wilcoxon Signed Ranks Test was also used to reject the null hypothesis that the number of words written on the pretest and posttest were the same. This test also indicated that the fluency posttest scores were statistically significantly higher (Mdn =220, range 149-408) than the pretest scores (Mdn = 178, range 115-300), $z = -2.29, p = .022$. The same formula was used to calculate the effect size as was done with the quality scores, but there were not equal matched

pairs for fluency, so for fluency, $N = 20$ was used. The effect size for fluency was also large ($r = 0.51$).

Four of the five CLD students improved their fluency on the posttest. Makani's fluency did not improve and actually decreased by 44 words on the posttest. However, the development of the ideas that he did write about improved noticeably. There were a few distractions during



the posttest such as two babies and two adult visitors to the classroom, and Makani reported that he was distracted and had a hard time returning to focus on his writing that day. Ikaika increased his fluency and the development of his ideas, but one of the babies in the class that day was his, so he stopped writing several times to attend to him instead of writing, which may have factored in to his fluency not increasing as much as some of the other students'. Although there were

distractions during the posttest that were not present during the pretest, college classrooms are rarely free of distractions, so it may provide a more accurate representation of how the students will be able to apply the strategies and write in their college classes.

Research Question 2. Perceptions and Experiences

What are perceptions and experiences of the different college students with disabilities with respect to how they responded to and felt about the writing intervention?

Participant perceptions of writing and the intervention. The pre-intervention and post-intervention questionnaire included six statements related to the students' perception of their writing ability and themselves as writers. Students rated themselves on a 100-point scale in which 0 represented "No!," 10 "Not Sure," 40 "Maybe," 70 "Probably," and 100 was "Definitely!." Many of the students had large increases in their scores related to their writing ability and understanding expectations, but the largest change was in their confidence about themselves (Tables 7, 8, 9, & 10).

One of the non-CLD students; however, did not increase on any of the indicators and decreased on one. Based-on observations and the types of questions that this student asked throughout the workshop, it is possible that she did not understand the questions. This is also supported by her interview, in which she had difficulty answering and seemingly understanding the questions. In addition, Arthur, one of the CLD students, rated himself a 70 on every element of the pretest and a 90 for every element on the posttest. It looks as though he did feel an increase in his abilities and confidence, although since all of the answers are the same, it is hard to say if these are a general holistic rating that he applied or if he was actually rating each individual statement.

Table 7

CLD Students' Pre-intervention and Post-intervention Questionnaire Summary Results

CLD Students						
Question Focus	Writing Ability	Word Generation	Understanding Expectations	Organization	Academic Vocabulary	Confidence
Student	Q1	Q2	Q3	Q4	Q5	Q6
<i>Drew Change</i>	+30	0	0	+10	+10	+60
<i>Makani Change</i>	+60	+60	+70	+60	+60	+70
<i>Ikaiaki Change</i>	+20	+30	+30	+30	+30	+20
<i>Arthur Change</i>	+20	+20	+20	+20	+20	+20
<i>Dahlia Change</i>	+30	+30	+60	0	+10	+80

Table 8

Non-CLD Students' Pre-intervention and Post-intervention Questionnaire Summary Results

Non-CLD Students						
Question Focus	Writing Ability	Word Generation	Understanding Expectations	Organization	Academic Vocabulary	Confidence
Student	Q1	Q2	Q3	Q4	Q5	Q6
<i>Roland Change</i>	+40	+30	+50	+30	+40	+40
<i>Casey Change</i>	0	0	0	-30	0	0
<i>Maggie Change</i>	0	+10	+50	+60	+10	+40
<i>Bella Change</i>	+30	+10	+20	+20	+50	+20
<i>Adrian Change</i>	+20	0	0	+30	0	+10

Table 9

CLD Students' Pre-intervention and Post-intervention Questionnaire Results

CLD Students						
Question Focus	Writing Ability	Word Generation	Understanding Expectations	Organization	Academic Vocabulary	Confidence
Student	Q1	Q2	Q3	Q4	Q5	Q6
Drew Pre	40	90	90	60	60	10
Drew Post	70	90	90	70	70	70
Change	+30	0	0	+10	+10	+60
Makani Pre	10	0	10	0	0	0
Makani Post	70	60	80	60	60	70
Change	+60	+60	+70	+60	+60	+70
Ikaika Pre	20	10	0	10	0	10
Ikaika Post	40	40	30	40	30	30
Change	+20	+30	+30	+30	+30	+20
Arthur Pre	70	70	70	70	70	70
Arthur Post	90	90	90	90	90	90
Change	+20	+20	+20	+20	+20	+20
Dahlia Pre	40	10	10	40	50	0
Dahlia Post	70	40	70	40	60	80
Change	+30	+30	+60	0	+10	+80

Table 10

Non-CLD Students' Pre-intervention and Post-intervention Questionnaire Results

Non-CLD Students						
Question Focus	Writing Ability	Word Generation	Understanding Expectations	Organization	Academic Vocabulary	Confidence
Student	Q1	Q2	Q3	Q4	Q5	Q6
Roland Pre	40	40	30	40	40	40
Roland Post	80	70	80	70	80	80
Change	+40	+30	+50	+30	+40	+40
Casey Pre	40	0	100	40	10	100
Casey Post	40	0	100	10	10	100
Change	0	0	0	-30	0	0
Maggie Pre	70	70	50	40	60	50
Maggie Post	70	80	100	100	70	90
Change	0	+10	+50	+60	+10	+40
Bella Pre	70	70	70	70	40	70
Bella Post	100	80	90	90	90	90
Change	+30	+10	+20	+20	+50	+20
Adrian Pre	80	90	100	70	90	80
Adrian Post	100	90	100	100	90	90
Change	+20	0	0	+30	0	+10

First, students were asked to rate themselves on the statement, “I can write good academic essays in English.” All of the CLD students increased their scores between 20 and 60 points, with Makani having the biggest increase from an initial score of 10 to a posttest score of 70. Two of the non-CLD students didn’t report any change, and the other three

increased between 20 and 40 points. On average, the non-CLD students had higher pre-test scores than the CLD students, with the exception of Arthur, who as described, rated himself a 70 for every question.

The second statement asked students to think about “When writing an essay, it is easy for me to think of the words that I want to say.” All of the CLD students except Drew increased between 20-60 points on this item. Drew had a very easy time generating ideas and starting to write. He shared in his interviews that he would usually just write “off the top of his head,” so coming up with ideas was not difficult, but he felt that his writing was lacking in other areas.

Makani had the biggest increase on this question with 60 points, which could be in part because coming up with ideas and staying focused on those ideas were two of his biggest challenges, which he discussed in his interview. He shared that learning the strategy and a method for organizing and outlining his ideas before beginning to write helped him to understand what he needed to include in his essay, and this may be part of the reason for his increased confidence on this aspect of his writing. The non-CLD students ranged from no increase to a 30-point increase. One of the students who didn’t increase rated herself with a zero both times, and the other rated himself with a 90 each time. The student who rated herself with a zero didn’t appear to have difficulty thinking of what she wanted to say, but often wrote about the same topics and did not align to the assigned topic. She may have not understood the question or her rating could have been related to the fact that she often didn’t seem to understand the assignment even though she could write her ideas down fluently and without appearing to get stuck. The student who rated himself with a 90 was a strong and confident writer to begin with, which is

evidenced by the fact that his lowest pretest score was a 70, so he did not have much perceived room for improvement.

The third statement, “When writing an essay, I know what I am expected to include” showed large increases for three of the CLD students and two of the non-CLD students. This is likely because understanding the expectations of what elements should be included in academic essays was a large part of the intervention. Makani, who as mentioned previously had difficulty understanding the expectations for academic writing, increased on this self-report measure from 10 to 80, and Dahlia, who shared in her interview that she had never learned how to write an essay, also increased from 10 to 70. Two of the non-CLD students also had 50-point increases on their understanding of what to include in their essays. As with question two, the same two students didn’t show any increase, both of whom rated themselves with a 100 on the pretests, and thus did not increase on the post-questionnaire.

The fourth question also addressed a main component of the intervention, organization, and asked students to rate themselves on “When writing an essay, I can organize my ideas well.” Organization was something that almost all of the students shared had been a struggle for them their whole lives, and it was something almost all students said in their interviews was what was most helpful about the workshop. This is in fact, the question that the student who was the most confident writer rated himself the lowest on with a score of 70, which he increased to 100 on the post-questionnaire. Another of the non-CLD students also increased to 100 on the post-questionnaire from a pre-intervention self-report score of 40. The one student who did not increase on any of the indicators, decreased her confidence in this indicator by 30 points. In contrast to this, Makani who shared that organization and staying focused were very hard for him,

increased by 60 points on this indicator, and Ikaika, who also shared that staying on topic was always a challenge, also increased by 30 points. Dahlia did not indicate any change on this statement; however, the organization of her writing did improve drastically over the course of the two weeks. Her pretest essay did not show any elements of organization, but her posttest essay had an outline, was very well organized, and followed the structure for an academic essay. With this in mind, it would be interesting to explore whether she still has difficulty organizing ideas in her mind, but learned to organize them in writing, so still rated this low, or whether she was not aware of the improvement that she had made.

Although vocabulary wasn't a major focus of the writing intervention, transitional words and devices were explained and practiced to help students make their writing more cohesive, and this could be part of why many students increased their self-ratings on the fifth statement, "When writing an essay, I can use academic vocabulary effectively and accurately." Makani again had the biggest increase with 60 points again followed by Ikaika with 30 points. The other CLD students all improved by either 10 or 20, and the non-CLD students improved between 10 and 50 points, with the exception of the same two students who did not show an increase.

The final statement, "When writing an essay, I feel confident about my ability to do the assignment well" had the largest increases with three of the CLD students increasing 60, 70, and 80 points. In addition, two of the non-CLD students improved their confidence rating by 40 points. One of the non-CLD students, Adrian, who had very high pre-intervention scores and so did not increase on several measures, increased from 80 to 90 on this measure. Also, the other student, Casey, who didn't increase on any of the measures, had a pre- and post-intervention score of 100 on her confidence in her ability to do assignments well. This rating raises the

question of whether or not she understood the questions well because of some of her other ratings were low regarding her ability to write essays well.

Qualitative themes from writing samples and interviews. There were four main themes that emerged from the CLD students' reflective writing and their interviews. The themes that emerged through their writings over the course of the two-week workshop and during the post-workshop interviews were (a) challenges, (b) educational experiences and beliefs about learning, (c) perceptions of and response to the writing intervention, and (d) future goals and strategy use.

Challenges. All of the students described learning challenges throughout their entire lives, and many of them described social challenges that also impacted their lives and academics. Two of the students described struggling and facing many challenges because of learning difficulties and being labeled with a learning disability or as "slow." Several of the student participants also described learning very differently from other students in their classes and needing to learn strategies to deal with their different ways of understanding and learning. One student described his struggle by saying, "At an early age, I struggled with learning disabilities. So, my writing skills suffered because I didn't understand the structure of how to write letters or anything for that matter." He also said, "All my life I have struggled with learning disabilities, which became harder to deal with as I got older... So, trying to pursue a career in a STEM related field was something that might be considered a little out of my reach."

One common challenge with this student and two others was related to a lack of organization and structure in their writing and not understanding how to work to improve those aspects of writing. One of the students described her biggest challenge as struggling with "her

disabilities” while facing the additional hurdle of learning English. This led her to be hesitant to speak up for fear of not being understood or not pronouncing words correctly. All of the students shared challenges with organization and structure of their writing. In addition, two of the students shared that it was very hard for them to stay focused and stay on topic while writing. One described this challenge by saying, “I tend to drift off, and then when I read it back it’s like where did that come from? That’s not supposed to be in there (laughing). Sometimes I put my thoughts down when I’m writing something and it’s like ah you know, once upon a time, squirrel!” Similarly, another student said that he struggled with starting to write again after losing his train of thought. This also impacted him if he didn’t finish the whole essay at once, because it was very difficult for him to start again the next day.

Two of the students who had been identified as having ASD also described difficulty, even “disturbing” childhoods and experiences resulting from their social difficulties. One student described missing a lot of information and critical social cues due to his anxiety of looking at people, especially in the eye. The other student described challenges resulting from a life of feeling socially isolated and ridiculed for his differences, which led him to not want to ask or receive help from anyone.

All of the students also described receiving special education services throughout their entire school careers, one of whom took the GED equivalency exam after unsuccessfully working towards a high school diploma for six years. One of the students also described her process of learning English in school as mostly conversational with no instruction, ever, on how to write an essay prior to the workshop. One challenge that she was facing at the time of the workshop was transferring to a different community college campus after failing all of her

classes and being released from the first community college campus that she attended. English Composition, in particular, was one of the classes that she had been unable to pass, and she shared that she felt better prepared for the rest of her college career because this “English workshop is helping getting us prepared for other classes or a job that wants us to write an essay.”

Beliefs about learning. For all five students’ previous experiences, educational and otherwise, helped to shape their beliefs about their own intelligence as well as intelligence in general. Some of this reflection was a result of an article about growth mindset that they read as a part of the workshop. All of the students felt very strongly that people in general, themselves included, could increase their intelligence with hard work and perseverance. Their beliefs about their own abilities to develop their intelligence was supported by many of the successes they described that resulted from their hard work and persistence. Two of the students made it clear that they felt that some people are born with higher levels of intelligence than others, but that with hard work, those who do not have as strong innate abilities can develop them. One student described feeling “dumb” growing up and throughout most of his life, but realized at a later age, that he could develop his knowledge by returning to school. He said, “Although a rare few are considered to be born with a high intelligence, most of us are not that lucky and have to develop ours. Over quite some time through life experience and childhood development as well as education we can learn to build our intelligence.” He also described deciding to enroll in college only after he decided that he was willing to fail, but was then surprised when he didn’t fail his first class. He continued taking classes, and even requested in the interview that there be another writing workshop and additional regular sessions that he could attend to continue developing his skills as well as to keep from forgetting things that he had learned.

Changes in writing and perceptions of the writing intervention. Through the interviews, four of the students talked about ways in which their writing changed. One student did not seem to be very comfortable talking one-on-one during the interview, and did not share very much information although he was descriptive in his final essay about how much his writing changed and how much the workshop helped him. All four of the other students described having a much easier time staying focused writing their essays as a result of learning to plan and organize. Two of them also described that it was much easier to remember what they had been working on after getting distracted because they could check their outlines. In contrast, they both reported that in the past, once they were distracted or lost their train of thought, they were typically not able to return to what they were working on. All four of the students also shared that their essays did not have a structure before and that they now felt that they understood how to and could write essays with good structure. For example, one student said “I knew a little about an essay, but the writing I have done in the past had no structure like that and that’s always been a challenge to try to figure out all the ideas and where to put them and everything, so that [the writing strategies] totally helped me for sure.”

All of the students described feeling successful in the two-week writing workshop. What the students said that they liked about the strategies were for the most part related to the positive changes that they saw in their own writing. Four of the students described specific aspects of writing they have improved and that they feel more confident about. Two of the students shared that they were happy to have learned how to structure a paragraph in particular; one because she had never learned how, and the other because he said that he is sure that he learned, but can never remember. One of the students who shared that “writing off the top of his head” without

planning was his biggest weakness, shared that he liked the strategies because “I like how it’s kinda structured and ... that I don’t need to ... chaotically go in and ... write my essays off the top of my head... it helps me to plan.”

One student said that the text deconstruction aspect of the intervention was one of the most helpful aspects of the strategies, and had cause him to have an “aha” moment on the second to last day of the workshop. We had done the text deconstruction four times during the workshop, and each time we analyzed the text to find the elements of the introduction, identify how the ideas were developed and connected with transitional phrases, and compared how the conclusion referred back to the introduction while adding a final message. This student was extremely excited and became very animated telling me that in the morning he had been listening to NPR while driving in for the workshop, and suddenly realized that he had heard the introduction and the “hook” to engage the listener in the NPR story. As he continued to listen, he heard the way each new part of the topic was introduced, as we had learned to do with a topic sentence, and he heard how each idea was developed by including examples and explanations. Finally, he said he even heard the conclusion that connected back to the introductory idea and had a final message. In relation to this new understanding, he said “I was totally stoked too, like wow, my brain is doing it!” He also noted that prior to the workshop, he was very nervous about his upcoming transition from community college to a four-year university and wrote, “Two weeks ago I was not very confident about my writing skills. Now, after eceptional instruction, and intense exercice, I feel way more confident, and ready to tackle my next semester in college.”

Future goals and strategy use. In the discussion about their personal goals, three of the students described how in the past they or others thought that those goals would be unattainable

for them. One of the students whose comments typically exhibited a high level of confidence said of his dreams that “Many people say that I am shooting for the moon, and it is not surprising to me that they believe it.” Two of the other students described going to college as a dream that they had, but until recently did not think would be a reality for them. One of the students who described extreme challenges in high school had asked himself, “how could a high school dropout become successful in college?.” and he shared that it was this question which kept him from college for many years.

Finally, all of the students said they planned to continue using the writing strategies in the future, although the one student who did not appear to be comfortable being interviewed, seemed unclear as to how he might use it. All four of the other students, however, described specific parts of the strategy that they planned to continue using in the future such as the text analysis, planning, organizing their ideas, outlining, revising, and three of them even said that they plan to keep the handouts from the workshop to use as resources and self-monitoring checklists in the future. In addition, two students even mentioned that they have several writing intensive courses that they would need to take to graduate and that they planned to use these strategies to be successful in those classes. One student also shared that he felt that the writing skills he learned will “carry over” and be helpful in his future career, and another was really excited about how well he was able to maintain focus by using the outline and shared that, “I’ll just make that outline every time now.”

Social Validity. The community college faculty member who conducted a subjective evaluation of the CLD participants’ essays used her own grading system to grade the student essays as if they were in an English 100 class, which is college-level composition (Table 11).

Table 11

English Faculty Rating of Student Pretest and Posttest Essays

Name	Pretest	Posttest
Drew	B+	A
Makani	C	B
Ikaika	C-	B-
Arthur	D	B
Dahlia	D	B-

She rated both the pretest and posttest writing of the CLD students, but was not told which samples were the pretests and which were the posttests. Based on her ratings, all of the students improved by at least one grade from the pretest to the posttest. This increase to a score above a C for all of the students is extremely important. This is because in the University of Hawai‘i system, students must receive a C or higher in order to use English 100 as a prerequisite for many of their other college classes, and a passing grade in English 100 is also a requirement for both the Associate’s and Bachelor’s degrees (University of Hawai’i at Manoa, n.d.).

Therefore, any student who receives a grade of a C- or below in English 100 must retake the class until he or she receives a C or higher. Students often become frustrated when required to retake classes multiple times, which is similar to the frustration and difficulty in persisting towards a degree experienced by students who are placed in developmental classes . Students who place below English 100 enroll in different levels of developmental writing classes depending on which college they attend (Table 10). These courses have changed many times and are currently changing again as the system moves to accelerate students through the developmental writing levels by shortening the developmental courses to half a semester for students one level below and one semester for students who are two levels or below English 100

(University of Hawai'i Community College System, 2015). This means that students will have a shorter amount of time in which to improve. The results of this study show that rapid and profound improvement might be possible through CREATE in Writing.

Table 12

University of Hawai'i System Developmental Writing Courses

Course	Description	College
English 8	Reading & Writing Basics	LCC
English 9	Writing Essentials	HCC
English 19	Writing Essentials	LCC
	Writing Essentials II	HCC
English 20	Reading & Writing Essentials	WCC
English 22	Introduction to Composition	KCC, LCC, WCC
	Introduction to Expository Writing	HCC
English 24	Reading, Reasoning and Writing	LCC
English 100	College Composition	HCC, KCC, LCC, WCC, UH Manoa

Abbreviations:

*HCC – Honolulu Community College, KCC – Kapi'olani Community College, LCC – Leeward Community College, WCC – Windward Community College
UH Manoa – University of Hawai'i at Manoa*

All of the students except Drew scored below a C on the pretest, but all of the students improved their writing enough to receive grades of higher than C on the posttest, which suggests that they will be ready to successfully complete English 100 now. Even Dahlia, who reported being at English 21 level was able to improve her writing enough that it was rated at level sufficient to pass English 100. At the time of this study, English 21 was a reading course, so Dahlia's reported level 21 English would likely equate to either the current English 19 or 22. This shows that in the course of the workshop, she was able to improve her writing by one to two class levels. This measure of social validity shows the potential value of the intervention to the students.

CHAPTER V

DISCUSSION AND CONCLUSION

The results of this study are consistent with previous studies on SRSD and demonstrate that SRSD also is effective with culturally and linguistically diverse college students. The additional language development components of CREATE also seemed to have enhanced the students' overall understanding of the elements of academic writing through the text deconstruction and outlining. The explicit instruction on transitions as a required element and transitional phrases as important academic vocabulary words were also elements of CREATE that helped students to improve their writing in the two-week writing workshop.

The positive results from this study show added promise due to how the instructional core of CREATE in Writing clearly meets the needs of both students with disabilities and culturally and linguistically diverse students as well as students who meet both criteria. In addition, CREATE in Writing is a framework for instruction and as such doesn't require teachers to purchase any specific materials. This also means that it can be implemented through any content to meet the needs of the students or the course that they are taking. With minimal training on the strategy, teachers of elementary, middle, high, and college can implement CREATE in Writing through their own content and with their own writing assignments and prompts.

Quality

Often, struggling writers do not organize or structure their essays well because they do not know or do not understand the requirements for academic writing (Steve Graham & Harris, 2003). In the present study, this was evidenced in the participants' pretest writing as well as their discussions of challenges they faced with writing throughout their educational careers.

However, when students are explicitly taught the expectations for academic writing, they are better able to meet those expectations in their writing, and have even been shown to improve to levels equivalent to those of their peers who were proficient writers (Harris & Graham, 1999). After being explicitly taught the expectations for academic writing, this improvement was shown in all 10 of the students' overall writing quality and ability to include the required elements in their post-test writing. One student did not improve on the number of elements that he included (as measured on the overall quality rubric), but he reported that he ran out of time. His planning sheet, however, showed evidence that he would have included all of the required elements had he more time, and the overall writing that he did complete was more cohesive and better developed as well.

Originally, grammatical accuracy was going to be assessed through using Correct Word Sequences (CWS), which is a curriculum based measure, commonly used for progress monitoring in writing interventions, in which correctly used adjacent words are measured and reported as a percentage (Hosp, Hosp, & Howell, 2007; Viel-Ruma et al., 2010). Accuracy has also been measured using a percentage of "error-free clauses" (Ellis & Yuan, 2004, p. 72), which is similar to the CWS formula, but the language is measured in larger segments and as such is less sensitive to incremental improvements. However, neither of these measures are something that students can calculate and regulate themselves, so their use did not support the theoretical framework of the intervention (i.e., self-regulated strategy development). In addition, due to the limited number of errors on the students' pretest writing, change in grammatical accuracy was also not assessed by the researcher.

The element that improved the most for the students was the introduction followed by the development with the students' conclusions showing the least amount of improvement. The first element of academic writing that was instructed was the development, so students had more opportunities to practice what they had learned on subsequent lessons, so it is not a surprise that this showed improvement. In addition, the TREE mnemonic combined with the text deconstruction makes it very clear for students how exactly their ideas can and should be developed in academic writing. The second element taught was the introduction, and the workshop included two lessons on the introduction. This was the element that showed the most improvement overall, and could be because students again had more opportunities to practice what they had learned in addition to receiving a second lesson focusing specifically on components of a good introduction. Finally, the conclusion was the element that showed the least improvement. This could be in part because not all of the students had time to complete their essays and include a conclusion, but also because it was the last element instructed, and therefore, students had the least amount of time to practice what they had learned about writing a conclusion.

Difficulties with understanding academic expectations for writing are intensified for CLD students who may grapple with the added challenge of understanding that the structure of English is different than their first language. This is because the speaking and writing patterns that they have learned throughout their lives may be drastically different from the expectations of academic English. For example, in the Hawaiian culture, "talk story" is an important and common form of discourse, in which seemingly unstructured narrative is co-constructed by two or more people through rhythmic patterns of turn taking (Au, 1980). This is in direct contrast to

the linear structure required of academic writing in English. The two students who reported speaking Pidgin and Hawaiian in the home likely grew up in households immersed in that discourse pattern, and understanding the pattern of academic English may have presented an added challenge. Both of these students' pretest essays lacked structure and organization supporting the idea that their normal discourse patterns are not aligned with the structure of academic English. The student who spoke Pidgin as a first language had only a moderate increase of 4, from 11-15, on the 20-point scale for overall writing quality, which includes the ability to structure and include the required academic elements. However, he was also unable to finish his essay in the time provided, and the overall structure and development of the part that he did complete was much improved from the pretest. The other student, who spoke Hawaiian at home, had the largest increase from seven to 18 points even though he also did not complete his essay. These increases were in large part due to a big improvement in the organization and structure of their posttest writing, which was facilitated by their use of a detailed and organized outline.

The three other CLD students were first generation immigrants who reported speaking Chinese at home. The student who had the most challenges in school related to her limited English had a large increase on overall quality and ability to include the required elements improving from 7 to 17. She also improved immensely on her organization and development and had the most detailed and thorough outline for her posttest. Another of the first generation immigrant student also showed strong improvement from 3 to 13 on overall quality and inclusion of the required elements for academic writing. The fifth CLD student didn't improve his quality score, but his planning sheet also shows evidence that he increased his ability to include the

required elements in his writing as well. The area in which he improved the most was including transitions and connections between his ideas, which is not an expectation in writing in many other languages. This improvement for the students who spoke a language other than English at home is consistent with the literature that supports the notion that students are much better able to include the required elements in writing once they are taught what they are and have a chance to practice them (Harris & Graham, 1999). I believe that this is also reflective of the text deconstruction activities that help deepen the students' understanding of what the expectations are and what they look like in proficient writing in combination with learning how to structure and organize writing through the use of an outline. The text deconstruction is one of the elements of CREATE that was added to SRSD to support the CLD students, and this result correlates to the hypothesis that text deconstruction as a model for what to include in academic writing will help students more clearly understand the structure and expectations. In addition, the increase for all CLD students on the subjective evaluation by the outside college faculty member also demonstrates that CREATE was able to help the students to become better prepared to meet the rigors of college-level academic writing.

Fluency

Fluency is an area of difficulty for many struggling writers and linguistically diverse students, and the students in the summer workshop were no exception. Students with ADD and ADHD have also been shown to produce less writing and develop their ideas less than students without attention deficits (De la Paz, 2001). However, fluency is important in academic writing, because students are required to develop their ideas by giving examples, explanations, and support for their ideas. Some research suggests that a fluent writer can write by hand

approximately 11.5 to 18.5 words per minute (Summers & Catarro, 2003), which would result in 350-550 words in a thirty minute time period. The students in the present study were also handwriting, with the exception of one student, and had pretest fluency scores ranging from 115-236 (the student who typed wrote 300 words) in the 30-minute time period. The posttest writing scores ranged from 149-408, and the increase in all but one of the students' fluency scores shows improvement in the development of their ideas in their writing. In addition, all of the students used some of their time to plan before beginning to write as we had practiced. So while this improved the organization and cohesion of their writing, it also decreased the amount of time that they spent writing, which means that not only did they write more words, but they did so in a shorter amount of time.

One of the challenges that participants described in their writing and interviews was difficulty staying focused and difficulty returning to the task after losing focus. This is very characteristic of the writing of students with disabilities, in particular of the writing of students with ADHD (Jacobson & Reid, 2010). One of the students for whom this was a challenge was visibly distracted during the posttest and struggled to start writing his essay again. This student's fluency score decreased by 44 words. The other student who struggled with focus was also distracted and had difficulty continuing to write, stopping several times. His fluency did improve, but by 23, the smallest increase. This is consistent with the research that shows that students with ADHD typically write less and that their writing typically is lower quality due to a lack of required elements and complexity, and that handwriting and spacing of letters is more difficult for students with ADD or ADHD than their peers (Jacobson & Reid, 2010; Reid & Lienemann, 2006). In addition, fluency, the number of words written, is a measure that students

can calculate independently, and thus aligns with the cognitive-behavioral theory and the self-regulation aspect of the strategy.

Vocabulary and knowledge of academic vocabulary can also be a barrier to fluency for struggling writers, and particularly for CLD writers (Hinkel, 2004). This was evidenced in the limited fluency and simple nature of the participating students' pretests. In addition, most of the CLD students rated themselves low on the pre-intervention questionnaire for the two statements relating to their ability to choose the words that they want and to use academic vocabulary. Many of the students did improve their transitions between ideas, which reflects the vocabulary lesson associated with cohesion and transitional devices. This is reflected in the post-intervention questionnaire, on which all of the CLD students improved their self-ratings with the exception of one student who had rated himself at a 90 out of 100 on the pre-intervention questionnaire for the statement related to his ability to choose words.

Social Validity

Social validity measures are used to determine the relevancy of the goals, the acceptability of the intervention, and the importance or value of the outcomes to the participants (Kazdin, 2011). The importance of the outcomes of this intervention can be seen clearly in the results of the expert evaluation by the English 100 instructor, in which all of the students received a B- or higher on their posttest writing samples. This is particularly important because on the posttest, all of the students wrote papers deemed high enough quality, by the expert evaluator, to pass English 100. Even Dahlia, who was two levels below English 100, was able to improve her writing enough that it was rated high enough to successfully pass English 100.

The participants in this study responded very positively to the writing intervention through their essays, their post-intervention questionnaire responses, and their post-intervention interviews in all three of these areas. This is consistent with other studies involving SRSD in which students develop confidence and understanding of the expectations of writing and the writing process through the intervention (Baker et al., 2009), although there have also been studies on SRSD in which students' perceptions of their self-efficacy did not change (Steve Graham, Harris, & Mason, 2005). Participants in this study reported understanding the expectations and what they were supposed to write for the first time, and this is consistent with another study involving SRSD in which students reported similar increases in confidence (Danoff et al., 1993).

Many of the participants also reported that they plan to use the strategies in the future and they believe what they learned and the improvements that they made will be beneficial to them in the future. Moreover, all of the participants shared that they plan to use the strategies in the future, and some specified their intention to use it in college and in their jobs, and that they believe it will help them to be successful. This potential for greater success is also demonstrated by the increase in all of the CLD students' scores by in the subjective evaluation. For this reason, the social validity in regards to relevancy and value to the participants was strong. In addition, during the interviews, all of the students reported liking the strategy and didn't report disliking any aspects of the strategy. Furthermore, three of the participants reported that they would like to take the workshop again in the future, or a similar refresher course. This demonstrates that the social validity in terms of the acceptability of the intervention was also strong.

All 10 of the participants struggled with academic writing as evidenced by their essays as well as indicated by their self-reports on the pre and post-intervention questionnaire, interview, and the content of their writing. The CLD students started out with lower quality scores than the non-CLD students with a mean of 8.4 in contrast to the non-CLD students' mean of 9. Overall, the non-CLD students had higher quality scores on the posttest, and Roland, a non-CLD student made the largest gain in his quality score, increasing by 13 points. The non-CLD students who made smaller gains had higher posttest results. For example, one non-CLD student only increased her score by six points, but she had a posttest score of 18. In contrast, the CLD student with a posttest score of 18, increased by 11, and two other CLD students also were able to increase by 10 points from the very low pretest scores of 3 and 7. One non-CLD student had an increase of nine, but his posttest score was a 20, so a larger increase would have been impossible for him. This shows that although three of the CLD students had large gains, they also had more need for improvement due to their lower pretest scores.

The non-CLD students as a group also had higher overall fluency scores than the CLD students, but Derek, one of the CLD students had the second highest fluency of the group, writing 325 words on his pretest. He was the one student who needed to type his essays, so this may have also been a factor. Maggie, a non-CLD student reported in her interview that it was helpful to learn how to write an outline because before she disliked writing outlines and thought they were a waste of time, but writing outlines in the workshop changed how she approached writing and it helped her to write more quickly. This was evidenced in that she had the highest fluency score on her posttest as well as the largest gain. These findings are consistent with the hypothesis that students with disabilities can improve their writing when explicitly taught what

to include, how to organize their ideas, and how to regulate their own progress and production of writing. The findings also support the idea that CLD students with disabilities will face more pervasive and intense challenges with writing and also struggle more to improve and require more time and support than their non-CLD peers. In addition, the use of the mixed methods design allowed for deeper and clearer analysis of the results. The qualitative data helped to better understand the quantitative data as well as to describe the unobservable behaviors and attitudes of the students in regards to self-regulation, strategy use, and perceptions of the intervention and themselves. The quantitative data also served to corroborate students' self-assessments and their perceptions that they had improved.

Limitations

Although the results were strong, there were a number of limitations in this study. The participants in this study were all part of a grant-funded program to support college students with disabilities, and as such, they had participated in workshops before. In addition, they voluntarily signed up for the two-week summer workshop, so their motivation and study skills may not be typical of other college students with disabilities and CLD college students with disabilities. Furthermore, through their grant program, they received a stipend for attending the workshop, which may have positively impacted their attendance and motivation in a way that may not have been typical for other college students. Another clear limitation is the small sample size and lack of a control group. Both of these factors limit the ability to generalize the findings from this study.

In addition, the length of the workshop was only two weeks, so it could not be determined if some aspects of writing changed quickly while others might have needed a longer

time periods. The 30-minute time limit may also have been too short to accurately represent the students' true writing ability. Three of the students were unable to complete their posttest essay due to a lack of time. If separate planning time had been allocated in addition to the 30 minutes, the students may have been able to better demonstrate their writing ability. In addition, often students with disabilities receive extended time for tests and assignments, so the short timed writing may not have been a good approximation of the kind of conditions they would experience for their college writing assignments.

Another limitation is that the students were not assessed on writing a take-home paper, which is a common type of assignment. The in-class format may help to prepare students for short answer and essay questions that are often on college exams, and it may help students to learn to plan and organize more quickly than if they only wrote untimed papers at home. In addition, the planning and outlining components are designed to help students with all types of writing, including take home papers.

The holistic rubric used was not sensitive enough to measure all of the changes in student writing as evidenced by aspects of their writing that improved, but that did not result in an increased overall quality score on the rubric. For example, the overall quality of Drew's writing improved, and so did his scores on the development section, but he did not include a conclusion, so the loss of those points countered his increases, which resulted in his posttest score being the same as the pretest score. In addition, there were limitations in regards to the accuracy of the students' self-assessment of themselves as writers as evidenced by Casey's rating of 100% for understanding expectations when she often did not demonstrate understanding of what she was expected to do. Although this is a limitation, it may accurately represent their perceptions of

themselves and their writing ability, which adds valuable and interesting information whether or not their perceptions are accurate. Another limitation of the self-assessment is that the intention was to use a 100-point scale, but the design of the questionnaire included 10-point increments from zero to 100, which essentially renders it an 11-point scale and the anchors are not necessarily equidistant. For example, the distance between zero (“No!”) and 10 (“Not Sure” may not necessarily be the same amount different as the perceived difference between 40 (“Maybe”) and 50 (no descriptor at this number).

Implications

College students with disabilities and the growing number of CLD college students with disabilities need support to develop their writing ability and move out of developmental levels of English classes in order to access college courses needed for successful degree completion and future career success. Research has shown that students enrolled in developmental classes in college are less likely than students who place directly into college level classes to complete a degree (Bettinger & Long, 2009). With nearly half of the community college students in Hawai‘i enrolled in developmental-level classes (HIDOE, 2010), preparing students for college-level work is an urgent need. The expert evaluation showed us that the participants in this workshop will likely not face the challenge and frustration of additional developmental classes or repeating their English 100 requirement due to their increases in overall writing quality.

To address the need of preparing college students, CREATE in Writing’s grounding in cognitive-behavioral theory and sociocultural theory maximizes the fit and support for these students. The cognitive-behavioral theoretical framework addresses the need for struggling writers, and specifically students with disabilities and CLD students with disabilities, to learn

explicit strategies for planning, organizing, outlining, writing, revising, and self-regulation.

While at the same time, the sociocultural theoretical framework serves to provide a foundation in culturally responsive collaborative learning to help students connect to their writing and allow them to not be at odds personally and culturally with the demands for academic writing in English.

The students in this workshop collaborated on the text deconstruction and helped each other to identify and understand the different elements of academic writing. This collaboration resulted in rich discussion and negotiation. With each subsequent text deconstruction activity, the students, through helping each other, became more and more proficient at identifying the elements. This culminated in Makani's revelation at the end of the workshop when he was able to identify all of the elements of an academic piece in a news story that he heard in his car on the radio.

The use of the mnemonic for TREE helped the students to remember what elements they needed to include in their academic writing. This was seen in the increases in their scores for the development of the essay. The TREE mnemonic coupled with the outline, which included the tree graphic and mnemonic at the top, provided students with a very clear and simple way to organize and develop their ideas. Research shows that students with disabilities struggle with organization and idea generation, which results in poorly developed writing (Harris & Graham, 1999; Koutsoftas & Gray, 2012). CLD students, and specifically language learners, also struggle with understanding the expectations for organizing writing in English and a lack of vocabulary and grammar knowledge also often results in limited development of their ideas (Fogelman et al., 2005). The reasons for these challenges are different, but the TREE mnemonic and outline in

CREATE in Writing show promise for directly addressing these challenges for both students with disabilities, CLD students, especially language learners ,and CLD students with disabilities.

Text deconstruction is another element that reinforces for students what they learn with the TREE mnemonic and the outline. Through text deconstruction they are able to see clear models of what it looks like to organize and develop writing in the way that they are being asked. Modeling is one aspect of an effective cycle of teaching, and is also a culturally responsive practice aligned to cognitivist theory that supports both CLD students and language learners and students with disabilities. In this workshop, students were able to use the articles that they read as part of the workshop for text deconstruction as models to help them structure and develop their writing. This text deconstruction also helped them generate ideas and identify examples that they could use to develop their ideas.

The revision process is a struggle for both students with disabilities and language learners, in part because they need to first self-assess to determine what needs to be revised and then decide how to revise. Through the workshop, the participants developed these self-regulation skills as they became more aware of how well they were meeting expectations and what they needed to revise by being taught how to use the outline and the TREE mnemonic. In addition, they received focused feedback aligned to what had been learned to help them to better understand what to revise to improve their writing. This showed in the participants' improved confidence ratings on the post-intervention questionnaire, which had some of the biggest increases for students.

Proficiency in academic writing is becoming more critical for college students who want to be successful in college and become career-ready. Students preparing for the workforce need

strong writing skills to be successful because nearly half of all employers in a number of fields assess writing in hiring and promotion decisions (National Commission on Writing, 2003). It is becoming clear that in the 21st century, writing skills are essential, and they will not develop if they are not taught, and taught well. As the number of CLD students in public schools rapidly increases (Enright & Gilliland, 2011), and as a result the number of CLD students with disabilities increases, and their instruction in academic writing remains limited (Ortmeier-Hooper & Enright, 2011), CLD college students with disabilities will need high quality writing instruction. This summer workshop, this research study, and the development of CREATE in Writing provided college students with disabilities and CLD college students with disabilities with an opportunity to develop these essential writing skills to lead them to success in college and beyond.

In just two weeks, the participants improved their writing to a level that suggests each of them would have been successful in an English 100 class, and therefore, would not have had to spend any more time in developmental writing classes. As the college begins the shift away from developmental education, fast and effective interventions are going to be more necessary than ever, and CREATE in Writing shows potential for helping to bridge that gap. College faculty and administration may want to look at CREATE in Writing and this workshop model as a low-cost and efficient option to supplement English 100 for struggling writers. This has potential as a supplemental workshop or as a part of a college writing course as a way to quickly and successfully help students to become college-level writers.

At present, there is limited research on using SRSD with college students. In fact, in a recent meta-analysis, only two such studies were identified, but did not meet the inclusion

criteria based on the quality of the study (Graham et al., 2013). In addition, there is limited research on the effects of SRSD on students with ASD and ADD/ ADHD, who made up the majority of students in my study. Of course, when working with students who have the same disability, teachers can focus on specific aspects of that disability that create the most challenges for students. However, even students who share the same disability are not a homogeneous group. This study suggests that CREATE in Writing and SRSD can be effective for students with a range of disabilities such as ASD and ADD/ ADHD in addition to learning disabilities. This is an important finding because in K-12 as well as college classes that include students with disabilities, it is likely that there will be a range of disabilities represented for which teachers need to provide support. For this reason, CREATE in Writing's potential to support students with a range of disabilities and characteristics is very promising. This study is an attempt to add to the research on the efficacy of SRSD for college students with disabilities and for CLD college students with disabilities and for a range of disabilities. In addition, this study supports the use of a mixed methods design to clarify and expand on quantitative data from small groups or potentially single case designs through the use of supplementary qualitative data.

Conclusion

The goal of this research study was to begin to support college students with disabilities and the growing number of CLD college students with disabilities to develop their writing ability and to test the efficacy of CREATE in Writing with these students. As these students improve their writing, they can successfully pass developmental levels of English classes or place directly into college-level courses needed for their successful degree completion and future career success. The combination of cognitive-behavioral supports and sociocultural considerations of

CREATE in Writing provides the structured and comprehensive support these students need. The explicit strategy instruction is essential to raise the students' awareness of the academic expectations of writing in English as well as specifically how they can meet those expectations by learning how to plan, organize, outline, write, edit, and revise. In addition to this, the cognitive-behavioral foundation includes the self-regulation that students need to maintain focus and persist through the writing process. It also teaches students to check and assess their own writing, to monitor how well they are meeting the expectations, and to set goals for improvement. When this is paired with culturally responsive instruction founded on a sociocultural framework, it supports students to connect to their prior knowledge and cultural resources to make the writing more relevant and purposeful which also helps them to sustain their effort. As writing skills become more and more important in college and many career fields, it is essential that all students, but especially students with disabilities and CLD students with disabilities get the type of structured, systematic, and intensive writing instruction that CREATE in Writing provides.

Future Research

There are several important directions for future research on CREATE in Writing. It would be beneficial to replicate the study with CLD students and CLD students with disabilities in college who's English is more limited to test the impact of the grammar instruction on their grammatical accuracy and clarity. It would also be beneficial to test the intervention in workshops of differing durations to determine the optimal amount of time required for improvement. Much of the SRSB research is done in shorter intervals of 20-40 minutes a few times weekly in a regular school setting. It would be interesting to investigate if the potency of the intervention in this study was, in part, a result of the intense and condensed nature of the

intervention. Future studies could examine if similar outcomes resulted from 20-40 minute sessions once or twice weekly over the course of 4-8 weeks or even possibly one hour weekly throughout a 16-week college semester.

Students shared in their post-intervention interviews and included in their writing that they had difficulty staying focused and on task and regaining focus after being distracted, and this was seen in their fluency. While this challenge was anticipated and is addressed by the structured nature of the intervention, in future research, a pre-intervention interview might add valuable information. If it had been clear that this was such an extreme challenge for students, during the intervention, additional explicit connections could have been made for students. For example, when teaching students to create an outline, they can be given additional reminders that one purpose of the outline is so that if they lose focus, it can help them regain that focus and start writing again more easily. This is part of the strategy, but more of these clear connections to the self-regulatory aspects of using an outline could be made for the students in the future, and it might help improve the fluency for those who didn't improve or who improved minimally on the posttest.

Students made the least amount of improvement on the conclusions in their essays. One reason could have been because the conclusion is the most abstract part of an essay to develop, and the guidelines are more open-ended than they are for writing a thesis statement. The structure of the introduction was covered twice in the workshop and was the area of most improvement for students, so in future workshops, an additional lesson or review on the conclusion may be beneficial. It may also be in part that many of the students felt that 30 minutes was not enough time to write their essays and sometimes did not finish, thus not being

able to include a conclusion. In future workshops, a longer amount of time to write might help the students, but it also needs to be balanced with how long they will maintain interest and focus and how much instructional time would be sacrificed.

Future studies may also want to examine the use of computer to see if there is an impact on fluency if students type the essays instead of handwriting them. There is certainly the possibility for distractions caused by computer use as well, so it might be interesting to have two pre and posttests, one of each handwritten and typed and compare to see if there are differences related to the medium used. Another possibility would be to give students a choice of whether they would like to handwrite or type. This study also did not replicate the distraction-free environment that many students with disabilities receive as an accommodation; so future studies could have students complete the writing samples in a testing center or other controlled environment to see if students are able to more easily or successfully implement the strategies.

Future research might also benefit from an increased focus on developing vocabulary and academic students, particularly if more of the CLD students were limited in their English proficiency. Two students still had low scores on one item each on the post-intervention questionnaire relating to vocabulary and academic language, so if the workshop were extended, there would be time to include more of a focus on vocabulary development, which is essential for developing language. The majority of the academic vocabulary instruction was related to cohesion and connecting and transitioning between ideas, but CLD students need to develop more academic vocabulary to help improve fluency as well.

The holistic rubric could also be adjusted to be more sensitive for further research studies. In the future, the students can use the TREE aligned rubric to help them with their self-

monitoring, but the researcher could use a more sensitive writing quality rubric to assess their overall quality. A future follow-up refresher workshop, as requested by one of the participants, would also be an opportunity to assess whether the participants were able to remember and maintain use of the strategy as well as if they were able to generalize its use to help them in other contexts.

Finally, many of the students in the study were not able to finish their essays. Future research should separate the planning and outlining time from the writing time. This would allow students to effectively plan and still have 30 minutes to complete the writing. In order to maintain consistency, the pretest could include a 10-minute planning time with no guidance or instruction on what to do or how to plan, and then the same 10-minute planning time might allow students to better demonstrate their improvements on the posttests. None of the students showed evidence of planning or outlining on the pretest, but all of them planned and created an outline on the posttest, which showed that students who ran out of time likely would have included more development and conclusion if given more time because they had already planned them. In addition, future studies might benefit from including a take-home paper component. This would allow an assessment of their ability to perform on a more common type of assignment as well as information on whether the students were generalizing the strategies and using them at home or only when they were physically in the writing workshop classes. This would also support the extended time accommodation that many students with disabilities benefit from.

SRSD shows strong promise as an effective writing intervention for college students with disabilities, and this study has shown that CREATE also has potential to provide much needed support for CLD college students with disabilities. The combination of specific strategy

instruction, self-regulation techniques, and language development is a powerful combination to help students develop their writing. In addition, through developing their writing, many of the participants also developed enhanced confidence in themselves and their ability to successfully complete writing tasks and college demands. All of the participants had faced immense challenges in their academics and lives due to their disabilities and language barriers. Hopefully, developing their writing ability and confidence will help students continue to apply the strategies in their remaining college courses and lives to further develop their confidence in themselves as students as well as individuals.

APPENDICES

APPENDIX A

Alignment of SRSD to CREDE’s Five Standards for Culturally Responsive Instruction

	CREDE’s 5 Standards					+2	
	1. Language and Literacy Development functional use of language	2. Contextual Learning context of home and community and value of instruction	3. Joint Productivity cooperative learning	4. Instructional Conversation verbal interaction	5. Complex Thinking higher order thinking	6. Modeling Promoting learning through observation.	7. Child Directed Activity Encouraging decision-making and self-regulated learning.
1. PREVIEW IT*							
• Identify requisite skills							
• Assess if students have skills	✓	+	+	✓ +	+		
• Help students develop skills							
• Task analysis							
2. DISCUSS IT							
• Explain benefits of strategy							
• Teach how & when to use				✓			
• Emphasize effort & motivation							
• Describe self-monitoring							
3. MODEL IT							
• Model thought process	+	+			✓		
• Show how to perform steps							
• Demonstrate necessity of steps							
4. MEMORIZE IT							
• Memorize mnemonics for steps & process	✓		+			+	
5. SUPPORT IT							
• Collaboratively use strategy							
• Use strategy charts & graphic organizers							
• Gradually increase goals	+	+	✓			✓	
• Provide feedback							
• Fade support to promote independence							
• Support use in different settings							
6. USE IT*							
• Incorporate activities for maintenance & use		+	+		+	+	

APPENDIX B

A Rubric for Observing Classroom Enactments of CREDE’s Standards for Effective

Pedagogy

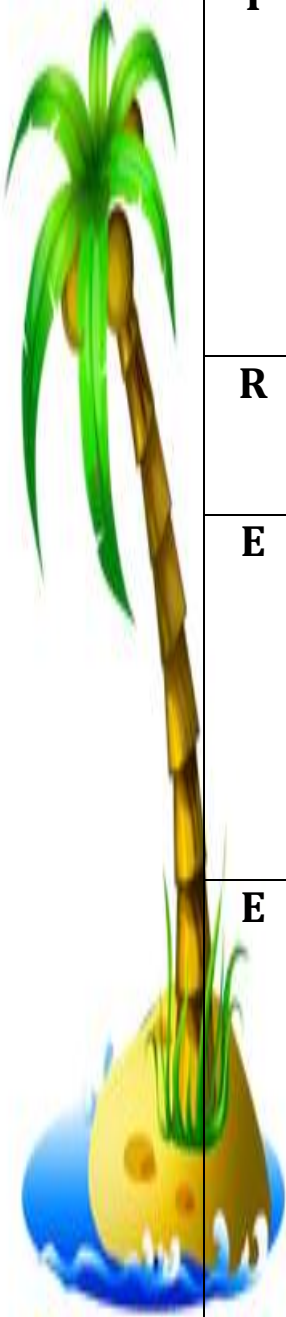
	NOT OBSERVED	EMERGING	DEVELOPING	ENACTING	INTEGRATING
<i>General Definition:</i>	<i>The standard is not observed.</i>	<i>One or more elements of the standard are enacted.</i>	<i>The teacher designs and enacts activities that demonstrate a partial enactment of the standard.</i>	<i>The teacher designs, enacts, and assists in activities that demonstrate a complete enactment of the standard.</i>	<i>The teacher designs, enacts, and assists in activities that demonstrate skillful integration of multiple standards simultaneously.</i>
<i>Joint Productive Activity Teacher and Students Producing Together</i>	<i>Joint Productive Activity is not observed.</i>	Students are seated with a partner or group, AND (a) collaborate or assist one another, OR (b) are instructed in how to work in groups, OR (c) contribute individual work, not requiring collaboration, to a joint product.	The teacher and students collaborate on a joint product in a whole-class setting, OR students collaborate on a joint product in pairs or small groups.	The teacher and a small group of students collaborate on a joint product.	The teacher designs, enacts, and collaborates in joint productive activities that demonstrate skillful integration of multiple standards simultaneously.
<i>Language & Literacy Development Developing Language and Literacy Across the Curriculum</i>	<i>Language & Literacy Development is not observed.</i>	The teacher (a) explicitly models appropriate language; OR (b) students engage in brief, repetitive, or drill-like reading, writing, or speaking activities; OR (c) students engage in social talk while working.	The teacher provides structured opportunities for academic language development in sustained reading, writing or speaking activities.	The teacher designs and enacts instructional activities that generate language expression and development of content vocabulary, AND assists student language expression and development through questioning, rephrasing, or modeling.	The teacher designs, enacts, and assists in language development activities that demonstrate skillful integration of multiple standards simultaneously.

	NOT OBSERVED	EMERGING	DEVELOPING	ENACTING	INTEGRATING
Contextualization <i>Making Meaning</i> — <i>Connecting School to Students' Lives</i>	<i>Contextualization</i> is not observed.	The teacher (a) includes some aspect of students' everyday experience in instruction, OR (b) connects classroom activities by theme or builds on the current unit of instruction, OR (c) includes parents or community members in activities or instruction.	The teacher makes incidental connections between students' prior experience/knowledge from home, school, or community and the new activity/information.	The teacher integrates the new activity/information with what students already know from home, school, or community.	The teacher designs, enacts, and assists in contextualized activities that demonstrate skillful integration of multiple standards simultaneously.
<i>Challenging Activities Teaching Complex Thinking</i>	<i>Challenging Activity</i> is not observed.	The teacher (a) accommodates students' varied ability levels, OR (b) connects student comments to content concepts, OR (c) sets and presents standards for student performance, OR (d) provides students with feedback on their performance.	The teacher designs and enacts activities that connect instructional activities to academic content OR advance student understanding to more complex levels.	The teacher designs and enacts activities that are connected to academic content; assists and uses challenging standards to advance student understanding to more complex levels; AND provides students with feedback on their performance.	The teacher designs, enacts, and assists in challenging activities that demonstrate skillful integration of multiple standards simultaneously.

	NOT OBSERVED	EMERGING	DEVELOPING	ENACTING	INTEGRATING
Instructional Conversation <i>Teaching Through Conversation</i>	<i>Instructional Conversation</i> is not observed.	The teacher (a) responds to student talk in ways that are comfortable for students, OR (b) uses questioning, listening or rephrasing <i>to elicit student talk</i> , OR (c) converses with students on a nonacademic topic.	The teacher converses with a small group of students on an academic topic AND <i>elicits student talk</i> with questioning, listening, rephrasing, or modeling.	The teacher: designs and enacts an instructional conversation (IC) with a clear academic goal; listens carefully to assess and assist student understanding; AND questions students on their views, judgments, or rationales. All students are included in the IC, AND student talk occurs at higher rates than teacher talk.	The teacher designs, enacts, and assists in instructional conversations that demonstrate skillful integration of multiple standards simultaneously.

APPENDIX C

Holistic Rubric Aligned to the TREE Mnemonic



TREE	Description	Points	Self	Teacher	
T	Introduction				
	<input type="checkbox"/> T hesis Statement	3			
	<input type="checkbox"/> Thesis states your claim/ argument				
	<input type="checkbox"/> Engages the reader				
	Total for Introduction				/3
	Development				
<input type="checkbox"/> T opic Sentence for reason 1 paragraph	1				
<input type="checkbox"/> T opic Sentence for reason 2 paragraph	1				
<input type="checkbox"/> T opic Sentence for reason 3 paragraph	1				
R	<input type="checkbox"/> R eason 1 –supports the 1 st part of the topic	1			
	<input type="checkbox"/> R eason 2 –supports the 2 nd part of the topic	1			
	<input type="checkbox"/> R eason 3 –supports the 3 rd part of the topic	1			
E	<input type="checkbox"/> E xplain, expand and provide examples for Reason 1	2			
	<input type="checkbox"/> Includes at least 2				
	<input type="checkbox"/> E xplain, expand and provide examples for Reason 2	2			
	<input type="checkbox"/> Includes at least 2				
	<input type="checkbox"/> E xplain, expand and provide examples for Reason 3	2			
	<input type="checkbox"/> Includes at least 2				
E	<input type="checkbox"/> E nds reason 1 with a transition or concluding statement	1			
	<input type="checkbox"/> E nds reason 2 with a transition or concluding statement	1			
	<input type="checkbox"/> E nds reason 3 with a transition or concluding statement	1			
	Total for Development		15		/15
	Conclusion				
<input type="checkbox"/> E nds the essay with a final message	2				
<input type="checkbox"/> Conclusion connects to the thesis					
Total for Conclusion				/2	
Total for the Essay		20		/20	

APPENDIX D

Writing Prompts

Writing	Prompt
1 Pretest	Describe your educational history from when you were a child until now. Explain how this education has impacted your life, and how continuing your education now can help you to achieve your future goals.
2	Describe your belief about intelligence – do you think that it is fixed, or do you believe that you can grow your intelligence? Explain how your mindset has impacted your life, and how developing a growth mindset can help you to be successful in college.
3	Describe an event or experience that has shaped who you are. Explain why this event was important, and how it has made you the person that you are today.
4	Describe yourself and what has made you the person that you are today. What are your goals for college and the future? How will this scholarship help you to reach your goals? <i>Make sure to demonstrate your positive qualities and why you are a good person to receive the scholarship money!</i>
5	Describe your goals for college and the future. Explain what you have done to prepare yourself to meet these goals, and what you plan to do now (in college and in the community) to be successful meeting your goals. <i>Make sure to demonstrate your positive qualities and why you are a good person to receive the scholarship money!</i>
6 Posttest	Describe how you feel about your writing now that the summer workshop is almost over. Explain what you learned that will help you to be successful in college and in your future career? What is your plan to continue being successful?

APPENDIX E

Pre-Intervention Questionnaire

What Do You Think About Writing? Pre-Workshop Questionnaire

Information About You

1. How old are you?
2. Gender Male Female
3. Where were you born?
4. If you were not born in Hawai'i or another state in the US, how long have you been in the US?
5. What is your first language?
6. What language(s) do you speak at home or with your family?
7. If English is not your first language, how long have you been studying English?
8. Did you graduate from high school? Yes No
If YES, what high school?
If NO, did you get a GED? Yes No
9. What college or colleges have you attended?
10. How many semesters have you completed in college?
11. Please list all of the English or ESOL class that you have taken in college.
12. Did you have an IEP or 504 Plan?
IEP: Yes No
504 Plan: Yes No
13. Please list any documented disabilities that you have.
14. Please list any accommodations that help you in school or that have helped you in the past.

What You Think About Writing

15. What kinds of writing do you do in your daily life?
16. What kind of writing do you think will be important for success in college and a future career?
17. What are the steps in the writing process? (How do you prepare to write an essay?)
18. What should be included in an academic essay?
19. What do you like about writing in English?
20. What do you dislike about writing in English?

Read the statements below.

Circle the number from 0-100 that best describes how you feel about the question.

21. I can write good academic essays in English.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

22. When writing an essay, it is easy for me to think of the words that I want to say.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

23. When writing an essay, I know what I am expected to include.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

24. When writing an essay, I can organize my ideas well.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

25. When writing an essay, I can use academic vocabulary effectively and accurately.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

26. When writing an essay, I feel confident about my ability to do the assignment well.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

APPENDIX F

Post-Intervention Questionnaire

What Do You Think About Writing?

Post-Workshop Questionnaire

What You Think About Writing

1. What kinds of writing do you do in your daily life?
2. What kind of writing do you think will be important for success in college and a future career?
3. What are the steps in the writing process? (How do you prepare to write an essay?)
4. What should be included in an academic essay?
5. What do you like about writing in English?
6. What do you dislike about writing in English?

Read the statements below.

Circle the number from 0-100 that best describes how you feel about the question.

7. I can write good academic essays in English.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

8. When writing an essay, it is easy for me to think of the words that I want to say.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

9. When writing an essay, I know what I am expected to include.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

10. When writing an essay, I can organize my ideas well.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

11. When writing an essay, I can use academic vocabulary effectively and accurately.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

12. When writing an essay, I feel confident about my ability to do the assignment well.

0	10	20	30	40	50	60	70	80	90	100
No!	Not sure			Maybe			Probably			Definitely!

APPENDIX G

Post-Intervention Semi-Structured Interview Guide

Thank you for agreeing to talk to me today about your educational experiences. If you don't mind, I would like to tape record what you say so that I don't miss any of it. I also want to make sure that I don't write something down incorrectly. If at any time during the interview you would like me to turn off the recorder, please just ask and I will.

Post-Workshop Interview Questions

Additional follow-up questions may be asked as appropriate and relevant.

1. Tell me about the writing strategies that you learned in this workshop.
2. Describe what you like about the strategies.
3. Tell me about parts of the strategies that you did not like.
4. Tell me about any parts of the strategies that you would change.
5. Tell me about ways that the strategies helped you write better.
6. Tell me how you might continue to use the strategies in the future.
7. Describe what you think good writing is, (or please give me an example of good writing).
8. Describe what you think good writers do and think about while they are writing.
9. Please describe what you do and think about while you are writing?
10. What kinds of strategies help you write your essays?
11. What aspects of your writing would you like to continue to improve?
12. How has the quality of your writing changed during the workshop?
13. Is there anything else that you want to share with me about the writing strategies or the workshop?

This is the end of the interview, thank you for talking to me today.

APPENDIX H

PO²WER and TREE Mnemonics



PO²WER Writing!

- P** - Plan
- O²** - Organize
- Outline
- W** - Write
- E** - Edit
- R** - Revise

TREE

Argumentative and Analytical Writing



- T** → **Thesis Statement**
- Introduce the topic and state a claim.
 - Engage the reader.
- R** → **Reasons**
- Support your thesis statement with at least 3 reasons.
 - Begin a paragraph for each new idea.
 - Include a thesis statement to introduce the new ideas in each paragraph.
- E** → **Explain/ Expand**
- Provide at least two supports, explanations, expansion, and examples for each reason.
 - Use transitional and cohesive devices to show relationships between reasons and support.
- E** → **Ending**
- End each paragraph with a concluding idea and transition/ cohesive device to your connect to your next idea/ reason.
 - End your essay with a conclusion that provides a sense of closure and connects to your thesis statement.

APPENDIX I

Self-Recording Writing Progress Graph

Writing Progress

Fluency (# of words/ 30-minutes)

250								
225								
200								
175								
150								
125								
100								
75								
50								
25								
Writing #	1	2	3	4	5	6	7	8

Overall Quality (score on the rubric)

20								
18								
16								
14								
12								
10								
8								
6								
4								
2								
Writing #	1	2	3	4	5	6	7	8

Error Type

Verb								
SV								
Sing/ Plural Nouns								
? _____								
Writing #	1	2	3	4	5	6	7	8

APPENDIX J

Implementation Fidelity Checklists

Intervention Procedures – Grammar Instruction Week 2, Day 3	Scoring
Warm Up	
<ul style="list-style-type: none"> • Create a welcoming class environment by greeting the students • Set clear expectations by providing an agenda and objectives for the day 	
Support It – Self-Regulation/ Self-Monitoring	
<ul style="list-style-type: none"> • Explicit instruction on how the rubric aligns to TREE and editing marks • Model for students how to graph their writing progress • Provide opportunity and support for students to graph their progress • Model how to set goals for the next writing assignment • Provide opportunity and support for students to set goals 	
Support It – Grammar Instruction	
<ul style="list-style-type: none"> • Explicit grammar instruction • Provide opportunity for students to collaborate to identify the grammar pattern in the text • Guide students to collaborate to practice the grammar form • Review grammar practice and answer questions 	
Support It – Revision	
<ul style="list-style-type: none"> • Review the writing process – explain the importance of Edit/ Revise • Provide opportunity for students to analyze their own writing for the same grammar • Support students by walking around and answering questions • Encourage students to revise any grammar errors 	
Support It - PO²WER	
<ul style="list-style-type: none"> • Review and quiz students on the PO²WER mnemonic • Provide the prompt for the next writing assignment • Support students to PLAN by modeling and guiding them how to break down the prompt • Support students ORGANIZE by modeling and guiding them to brainstorm ideas for each part of the prompt • Support students to OUTLINE by providing the TREE organizer and guiding them to put their ideas in outline form • Give students 30 minutes to WRITE using the outline. • Encourage students to EDIT by proofreading and checking their writing before turning it in. • Remind them that they will REVISE the writing the following day. 	
Closure	
<ul style="list-style-type: none"> • Thank the students for a good session • Provide homework for the next day and a preview of what to expect 	
Scoring Key: 2=implemented; 1=partially implemented; 0=not implemented; n/a=not applicable	

Intervention Procedures – Text Deconstruction Week 1, Day 4; Week 2, Day 2	Scoring
Warm Up	
<ul style="list-style-type: none"> • Create a welcoming class environment by greeting the students • Set clear expectations by providing an agenda and objectives for the day 	
Support It – Text Deconstruction	
<ul style="list-style-type: none"> • Review of essay and paragraph construction • Contextualize text by explaining the purpose of the content • Model text deconstruction for structure and how to complete the TREE organizer • Support students to collaborate to deconstruct text and complete the TREE organizer by circulating and answering questions • Review deconstructed text and answer questions 	
Support It - PO²WER	
<ul style="list-style-type: none"> • Review and quiz students on the PO²WER mnemonic • Provide the prompt for the next writing assignment • Support students to PLAN by modeling and guiding them how to break down the prompt • Support students ORGANIZE by modeling and guiding them to brainstorm ideas for each part of the prompt • Support students to OUTLINE by providing the TREE organizer and guiding them to put their ideas in outline form • Give students 30 minutes to WRITE using the outline. • Encourage students to EDIT by proofreading and checking their writing before turning it in. • Remind them that they will REVISE the writing the following day. 	
Support It – Self-Regulation/ Self-Monitoring	
<ul style="list-style-type: none"> • Provide opportunity and support for students to self-monitor their inclusion of writing elements by completing the TREE rubric. 	
Closure	
<ul style="list-style-type: none"> • Thank the students for a good session • Provide homework for the next day and a preview of what to expect 	
Scoring Key: 2=implemented; 1=partially implemented; 0=not implemented; n/a=not applicable	

APPENDIX K

Institutional Consent Form

INSTITUTIONAL CONSENT FORM

Project: Writing Intervention and Dissertation Research

Topic: Culturally Responsive and Evidence-Based Approach to Excellence (CREATE) in Writing Summer Workshop

Researcher: Caroline Torres, Doctoral Candidate, University of Hawai'i at Manoa; Instructor, Kapi'olani Community College

Participant Institution: Kapi'olani Community College

Kapi'olani Community College grants permission for Caroline Torres to engage in dissertation research that will use Kapi'olani Community College as the venue for a writing intervention and research. The research will include providing writing instruction, in the form of a specially designed culturally responsive and self-regulated writing intervention, to college students with disabilities. The research will also include analysis of student writing quality and accuracy, student interviews, and a survey of the students' perceptions of writing and the writing intervention.

The goal of the intervention is to help struggling writers to become better prepared for the writing demands of college and careers. This intervention and research will occur during a two week summer workshop in conjunction with the Pacific Alliance through the Center on Disability Studies at the University of Hawai'i at Manoa.

All information will be treated with confidentiality, including the identity of the institution, and will not be revealed in the writing of the dissertation. The researcher will obtain prior approval for the study by the Institutional Review Board (IRB) at the University of Manoa.

Signed 
(Institutional Representative)

Date May 1, 2015

Title Dean of Arts & Sciences, Kapi'olani Community College

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