BOOKS FOR BOTSWANA: DEVELOPING, READING, AND WRITING
INFORMATIONAL TEXTS WITH YOUNG CHILDREN

By

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A DISSERTATION

Submitted to
Michigan State University
In partial fulfillment of the requirements
for the degree of

Educational Psychology and Educational Technology – Doctor of Philosophy

2015

ABSTRACT

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This dissertation contains two manuscripts, both related to the development and use of culturally relevant and sustainable informational texts. The first manuscript is written as a research article reporting on the creation and use of culturally relevant informational texts with young children in Botswana. The manuscript describes the study's rationale and background, methods of implementation and analysis, findings and implications, limitations, and significance. The second manuscript is written as an article for a practitioner journal, focusing on how to create and use culturally relevant informational texts in the classroom.

Both manuscripts draw from the same study of standard two (second year of formal schooling, when children are ages seven to eight) children in Botswana. The study had two research questions: (1) What are culturally relevant informative/explanatory and procedural text topics for standard two students in the northwest region of Botswana? and (2) What changes, if any, occur in standard two students' emergent reading and writing of informative/explanatory and procedural texts after participating in reading and writing lessons using culturally relevant texts of each genre and in a control group?

The study had three phases. In phase one, parent surveys were administered and collected to determine culturally relevant informational text topics. During phase two, survey results were used to create 15 texts (ten informative/explanatory and five procedural) used in 20 lesson plans. Phase three involved the implementation of the developed lessons as an intervention over a six-week period. Forty-four children from a town and rural school were randomly assigned within

setting to experimental or control conditions (22 per group). All participating children completed pre- and post-assessments to ascertain their abilities to read and writing procedural and informative/explanatory texts through writing samples and emergent readings.

Analyses of surveys from phase one of the project involved tallying and ranking the responses to determine relevant and important topics; 15 topics were selected for the development of texts. To examine the impact of the intervention based on pre- and post-assessments from phase three, I used Wilcoxon signed-rank tests to compare pre- and post-assessments by condition on three types of scores: a stage of writing development score, a holistic score for each genre, and a total trait/feature score for each genre. Results indicate statistically significant increases in post-assessment scores for children in the experimental group for four out of five writing measures: stage of writing development, holistic score for informative/explanatory writing, total trait/feature score for procedural writing, and total trait/feature score for informative/explanatory writing, but no statistically significant effects on emergent reading measures. Children in the control group did not show statistically significant increases in their post-assessment scores for writing or reading.

This dissertation research answers calls to meet literacy needs in developing nations, such as by providing access to high quality reading materials, teaching reading and writing together, and instilling a spirit of evaluation in research and school contexts (Hoffman, 2009). It contributes to the field by providing evidence that informational texts on culturally relevant topics can be used to leverage increases in student achievement, even after a brief intervention of twenty 15-20 minute lessons in a six-week period. It also suggests practical implications for determining culturally relevant informational text topics and the creation and use of texts with young children.

ACKNOWLEDGEMENTS

On my first trip to the African continent, I saw a large mural in the Johannesburg airport with a common African saying, "If you want to go fast, go alone. If you want to go far, go together." This dissertation was definitely the product of going together.

First and foremost, I would like to thank my dissertation director and advisor, Dr. Nell Duke. She has provided me with experiences, opportunities, mentoring, and support throughout my doctoral studies—allowing me to achieve more that I thought possible in regards to my own research, practice, and service. I would also like to express my gratitude for the other members of my dissertation committee. Dr. John Metzler helped me to grow in my love and knowledge of Africa, teaching me what it means to be a true Africanist. Dr. Cheryl Rosaen supported my teaching and research, showing me how to be a teacher and researcher who truly puts children first, and Dr. Douglas Hartman who was willing to join my committee, contribute great insights, and provide valuable guidance.

In addition, I would like to thank my colleague Meghan Block for providing support, guidance, and feedback on this study, throughout my doctoral program, and in life. I am grateful for Joan Binkow and Laura Cox who were willing and able to come to Botswana for a few weeks, do assessments with kids, and make the impossible possible. Also, for Cheryl Kelly who coded all of the assessments for this study (and enjoyed it), and Dr. Kim Maier who generously provided guidance and expertise regarding the statistical analyses. Additionally, I would like to thank the Graduate School and my doctoral program at MSU for funding, the Ministry of Education and Skills Development in Botswana, and the children, teachers, and parents involved in this study.

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INTRODUCTION

Literacy development in Africa is receiving increased attention in research and global education initiatives. This attention is accompanied by scholars' concerns regarding the ability of western approaches to meet growing needs and by unanswered calls for localized solutions (Perry, 2008). Researchers such as Aura and Aura (2011), Commeyras and Ketsitlile (2013), Commeyras and Mazile (2011), and Perry (2008) have identified a problematic misconception prominently found in newspapers, reports, social media, conferences, and conversations viewing Botswana, and all African countries, as lacking a culture of reading. They explain that, for some, this erroneous conclusion is based on the limited numbers of books found in homes and schools, a perceived lack of reading for pleasure, and/or an emphasis on conversation and language over reading. Sometimes cultural differences such as rich oral traditions of communities and the incongruence between African and Western literacy practices and/or ideals are seen as compensatory for an absence of books or the presence of a reading culture (Commeyras & Mazile, 2011).

I began my work Botswana after a global fellowship trip to learn about and visit schools in the area. As I learned more about this country, I discovered that Botswana has a relatively high literacy rate, 85% in 2011 for all adults 15 and older (World Bank, 2013), and studies have shown that a culture of reading does exist (e.g., Aura & Aura, 2011; Commeyras & Ketsitlile, 2013). However, I also spent time in primary schools there and saw, just as other researchers had, that current literacy materials and instruction were limited by their availability, quality, and relevance to children's lives (Commeyras & Ketsitlile, 2013; Perry 2008). Many children in school in Botswana do not have the opportunity to see and use a variety of books and other texts

resonant with their experiences (Perry, 2008). There is an inadequate volume of materials and a limited variety of genres (Commeyras & Ketsitlile, 2013). The availability of texts is often hampered by a lack of resources including paper, textbooks, trade books, and writing materials. There is a lack of bookstores, materials are expensive and hard to find, and libraries have insufficient and minimal inventories (Watanabe, 2014). Few books are used in schools, and texts used tend to include textbooks that are outdated and/or created outside of the country (Commeyras & Ketsitlile, 2013).

In addition, currently used literacy materials and practices in Botswana's schools vary a great deal from the ways literacy is practiced outside of a schooling context. Commeyras and Ketsitlile (2013) describe writing experiences as limited to copying generic sentences, words, problems, questions, and answers with a heavy emphasis on handwriting. Indeed, these literacy practices are so unlike those commonly practiced in homes and communities—and yet so valued—that, for many, schooling is viewed as the only place where "real" literacy practices occur (Watanabe, 2014a). Perhaps because of the discontinuity between uses of literacy in school and literacy at home, parents who do want to support their children's literacy learning are often unsure how to do so (Commeyras & Ketsitlile, 2013).

National curriculum standards and goals such as Botswana's Syllabi for English and Setswana (United Nations Educational, Scientific, and Cultural Organization [UNESCO] & International Bureau of Education [IBE], 2010) and the United States' Common Core State Standards (National Governors Association [NGA] & Council of Chief State School Officers [CCSSO], 2010) emphasize the use of a variety of genres across content areas to promote increased reading and writing abilities. However, in Botswana schools, young children's access to books and opportunities to read and write a variety of genres are limited (Commeyras &

Ketsitlile, 2013; Watanabe 2014). Further, instruction rarely includes the use of texts as they are typically used outside of a schooling context (Commeyras & Ketsitlile, 2013; Perry, 2008).

Mundy (1993) calls for a conceptualization of literacy and a view of literacy outcomes that considers the everyday lives of the people in a particular context as well as the complex position of African nations in relation to the rest of the world. He explains that we cannot base our conceptualizations, materials, and practices comparing contexts; we must understand the affordances and constraints of literacy practices and outcomes within a particular context and use this knowledge to teach and support students in relevant ways.

I have seen first-hand that access to high quality materials and instruction, particularly those resonate with children's culture(s) and experiences, was and continues to be limited in Botswana. My experiences have helped me to see that fleeting libraries of poor quality books are not going to engage readers and support a culture of reading in the classroom. But providing children with more numerous, consistent, high-quality, culturally relevant texts from a variety of genres might further improve literacy rates and better support the true culture or cultures of reading in Botswana.

Additionally, children must be given increased access and exposure to a variety of texts (Donovan & Smolkin, 2006), and these texts should be culturally relevant, recognizing and building upon children's experiences at home and school (e.g., Duke & Purcell-Gates, 2003; Moll, Amanti, Neff, & Gonzalez, 1992). Informational texts are one way to bridge home and school contexts (e.g., Duke, 2000; Duke & Kays, 1998), and therefore, authentic literacy events using culturally relevant informational texts may be one way to increase literacy achievement.

Overview of the Dissertation

This dissertation study combines elements of cultural relevance and sustainability, authentic literacy events, and reading and writing informational genres in the educational context of Botswana. I developed and used culturally relevant informational texts with standard two (second year of formal schooling, when children are seven to eight years old) children in northwest Botswana. I determined culturally relevant informational topics, used the topics to create 15 texts used in 20 lesson plans, implemented an intervention using the texts and lessons plans, and compared pre- and post-assessment scores for children who participated and did not participate in the intervention.

I used an alternative dissertation format (Duke & Beck, 1999) to report the results of this dissertation study. This format includes two different manuscripts written as journal articles for publication. The first manuscript is written for researchers and includes: (a) rationale and background, (b) methods of implementation and analysis, (c) findings, and (d) implications, limitations, and significance. The second manuscript is written for practitioners and includes suggestions for: (a) the creation and implementation of the culturally relevant informational texts and (b) instructional practices based on this work. Appendices contain additional information related to the project.

The study used parent surveys to support identification of culturally appropriate informational text topics, and 15 texts (ten informative/explanatory and five procedural) used in 20 reading and writing lessons focusing on both genres were created. Forty-four students were randomly assigned to experimental and control groups (22 per group) from a town and rural school. Children in the experimental group participated in the intervention developed from the

created texts and lessons over a six-week period. Pre- and post-assessments using writing samples and emergent readings were administered to all 44 students and used to examine abilities to read and write procedural and informative/explanatory texts.

Children in the experimental group had statistically significant increases in their post-assessment scores for four out of five writing measures: stage in writing development score, holistic score for informative/explanatory writing, total trait/feature score for procedural text writing, and total trait/feature score for informative/explanatory writing. However, the children in the experimental group did not have any statistically significant increases in emergent reading scores. For children in the control group, there were not any statistically significant increases in scores for writing or emergent reading.

Findings from this study suggest that informational texts on culturally relevant topics can be used to leverage increases in student achievement; this brief intervention led to statistically significant increases in students' literacy outcomes. These findings may inform future work relating to the development of texts for young children.

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MANUSCRIPT ONE: BOOKS FOR BOTSWANA: DEVELOPING, READING, AND

WRITING INFORMATIONAL TEXTS WITH YOUNG CHILDREN

Abstract

Children in Botswana have limited access to high quality, culturally relevant literacy materials and instruction. This study examined the creation and use of culturally relevant and sustainable informational texts with standard two (second year of formal schooling, when children are 7-8 years old) children in Botswana. Two research questions were addressed: (1) What are culturally relevant informative/explanatory and procedural text topics for standard two students in the northwest region of Botswana? and (2) What changes, if any, occur in standard two students' emergent reading and writing of informative/explanatory and procedural texts after participating in reading and writing lessons using culturally relevant texts of each genre and in a control group? Parent surveys were used to identify topics for 15 texts (10 informative/explanatory and 5 procedural) used in 20 lesson plans. Forty-four students from a town and rural school were randomly assigned to experimental and control groups (22 per group). Children in the experimental group participated in 20 reading and writing lessons focusing on either genre over a six-week period. All 44 students participated in pre- and post-assessments to ascertain their abilities to read and write informative/explanatory and procedural texts through emergent readings and writing samples. Children from the experimental group had statistically significant increases in their post-assessment scores for four out of five writing measures: stage of writing development, holistic score for informative/explanatory writing, total trait/feature score for procedural writing, and total trait/feature score for informative/explanatory writing, but no statistically significant effects on emergent reading measures. Children from the control group

did not show statistically significant increases in their post-assessment scores for writing or reading. Findings from this study may inform future work relating to the use and creation of culturally relevant and sustainable informational texts with young children.

Books for Botswana: Developing, Reading, and Writing Informational Texts with Young Children

Literacy development continues to receive increased attention in research and global education initiatives, particularly in developing nations. However, the quality of these initiatives tends to vary in terms of content, design, and implementation. Hoffman (2009) cites four main areas of literacy needs in developing countries: (a) high quality reading materials, (b) preparing teachers to use the materials, (c) teaching writing and reading together, and (d) instilling a spirit of evaluation in research and school contexts. He warns that we must stop making false promises and following false premises when doing literacy work in developing countries. We cannot make claims about programs and materials that are not supported by research, and there must be a responsible use of the resources we do use and are given.

This increased attention to literacy development is sometimes accompanied by the problematic misconception prominently found in newspapers, reports, social media, conferences, and conversations viewing Botswana, and all African countries, as lacking a culture of reading (Aura & Aura, 2011; Commeyras & Ketsitlile, 2013; Commeyras & Mazile, 2011; Perry, 2008). Inadequate solutions have been implemented based on this and other misconceptions, raising scholars' concerns regarding the ability of western approaches to meet growing needs and unanswered calls for localized solutions (Perry, 2008). In actuality, Botswana has a relatively high literacy rate, 85% in 2011 for all adults 15 and older (World Bank, 2013), and studies have shown that a culture of reading does exist (e.g., Aura & Aura, 2011; Commeyras & Ketsitlile, 2013).

In Botswana, current literacy materials and instruction are limited in their availability, quality, and relevance to children's lives (Commeyras & Ketsitlile, 2013; Perry 2008). Many

children do not have the opportunity to see and use a variety of books and other texts resonant with their experiences at school and home (Perry, 2008). Children have limited access to texts, particularly culturally relevant and informational texts, and are not given opportunities to engage in authentic reading and writing activities connecting home and school. Additionally, materials and instruction are not reflective of the ways literacy is practiced outside of a schooling context.

The purpose of this study was to develop culturally relevant informational texts for standard two (second year of formal schooling, generally ages 7 - 8) students in two areas within Botswana and examine how exposure to and participation in authentic literacy events with these texts influences children's ability to read and write them. In particular, informational texts of two genres—informative/explanatory and procedural—were the focus for this study.

Theoretical Framework and Review of Literature

This study drew on a socio-cognitive theoretical perspective as applied to early childhood literacy development (e.g., Purcell-Gates, 2013; Purcell-Gates, Jacobson, & Degener, 2004). This perspective integrates a cognitive developmental and a situated view of learning within an early childhood context—allowing a focus on early literacy development while emphasizing the importance of children's culture or cultures, both important components in developing and using culturally relevant informational texts with young children.

Five bodies of literature informed this study: (a) access to text, (b) culturally relevant materials and pedagogy, (c) authentic literacy events, (d) informational texts, and (e) the educational context—Botswana. These topics, and particularly their application with young children, are examined in more detail below.

Access to Text

United Nations Educational, Scientific, and Cultural Organization or UNESCO's (1990) Education for All or EFA initiative and the later Dakar EFA Framework for action (UNESCO, 2000) call for equal access to education. Many programs, initiatives, reports, and research have been created to help make this goal a reality across the globe, and the African continent has been a prime venue for this work. A variety of projects have and continue to be organized to collect and send books, send money, and build libraries for children, such as the *Books For Africa* (www.booksforafrica.org) project and *Worldreader* (http://www.worldreader.org). The majority of these projects are based on the premise that providing children with increased exposure and access to books improves abilities to read and write texts. However, many of the projects are created and established without regard to local culture, quality of books, and sustainability (Mundy, 1993). These perceived "solutions" have had limited success and are considered by many to be "at best, inadequate and at worst insulting" (Mundy, 1993, p. 389).

Hoffman's (2009) work with the Ithuba Writing Project in South Africa is an example of a program promoting increased access to high quality culturally relevant texts in a cost effective way. The project, in cooperation with the USAID textbook and learning materials program, focuses on the creation of books for students in grades four, five, and six while developing sustainable community partnerships. Educators from Africa have written books in nine different languages to provide materials in children's home languages.

Studies in the U.S. have examined how increased exposure and access to books improves abilities to read texts, particularly over the summer months when students are not in school (Allington, McGill-Franzen, Camilli, Williams, Graff, Zeig, Zmach, & Nowak, 2010; Kim, 2007; Kim & White, 2008; McGill-Franzen, & Allington, 2008). Children read more when given

more access to books (Kim, 2007), and, at least with some scaffolding in addition to the increased access, this lead to significant growth in reading comprehension (Kim & White, 2008). Additionally, when given increased access to books from which they could self select, children read more and, again, had improved literacy achievement (Allington et al., 2010).

There is a genre-specific nature to reading and writing, and therefore, providing increased access to text must consider the genres we want children to learn to read and write. Genre-specific knowledge may not necessarily transfer from one genre to another, and different genres place different demands on children (Kamberelis, 1999). That is, learning to read or write one genre does not necessarily mean being able to read and write in another genre (Duke & Roberts, 2010; Kamberelis, 1999; Purcell-Gates, Duke, & Martineau, 2007). We learn a genre as we learn to use it, and having exposure and experience with a genre provides an opportunity for this learning (Kamberelis, 1999). Some genres require the use of certain processes and knowledge, both of content and of a socio-cultural nature, while other genres require other processes and knowledge (Duke & Roberts, 2010). Thus, we should be providing children with access and exposure to the genres we want them to learn.

Studies have also found that experience with specific genres increased children's knowledge of or abilities to read and write those genres (e.g., Duke & Kays, 1998; Kamberelis, 1999; Olinghouse & Wilson, 2013; Pappas, 1993). Pappas (1993) and Duke and Kays (1998) exposed children to specific genres, and after this exposure, children's pretend or emergent readings contained more prototypical characteristics of these genres. Pappas (1993) gave kindergarteners one narrative and one informational text to "read" using an emergent reading technique at different points in the school year. Children's emergent readings included different language for narrative and informational texts. Kindergarteners were just as capable of learning

from and using the language of information books as narrative books, a point of contention at the time, and the emergent readings embodied many of the prototypical features of informational text. Duke and Kays (1998) had kindergarteners give emergent readings before and after listening to read alouds of information books over a period of three months. Children's emergent readings were more reflective of information book language and features—including technical vocabulary, timeless verb constructions, generic noun constructions, and compare/contrast and classificatory structures— after they had listened to information book read alouds.

Kamberelis (1999) examined kindergarteners', first graders', and second graders' written stories, science reports, and poems. Children's stories were found to include more of the prototypical genre-specific elements of that genre than their science reports and poems of informative/explanatory and poetic genres respectively. Children who had more experience with a genre were better able to write texts resembling and containing characteristic elements of that genre. Kamberelis (1999) concluded that children needed a more well balanced "literary diet" that provides children with exposure to the genres we want them to learn and know, a call discussed further in the Informational Texts section of this review.

Culturally Relevant and Sustainable Materials and Pedagogy

Culture and *diversity* are sociological terms and constructs, but the ways these terms are used can lead to real and serious consequences for the ways people live their lives, learn, and/or are viewed by others (Tatum, 2011). An understanding of the relationship between culture and education has been and continues to be a major focus in educational research. There seems to be agreement that culture does play a role in learning, and the relationship between one's culture(s), context(s), and setting(s) for learning must be considered (Bruner, 1996; Cole, 1996; Gee, 1990;

Ladson-Billings, 1992, 1995; Moll, Amanti, Neff, & Gonzalez, 1992; Paris, 2012; Purcell-Gates, 2010a, 2010b, 2013; Vygotsky, 1978).

According to Ladson-Billings (1992), past research used a variety of terms to define cultural relevance and a match between school and student culture such as *culturally appropriate*, *culturally congruent*, *culturally responsive*, and *culturally compatible*. Her work with African American students brought the term *culturally relevant* to the attention of many scholars. Ladson-Billings (1992) explains that culturally relevant teaching does not just match school and student culture; it uses culture to help students "understand themselves and others, structure social interactions, and conceptualize knowledge" (p. 314). Culturally relevant pedagogy creates cultural competence in which teachers "use students' culture as a vehicle for learning," (Ladson-Billings, 1992, p. 161), affirm cultural knowledge, and learn the value of what they are, what they have, and where they are from.

Many researchers have examined connections between culture and literacy (e.g., Heath, 1983; Lee, 1995; Moll et al., 1992), and many studies have attempted to take the concept of culturally relevant pedagogy and apply it to literacy experiences and materials. Research during the 1960s and 1970s employed a deficit model to teaching and learning, seeing a need for students from marginalized groups to overcome their ways of being, but an era of what Paris (2012) calls *resource pedagogies* emerged based on the work of Moll, Amanti, Neff, and Gonzalez (1992). Moll et al. (1992) highlighted the cultural and cognitive resources of working-class Mexican American and Mexicana/o households in relation to education and learning. These resources, or *funds of knowledge,* were rich opportunities to be drawn upon in the classroom to promote learning, and literacy learning in particular. Other studies also draw on the idea of using cultural resources in the classroom not only to be relevant or responsive, but to do much more,

such as creating spaces and processes uniquely situated for collaboration and learning (e.g., Gutiérrez, Baquedano-Lopez, & Tejeda, 1999).

Paris (2012) also argues that pedagogy should involve more than responding to or relating to cultural practices and experiences, and it should be more than using certain experiences and materials with students. Participants in literacy activities should engage in *culturally sustaining pedagogy,* enabling them to sustain "the cultural and linguistic competence of their communities while simultaneously offering access to dominant cultural competence" (Paris, 2012, p. 95). Through culturally sustaining pedagogies, students are supported in the process of maintaining their own linguistic and cultural practices. Literacy activities extend and sustain, not just relate or are responsive to culture and cultural practices.

In sum, conceptualizations and theories about literacy instruction can assist or limit students' abilities to be participants in the world and fully express themselves (Tatum, 2011). Cultural relevance is more than simply including concepts of practice that are familiar to students. The key is being able to use funds of knowledge, culture, and cultural practices to provide important opportunities for literacy learning and development that may otherwise be missed, overlooked, or discounted (Tatum, 2011). It is to provide students with access to tools, processes, and opportunities that optimize literacy learning.

Authentic Literacy Events

Authentic literacy events "replicate or reflect reading and writing activities that occur in the lives of people outside of a learning-to-read-and-write context and purpose" (Duke, Purcell-Gates, Hall, & Tower, 2006, p. 346)—essentially, real-life texts that are read and written for real-life purposes. Each authentic literacy activity or event must have a true communicative purpose and include texts resembling those used by readers and writers outside of the schooling or

learning to read and/or write context. Schooling tends to involve reading and writing events created specifically for a schooling context—school only or school-based literacy events. But authentic literacy events are like those that are seen in a home and/or community context and can be a powerful tool to address mismatches between the contexts of home/community and schools and promote literacy learning by building on what is familiar to students, using texts for the purposes for which they were originally developed, and increasing motivation to read and write.

Although many studies have examined the relationship between young children's literacy practices at home and in school, many of them have focused on characteristics of families (e.g., SES, parent's education) or were limited to one particular literacy practice (e.g., storybook reading). Few studies have focused on what families and communities do, the practices of literacy that make up their everyday lives (Sulzby & Teale, 1991).

To address this issue, Purcell-Gates (2010a, 2010b; Purcell-Gates et. al, 2004) explored how literacy practices that aligned and/or did not align with literacy practices commonly used and recognized in school affected literacy learning. She and many other scholars documented mismatches between the literacy practices in homes/communities and schools (e.g., Au & Mason, 1981; Heath, 1983; Purcell-Gates, 1996, 2013). In a descriptive study of young children's home literacy practices in low-SES settings, Purcell-Gates (1996) found great variability in the frequency and types of literacy events taking place in homes, with many of these literacy events not represented in the literacy events in the school context. A recent ethnographic study examined the mismatch between practices in a Migrant Head Start program and the funds of knowledge of the preschool population it served (Purcell-Gates, 2013). Home settings were found to value and contain a variety of resources and opportunities for literacy learning, but these

experiences were not used in the context of school. These studies reveal a missed opportunity for authentic literacy events to be incorporated into school contexts.

Research has shown that the use of more authentic literacy events is associated with greater growth in literacy, supporting a call for the use of literacy events that align more closely with students' lives outside of school (e.g., Purcell-Gates, Degener, Jacobsen, & Soler, 2007; Purcell-Gates, Duke, & Martineau, 2007). One study found that the authenticity of literacy events used in adult literacy programs had a statistically significant correlation with adult-students' reading and writing frequency and/or the types of texts they read and wrote (Purcell-Gates, Degener, et al., 2007). When second- and third-grade teachers incorporated more authentic literacy events into their science instruction, students showed higher growth in informative/explanatory and procedural text reading and writing (Purcell-Gates, Duke, et al., 2007). Authentic contexts and purposes gave children the opportunity to use genre as a cultural resource to draw upon when making literacy choices.

Informational Texts

The term *informational text* has been defined, studied, and used in a variety of ways. Usually informational text is seen as one of two main categories of text, the other being narrative or literary text, with a purpose of relaying information. The Progress in Reading Literacy Study or PIRLS Reading Framework (Mullins, Martin, & Sainsbury, 2013) divides texts into these two categories, literary and informational. Literary texts are described as those that are read for "literary experience," whereas informational texts are described as those read and written to use and acquire and/or provide information. The National Assessment of Educational Progress or NAEP (National Assessment Governing Board, 2013) and the Common Core State Standards or CCSS (National Governors Association & Council of Chief State School Officers, 2010) also use

the terms *literary* and *informational* in reference to reading and *opinion* then, in the later grades, *argument*, *informative/explanatory*, and *narrative* in reference to writing, with subtypes underneath each of the two categories. The NAEP Reading Framework (National Assessment Governing Board, 2013) explains that the purpose of informational texts is "convey[ing] information or ideas" (p. 7), and indicates that they can be categorized into: (a) exposition, (b) argumentation and persuasive text, and (c) procedural text and documents.

Informational texts convey information in some way, and there are a variety of genres of informational text differentiated by the texts' purposes. For example, a biography conveys information with the purpose of telling about someone's life whereas a procedural text conveys information with the purpose of teaching someone how to do something they need and/or want to know how to do. The purposes of these texts are different, and therefore, they are different genres with different forms and features. The variation of the purpose and forms/features between biography and procedural text illustrates that many genres that are distinct in important ways can be included under the broad term *informational text*. In this paper, following the Common Core State Standards, I use the term *informative/explanatory text* to refer to the type of informational text that has as its primary purpose teaching about the natural and social and *procedural text* to refer to the type of informational text that teaches someone how to do something they need and/or want to know how to do.

Research in settings with young children the U.S. has found limited use of informational among texts read, written, displayed, and made available (Duke, 2000; Jeong, Gaffney, & Choi, 2010; Pentimonti, Zucker, Justice, & Kaderavek, 2010). In my experience, this trend of limited informational text use is also prevalent in Botswana as reading materials and activities tend to include narrative text. This is problematic as "Informational literacy is central to success, and

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even survival, in advanced schooling, the workplace, and the community" (Duke, 2000, p. 202). Informational texts give readers and writers access to information that enables them to be successful both inside and outside of school. Acquiring information from text is important because many tasks in schooling and in society require using information from texts (Duke, 2000; Mullins et al., 2013; National Assessment Governing Board, 2013; NGA & CCSSO, 2010). Additionally, some attribute the limited use of informational texts to controversial notions that certain genres (e.g., narrative) are more appropriate or "natural" for young children, but a body of research counters this argument, illustrating that young children can and do learn from and use informational texts (Donovan & Smolkin, 2006; Duke & Kays, 1998; Pappas, 1993; Tower, 2003).

In addition to providing preparation for later schooling, the workplace, and society, informational texts may be motivating to some children (Caswell & Duke, 1998). Studies have found that many children prefer informational genres (Chapman, Filipenko, McTavish, & Shapiro, 2007; Mohr, 2006). Failing to capitalize on this preference is a missed opportunity. Children may not even realize their preference for informational genres as they may have had limited to no exposure to these genres (Duke, 2000; Duke & Kays, 1998; Watanabe & Duke, 2013). Capitalizing on children's preference for informational genres may help them develop more positive attitudes toward literacy and general and demonstrate stronger literacy performance.

Informational texts' purpose, to communicate information, creates opportunities for children to develop expertise in content and/or language as well as in literacy abilities such as reading and writing. Increased exposure to informational texts means increased opportunities for learning the content knowledge contained therein (Strachan, 2012). Many informational texts are

about topics traditionally classified in the areas of science and social studies (Duke, 2000) and exposure to reading and writing texts about a particular topic increases understanding of the content as well as the genre's purpose, form, and features (Anderson, 1998; Goldschmidt & Jung, 2011; Strachan, 2012).

Linking home and school literacy experience is another potential benefit gleaned from using informational genres with young children (Duke & Purcell-Gates, 2003; Purcell-Gates et al., 2007). Duke and Purcell-Gates (2003) advocated for employing genres used in homes as bridges to promote literacy performance and learning in school. Informational genres were found to be prevalent in homes (e.g., instructions, news articles, signs, labels) and were suggested as an authentic way to link genre learning at home and school.

Educational Context: Botswana

Botswana is a land-locked country in Southern Africa (see Figure 1) with a current population of about two million people (United Nations International Children's Emergency Fund, 2011). The area now known as Botswana became a British Protectorate called *Bechuanaland* in 1885 and attained independence in 1966. It was known as the world's least developed country at independence, but investments of money and effort have enabled Botswana to rise to an upper-middle income country (UNICEF, 2011).

Many initiatives have been explored and implemented to account for this progress, including a significant allocation of money to education (31.5% of the national budget in 2011), an emphasis on free, universal primary education (available since 1985), and a focus on raising the literacy rate (with a 2011 literacy rate for all adults 15 years and older of 85% and a youth literacy rate of 15-24 year olds of 95.3%). Despite this progress, problems remain including: (a) students having to travel long distances to schools, (b) lack of books, supplies, and classroom

space, (c) under-qualified teachers, particularly for young children, (d) little to no attention given to teaching and assessing reading, particularly beyond standard one, (e) teacher absenteeism, and (f) high dropout rates, particularly for those who struggle and/or are in standard one (Commeyras & Ketsitlile, 2013; Perry, 2008; Republic of Botswana Central Statistics Office, 2009).

Figure 1

Map of Botswana

(UNICEF, 2011)

During pre-colonial times, schooling in Botswana consisted of adolescent initiation schools that taught traditional skills called *bojale* for girls and *bogwera* for boys (Comaroff & Comaroff, 1991; Molosiwa, 2010; Tlou & Campbell, 1984). Missionaries entered the area and established schools emphasizing religious education. Literacy was seen as a means of conversion; being able to read meant being able to read the Bible (Comaroff & Comaroff, 1991; Tlou & Campbell, 1984). Individual villages began initiating ways to take greater control of schools with hopes of improving the quality of education and teaching. The British government officially oversaw schooling when Botswana became a British Protectorate, but they did little to develop education. In fact, Bechuanaland had the worst educational system of all the African British colonies during its time as a British Protectorate (Tlou & Campbell, 1986).

Botswana's current educational system was modeled after the British system and includes primary, junior secondary, and secondary school (see Table 1). The government does not fund pre-primary schools, and families must pay for children to attend. Primary education begins at age six and lasts for seven years (standards one through seven), but many children do not enter standard one until the age of seven. Secondary education officially begins at age 13 and lasts five years, three years of junior secondary school and two years of secondary school. Setswana, the national language of Botswana, is used during the first few years of schooling, and English, the declared official language of the country, becomes the medium of instruction thereafter (Commeyras & Ketsitlile, 2013). The latest policy on education establishes English as the medium of instruction from standard two forward. However, implementation of this policy is somewhat dependent on individual school. There are national curriculum standards in Botswana established by the Ministry of Education and Skill Development, and national syllabi including lesson objectives are provided for teachers as well.

Table 1

Botswana Education System

School	Grade Levels/Years	Typical age of Students
Pre-Primary School	Preschool or Nursery School	4 – 6 years old
Primary School	Standard 1	6 -7 years old
	Standard 2	7 - 8 years old
	Standard 3	8 – 9 years old
	Standard 4	9 – 10 years old
	Standard 5	10 – 11 years old
	Standard 6	11 – 12 years old
	Standard 7	12 – 13 years old
Junior Secondary School	Form 1	13 – 14 years old
	Form 2	14 – 15 years old
	Form 3	15 – 16 years old
Senior Secondary School	Form 4	16 – 17 years old
	Form 5	17 – 18 years old

Early primary classrooms tend to have limited resources, teachers with limited training, and school curricula and contexts that are starkly different than experiences and contexts of homes and communities (Perry, 2008). Issues center around the availability, quality, and relevance of the materials and instruction used. It is common to have classrooms and school libraries with few books, classrooms with limited school supplies, schools without classroom space, and electricity, broken doors and windows, and communities that view reading and

writing as only happening in school (Commeyras & Ketsitlile, 2013; Republic of Botswana Central Statistics Office, 2009; Watanabe, 2014a).

Commeyras and Ketsitlile's (2013) review of literature on reading instruction in Botswana primary schools concluded that classroom literacy instruction: (a) was not systematic—after standard one, (b) did not explicitly link the processes of reading and writing, (c) did not emphasize comprehension, and (d) rarely used informal reading assessments to identify students' abilities and needs—which, they argued, is because teachers were not taught how to do so. Studies found classroom instruction focused on correct answers and rarely used books, supplemental materials, and writing (Commeyras & Ketsitlile, 2013). Reading instruction concentrated on pronunciation. Writing instruction emphasized handwriting. Instructional time consisted of the teacher talking at the students with occasional opportunities for children to read aloud and answer questions in front of their classmates.

Purpose and Research Questions

Research in a U.S. context supports the notion that children given increased access to texts, particularly culturally relevant texts used in authentic literacy events, results in improved knowledge and skills. However, as explained previously, many young children in Botswana have limited access to texts, particularly culturally relevant and informational texts, and are not given opportunities to engage in authentic reading and writing activities connecting home and school. The purpose of this study was to develop culturally relevant informational texts for standard two (second year of formal schooling, when children are generally ages 7 - 8) students and examine how participation in authentic literacy events with these texts influences children's abilities to read and write them. The study focused on two genres of informational texts—

informative/explanatory and procedural texts. Therefore, the study sought to address the following research questions:

1. What are culturally relevant informative/explanatory and procedural text topics for standard two students in the northwest region of Botswana?

2. What changes, if any, occur in standard two students' emergent reading and writing of informative/explanatory and procedural texts after participating in reading and writing lessons using culturally relevant texts of each genre and in a control group?

Methods

There were three phases to this study (see Table 2) unfolding over the course of six months. During Phase one, parent surveys were used to gather appropriate topic ideas for the texts. Phase two involved creating the 15 texts (ten informational and five procedural) and lesson plans (reading lessons for each text and five writing lessons for a subset of the texts) for the intervention. Phase three included: (a) pre-assessments of writing and reading both informative/explanatory and procedural texts administered to all participants, (b) implementation of the intervention lessons with participants in the experimental condition, and (c) post-assessments, the same as the pre-assessments, given to all participants.

Participants and Classroom Context

The participants for this study were 44 standard two students from two public schools in the northern region of Botswana. One school was located in the largest town in the area, and the other school was located in a rural village. Each town classroom had about 35 students, and the rural school class had about 30 students. Students came from all four of the standard two classrooms in both schools, three classes in the town school (10 students from each classroom) and one class in the rural school (14 students). Participants were selected from the consented

students within each classroom and randomly assigned to experimental or control conditions—half the students from each class assigned to each condition. This design feature ensured that the effects of any reading and writing instruction by the classroom teachers would be equivalent for the experimental and control groups.

Table 2

Research Design

Phase	Research Question(s)	Data Sources	Data Analysis
Phase 1: Selection of text topics	RQ 1	Surveys	Tallies and rankings
Phase 2: Creation of texts and support materials	For use in the experimental group intervention	Texts Lesson plans	(to help describe implementation)
Phase 3: Pre-assessment, implementation, and post-assessment	RQ 2	Emergent readings Writing samples	Holistic analysis Feature/trait analysis Wilcoxon signed-rank tests Stages of writing analysis Holistic analysis Feature/trait analysis Wilcoxon signed-rank tests

The four classrooms followed the national curriculum mentioned previously using the national syllabi. Instruction included both English and Setswana in the subject areas of Math, Science, Cultural Studies, Setswana, and English. Standards for reading in both Setswana and English focus primarily on decoding skills and fluency. Standards for writing in both languages focus on handwriting, spelling, and conventions such as punctuation and capitalization. There is an emphasis on constructing simple sentences, and writing news reports is also mentioned. Both reading and writing standards include a component on translating from Setswana to English and

English to Setswana. The National standards require English as the primary language of instruction beginning halfway through the year in standard two. Prior to this, instruction usually includes a mix of Setswana and English. The transition to English as the primary language of instruction had been implemented before this study began, but implementation of the policy varied among classrooms.

Children from both groups participated in the literacy curriculum in English and Setswana mentioned above. Lessons generally included the teacher giving a demonstration and/or lecture on a particular concept and having the children participate by giving answers orally. Then, children copied and completed exercises in notebooks by filling in blanks, short answers, or selecting a correct response through multiple choice. During independent work time, children would complete assignments and have them individually checked by the teacher(s). If children finished early, they were expected to sit quietly until the other students had completed their assignments. Teachers helped complete logs recording the literacy concepts and activities used each week within their classrooms.

The Books for Botswana Intervention

The intervention used for this study included a series of 20 small-group lessons lasting 15 – 20 minutes each over the course of six weeks. Small groups of five (from each town school classroom) to seven (from the rural school classroom) students participated in reading and writing activities using and creating informational texts. The lessons took place during independent work time in the classroom (or classroom area, as some classes met outside) described above when children completed assignments and had them individually checked by the teacher(s). This was to ensure that children did not miss any instructional time while participating in the lessons.

Children in the control group received the same classroom literacy instruction from their classroom teacher as those in the experimental group. I visited with the teachers each day to discuss what the children in the control group did while I worked with the experimental group in the small-group lessons. Generally, the teachers reported that they gave students more independent work time, described in the previous section, most often for mathematics due to the fact that literacy was taught earlier in the school day.

The small-group lessons for children in the experimental group took place at a small table outside the classroom area to avoid distractions. I taught the lessons to the small groups at both schools to ensure optimal and consistent implementation for this exploratory study. Lessons were primarily taught in English, but I occasionally used some Setswana. A translator was present to provide support as needed in both Setswana and English. Table 3 includes descriptions of each lesson including: lesson name, genre, reading and/or writing focus, and activities. Thirteen of the lessons focused on reading and writing informative/explanatory texts, and seven lessons focused on procedural texts.

Fifteen of the lessons involved an interactive read aloud of a culturally relevant informational text and a reading or writing activity based on the text. During an interactive read aloud, children are involved before, during, and after a book is read aloud. Questions, prompts, comments, and positive reinforcement are used to actively involve children, and gains have been found in oral language and print knowledge for participating children (Mol, Bus, & de Jong, 2009). For this intervention, children were given an authentic purpose for listening to the text prior to the read aloud, discussions of concepts occurred during and after the reading, and there was an activity related to the book following the read aloud. For example, during an interactive reading lesson of a text title *How to Play Mmele*, a game resembling Tic-Tac-Toe, children were

Table 3

Lesson Descriptions

Name of Lesson	Genre	Primarily Reading and/or Writing	Purpose for Reading and/or Writing	Lesson Description
How to make tea	P	R	Learn how to make tea.	Interactive read aloud and retelling with props
How to rake the yard	P	R	Learn how to rake the yard.	Interactive read aloud and sequencing the steps with picture cards
How to buy an item from a shop	P	R	Learn how to buy an item from someone at a shop.	Interactive read aloud and retelling while the words are covered
How to buy and item interactive writing	P	W	Tell someone how to buy an item from someone at a shop.	Interactive writing
How to play Mmele	P	R	Learn how to play Mmele and play with a partner.	Interactive read aloud, retelling, and playing the game
Places in town	I/E	R	Identify and learn about important places in town.	Interactive read aloud (focus on labels) and retelling
Independence Day	I/E	R	Find out more about Botswana Independence Day.	Interactive read aloud (focus on labels), retelling, and sorting a group of texts by genre
Transport	I/E	R	Identify and learn about different types of transport in Botswana.	Interactive read aloud (focus on table) and retelling
Transport interactive writing	I/E	W	Tell someone about different types of transport in Botswana.	Interactive writing
Family members	I/E	R&W	Name different family member and know how they are related to one another.	Interactive read aloud (focus on diagram) and making individual family graphic/diagram

Genre: P = Procedural; I/E = Informative/Explanatory
Primarily Reading or Writing: R = Reading; W – Writing; R&W = Reading and Writing

Table 3 (cont.)

Name of Lesson	Genre	Primarily Reading and/or Writing	Purpose for Reading and/or Writing	Lesson Description
Traditional foods	I/E	R&W	Identify and learn about traditional foods in Botswana	Interactive read aloud (focus on heading, pictures, and labels) and interactive writing (focus on title and headings)
Fruits and vegetables	I/E	R&W	Identify and learn about different fruits and vegetables in Botswana.	Interactive read aloud and interactive writing of a table (group book focusing on the table)
Fruits and vegetables interactive writing	I/E	W	Tell your family different fruits and vegetables in Botswana.	Interactive writing (individual books)
Trees in Botswana	I/E	R	Identify and learn about trees in Botswana.	Interactive read aloud (focus on glossary, labels, and inset pictures)
Football (soccer)	I/E	R	Learn about the background of football and how the game works.	Interactive read aloud and independent reading of informative/explanatory books
Toys kids make	I/E	R&W	Identify and learn about different toys children make in Botswana	Interactive read aloud and interactive writing (group book)
Toys kids make interactive writing	I/E	Writing	Tell the other groups and your classmates about toys you and your friends make.	Interactive writing (individual books)
Games kids play	I/E	R	Identify and learn about games kids play.	Interactive read aloud and sorting a group of texts by genre
How to make a toy car	P	R	Learn how to make a toy car using items from the trash.	Interactive read aloud and retelling while acting out the motions
How to make a toy car interactive writing	P	W	Tell another child how you would make a toy car from trash.	Interactive writing

Genre: P = Procedural; I/E = Informative/Explanatory
Primarily Reading or Writing: R = Reading; W – Writing; R&W = Reading and Writing

told that after reading and talking about the text, they would be playing the game with a partner. The text was read and discussion included comprehension questions about the process of playing the game and the form/features of the genre. Then, children worked in partners to play the game, many children referring to the text in the process.

In the additional five lessons, children worked together to create a text (one per lesson, three informative/explanatory and two procedural) through interactive writing. During interactive writing, children and a teacher negotiate a message and share the responsibility of writing the text. Children work together and with the teacher to make a readable and accessible text. It is a responsive approach, shown to impact literacy development (Craig, 2003; Roth & Guinee, 2011), which includes modeling, teaching, and active participation in the process of writing and with various concepts of print. In this study, children worked together and with the teacher to compose their texts for authentic purposes. For example, children created a book about toys they knew how to make and had previously made to share with other children at the other school and other members of the research team. Some lessons involved creating one text by the whole group and others involve working in partners or individually.

Appendix A includes sample small-group reading and writing lesson plans for both genres; sample texts used in the lessons are in Appendix B. As described previously, I taught the daily 15-20 minute lessons to small groups of children at both schools. After each lesson, I recorded the names of any absent children, reflections from the lessons, and suggestions for the following lessons. These included concerns or comments about specific texts, activities, children, specific groups, and/or children in general. Slight adjustments were made to the forthcoming lesson plans to tailor the instruction to the specific children I was teaching, including enhancing authenticity of reading and/or writing in the lessons and the relevance of the lessons to children's

culture(s). For example, members of the community informed me that there were a few foods in the texts on traditional foods that children in town would be more familiar with, and others for children in the rural village. While the lesson was basically the same, my interactive read aloud included asking about and discussing familiar and unfamiliar foods and drawing on the background knowledge of those more familiar with those certain foods.

Data Collection

Data collection took place across the three phases of the study (see Table 2). The primary data sources for the study were the parent surveys in Phase 1 and the pre-/post-assessments in Phase 3.

Surveys. The surveys focused on topics parents identified as fun and important for standard two children in Botswana within various settings such as home, play, and the community (see survey, Appendix C). For example, one question asked, "Please list some topics and activities that are important and/or fun for children in Botswana when they are at play." A survey was sent home with each child in all four of the participating classes. They were also given to teachers, administrators, and other members of the community. Thirty-nine surveys were returned. Only one survey was returned from a member of the community, a young woman who was a childcare provider. Parents completed the remaining 38 surveys —nearly one-third from parents living in the rural village and about two-thirds from town parents.

The teachers and other stakeholders hesitated or declined completing the surveys stating that they did not feel they had the necessary knowledge and experiences with the children outside of school. The teachers of the four participating classrooms chose not to fill out the surveys. One teacher offered to ask her class the questions to fill out her survey because she felt it would be more helpful, but ultimately did not do so. A principal declined filling out the survey

stating he would not have anything to contribute that the parents could not, despite the fact that he had children of his own.

      Pre-/post-assessment. The same assessment was given both before and after the intervention. The creation of the assessment tasks was based on my (Watanabe, 2014b) and others' (see citations below) previous work. Tasks were reviewed by an expert in the field of early childhood literacy, by a native speaker of Setswana, and by teachers of young children; tasks were also piloted. Each assessment was administered individually in one sitting by the researcher and an interpreter, fluent in both English and Setswana, to provide language support as needed. Children were encouraged to use either English or Setswana, whatever they felt most comfortable with. The participants were allowed as much time as they needed to complete the assessment. All assessment sessions were video recorded. The pre-/post-assessment included four tasks: (a) writing an informative/explanatory text, (b) emergent reading of an informative/explanatory text, (c) writing a procedural text, and (d) emergent reading of a procedural text. The participants completed the writing task before the emergent reading task for each genre to avoid any impact previous exposure to the target genre might provide. The order of genres was counter-balanced for each student. Most children took about 15-20 minutes in total to complete all four tasks.

      Writing samples provide an opportunity for children to represent their genre, literacy, and content knowledge. In the past, writing samples have been used to examine the end products of students' writing as static representations, but some researchers have begun to look at the language and processes used to compose writing samples through venues such as video- or audio-recordings to better understand the complexity of composition (e.g., Rowe, 2008; Watanabe, 2014b). For the writing tasks in this study, I gave children a specific audience and

purpose; appropriate to the target genre, because research indicates that children's writing quality improves when an audience and purpose are specified (e.g., Block, 2013). The prompts for writing the procedural text on how to brush your teeth was:

> Nicole is in standard two at a different school, and her class has been talking about how to brush your teeth. I think you know about this from home. Please write her a text—or paper—teaching her how to brush your teeth.

The prompt for writing the informative/explanatory text on donkeys, one of the most common domestic animals in the area, was:

> Nicole is in standard two at a different school, and her class has been talking about donkeys. I think you know about that from home. Please write her a text—or book— teaching her about donkeys. You can use this book. [A blank book as described below is provided to students.] Write what you know about donkeys—what they eat, what look like, how they are important—anything you know about them.

These topics were selected because they were familiar to children, encountered in everyday interactions, and would allow them the background knowledge needed in the tasks. Children brush their teeth at least twice daily. Donkeys roam free in the area, are more common to see than dogs, and are owned and used by many families. Following the format of many published procedural texts, the procedural text template included lines for a title followed by lines on the left for text and blank space on the right for illustrations (see Appendix E). The informative/explanatory template resembled a book with a cover page and three additional pages—each with a box on the upper part of the page for illustrations and lines for text in the lower part of the page (see Appendix E).

Emergent or pretend readings are an effective way for children to represent their genre, literacy and knowledge. Children use oral language to "read" the text, stating what they believe the words say. This has been successful in previous studies of different genres to investigate young children's genre knowledge (e.g., Duke & Kays, 1998; Pappas, 1991; Purcell-Gates, 1988) as it gives young children an opportunity to use oral language, which is likely to be more developed than the actual process of reading or writing, to illustrate their knowledge. For the emergent reading tasks in this study, I gave children a text of the target genre that had blank lines in place of all the words (see Appendix F) and asked them to tell me what they thought the words said. The prompt for the procedural emergent reading was:

> Today I would like you to pretend read a how-to text to me. You can't really read this book because all of the words are missing, and these lines are for each word. I just want you to pretend to read it. Make believe. Tell me what you think the words might say. It's okay if you are wrong. The name of this how-to book is *How to Wash Clothes*. It tells someone how to wash clothes. Before you pretend to read, you may want to look at the how-to book and think about what the words might say. [Child is able to look at the text.] Now I want you to pretend to read the how-to book to me. Remember that the name of the how-to book is *How to Wash Clothes*.

The prompt for the informative/explanatory emergent reading was:

> Today I would like you to pretend read an informative/explanatory text to me. You can't really read this book because all of the words are missing, and these lines are for each word. I just want you to pretend to read it. Make believe. Tell me what you think the words might say. It's okay if you are wrong. The name of this book is *Animals in Botswana*. It tells someone about domestic and wild animals that live in Botswana.

Before you pretend to read, you may want to look at the book and think about what the words might say. [Child is able to look at the text.]Now I want you to pretend to read the informative/explanatory book to me. Remember that the name of the informative/explanatory book is *Animals in Botswana*.

Again, these topics were selected because of children's familiarity and knowledge about the topics. Hand washing clothes is typical in Botswana and many young children participate in this as one of their household chores. Additionally, this area of Botswana is known for its wild animals; it is a hub for tourism and these animals are discussed in everyday life at home and in school. I gathered photos to use as the illustrations in the informative/explanatory text. For the procedural text, I photographed the needed materials and a person washing clothes.

Data Analysis

The survey results were analyzed to identify the text topics, and the pre-/post-assessment scores were used to examine the impact, if any, of the intervention.

Analysis procedures for identifying text topics. Survey responses were tallied, and topics were ranked from most to least common responses by question and by genre. Whether responses came from the town or rural village setting was also noted. These data addressed the first research question. To then determine which topics would be the subject of books used in the intervention, a group including the researcher, members of the research team, and teachers of young children looked over the ranked list considering which topics were most familiar to students (as these would be selected for use in the assessment), which lent themselves most readily to authentic literacy activities, which fostered cultural sustainability (meaning that they dealt with topics adults in the community viewed as important to their culture), and which could most easily reflect the purpose, forms, and features of the target genres. Additionally, I sought to

use topics that were appropriate in both settings (rural village and town) and were likely to be appealing to both genders.

After giving individual feedback and participating in a discussion, the group selected 17 text topics—six procedural text topics and 11 informative/explanatory topics. One topic from each genre—procedural and informative/explanatory—was designated for the pre-/post-assessment emergent reading tasks (see earlier discussion). The remaining 15 topics (see Table 3) were the focus for the 15 intervention texts. (See Table 3 for a full list of the text topics and titles.) To ensure that the forms and features used in the created text corresponded with authentic texts, I gathered examples of texts from both genres found in the community. Additionally, a Motswana (native citizen of Botswana) reviewed drafts of all texts and gave feedback on language, content, and other factors. I used knowledge of language and literacy development of young children to inform the level at which I wrote the texts and gathered photographs, often from the local community, to illustrate each one.

Analysis for examining intervention impact. Pre-/post-assessment analyses examined changes in the experimental and control group students' abilities to use, follow, and produce the intended representations of the target genres. Video recordings as well as transcripts of those recordings were used for analysis. Analyses employed a series of researcher-created rubrics to score emergent readings and writing samples holistically and for specific characteristics of the genres (see Appendix G for all of the rubrics). All rubrics were reviewed by an expert in the field of literacy research, particularly in young children's reading and writing of informational texts, piloted by the researcher and a trained coder, and adjustments were made.

The emergent readings were given a holistic score from 0-4 for the text's ability to function as a text of the target genre. Trait/feature scores from 0-2 were given for individual

traits/features for each task and genre to describe the degree in which the students' emergent readings included the common, age-appropriate characteristics of the target genre. These individual trait/feature scores were compiled to create a total trait/feature score for each genre. For the procedural emergent reading, there were eight different traits/features for a total of 16 possible points, and the informative/explanatory emergent reading included nine traits/features for a total of 18 possible points.

Each writing sample was given three types of scores: (a) a stage of writing development score, (b) a holistic score, and (c) trait/feature score. The stage of writing development score from 0-8 indicated the overall stage of writing development evidenced by the samples. Scores from both writing tasks were averaged together to create one overall stage of writing development score. As with the emergent readings, the holistic score from 0-4 represented the writing sample's ability to function as a text of the target genre, and the trait/feature scores from 0-2 described the degree in which the writing samples included each common, age-appropriate characteristics of the target genre (seven traits/features for procedural text and nine for informative/explanatory).

To mitigate any possible scoring bias, coders (myself and a former teacher of young children with a specialization in literacy instruction) used the rubrics to analyze students' emergent readings and writing samples without knowledge of whether the data were from pre- or post-assessment administration nor from the experimental or control group. Intercoder reliability on one-fourth of the data from each task averaged 92% with a range from 82% to 98%. After coding, statistical analyses using the software SPSS (2013) compared pre- and post-assessment scores by group (experimental and control) for each of the four tasks. An examination of the data revealed that the data violated the assumption of normality. The use of repeated measures for the

same subjects violated the assumption of independence. Therefore, I used the Wilcoxon signed-rank test, a non-parametric test appropriate for comparing two sets of data, not normally distributed, from the same participants. Analyses examined the change between pre- and post-assessment scores by condition for three types of scores: (a) overall stage of writing development score, (b) holistic score (one for each task for a total of four), and (c) total trait/feature score (one for each task for a total of four). Therefore, statistical analyses included a total of nine comparisons. I also ran Wilcoxon signed-rank tests on pre- and post-assessment scores for each group using Bonferroni's correction for multiple comparisons.

Results

The results of the surveys in phase one of the study address the study's first research question: What are culturally relevant informative/explanatory and procedural text topics for standard two students in the northwest region of Botswana? Statistical analyses of the pre- to post-assessment scores address the second question: What changes, if any, occur in standard two students' emergent reading and writing of informative/explanatory and procedural texts after participating in reading and writing lessons using culturally relevant texts of each genre, and for a control group?

Surveys

Table 4 includes a list of the 25 most common survey responses—12 topics representing things it is important for children to know how to do and 14 topics important for children to know about—from parents of children in both the town and rural schools. Overall, the survey responses listed responses within similar categories, and there were no stark difference between responses by school, rural or town. The five topics mentioned most frequently as important for children to know how to do included: playing games, cleaning and household duties, making

toys, fetching water, and watching television. The five topics most frequently mentioned as important for children to know about included: plants, football (soccer), animals, church, and games.

Table 4

Most Common Survey Responses

Topics Important for Children to Know How to Do	Topics Important for Children to Know About
Cleaning*	Animals*
Collecting firewood	Behavior and manners
Cooking	Church*
Drawing	Community
Fetch water*	Culture and customs
Hygiene (taking care of yourself)	Famous people
Making toys and crafts*	Football (soccer)*
Playing games*	Games*
Reading	Historical events
Watching television*	Listening to stories
Yard work	Making toys and crafts
	Plants*
	Sports
	Transport

* Top five most frequently mentioned topics

Table 5 provides an example of all the responses to one of the survey questions focused on the work children do at home. This list is separated by the school setting, either rural or town school. The number of times the response was given by different survey participants is listed in numerals following the topic. Topics without a numeral were mentioned only one time. Although

there were a few specific different responses between parents in town and rural settings, there

was more similarity than difference and an overall pattern in the categories mentioned.

Table 5

Responses from a Sample Survey Question

Topics and activities that are important for children in Botswana when they are working at home	
Responses from members of the town community	Responses from members of the rural village community
Agriculture	Cooking (2)
Bathing	Collecting firewood (8)
Cleaning (3)	Decorating the house
Clearing the table after meals	Fetching water (7)
Cooking (6)	Harvesting (2)
Collecting firewood (3)	Looking after goats and sheep
Fetching water (9)	Making fire
Gardening	Making your bed
Homework	Mopping
Household duties	Raking/sweeping the yard (2)
How to behave when an elder enters the compound	Sweeping the floor (2)
Learning how to make tea/coffee	Washing clothes (5)
Making fire	Washing dishes (6)
Making your bed	
Messengers-ending messages	
Mopping	
Packing clothes	
Plowing some vegetables	
Polishing furniture and dusting	
Poultry-caring for	
Raking/Sweeping the yard (2)	
Resting	

Table 5 (cont.)

Responses from members of the town community	Responses from members of the rural village community
Resting	
Safety(2)	
Sewing	
Sweeping the floor (10)	
Use of tools	
Washing clothes (8)	
Washing dishes (16)	
Watering and cultivating the garden	
Watering trees	

Pre-/Post-assessment Measures

The change between pre- and post-assessment scores on the writing and reading tasks were examined for children in both conditions—experimental and control. Wilcoxon signed-rank analyses examined whether the increases were statistically significant.

Comparisons of writing scores. Calculated means, medians, standard deviations, and the results from the Wilcoxon signed-rank tests between pre- and post- assessment writing scores are listed in Table 6 by condition. Three types of pre- and post-assessment writing scores were compared by condition: (a) stage of writing development score, (b) holistic score, and (c) total trait/feature score. In raw terms, means increased for both groups on all writing scores except for the control group's stage of writing development score (which decreased from 5.26 to 4.85). There was a statistically significant change in the experimental group's pre- and post-assessment score for stage of writing development ($Mdn = 6.25$), $z = -2.230$, p < .05, $r = .336$, holistic score

for informative/explanatory writing (*Mdn* = 3.50), z = -1.732, p < .10, r = .261, total trait/feature

score for procedural writing (*Mdn* = 5), z = -2.026, p < .05, r = .305, and total trait/feature score

for informative/explanatory writing (*Mdn* = 4), z = *-3.471*, p < .05, r = .523. However, the

experimental group's holistic procedural writing score did not have a statistically significant

change. There were not any statistically significant differences between the pre- and post-

assessment writing scores for the control group.

Table 6

Descriptive Statistics and Wilcoxon Signed-Rank Tests for Writing Scores by Condition

Task and Condition	Pre-assessment			Post-assessment			z	p	Adjusted p
	Mean	Mdn	SD	Mean	Mdn	SD			
Writing Development									
Experimental	5.66	6.00	1.112	6.02	6.25	1.041	-2.230	.026**	.013**
Control	5.25	6.00	1.901	4.85	5.75	1.690	-.032	.974	.487
Holistic Procedural Writing									
Experimental	2.23	2.00	.869	5.00	2.32	.646	-.577	.564	.282
Control	1.95	2.00	.899	2.95	2.00	.858	-.333	.739	.370
Holistic Informative/ Explanatory Writing									
Experimental	3.00	3.00	.926	3.27	3.50	.883	-1.732	.083*	.042*
Control	2.95	3.00	1.290	3.00	3.00	1.124	-.816	.414	.207

** *p* < .05   * *p* < .10
Adjusted p value using Bonferroni's correction: ** *p* < .25 * *p* < .05

Table 6 (cont.)

Task and Condition	Pre-assessment			Post-assessment			z	p	Adjusted p
	Mean	Mdn	SD	Mean	Mdn	SD			
Total Trait/Feature Procedural Writing									
Experimental	3.59	4.00	3.077	5.00	5.00	3.505	-2.026	.043**	.022**
Control	2.91	3.00	2.598	2.95	3.00	2.837	-.395	.693	.347
Total Trait/Feature Informative/ Explanatory Writing									
Experimental	2.86	4.00	2.143	4.23	4.00	2.181	-3.471	.001**	<.001**
Control	3.14	3.00	2.333	3.45	3.50	2.523	-1.545	.122	.061

** *p* < .05   * *p* < .10
Adjusted p value using Bonferroni's correction: ** *p* < .25 * *p* < .05

Comparisons of reading scores. Calculated means, medians, standard deviations, and results from the Wilcoxon signed-rank tests between pre- and post- assessment writing scores are listed in Table 7 by condition. Two types of pre- to post-assessment writing scores were compared by condition: holistic scores and total trait/feature scores. In raw terms, means increased for both groups on reading scores except for the control group's holistic score for procedural reading (which decreased from 3.05 to 3.00). Although scores were higher at post-test, there were no statistically significant differences in holistic or total trait/features scores for either the procedural or informative/explanatory reading tasks from pre- to post- for children in the experimental condition, nor were there for children in the control group.

Table 7

Descriptive Statistics and Wilcoxon Signed-Rank Tests for Reading Scores by Condition

Task and condition	Pre-assessment			Post-assessment			z	p	Adjusted p
	Mean	Mdn	SD	Mean	Mdn	SD			
Holistic Procedural Reading									
Experimental	3.05	3.00	.575	3.27	3.00	.550	-1.291	.197	.099
Control	3.05	3.00	.722	3.00	3.00	.667	-.447	.655	.326
Holistic Informative/ Explanatory Reading									
Experimental	2.91	3.00	294	3.05	3.00	.213	-1.342	.180	.090
Control	2.86	3.00	.468	3.05	3.00	.224	-1.134	.257	.126
Total Trait/Feature Procedural Reading									
Experimental	7.36	9.00	2.649	8.45	9.00	2.423	-1.563	.118	.059
Control	8.09	8.00	2.132	8.26	9.00	1.870	-.718	.472	.236
Total Trait/Feature Informative/ Explanatory Reading									
Experimental	2.09	2.00	1.446	2.59	2.00	1.992	-1.095	.273	.137
Control	2.50	2.00	2.775	3.35	2.00	3.313	-1.069	.285	.143

** $p < .05$ * $p < .10$
Adjusted p value using Bonferroni's correction: ** $p < .25$ * $p < .05$

Discussion

The purpose of this study was to develop culturally relevant and sustainable

informational texts and examine how, if at all, participation in the authentic literacy events with

these texts influenced children's abilities to read and write them. Children in the experimental

group exhibited statistically significant increases for four of five writing scores (stage of writing development, holistic informative/explanatory writing, total traits/features score for procedural writing, and total traits/feature score for informative/explanatory writing) but not for any of the four reading scores. Children in the control group did not exhibit statistically significant increases in their post-assessment scores for writing or reading.

As previously mentioned, Hoffman (2009) identified four main areas of literacy needs in developing countries: (a) high quality reading materials, (b) preparing teachers to use the materials, (c) teaching writing and reading together, and (d) instilling a spirit of evaluation in research and school contexts. This study involved developing culturally relevant high quality reading materials, teaching writing and reading together for authentic purposes, and using assessments to determine culturally relevant topics and evaluate the effectiveness of the intervention. Furthermore, this study could inform future work to address the call for preparing teachers to use the created materials.

Culturally Relevant Text Topics

A key finding of this study was that culturally relevant and sustainable topics were leveraged to raise student achievement. Although calls have been made to use culturally relevant pedagogies (e.g., Gutiérrez et al., 1999; Ladson-Billings, 1992; Paris, 2012) and mismatches between contexts of home and school have been identified (e.g., Au & Mason, 1981; Heath, 1983), limited work has used knowledge of specific children's homes and communities to create materials and instruction and assess their effectiveness. This study adds to work such as Hoffman's (2009) Ithuba Writing Project by applying the ideas of creating culturally relevant texts for younger children (standard two as opposed to grades four, five, and six in the Hoffman project). The Ithuba Project's books included teacher guides; the present study included lesson

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plans as an intervention and measures to examine the effectiveness of the created materials and instruction.

In addition, the intervention lessons in this study also combined cultural relevance with authentic reading and writing activities in attempts to better connect the contexts of home, community and school. Previous work identified disconnects between home and school literacy practices in Botswana (Commeyras & Ketsitlile, 2013; Watanabe, 2013a). In these studies, families and teachers viewed their roles in children's literacy learning as unrelated. There was a desire to better link home and school settings, but families and teachers were unsure how to do so. Parents in the present study seemed pleased and a bit surprised to be asked their opinion about topics children should learn in school, that they could inform the instruction in school, and that knowledge of children's home and communities was used to determine important topics. Topics were used to create texts and instruction with the intention of, as described by Tatum (2011), using funds of knowledge, culture, and cultural practices to provide otherwise overlooked opportunities.

Although the responses to each survey question had some variation, responses from both town and rural contexts included common categories and practices for the specific community. Many topics were identified in multiple responses, although not always with the same terms. For example, some responses used the term *household duties* while other included specific household duties such as washing clothes and doing dishes. This study illustrated that it was possible to select text topics that were culturally relevant, could be involved in authentic literacy activities, and could include the purpose, forms, features, and process used to read and write specific genres. Furthermore, these topics were converted into books that could be used in lessons addressing learning objectives in the national curriculum. This study provides evidence that communities

can and should be included in conversations about literacy learning at school. Findings support notions that culturally relevant materials and authentic reading and writing activities can be created for specific communities, and the created materials and instruction can lead to increased literacy achievement.

The application of culturally sustainable pedagogies to materials and instruction is another key aspect of this study. Previous work has generally examined culturally sustainable pedagogies for adolescents and adults (e.g., Paris, 2011). Little work has been done with young children, and no work has included a non-U.S. context. In this study, topics were selected and texts were created as a means to address cultural sustainability, not just cultural relevance. Additionally, this study applied cultural sustainability in the context of Botswana, an African country with history as a British Protectorate and where English and Western ideals still are means of power, privilege, and prestige. Materials and instruction were developed with intent not to perpetuate the use of Western texts and instruction, but to foster sustainability of Botswana culture, and this was used to leverage student achievement in this brief intervention.

Writing and Reading Informational Texts

In previous studies, children given more experience with, exposure to, and instruction about informational texts seemed to perform better on assessments (e.g., Duke & Kays, 1998; Kamberelis, 1999; Watanabe, 2014b), and this seemed to be true for the children in this study as well. The experimental group's post-assessment mean scores increased at a level of statistical significance in four out of nine scores (stage of writing development score, holistic informative/explanatory writing score, total trait/feature score for procedural writing, and total trait/feature score for informative/explanatory writing), and none of the control group's pre- to post- scores was statistically significant. Writing samples from children in the experimental

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group exhibited a higher stage of writing development, better functioned as texts of the genre, and included more traits/features of the target genre.

Another key finding of this study is that all of the scores with statistically significant differences were related to writing—the stage of writing development score, one holistic score for writing, and both total trait/feature scores for writing. Previous studies found classroom literacy instruction in Botswana focused on correct answers and rarely used books, supplemental materials, and writing (Commeyras & Ketsitlile, 2013). In fact, writing instruction was found to focus more on handwriting, copying, and conventions. In this study, writing lessons used books, supplemental materials were created and used, and reading and writing were combined together. Children in this study showed increased gains in their writing scores after an intervention of only 20 lessons of 15 – 20 minutes in length over six weeks, with only five of the lessons exclusively involving interactive writing. Additionally, it was not just the inclusion of more traits and features that was found to be statistically significant for the children in the experimental group. The overall stage of children's writing development increased in the writing of both genres, and the degree to which the informative/explanatory texts included prototypical characteristics and forms of an effective text of the target genre also increased.

In contrast, growth was not seen in children's emergent reading scores from either group despite the fact that both the reading and writing tasks involve composing—emergent readings using oral language and writing using written text. Many children seemed to describe the pictures in the text rather than approximating what they thought the missing text said. This may be due to multiple factors, such as not being familiar with the task of pretending to read or emergently reading a text, seeing the task as only describing the pictures, being read to in a similar manner at home, or being overwhelmed by the task. Additionally, the text for the

informative/explanatory emergent reading text may have been overwhelming having two categories—domestic and wild animals—when the informative/explanatory writing task involved one type of animal (donkeys). This finding is discussed further in the future research section.

A related finding is that statistically significant changes occurred for children in the experimental condition for both genres—procedural and informative/explanatory. There were increases in the total amount of traits and features used in the writing of both informative/explanatory and procedural post-assessment texts, and these were not necessarily the same traits and features. However, the post-assessment informative/explanatory writing samples embodied the genre overall to a greater degree, as evidenced by the statistically significant change in holistic score, but the significant change was not found in the holistic scores of the procedural genre. The experimental group's post-assessment writing scores showed a statistically significant change from pre-assessment to post-assessment on 2 out of 2 informative/explanatory writing scores, only 1 of the 2 procedural scores showed this statistically significant increase. Recall that there were fifteen lessons focused on informative/explanatory texts and seven focused on procedural texts. This might explain the difference in scores, as there was a difference in the amount of instructional time for each genre. This underscores the fact that all informational texts are not the same, and we must provide children with exposure to and experience with the genres we want them to learn.

Finally, the fact that gains were made for children in the experimental group after an intervention that only included 20 lessons and lasted for about 15-20 minutes, or a total of five to seven hours of instruction, is another key finding. To make a statistically significant difference with a relatively small amount of intervention time suggests the promise of the intervention and

the practices employed within it. That said, it is unclear whether the gains were the result of cultural relevance, authentic literacy activities, interactive reading and/or writing techniques, the use of informational texts, or a combination of these or other factors, as all of these factors were bundled in the intervention.

The Context of Botswana

As noted earlier, children in Botswana have limited access to high quality, culturally relevant literacy materials and instruction (Commeyras & Ketsitlile, 2013), and this is similar to circumstances throughout Southern Africa, where early primary classrooms have limited resources, teachers with little training, and curricula and schooling that are starkly different from children's experiences at home (Perry, 2008). In this study, culturally relevant and sustainable informational texts were created and used with a specific population in two communities in Northern Botswana. Survey results indicated common categories and topics for children from both town and rural schools, and assessment results indicated increased literacy achievement for children participating in the writing and reading of texts based on these topics. Reform to the education system in Botswana has been a topic increasingly addressed in newspapers, news reports, on social media, and through other venues. Findings from this study contribute to conversations about how localized solutions can better meet growing needs and how assessment and research might inform practice.

Implications for Research and Practice

Findings from this study support the use and creation of high quality informational texts in culturally relevant, sustainable, and authentic ways. The influence of cultural relevance and diversity is receiving more attention in regards to literacy learning (Tatum, 2011), and studies continue to illustrate the need to address the mismatch between home and school literacy

practices (e.g., Purcell-Gates, 2013). In this study, a short survey was able to surface a large number of culturally relevant and sustainable topics that are not typically found in texts read or written in schools across Botswana. Topics that could include authentic reading and writing activities, resemble authentic texts from the community, embody prototypical elements of the target genres, and provide a venue for cultural sustainability informed the creation and use of the intervention (see the second paper in this dissertation for further discussion). I am not arguing that students' reading should be limited to familiar topics only about their local context. Informational texts should be used to connect from the familiar to the unfamiliar. Further, local and global contexts are not dichotomous but related. For example, the familiar task of hand washing clothes, familiar to most children in Botswana, uses washing soap that must travel from South Africa by way of the grocery store chain and local vendors. Local and global contexts are interconnected, and by taking the time and putting forth the effort to link home and school contexts and involve community members, we can provide children with access to the resources and processes that will enable them to draw from, build upon, and contribute to their communities of practice.

There is a lot of variation in opportunities for children to read and write informational text. This study supports previous findings that greater experience with a genre results in the development of knowledge of that genre (e.g., Duke & Kays, 1998; Kamberelis, 1999; Pappas, 1993). Educators should provide children with a genre diet that includes frequent opportunities to read and write a variety of different informational genres, particularly as these are texts that enable readers and writers to be successful both inside and outside of school. Genre-specific knowledge of the purpose, features, and processes used to read and write procedural and informative/explanatory genres guided the implementation of this study. This was important as

learning to read and write one genre does not necessarily transfer to another (Duke & Roberts, 2010; Kamberelis, 1999; Purcell-Gates et al., 2007).

Researchers such as Hoffman (2009) and Commeyras and Ketsitlile (2013), have called for the teaching of reading and writing together. However, research and practice often study and practice reading and writing as separate entities. In this study, intervention lessons were specifically created to incorporate both reading and writing. Often one lesson included both reading and writing components (see Appendix A). In addition, assessments also included the reading and writing of both genres. Findings indicate literacy growth for children participating in the intervention, though the study did not test whether the growth would have occurred if all 20 lessons involved only reading or all 20 lessons involved only writing.

Future Research

There are many avenues for future research based on this study. For one, the data from this study could be analyzed using gain scores. The statistical analyses used in this study examined the difference between scores from pre- to post-assessments for each group individually. Gain scores have been found to have high reliability when examining change in scores unless the pretest and posttest scores have equal reliability and equal or proportional variances (Dimitrov & Rumrill, 2003). Analyzing the pre- and post-assessment scores using gain scores may provide further insight into the differences in scores both within and between groups.

Future research could also replicate this study with other student populations. Taking the time to learn about culturally relevant procedural and informative/explanatory topics that involve authentic literacy activities within specific communities would inform ideas regarding culturally relevant and sustainable informational texts, instruction, and assessment. Looking at other populations in Botswana, other developing nations, and within the U.S. would inform what

processes and products could and should be refined to more closely examine the use and creation of informational texts in culturally relevant and sustainable ways.

Including narrative texts is another direction for future research. This study focused on using informational texts because they are key to success in schooling, the workplace, home, and the community (Duke, 2000), can be used to link home and school contexts, and are more rare to find in classrooms across Botswana. Throughout the African continent, there is a tradition of storytelling and oral histories, and while the use of children's books in schooling is limited in Botswana, most of the available children's books are narrative texts. Therefore, this study's findings could be informed by including the creation and use culturally relevant/sustainable texts of both narrative and informational genres.

Another area that should be explored further is the emergent reading aspect of this study. There were no statistically significant differences from pre- to post-assessment reading scores for children participating in the intervention. It is unclear whether this is due to the assessment tasks, analysis, the instructional techniques, time spent reading within the intervention, or something else. Altering any of these factors in a future study may provide insights into the current findings of the present study.

A fourth area for research involves preparing teachers in Botswana and elsewhere to implement these instructional techniques. Hoffman's (2009) four literacy needs include preparing teachers to use the high quality materials implementing writing and reading together. The instructional practices of interactive read aloud and interactive writing and the use of small groups are not common in Botswana. Examining the effectiveness of these techniques as implemented by teachers may clarify the impact between the techniques and the materials.

Limitations

There were several limitations of this study. One major limitation is the small sample size (N = 44). The small sample size may lead to an error in determining the outcome of the statistical analyses resulting in determining an effect when there is not (Type I error) or believing there is no effect when there actually is (Type II error). The small sample size may have made it more difficult to determine differences within each group. A second limitation is that analyses did not account for the nested data structure of the data. Hierarchical linear modeling, or HLM, is typically used for data with this structure, but the sample size for this study was not large enough for such statistical analyses. This study did not control for other variables, and analyses controlling for variables may provide additional insights.

The use of English as the medium for instruction and assessment may be a third limitation. Standard two is the grade level in which English becomes the medium of instruction and communication in the classroom, and the transition to English technically occurred before the study began. However, English lessons and assessments may have been limiting for some students. Children were given the opportunity to respond in English or Setswana, and an interpreter of both Setswana and English was present. But some children seemed to limit themselves to speaking or writing in one language or another, even when encouraged to use both or another when encountering difficulties. That said, the impact of the intervention even at such a challenging phase of schooling suggests the promise of using high quality, culturally relevant materials and instruction.

A fourth limitation is that there were multiple differences between the literacy instruction used in the intervention and that used within the regular classroom The general classroom literacy instruction, the only literacy instruction the control group received, did not use any

books, nor small-group instruction, nor interactive reading and writing activities; the intervention involved all of these. Therefore, it is difficult to determine which characteristic(s) of the intervention caused the increased achievement. In future studies, intervening in just one of these respects or providing the control group with instruction with one or some of these characteristics may help pinpoint the cause(s) of differences in achievement.

Significance of the Study

This brief intervention using high quality, culturally relevant informational texts and instruction led to statistically significant increases in young children's literacy achievement. This study is the first to examine cultural relevance and/or authentic literacy events focused on younger students, develop materials based on these findings, include a specific intervention, and use statistical analyses to examine impact. By finding increased literacy achievement, this study contributes to efforts promoting the use of culturally relevant and sustainable materials, authentic literacy events, and informational text.

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MANUSCRIPT TWO: CONNECTING THROUGH BOOKS FOR BOTSWANA: CREATING AND USING CULTURALLY RELEVANT AND SUSTAINABLE INFORMATIONAL TEXTS WITH YOUNG CHILDREN

Abstract

Current standards and assessments emphasize the importance of a variety of genres in students' literacy diets, and this has placed increased attention on informational texts. Unfortunately, young children's current exposure to and experiences with informational text materials are often limited by their availability, quality, and relevance to children's lives. One way to address these issues of access and relevance is to create and use informational texts in more authentic, culturally relevant, culturally sustainable, and productive ways. This article draws on a research study in which culturally relevant and sustainable informational texts of two genres (procedural and informative/explanatory) were developed, read, and written with standard two (second year of formal schooling) children in Botswana. Children who used the texts created for this study in reading and writing lessons showed increases in abilities to read and write these genres. This article outlines suggestions for making and using culturally relevant informational texts with young children.

Connecting Through Books for Botswana: Creating and Using Culturally Relevant and

Sustainable Informational Texts with Young Children

Just as we want children to have access to narrative texts that include characters that look like them and are set in communities that resonate with their lived experiences, we want to provide children with exposure to informational texts that embody the practices of their communities—particularly for children for whom these practices are not normally included in informational text. These culturally relevant informational books might convey information about cultural, religious, or local practices, such as observance of Eid for Muslim communities, and they might contain terms and illustrations from the children's specific community such as the word *buggy* for a shopping cart or a picture of a high-rise apartment building for a child's home.

Many classrooms throughout the world are limited by the availability and quality of literacy materials and practices. Often, materials and instruction provide children with limited opportunities to engage in literacy learning that is relevant to their lives and experiences in communities and families. This is particularly true in developing nations and as noted previously, can be true for children within the United States such as those from marginalized groups.

A variety of initiatives have been developed to address issues of access, such as book drives and the creation of libraries, but few of these also address the quality of the materials, the instructional practices associated with the materials, and the relevance of materials and instruction to children's experiences inside and outside of school. Hoffman (2009) cites four main literacy needs in developing countries: (a) high quality reading materials, (b) preparing teachers to use the materials, (c) teaching writing and reading together, and (d) instilling a spirit of evaluation in research and school contexts. These four needs can and should be applied to all

contexts, including developed (also known as more economically developed) countries, and teachers should be seen as partners in accomplishing these goals.

In addition to issues of access and quality, national curriculum standards, such as the Common Core State Standards (National Governors Association [NGA] & Council of Chief State School Officers [CCSSO], 2010), and assessments, such as the Progress in Reading Literacy Study or PIRLS Reading Framework (Mullins, Martin, & Sainsbury, 2013), call for children to use and create a variety of different genres. This, and research indicating the limited use of informational texts with young children (e.g., Duke, 2000; Jeong, Gaffney, & Choi, 2010; Pentimonti, Zucker, Justice, & Kaderavek, 2010), emphasize the importance of providing children with meaningful exposures to and experiences with informational text. Although increased attention has seemed to make the need for informational text use and creation a more popular topic, many people are still unsure how to select and incorporate informational genres in classrooms—particularly with young children and in culturally relevant and sustainable ways.

In recent conversations with teachers, researchers, and teacher educators, I have repeatedly been asked about my experiences creating and using culturally relevant and sustainable informational texts with young children. This article strives to address these questions and is informed by a study in which I developed, read, and wrote culturally relevant and sustainable informational texts with standard two children (7-8 year olds in their second year of formal schooling) in Botswana.

The study used parent surveys to determine culturally relevant informational text topics. Then, 15 texts from two genres—procedural and informative/explanatory—were created. Procedural texts tell someone how to do something they need or want to know how to do (Purcell-Gates, Duke, & Martineau, 2007), and informative/explanatory texts teach about the

natural and social world. Twenty-two children from a town and rural school participated in 20

reading and writing lessons using the culturally relevant texts over a six-week period. Children's

reading and writing of texts from each genre were examined before and after participating in the

lessons, and results indicated increases in children's literacy performance after participating in

the reading and writing lessons. Gains in literacy outcomes after such a short period of time

suggest promise in the intervention.

In this article, I will first address the topics of cultural relevance and sustainability, access

to texts, and informational text in greater detail, explaining how informational texts are prime

venues to include literacy in authentic, culturally relevant and culturally sustainable ways. Then,

I will draw on experiences and findings from the study to address how to create and use

informational texts with young children in more authentic, culturally relevant, sustainable, and

productive ways—specifically for the genres used in this research study, procedural and

informative/explanatory texts.

Connecting Through Culture

The ways that we think about and use literacy instruction can assist or limit students'

abilities to be participants in the world and fully express themselves (Tatum, 2011). Children can

be denied or can receive limited access based on how we think about them, their families, their

communities, and literacy learning. We often hear the terms *culturally relevant* or *culturally

responsive* in regard to teaching practices and materials for particular groups of students. But

instruction and experiences for all students should recognize and capitalize upon what they bring

to our classrooms and settings. We need to be more than responsive or relevant to their cultures

and communities—their ways of being. Instruction should be not only culturally responsive but

culturally sustaining (Paris, 2012), not only providing students access to cultures of power and/or

opportunity, but also promoting students' abilities to contribute to, participate in, and carry on their culture(s).

A focus on students' culture(s) and lived experiences does not mean that the only topics addressed and processes used are those that come from local communities and homes. Connecting through culture provides a way for students to build from the familiar to the unfamiliar and learn unfamiliar content in meaningful ways. For example, with fruit, knowledge of familiar fruits (e.g., how to eat them, how they are grown, what they taste like) can be used in learning about an unfamiliar fruit, and this new knowledge could inform the differences between fruits and other parts of a plant such as a seed. Teachers can use students' culture(s) and lived experiences as a tool to promote literacy learning and provide access to content and processes that may be unfamiliar, abstract, and/or otherwise overlooked.

Access to Text is Access to Genres of Text

Giving children increased exposure and access to texts improves their abilities to use, comprehend, and compose texts (e.g., Kamberelis, 1999; Kim & White, 2008), but there is a genre-specific nature to reading and writing. Genres are texts that share: (a) a specific purpose, (b) regularities in features, and (c) regularities in the processes used to read and write the texts. Therefore, when we are reading and writing a text, we are actually reading and writing a particular genre, and our knowledge of how to do that does not entirely transfer from one genre to another (Duke & Roberts, 2010; Kamberelis, 1999; Purcell-Gates et al., 2007). For example, some of the ways used write a book review, which is a form of persuasive text, are not necessarily going to transfer over to writing a personal narrative. The two pieces vary in purpose, audience, different features, and the processes used to read and write each genre.

We must make sure that we are providing children with exposure and experience to the specific genres we want them to know. As mentioned previously, U.S. and international standards and assessments emphasize a variety of genres in the literacy diet of young children. However, the genre diet for many young children in the U.S. lacks variety, and often includes an overabundance of narrative reading and writing. Access to text must include access to a variety of different genres and include experiences in both reading and writing.

Informational Text and Informational Genres

The term *informational text* can sometimes be confusing, as it has been used and defined in a variety of ways. Generally, informational text is seen as one overarching type of text with the purpose of conveying information or ideas. There are a variety of genres that are types of informational text such as: procedural texts, biographies, and informative/explanatory texts. Each genre, as mentioned previously, has a different specific purpose, regularities in features, and similar processes used to read and write the texts. For example, a procedural text conveys information, but it does so to teach someone how to do something that they need or want to know how to do (Purcell-Gates et al., 2007). It includes certain features (e.g., imperative language, pictures, materials, and steps) to accomplish this purpose for the specific audience. This differs from a biography that conveys information about a person's life by describing events and uses other forms, features, and processes to accomplish these goals.

Informational texts play a vital role in schooling, work, the community, and our everyday lives (Duke, 2000). If you think about all of the texts that you have read and written this morning as you went about your daily routine (e.g., stop sign, news, a food package), most likely the majority of the texts were informational. Thus, informational texts are the texts that we encounter and create each day and throughout our lives. In school, we use informational genres to develop

expertise in content, language, reading and writing. As students progress through school, they are required to rely more on informational texts to acquire knowledge across disciplines (e.g., science experiments, history books) and often in more abstract ways. Informational genres can connect home, community, and school settings in authentic ways—ways that the texts are used in outside-of-school contexts.

In addition to the need and vital role of informational literacy, informational texts have been found to be engaging and motivating for children (Caswell & Duke, 1998; Guthrie, McRae, & Klauda, 2007). In my own experience as a teacher of young children and in interactions with the children in this research study, the informational texts were the most popular and accessible to a variety of students. Informational texts seem to be an avenue to capitalize on engagement, meet literacy and language goals, move from familiar to unfamiliar content, and connect the contexts of home, community, and school.

Creating Culturally Relevant and Sustainable Informational Texts

One way to address issues of access to culturally relevant and sustainable informational texts is to create texts based on what students want or need to know and the funds of knowledge from their culture(s) and communities. This should be coupled with high quality literacy instruction that uses the texts and focuses on the reading and writing of informational texts in authentic ways—how the texts are used in out-of-school settings. Again, it is important to note that the purpose of creating and using the texts is to promote cultural sustainability, not just relevance. Creating culturally relevant and sustainable texts involves more than just the topics of the texts or where the illustrations are from. The process involves strategic planning and implementation considering the particular children in the specific classroom setting.

Teachers can create and use these culturally relevant and sustainable texts, as I did in this study, but creating and using the texts with the students in your classroom can also be meaningful and effective. Methods such as the language experience approach (Ashton-Warner, 1963) and interactive writing (Craig, 2003) have been found to be effective in provide ways for children to work together to compose text, and these methods can be used to create culturally relevant and sustainable informational texts as a class or in small groups. In the language experience approach or LEA (Ashton-Warner, 1963), the teacher and students select a shared experience such as a project in class or a special event and come up with text to describe the experience. The teacher writes the text composed by the group and reads it to the students. Students practice reading the text until they are familiar with it, and the text is used as a venue to help recognize and discuss words and concepts. The language experience approach uses the composed text, and therefore the language of the students, as a resource to promote learning. Interactive writing (Craig, 2003) also uses student language and collaboration to compose text. The teacher and students discuss a topic or experience and come up with text to write together. They take turns writing individual letters, words, and even sentences to compose the agreed upon text.

The following sections highlight key points for creating and using culturally sustainable informational texts with young children, drawing from my experiences in this research study. There are four basic steps in creating culturally relevant and sustainable informational texts: (1) learn about your students' literacy practices within their culture(s) and communities, (2) create a plan for the text informed by the genre and authentic texts, (3) incorporate new content with known content, and (4) make adjustments to support future readers.

Learn About the Literacy Practices Within Your Students' Culture(s) and Communities

To create texts that are culturally relevant and sustainable, you must know the literacy practices within your students' culture(s) and communities. This involves spending time in various contexts and communicating with families and other community stakeholders to determine the literacy practices and funds of knowledge of your students' culture(s) and communities (e.g., Moll, Amanti, Neff, & Gonzalez, 1992). It is helpful to have community members serve as partners in the process; they can provide feedback and direction you may not otherwise be able to access. Your texts and lessons will be more meaningful when children see elements that are familiar to them, and the way to know these elements is by getting to know about the children, their community, their community members, and their experiences.

For this research study, I learned about my students' literacy practices within their culture(s) and communities in a few different ways. I lived in the community over the course of many months—allowing us (the students and myself) to see one another at the store, while playing outside, and going about daily tasks. I spent time getting to know students, parents, and the communities where the research took place. In a prior study, I observed a classroom of a similar age group of children in the same town every day for over a month, noting literacy practices, and I interviewed parents and teachers about their views of literacy and literacy learning. This information informed my creation of a parent survey (see Figure 2 for a template of the survey) about topics and activities that were important and fun for children's everyday lives in various contexts (e.g., working at home, at play). Parents from a rural village and a town school completed the survey. Table 8 lists responses from one of the survey questions—topics and activities important for children in Botswana when they are working at home.

Figure 2

Survey Template for Culturally Relevant and Sustainable Procedural and Informative/Explanatory Texts

Survey of Children's Literacy Practices
Please answer the questions below based on your experiences and opinions. You may write on this document. Thank you for your time!
Question 1
Please list some topics and activities that are important and/or fun for children in [your setting] when they are at play (for example: [list examples]).
Question 2
Please list some topics and activities that are important for children in [your setting] when they are working at home (for example: [list examples]).
Question 3
Please list some other topics and activities that are important and/or fun for children at home (for example: [list examples]).
Question 4
Please list some topics and activities that are important and/or fun for children in[your setting] when they are out in the community such as at [list examples].
Question 5
Please list some other topics and activities that are important and/or fun for children in [your setting] when they are outdoors (for example: [list examples]).

Figure 2 (cont'd)

Please answer the questions below based on your experiences and opinions. You may write on this document. Thank you for your time!
Question 6 Please list any other topics and activities that are important and/or fun for children in [your setting] to know about such as [list examples].

Question 7

Please write topics from your lists above that you feel are the most important, relevant, and/or fun for children [in your setting] to know how to do.

Topic

Question 8

Please write topics from your lists above that you feel are the most important, relevant, and/or fun for children in [your setting] to know about.

Topic

Table 8

Parents' Survey Responses About Important Topics and Activities at Play

Survey question: What are some topics and activities that are important for children in Botswana when they are working at home?	
Agriculture	Messengers (sending messages)
Bathing	Mopping (1, 1*)
Cleaning (3)	Packing Clothes
Clearing the table after meals	Plowing some vegetables
Cooking (6, 2*)	Polishing furniture and dusting
Collecting firewood (3, 8*)	Poultry
Decorating the house*	Raking the yard
Fetching water (9, 7*)	Resting
Gardening	Safety (2)
Harvesting* (2*)	Sewing
Homework	Sweeping the floor (10, 2*)
Household duties	Sweeping the yard (1, 2*)
How to behave when an elder enters to	Use of tools
compound	Washing clothes (8, 5*)
Learning how to make tea/coffee	Washing dishes (16, 6*)
Looking after goats and sheep*	Watering and cultivating gardens/plots
Making fire (1, 1*)	Watering trees
Making your bed (2)	

Numbers indicate the number of responses
* Responses given by parents from children in the rural school

The survey responses were used along with input from community members and

educators of young children to select topics that were most familiar to students, lent themselves

most readily to authentic literacy activities, fostered cultural sustainability (meaning that they

dealt with topics adults in the community viewed as important to their culture), and would most

easily reflect the purpose, forms, and features of the target genres. Additionally, I sought to use

topics that were appropriate in both settings (rural village and town) and were likely to be appealing to both genders. Topics were selected for the writing lessons and to create fifteen texts—ten informative/explanatory and five procedural.

Create a Plan for the Text Informed by the Genre and Authentic Texts

The purpose of the genre should guide the creation of your book. Each page should play a role in supporting the communicative purpose. Although this sounds straightforward, some texts have a page or pages that drift away from the central purpose and this can be confusing to readers, particularly young readers that may have limited experience with the genre.

The principle of allowing the purpose to guide the creation of the books is also true in thinking about how each page reflects other aspects of the genre such as characteristics, features, and the processes used to read and write the texts. One way to address this is to think about and look at different examples of authentic, real life, examples of the genre used in the community. For example, looking at different procedural texts on the back of a package of pasta or a bag of washing powder helped me in determining the elements of procedural texts that were seen by people in their everyday lives. I noticed that, contrary to how procedural texts are sometimes taught, procedural texts only include details the reader would not assume. For example, the text may say "Wash" and not necessarily tell someone how to rub the clothes together to wash them properly; this may be included in the illustrations or be assumed.

When you are familiar with the purpose, form, features, and reading and writing processes of the genre, plan for the creation of the text can be made. Use the form, features, and reading and writing processes as key points to incorporate in a logical way that is appropriate for the genre. Again, consulting real texts of the genre can and should inform this process. Look at

authentic texts and think about how the organization, layout, and words relate to the purpose, audience, form/features, and processes used to read and/or write the texts.

When creating the informative/explanatory texts for this study, I gathered examples used in Botswana and drew on research to determine essential components (see Table 9). Then, I used each of these to serve as an outline that included:

- A title

- A definition or general statement about the topic

- Headings and definitions for categories of the topic

- Events or attributes of the topic

- A summary statement about the topic

- Visuals (photos, graphics, tables, etc.)

- Labels

- Language that included generic nouns and timeless verbs

This outline served as the basic structure for my texts, and adjustments were made based on topic, the students (literacy practices and background knowledge), and the reading processes for informative/explanatory texts. For example, a book titled *Traditional Foods in Botswana* included the following elements:

- Cover page with the title, *Traditional Foods in Botswana*, and a photograph of different traditional foods (see Figure 3).

- Page one included definitions of the terms t*raditional* and *traditional foods* explaining that there are many traditional foods in Botswana (see Figure 4).

- Each page included a category of traditional food (made from grains, made from corn, made from vegetables, made from animals, and a modern addition) with a statement about the category (see Figures 5 and 6).

- Examples were given within each category (morogo and tswii are examples of foods made from vegetables) and included a photo, a label, and additional information (see Figure 6).

- The last page included a summary that there are many different traditional foods in Botswana and asked the reader to identify her/his favorite traditional food (see Figure 7).

Table 9

Procedural and Informative/Explanatory Text Purpose and Characteristics

Procedural texts	Informative/explanatory texts
Purpose: Tell someone how to do something they want or need to know.	Purpose: Exposition—tell about the natural or social world
Select focal characteristics:	Select focal characteristics:
Title	Title
Materials needed*	Definition or general statement
Steps or procedures*	Headings for categories
Headings for materials and steps sections	Attributes/events*
Descriptive language illustrating how to do the task*	Closing statement or summary
	Illustrations
Sequence of events/steps*	Labels*
Imperative sentence constructions*	Timeless verbs*
Graphics showing how to do the procedure	Generic noun constructions*
	Tables

Indicates the characteristics most commonly used by children in the research study.

Figure 3

Cover Page of the Traditional Food in Botswana Book
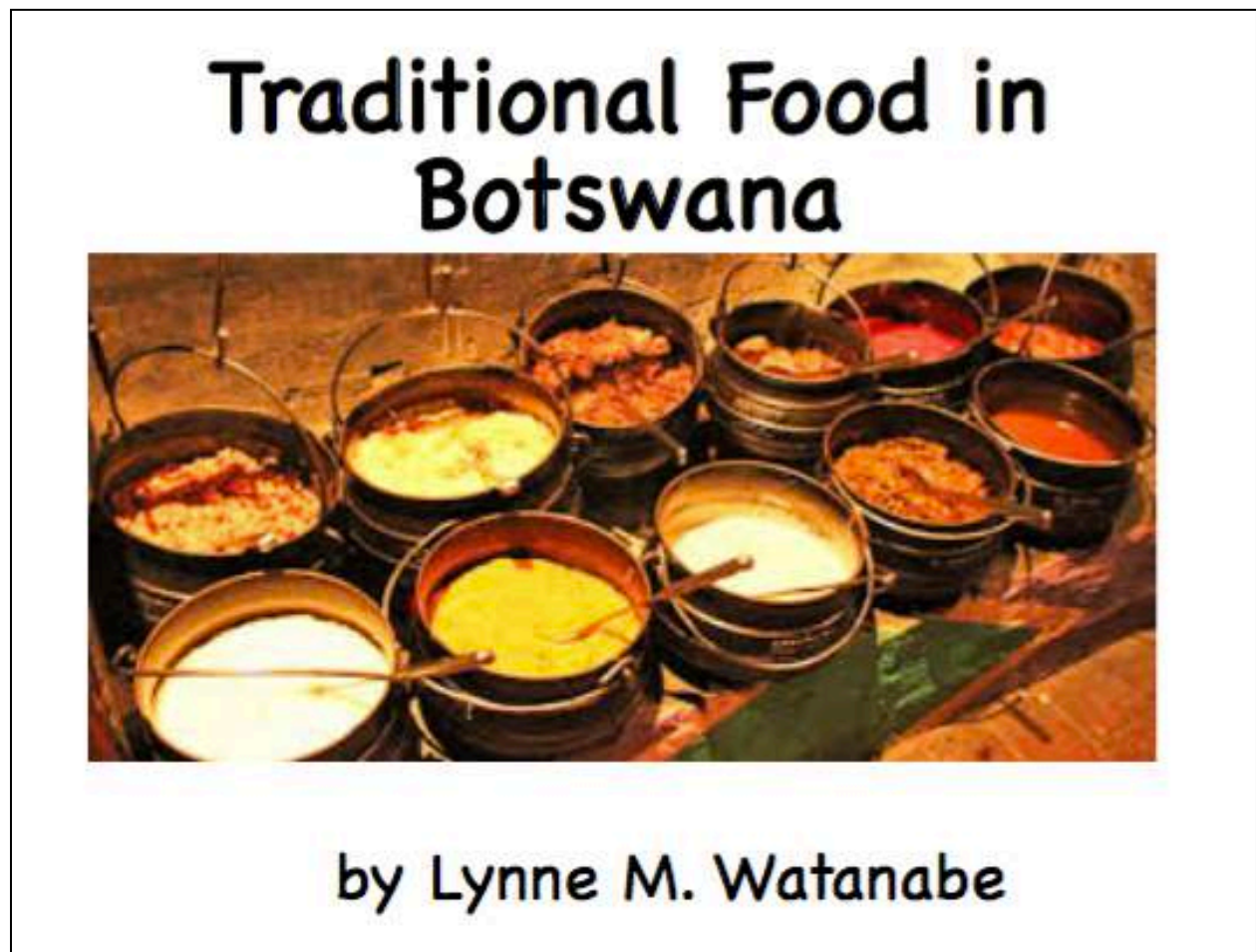
Figure 4

First Page of the Traditional Food in Botswana Book

Traditional foods are foods a group of people have made and eaten from one generation to another generation. There are many traditional foods in Botswana.
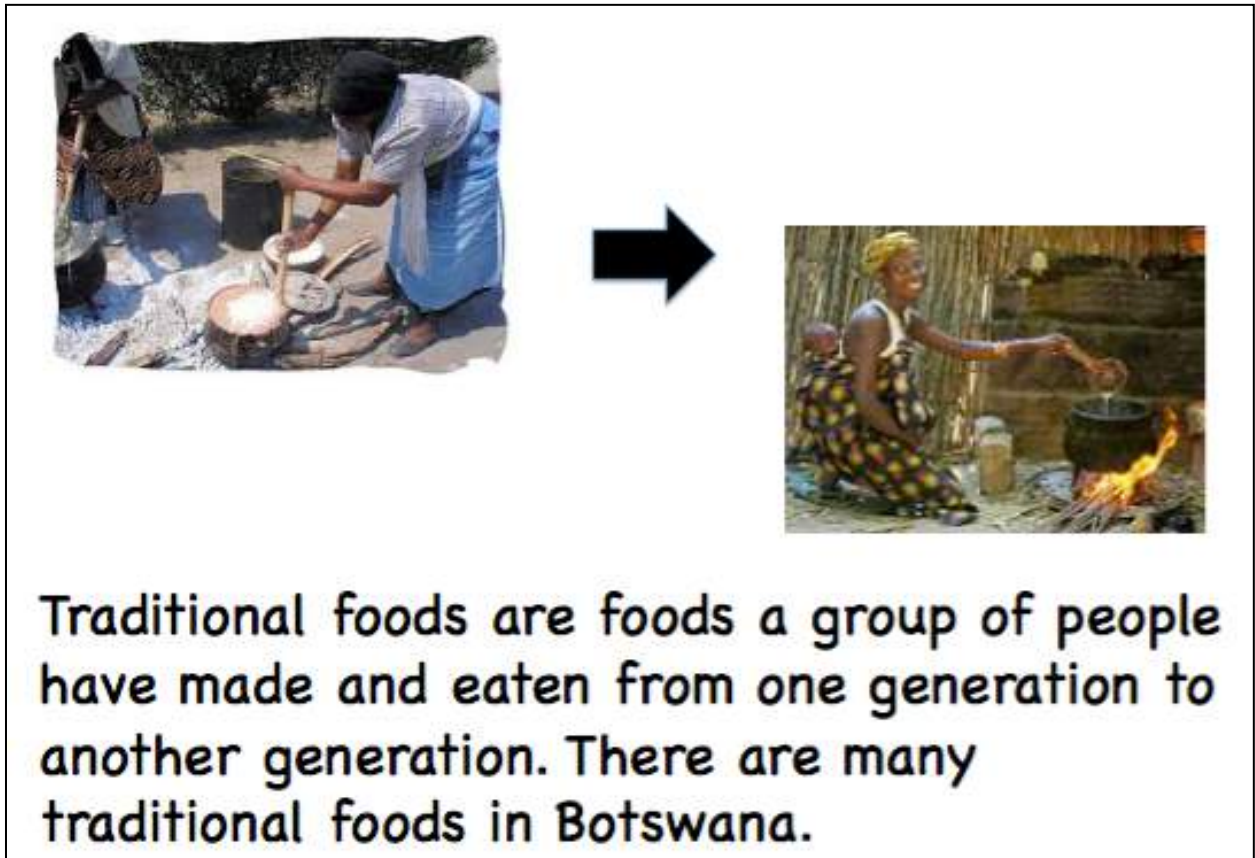
Figure 5

Sample Page of the Traditional Food in Botswana Book

One traditional food is *seswaa*. It is made by cooking and pounding beef.
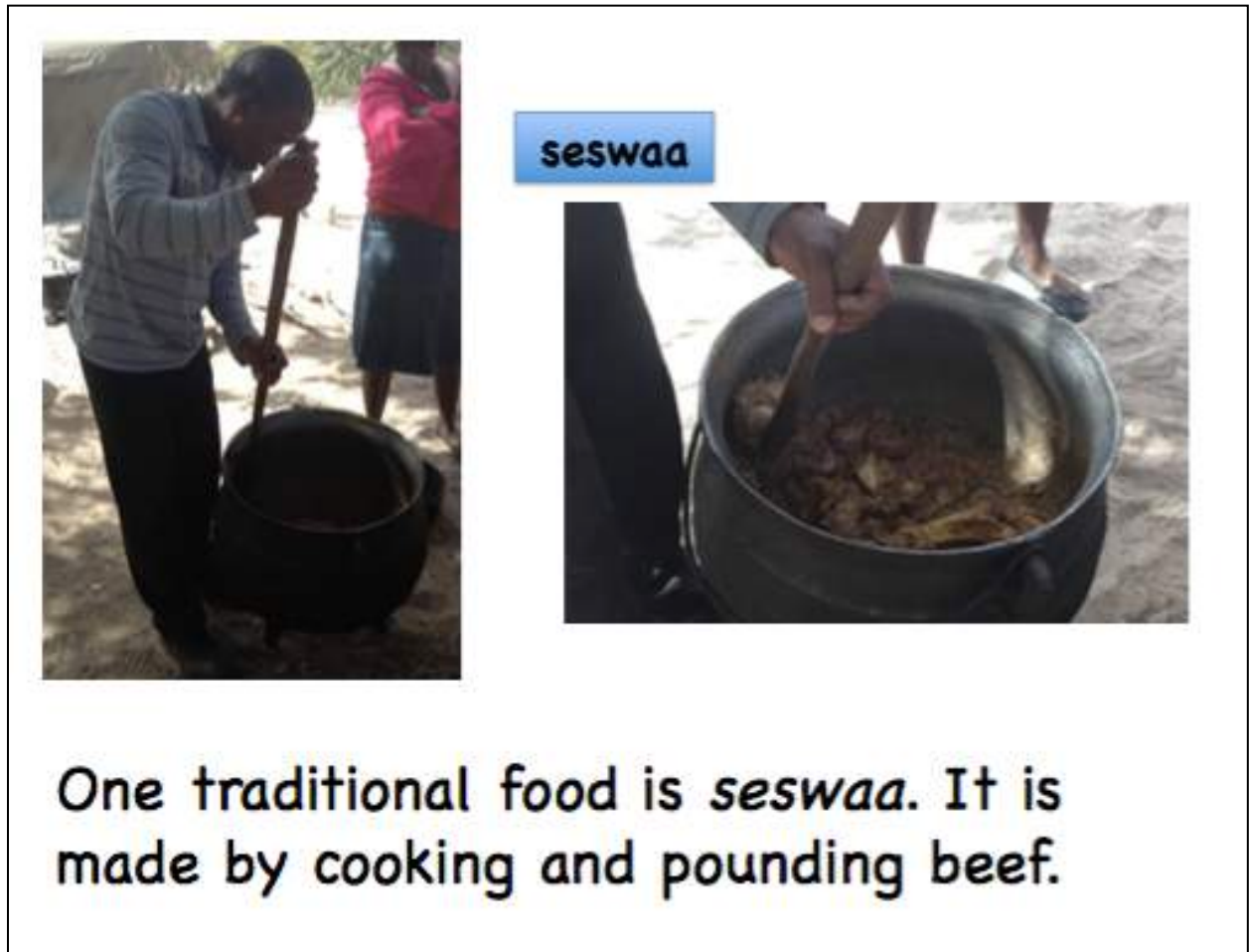
Figure 6

Sample Page of the Traditional Food in Botswana Book

morogo

Morogo is made from green leafy vegetables.

Tswii is made from the water lily plant.

tswii

Morogo and tswii are traditional foods made from plants.

Figure 7

Last Page of the Traditional Food in Botswana Book

Yum! The are many traditional foods in Botswana. What is your favorite traditional food?
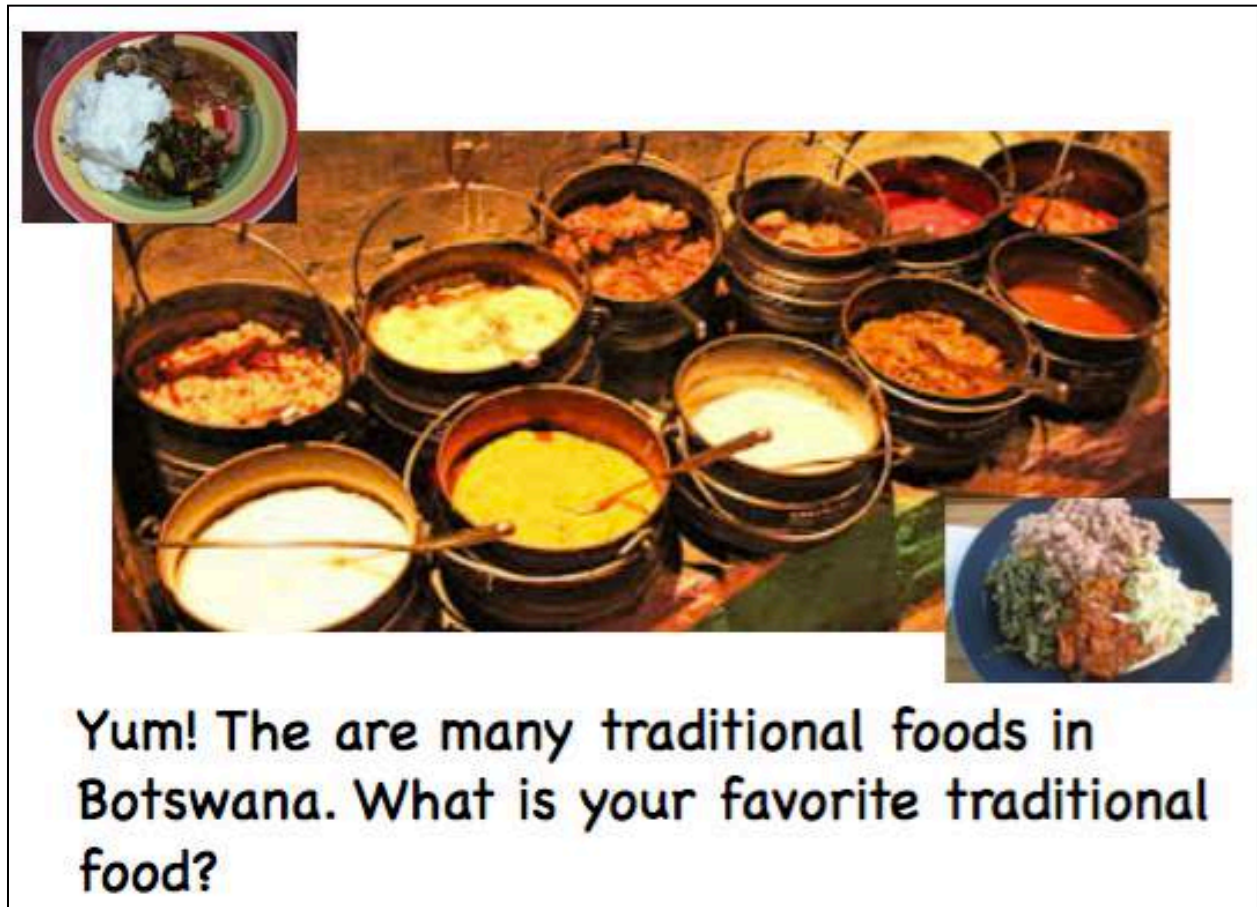
Incorporate Known and New Content

As mentioned previously, an essential component in making the text culturally relevant and sustainable is to incorporate new information that children need to know with known content based on their background knowledge and the literacy practices of their culture(s) and communities. The known or familiar content can include visuals, concepts, language, or anything else that you think would help children connect to the new information. Use the knowledge you have of your students and the resources you have available to incorporate known content in your text. It will help students to better connect to the concepts and thus be able to focus on the other

key concepts such as aspects of the genre. As part of this study, I created a book about places in town—similar to typical lessons for young children on communities or community members. I went around town taking pictures of the actual places in town such as the hospital, police station, post office, and grocery store. During an interactive reading of a book, students identified the signs and pictures of familiar stores shouting, "That's Choppies [name of the grocery store]!" and "I go there!" They used the visuals, the environmental print of the store signs, and their background knowledge to connect to the text. This made it easier to teach about why each of the familiar places was important to know and what services they provided for people (keep us safe and healthy, provide transportation, are places where you can buy, send, or receive things). After the lesson, the book seemed easier for them to independently read, and it quickly became a favorite book. The children easily read and/or created their own appropriate text when reading independently, and these readings included the new elements about each place in town, even days after the initial reading of the book.

Make Adjustments to Support Future Readers

It is helpful to look over the text after it has been created with the eye of the future reader(s) to determine whether any adjustments should be made. An additional help in this process would include reading it aloud and reading it to another person, particularly a member of the students' culture(s) and communities. Does the text accomplish the genre's purpose, include important features, incorporate familiar content, resemble authentic texts of the genre, and enable the use of genre-specific literacy practices? While reading some of the texts I created for this study with groups of children, I noticed that there were additional adjustments that would make the readability and comprehension of the content (on the topic and about the genre) more accessible. For example, an informative/explanatory book titled *Trees in Botswana* had a chart in

the back that listed the named of the trees in both Setswana and English, but the names of the trees in the text of the book were all in English. After teaching the lesson with the first small group, I realized that it would be helpful to include the English and Setswana names of the trees in the text and in the labels on each page. I had created, edited, and previously read the text to others, but the need for using both languages was made apparent during the teaching of the lesson. Additionally, I found it helpful to see and think about the texts that were successfully used and preferred by the children to determine what aspects could be incorporated to make improvements.

Implement Effective Language and Literacy Instruction with the Texts

After the texts are created, it is important that they are used with high quality, culturally relevant and sustainable language and literacy instruction. This is instruction that: (1) focuses on the knowledge, experiences, and literacy practices within students' culture(s) and communities, (2) includes genre-specific knowledge and processes, (3) incorporates reading and writing together, and (d) scaffolds and supports students' learning.

Focus on the Knowledge, Experiences, and Literacy Practices Within Students' Culture(s) and Communities

Just as knowledge about your students' experiences and literacy practices within their culture(s) and communities should inform your creation of the culturally relevant and sustainable informational texts, it should inform and can enhance the language and literacy practices you use with the texts. Lessons should be tailored to the students' background knowledge, experiences, and literacy practices within their culture(s) and communities to promote new content knowledge, moving from the known to the new. This encourages making connections from the unfamiliar to the familiar for more meaningful and productive learning. It is important to note that each child

has differing experiences and is a member of different culture(s) and communities. Therefore, generalizations should be avoided. Further, texts can be created with a focus on particular students and/or groups, but all children participating in the instruction should be provided with access and opportunities to learn and connect to the content within the text.

Thabiso (pseudonym), a student who participated in this research study, tended to hesitate and/or sit back and let other more outspoken children participate in everyday interactions at school, particularly with teachers. In the small group settings of interactive reading and writing, I tried to capitalize on his various strengths and invite him to participate. I noticed he was a skilled artist and was able to recognize some things other children missed in graphics and photos. Sometimes he took longer to respond than many of the children in his small group, but when he did, he often had deeper insights. Initially, I employed some techniques such as wait time before giving an answer so everyone had a chance to think on their own, but as I got to know Thabiso, I saw other ways to invite him to participate. During an interactive writing lesson, I asked him to draw and label a helicopter. The other children seemed unsure about how to begin the task, and they watched him intently as he drew a recognizable helicopter and labeled it, coming up with the majority of the letters by himself. In the following writing lesson, another difficult illustration came up and children volunteered Thabiso to draw and label it. Thabiso seemed to enjoy being acknowledged for his thinking and participation. I noticed, as the lessons continued, that children participating in his small group lessons began to look to him during the activities to see what he would do, say, or notice. They picked up on his strengths and abilities and seemed to incorporate a few of the techniques he used in the small group lessons. Some of the teachers were a bit surprised with his detailed and sophisticated written texts, drawings, and explanations. They

seemed to equate his timid actions as an indication of not knowing the content when he just wanted an opportunity to participate or needed more time to do so.

Include Genre-Specific Knowledge and Processes

As with the creation of the culturally relevant informational texts, the implementation of the experiences and lessons created for the texts should include genre-specific knowledge and consulting authentic texts. In fact, the genre-specific knowledge (e.g., purpose, features, reading and writing processes) you see in and use with the texts can serve as cues when creating and implementing literacy lessons. If you know informative/explanatory books have certain forms and features and use certain processes to read and write the genre, your lessons should, over time, include these elements. Therefore, it may be helpful to revisit what children need to know to read and write the genre. Remember that genre-specific knowledge does not necessarily transfer from one genre to another and so experiences must address the essential features, purpose, and processes used to read and writing the genre.

For example, the procedural texts used in this study specifically included sections for materials and steps. Therefore, the instruction used with and about these texts featured these sections. This would be true even if a previous discussion focused on sequencing in a narrative story. There are differences in the ways used to represent and understand sequence in a procedural text, such as numbering steps, compared to a narrative text. In this study, some of the reading and writing activities for procedural text lessons included: defining the sections, talking about each section's components, modeling reading of the sections through a think aloud, using the sections to complete a task, and writing texts that included the sections. Knowing that the two sections were important to reading and using the procedural genre indicated that they were important to emphasize and include in the experiences provided with the procedural texts.

Incorporate Reading and Writing

The lessons and experiences used with the created texts should also incorporate both reading and writing. Reading and writing are frequently seen as distinct areas of learning, as subject areas. They are often taught at different times of day with assignments and content disconnected from one another and other disciplines. Many research studies also focus on either reading or writing with findings and implications tailored to one or the other. However, reading and writing are actually deeply connected aspects of literacy. They enhance one another and are typically used together in everyday literacy learning. There is a dynamic relationship between reading and writing because they have some similarities, but their differences also enable them to enhance one another in ways that could not be accomplished alone (Shanahan, 2006). Teaching reading and writing as disconnected subjects rather than processes used together can limit children's abilities to enhance literacy practices inside and outside of schooling. Therefore, instruction and experiences should use reading and writing together.

Focusing on genre is one way to incorporate reading and writing in more authentic and productive ways. By engaging students in reading and writing the same genre of text, students have more to draw from to make meaning from and compose text. They are given the opportunity to think about the text as a reader and a writer. After an interactive reading of an informative/explanatory text on fruits and vegetables in Botswana, children composed their own informative/explanatory texts on the topic featuring their choice of important fruits and vegetables. They created covers for their texts with the title and author, a page about fruits, and a page about vegetables. Each child created their own pages, which included headings, visuals, labels, and some additional text. No two books contained the same fruits and vegetables, but all books contained headings, labels graphics, and use of the categories of fruits and vegetables.

Scaffold Learning

Scaffolding the learning of students is key to any lesson. Sometimes it is assumed that we are scaffolding learning, but the support given does not meet children where they are or does not include what they need to be successful. Literacy lessons and experiences should include opportunities in which students benefit from modeled, shared/interactive, and independent reading and writing. This should include explicit instruction and ensure that children have multiple opportunities to see and participate in the reading, use, and composition of text. Additionally, it is also important to note that modeled, shared/interactive, and independent activities can be used within the same lesson when appropriate.

Modeled experiences can include think alouds about what you are reading and/or writing—making your thinking explicit for your students. For example, when participating in the interactive writing of a procedural text I might say, "I just wrote the title, *How to Make Tea*. I know that I need two sections, a materials section and a steps section. I know the materials section goes first, and it needs a heading. I know it goes after the title right here up at the top. [Points.] Materials…[begin writing the word]." Again, the aspects of the genre and what you know about your students' literacy practices within their culture(s) and communities can indicate what to focus on in your think alouds. Shared/interactive readings and writings invite and ensure that all children are able to participate in the activities as they compose text together. Additionally, they provide venues where students can learn from one another as they watch and collaborate in the composition process. Independent reading and writing are key to helping students use and play with elements of reading, writing, and development. It is important to include independent reading and writing opportunities that give children choice to try something

new, such as in the setting of a writing center. Providing a real-life audience and purpose for the task can also aid in motivating children and helping them to focus on the communicative task.

When developing the lessons for this study, I tried to scaffold the content learned about each genre's purpose, form/features, and the processes used to read and write the genres. Children are likely to be overwhelmed if all of these elements were focused on at the same time. All of the texts included these aspects of the target genre and were read as part of the interactive read aloud process. However, the focus for each reading and or writing activity included highlighting different aspects of the genre and the processes used to read and write the genre in a scaffolded way incorporating explicit instruction, modeling, shared, and independent practice.

Concluding Thoughts

Many children receive limited exposure to and experience with high quality informational texts that resonate with their own literacy practices and communities. One way to address issues of access to culturally relevant informational texts is to create texts based on what students want or need to know and the funds of knowledge from their culture(s) and communities. These texts can be created by the teacher or with the students as a class or in small groups. The process involves getting to know the literacy practices of your students' culture(s) and communities, understanding the aspects of the genre, creating the text, and using the text with instruction tailored to students' learning strengths and needs. Texts should include familiar content and genre-specific characteristics and processes that promote cultural sustainability. Instruction should draw on the experiences and literacy practices of students' culture(s) and communities, focus on the appropriate genre-specific aspects, use both reading and writing, and scaffold student learning.

Table 10

Pause and Ponder

Questions for Pause and Ponder section

- What are some of the informational texts that your students see and use every day?

- What informational texts do you currently use that contain topics, language, and images resonate with the literacy practices within your students' culture(s) and communities?

    o What are the literacy practices of the children's culture(s) and communities who are not represented in the informational texts you are using?

- What authentic reading and writing activities do you currently use to teach about and with informational texts?

- What are some culturally relevant topics and authentic literacy activities that you could use with informational texts in your classroom?

Table 11

Take Action!

Creating and using informational texts in your classroom

1. Create the culturally relevant and culturally sustainable informational texts.

    • Learn about the literacy practices of students' culture(s) and communities.

    • Create a plan for the text informed by the genre and the authentic texts.

    • Incorporate known and new content.

    • Make adjustments to support future readers.

2. Implement effective language and literacy instruction with the texts.

    • Focus on the knowledge, experiences, and literacy practices within students'
    culture(s) and communities.

    • Include genre-specific knowledge and processes.

    • Incorporate reading and writing.

    • Scaffold learning.

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APPENDICES

Table 12

Sample Interactive Read Aloud Lesson Plan: Procedural Text

How To Rake the Yard	
Preparation	**Objective:** • Children will demonstrate understanding of a how-to text through retelling, writing, and/or participating in the procedure.
	Materials: • *How to Rake the Yard* text • *How to Rake the Yard* templates (one for each child) • *How to Rake the Yard* cards (one set for each child) • Bostik
	Vocabulary: • how-to text • title • materials • steps
Before Reading	**Introduction** • Today we are going to read another procedural or how-to text. Remember this is a book that tells someone how to do something. • Ask, "Have you ever raked the yard?" • Today we are going to read a how-to text about how to rake the yard. The title or name of this text is *How to Rake the Yard*.
	Set Purpose • We are going to read the book a few times so you know how to rake the yard. Listen and watch carefully so you will know how to do it when we are done reading. This will help you with the activity we are going to do. You will also be able take the activity home to share what you have learned with your family.
During Reading	• Ask, "What is the title or name of this text?" • Read the text including the pictures and the written text. Point to words and pictures as you read them. • Point out the materials section and ask the children what materials are. Remind he children that materials are the things needed to make something. Have children say the word "materials." • Point to the steps section. Ask children what the steps are. Remind children that steps are each of the things we do. In this text, it's each thing we need to rake the yard.
After Reading	• Give a general retelling of the overall procedure using the pictures in the text. • Have the children work together to retell the overall procedure with you by acting it out. • Ask if anyone would like to retell the text. • Have children attach the parts of the text in the correct order and in the correct section on the template. Then, have children practice retelling the procedure. • Tell children that they can take the template and pictures home to practice putting the items in the correct places and retelling the procedure.

Table 13

Sample Interactive Read Aloud Lesson Plan: Informative/Explanatory Text

Places in Town	
Preparation	**Objective:** • Children will demonstrate understanding of an informative/explanatory text through retelling, writing, and/or participating in a group activity.
	Materials: • *Places in Town* text
	Vocabulary: • information book • title • labels
Before Reading	**Introduction** • Last week we were reading procedural or how-to books like "How to Make Tea," "How to Rake the Yard," and "How to Play Mmele." Today we are going to read a different type of book. This is a book that tells someone about something called an informative/explanatory book. • Show the text and ask, "Have any of you been to some different places in town? Where have you been?" • Today we are going to read an information book about places in town. The title or name of this text is *Places in Town*.
	Set Purpose • We are going to read the book a few times so you know about some of the different places in town. This will help you also as you read other informative/explanatory books. Listen and watch carefully so you will know about these places in town.
During Reading	• Point to the title as you read it. • Read the text including the pictures, labels, and the written text. Point to words and pictures as you read them. • Stop to ask questions about the text, topic, format, and any connections the children may have to the book. • Point out the labels. Tell the children that labels are words that tell what things are. Have children say the word "label."
After Reading	• "Why are these places in town important to know?" • Go through the text with the children to recount the main points of the text—pay particular attention to the labels and how each place helps people.

Table 14

Sample Interactive Writing Lesson Plan: Procedural Text

Writing a How to Buy an Item Text	
Preparation	**Objective:** • Children will demonstrate understanding of a how-to text through retelling, writing, and/or participating in the procedure.
	Materials: • Blank paper • markers • alphabet chart
	Vocabulary: • how-to text • title • materials • steps
Before Writing	**Introduction** • Show an example of a procedural text from a previous lesson (e.g., *How to Make Tea*). • Remind children that this type of text is called a procedural or "how-to text." Explain that a procedural text's purpose is to tell someone *how to* do something. • Go over the basic form of a procedural or how-to text (title, materials list, steps, illustrations). • "Today we are going to write our own procedural or how-to text together about how to buy an item."
	Set Purpose • "How many of you have had to buy something for someone at a tuck shop or other shop?" We are going to work together to write a how-to text to tell other children how to buy an item.
During Writing	• *Ask* children what should be included in the how-to text. • Determine the first section to write. Say the text and have the children repeat it. Stretch the word to help children hear the sounds. • Begin writing some of the text. Select children to write letters and/or words of the text. • Give children support with writing the letters as needed, and engage the other children in the activity while the child is writing. o Have them write the letter with their finger on the bottom of their shoes, on the palm of their hand, in the air, etc. • Repeat the process until the how-to text is written.
After Writing	• Have the children reread the text they wrote together. (These texts will be used and distributed to other children to teach them how to buy and item from a tuck shop.)

Table 15

Sample Interactive Writing Lesson Plan: Informative/Explanatory Text

Writing a Toys Kids Make Text	
Preparation	**Objective:** • Children will demonstrate understanding of an informative/explanatory text through retelling, writing, and/or participating in a group activity.
	Materials: • blank paper • markers • alphabet chart
	Vocabulary: • information book • title • author • label
Before Writing	**Introduction** • Show the previous information/explanatory texts read. • Remind children that this type of text is called an "informative/explanatory book." Explain that an informative/explanatory book's purpose is to tell about something. • Go over the basic form of an informative/explanatory book (cover, title, various pages with headings if needed). • Today we are going to write our own informative/explanatory book together about the different toys children in Botswana make.
	Set Purpose • "I have noticed that many of you are very good at making toys out of things, and that many children in Botswana make toys." • "Have you made toys before? What have you made?" • We are going to work together to write an informative/explanatory book to tell others about toys you have made or know how to make.
During Writing	• *Ask* children what should be included in the informative/explanatory book. • Determine the first section to write. Say the text and have the children repeat it. Stretch the word to help children hear the sounds. • Begin writing some of the text. Select children to write letters and/or words of the text. • Give children support with writing the letters as needed, and engage the other children in the activity while the child is writing. o Have them write the letter with their finger on the bottom of their shoes, on the palm of their hand, in the air, etc. • Repeat the process until the information book is written.
After Writing	• Have the children reread the text they wrote together.

Appendix B: Sample Intervention Lesson Texts

Figure 8

Sample Procedural Text

How To Make a Toy Car

Many children like to make their own toy cars. Here is one way to make a toy car.

Materials:

empty box

scissors

4 lids
(1 hole made in each one)

2 small sticks

long stick

Steps:

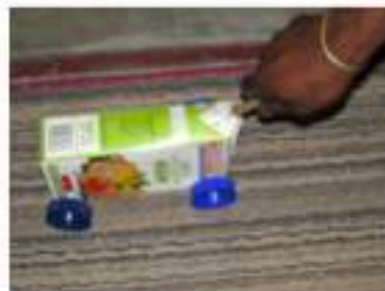1. Make 4 holes at the bottom of the box with the scissors (2 holes on each side).

Figure 8 (cont'd)

2. Push each stick in the hole on one side and out on the other side.

3. Put a lid on each end of the sticks to make wheels.

4. Put the stick in the top of the box to make a handle.

5. Drive your new toy car.

Figure 9

Figure 9 (cont'd)
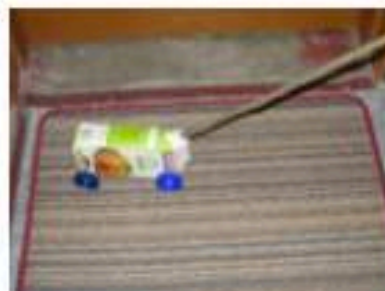
Transport is the way to move people or things from one place to another. In Botswana, there are many different types of transport.
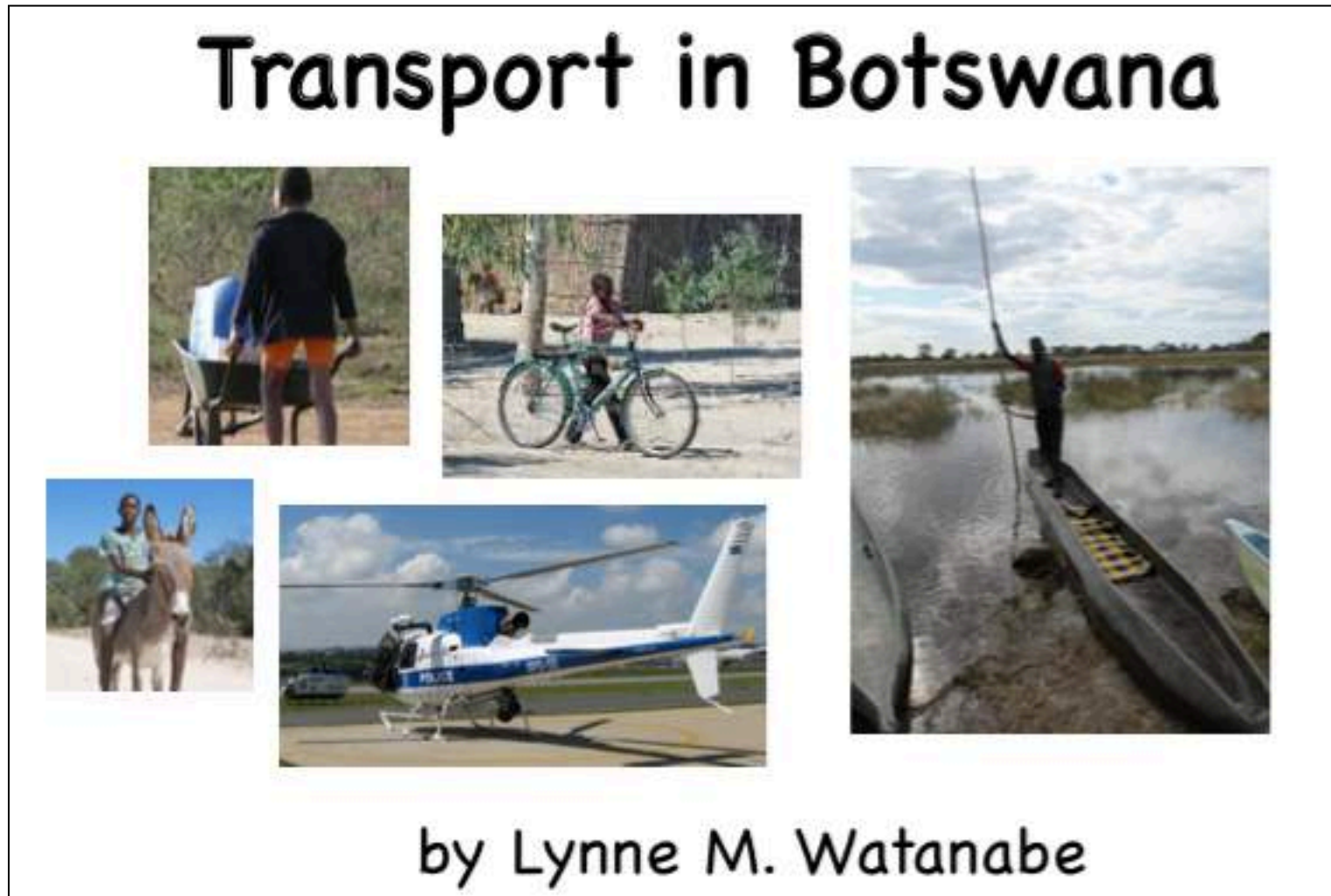
Figure 9 (cont'd)
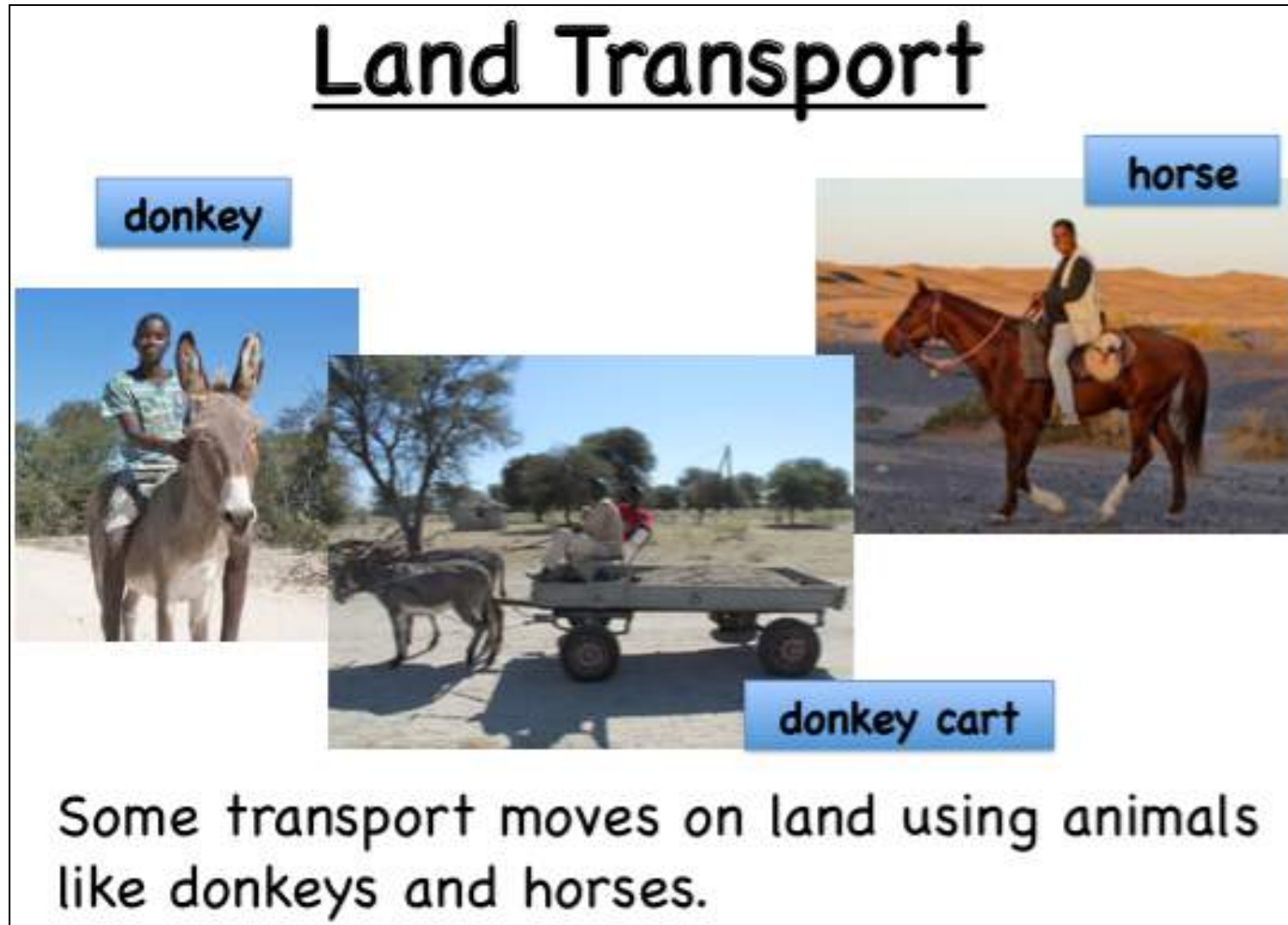
Figure 9 (cont'd)

Other transport moves on land using motors such as a car, taxi, combi, and bus.

Figure 9 (cont'd)

train

A train also moves on land with a motor, but it uses rails.

Figure 9 (cont'd)

Bicycles and walking are other types of land transport. Bicycles move as a person pedals, and people move as they walk.

Figure 9 (cont'd)

Water Transport

boat

mokoro

A boat can use a motor or people to move.

A mokoro moves by a person using a long stick called a mkashi.

Some types of transport travel across water such as boats and mokoros.

Figure 9 (cont'd)

113

Figure 9 (cont'd)

Transport in Botswana

Land	Water	Air
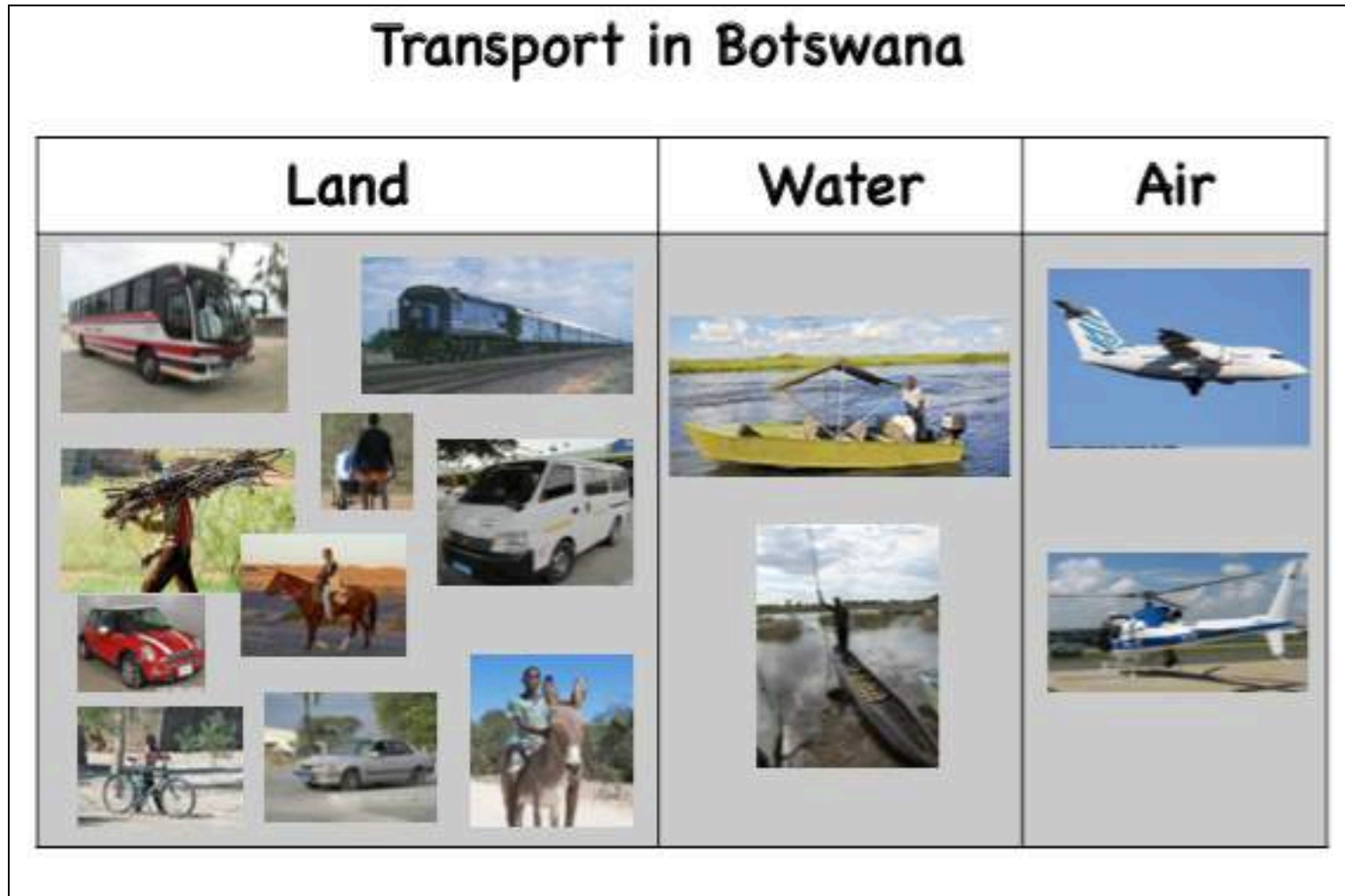
Figure 10

Survey

Books for Botswana Survey

Please answer the questions below based on your experiences and opinions. You may write on this document. Thank you for your time!

Question 1

  Please list some topics and activities that are important and/or fun for children in Botswana when they are at play (for example: playing particular games such as hide-and-seek, making toys such as dolls or cars, making crafts, or drawing).

Question 2

  Please list some topics and activities that are important for children in Botswana when they are working at home (for example: sweeping the floor, fetching water, washing clothes, or washing dishes).

Question 3

  Please list some other topics and activities that are important and/or fun for children at home (for example: watching TV, listening to the radio, bathing, or listening to stories).

Figure 10 (cont'd)

Question 4

Please list some topics and activities that are important and/or fun for children in Botswana when they are out in the community such as at shops, at church, at restaurants, or at the library.

Question 5

Please list some other topics and activities that are important and/or fun for children in Botswana when they are outdoors (for example: playing football, riding a bike, playing other sports).

Question 6

Please list any other topics and activities that are important and/or fun for children in Botswana to know about such as animals and plants, famous people, specific historical events, aspects of daily life like transportation, or specific customs.

Figure 10 (cont'd)

Question 7

Please write topics from your lists above that you feel are the most important, relevant, and/or fun for children to know how to do.

Topic

Question 8

Please write topics from your lists above that you feel are the most important, relevant, and/or fun for children in Botswana to know about.

Topic

Figure 11

Pre-/Post-Assessment Protocols

Books for Botswana: Young Children's Reading and Writing of Informational Texts

Phase 3 Pre-/Post-Assessment Protocol (for children)

Thank you so much for being willing to meet with me today. Today we are going to do some reading and writing together. (Administer Assent if not done previously.)

*TYPE OF TEXT WILL BE COUNTER-BALANCED

PROCEDURAL TEXT
Task 1: **Writing**
- [If prompt is administered second, start with "Remember that. . ."] Nicole is in standard two at a different school, and her class has been talking about how to *brush your teeth. I think you know about this from home.
- Please write her a text—or paper—teaching her how to *brush your teeth? You can use this piece of paper.

Task 2: **Emergent Reading**
1. Today I would like you to pretend read a how-to text to me. You can't really read this book because all of the words are missing, and these lines are for each word. I just want you to *pretend* to read it. Make believe. Tell me what you think the words might say. It's okay if you are wrong. The name of this how-to book is *How to Wash Clothes*. It tells someone how to wash clothes. Before you pretend to read, you may want to look at the how-to book and think about what the words might say.

2. Child looks at the how-to text.

3. Now I want you to pretend to read the how-to book to me. Remember that the name of the how-to book is *How to Wash Clothes*.
   a. Additional prompts if needed:
      i. Just look around on this page and tell me what you think the words on the page might say.
      ii. What do you think the words on this page might say?

Figure 11 (cont'd)

INFORMATIVE/EXPLANATORY TEXT

Task 1: **Writing**

- [If prompt is administered second, start with "Remember that. . ."] Nicole is in standard two in a different school, and her class has been talking about *donkeys. I think you know about them from home.
- Please write her a text—or book—teaching him about *donkeys. You can use this book. Write what you know about donkeys—what they eat, what look like, how they are important—anything you know about them.
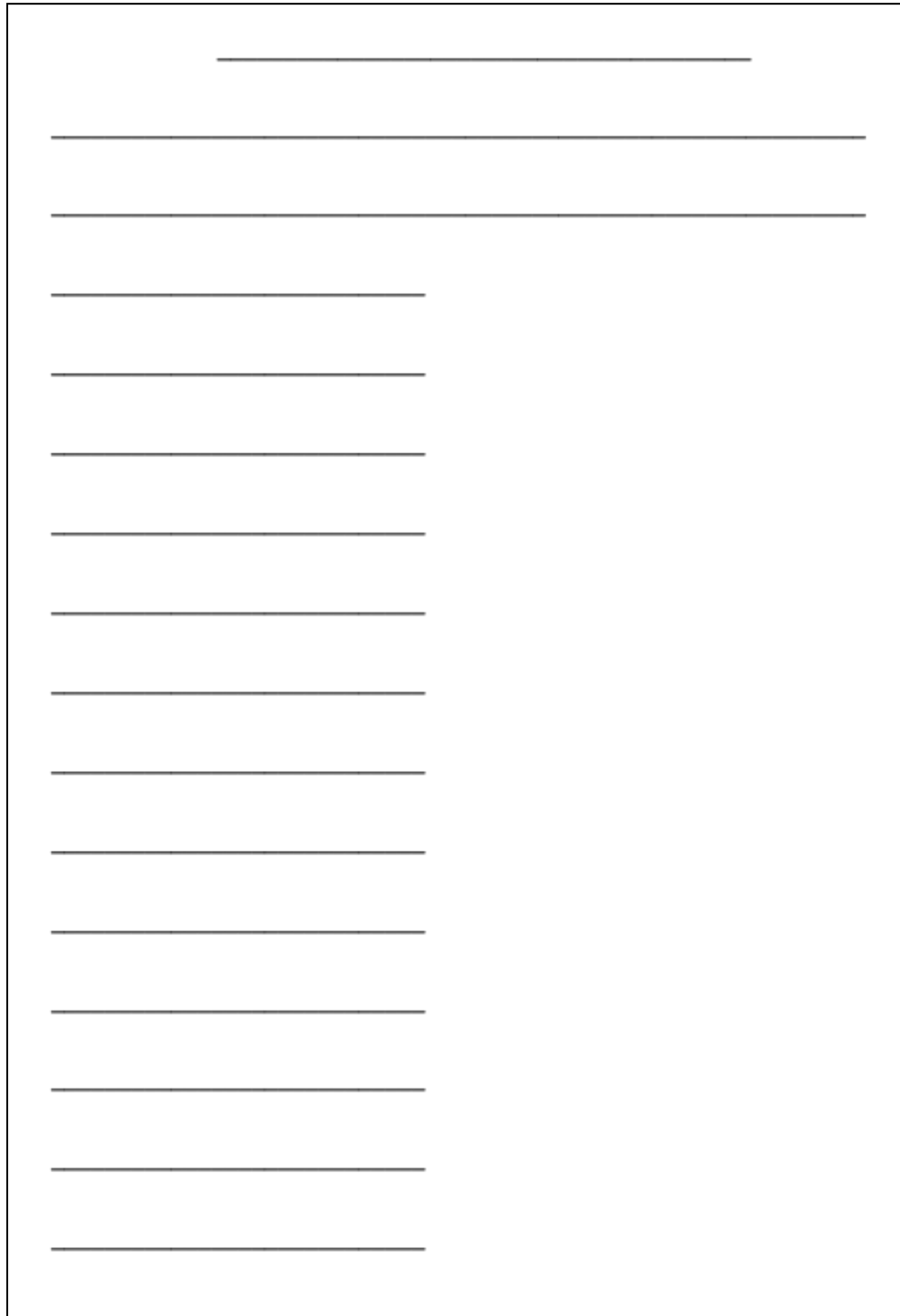
Task 2: **Emergent Reading**

1. Today I would like you to pretend to read an informative/explanatory book to me. You can't really read this book because all of the words are missing, and these lines are for each word. I just want you to *pretend* to read it. Make believe. Tell me what you think the words might say. It's okay if you are wrong. The name of this book is *Animals in Botswana*. It tells someone about different types of domestic and wild animals in Botswana. Before you pretend to read, you may want to look at the pages and think about what the words might say.

2. Child looks at the text.

3. Now I want you to pretend to read the informative/explanatory book to me. Remember that the name of the text is *Animals in Botswana*.
    b. Additional prompts if needed:
        i. Just look around on this page and tell me what you think the words on the page might say.
        ii. What do you think the words on this page might say?

Appendix E: Pre-/Post-Assessment Writing Task Templates

Figure 12

Procedural Writing Template

_____

_____

_____

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Figure 12 (cont'd)
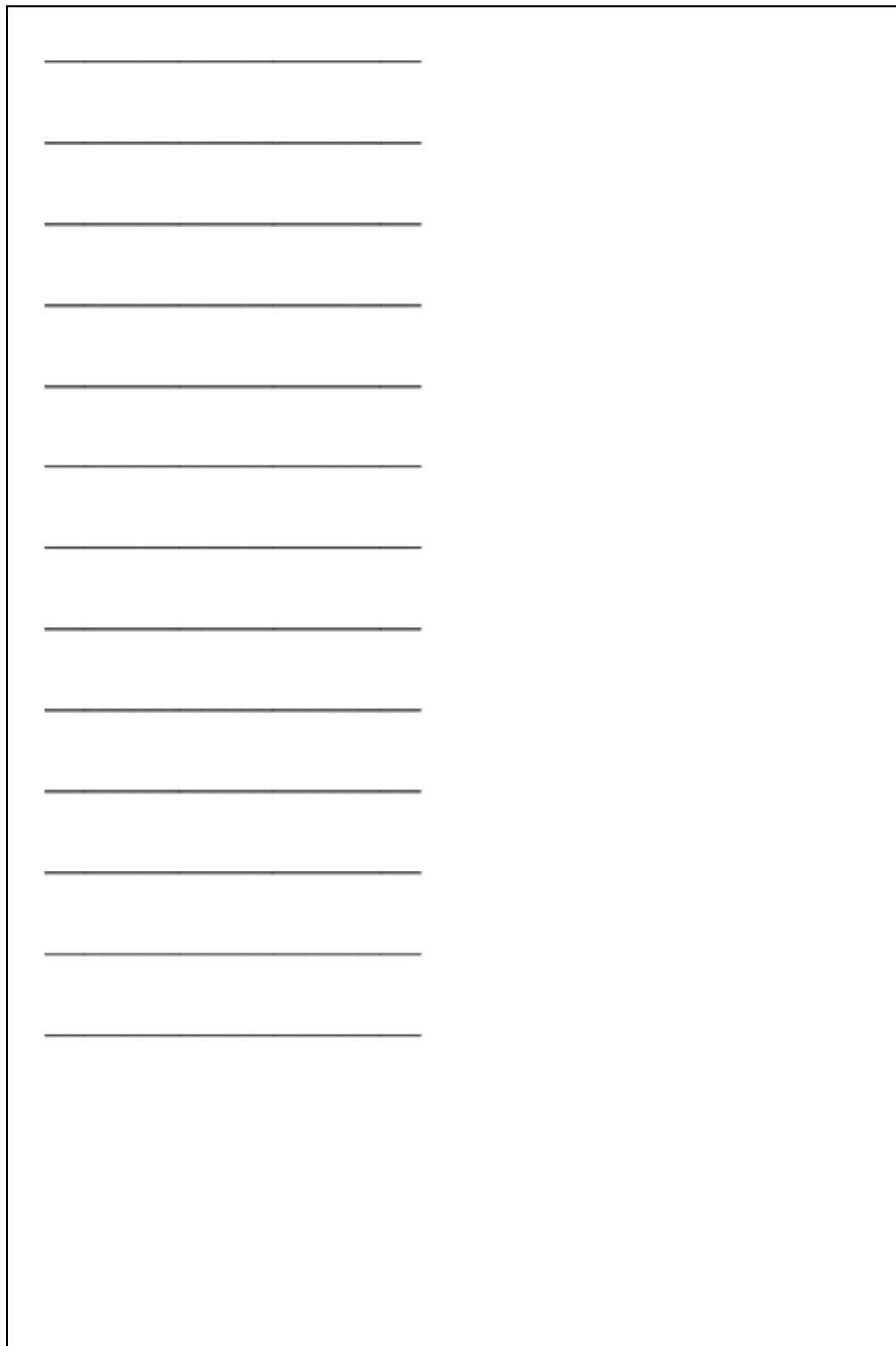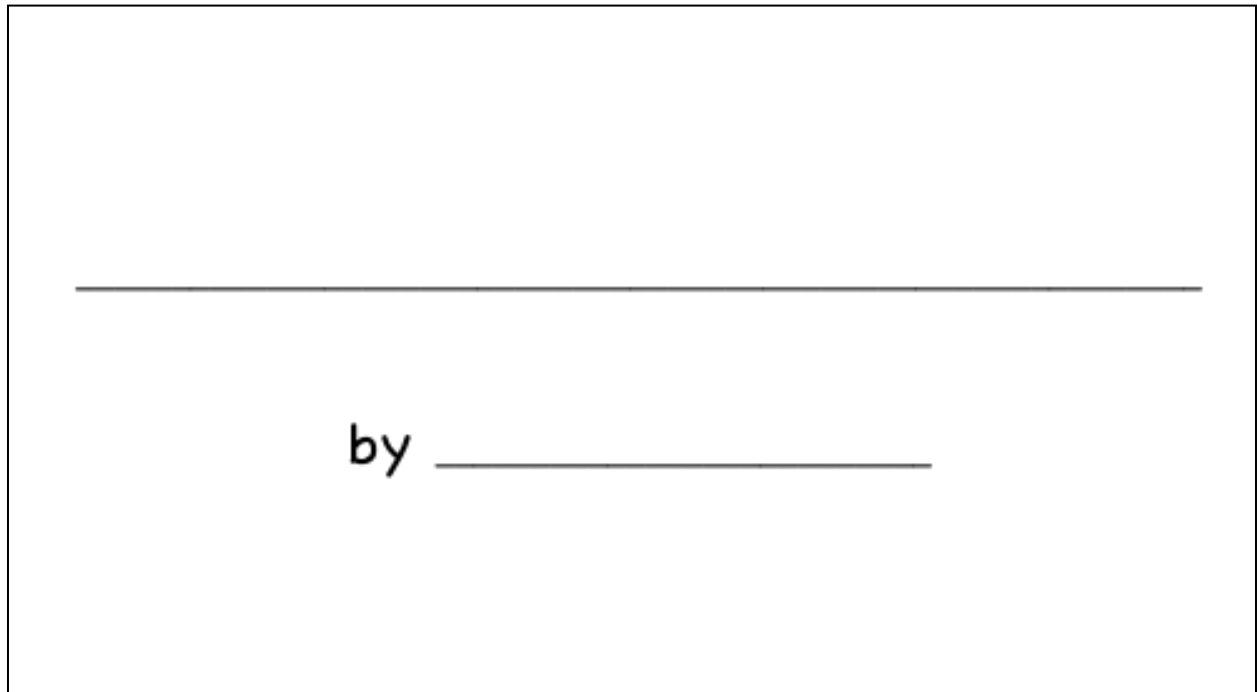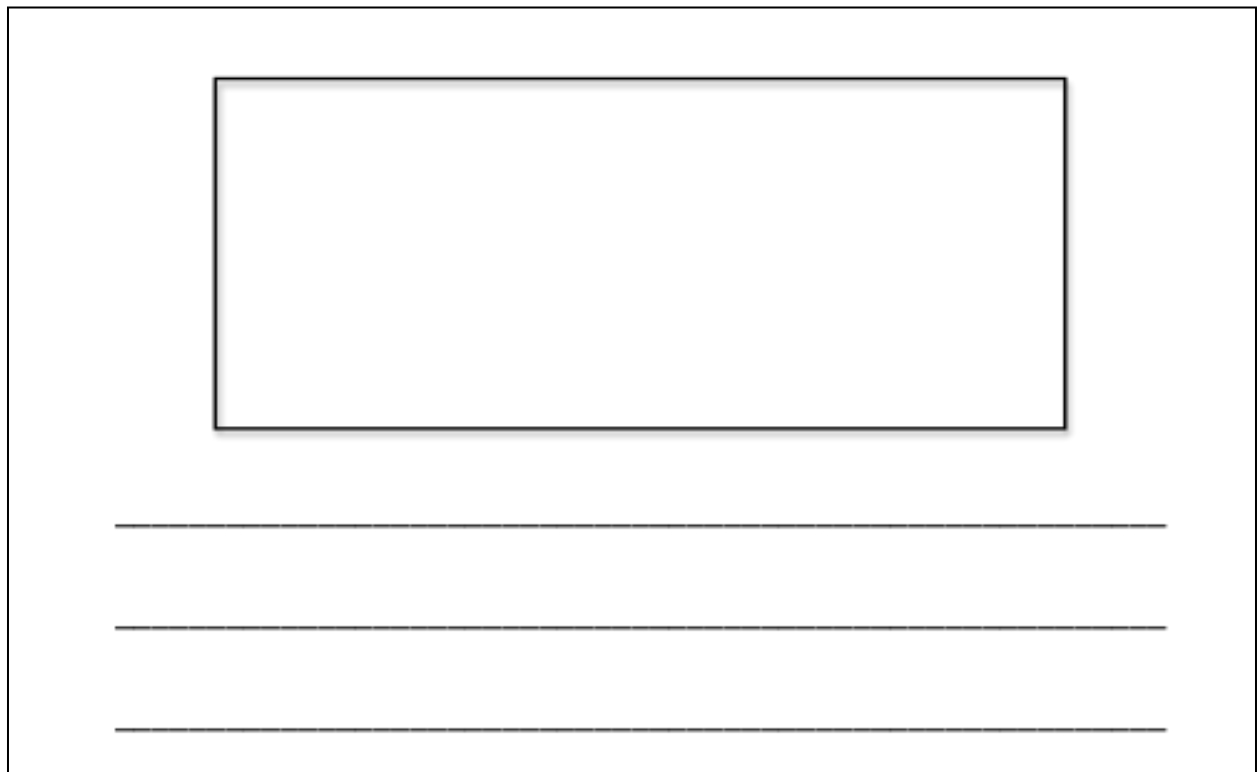
Figure 13

Informative/Explanatory Writing Template

_____

by _____

Appendix F: Pre-/Post-Assessment Emergent Reading Texts

Figure 14

Pre-/Post-Assessment Text for Procedural Emergent Reading

Figure 14 (cont'd)

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_ ___ ___ __ ____.

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_ ___ __ ____ _ _
____.
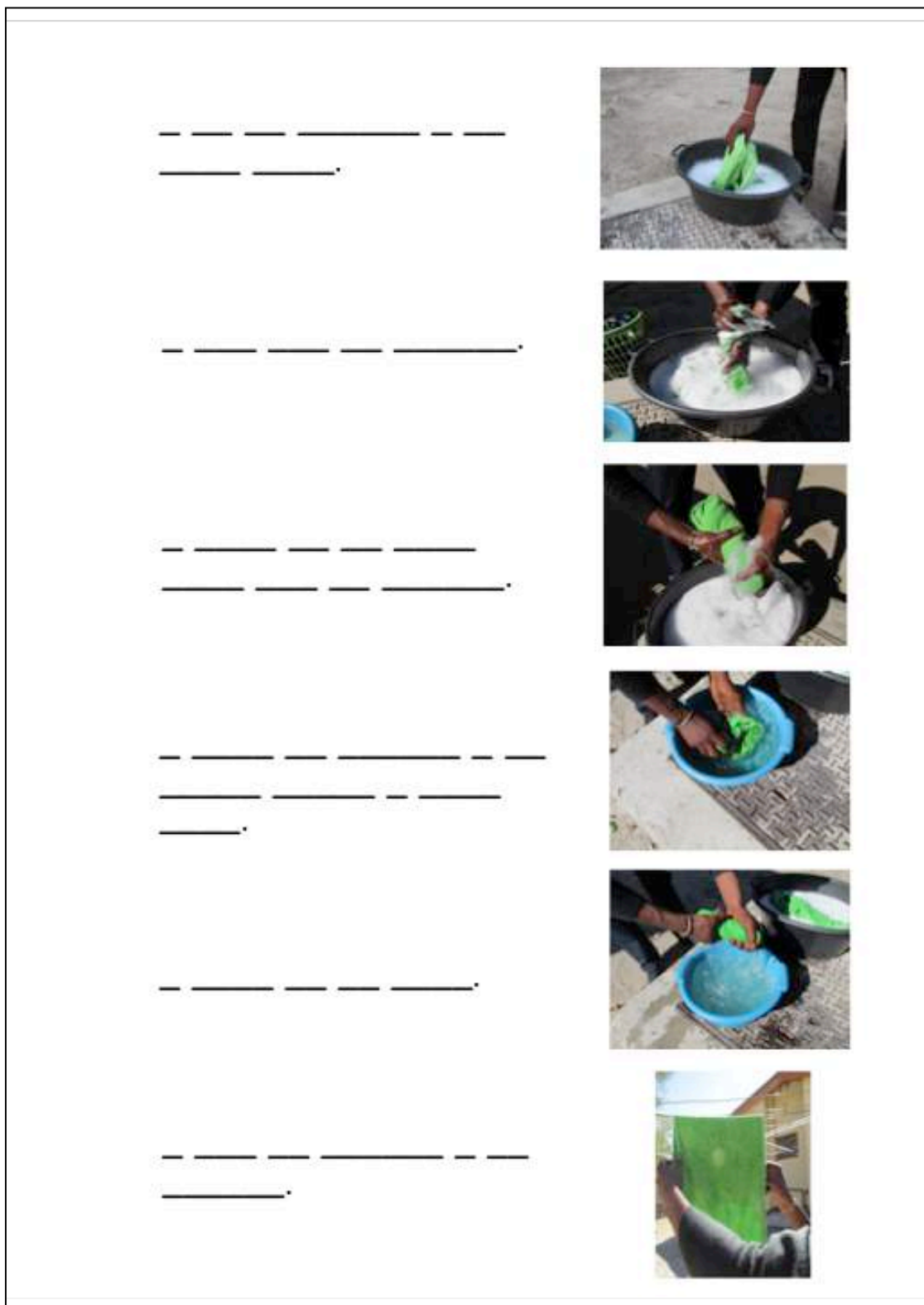
Figure 15

Pre-/Post Assessment Text for Informative/Explanatory Emergent Reading
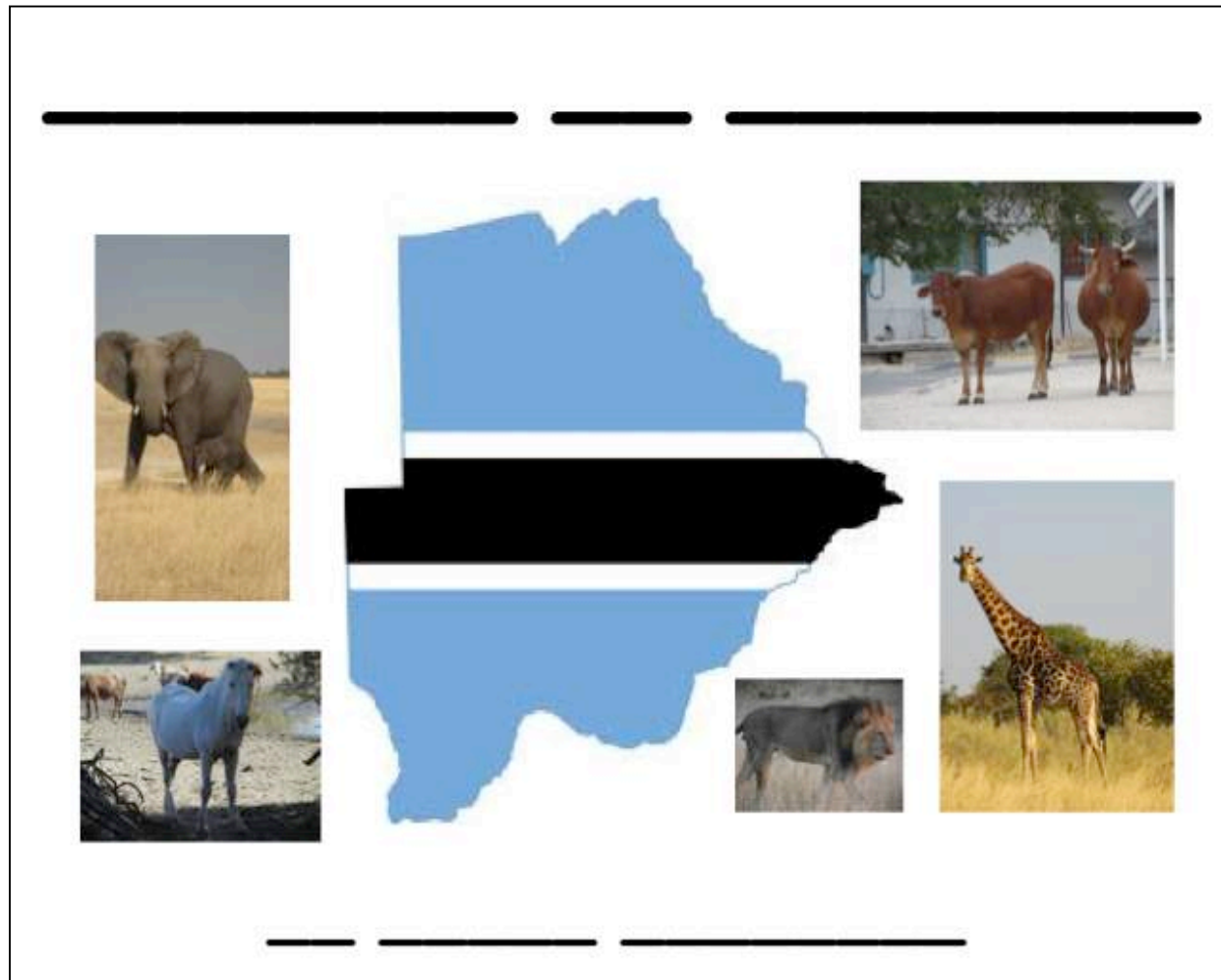
Figure 15 (cont'd)
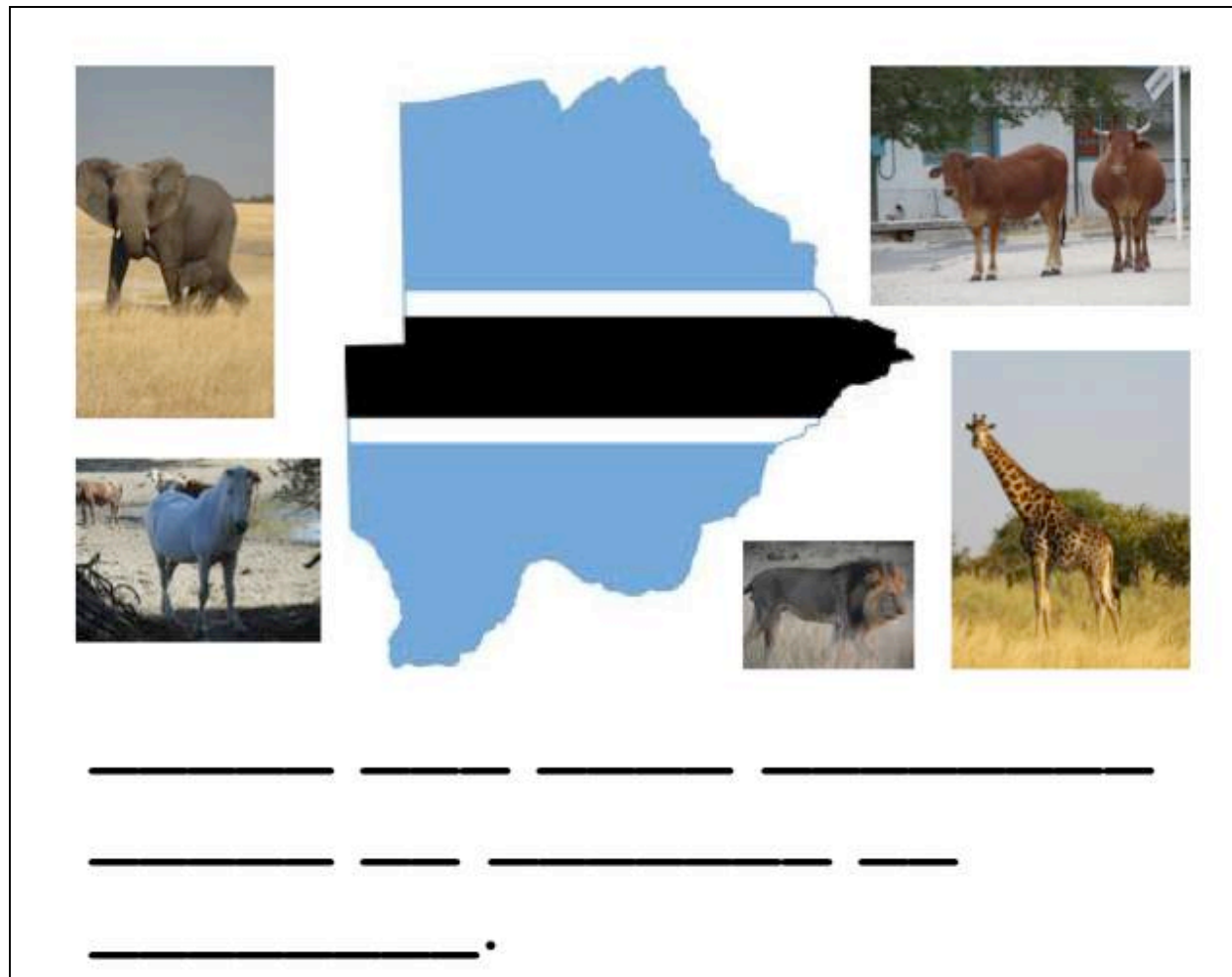
Figure 15 (cont'd)

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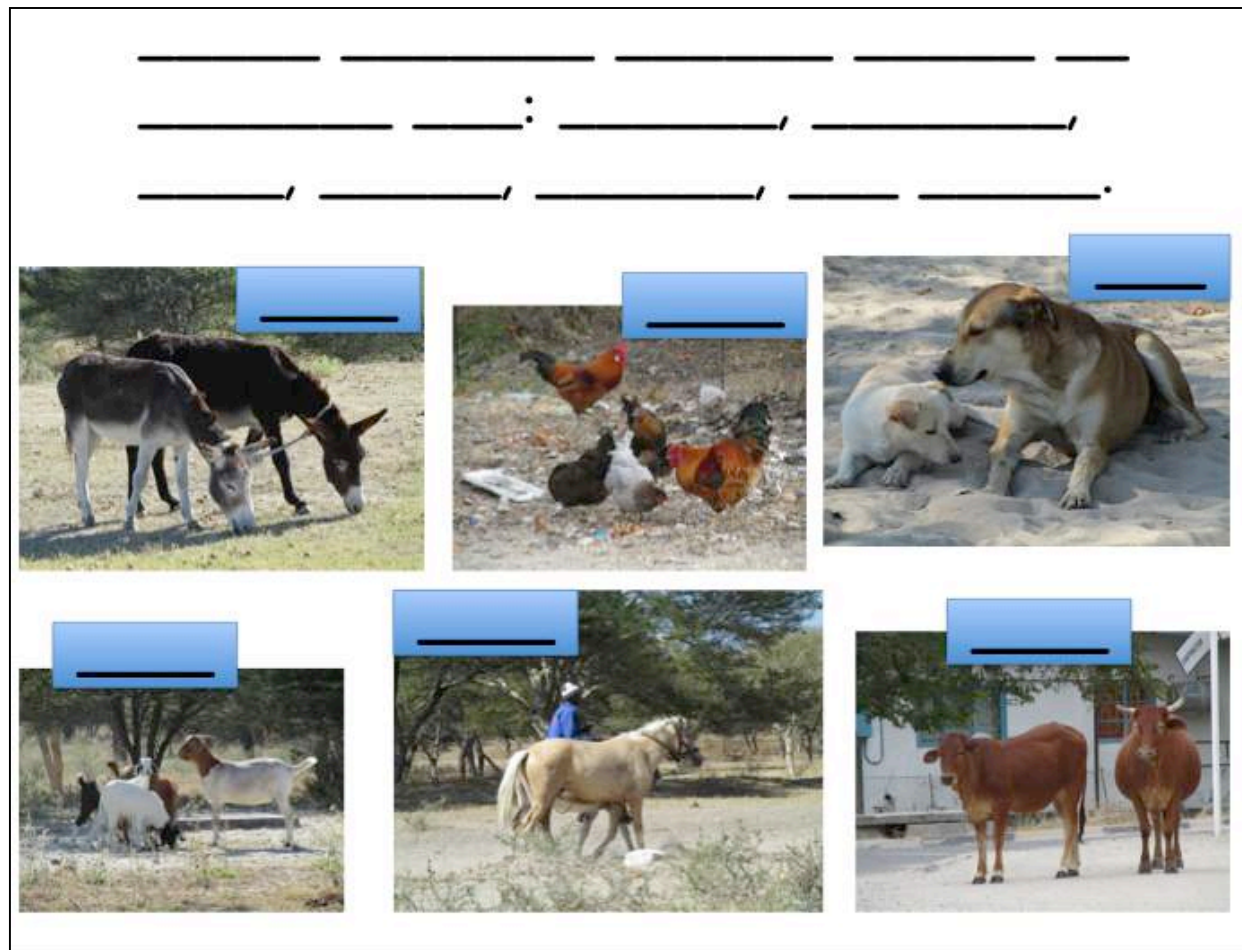
133

Figure 15 (cont'd)

Figure 15 (cont'd)

Figure 15 (cont'd)

Figure 15 (cont'd)

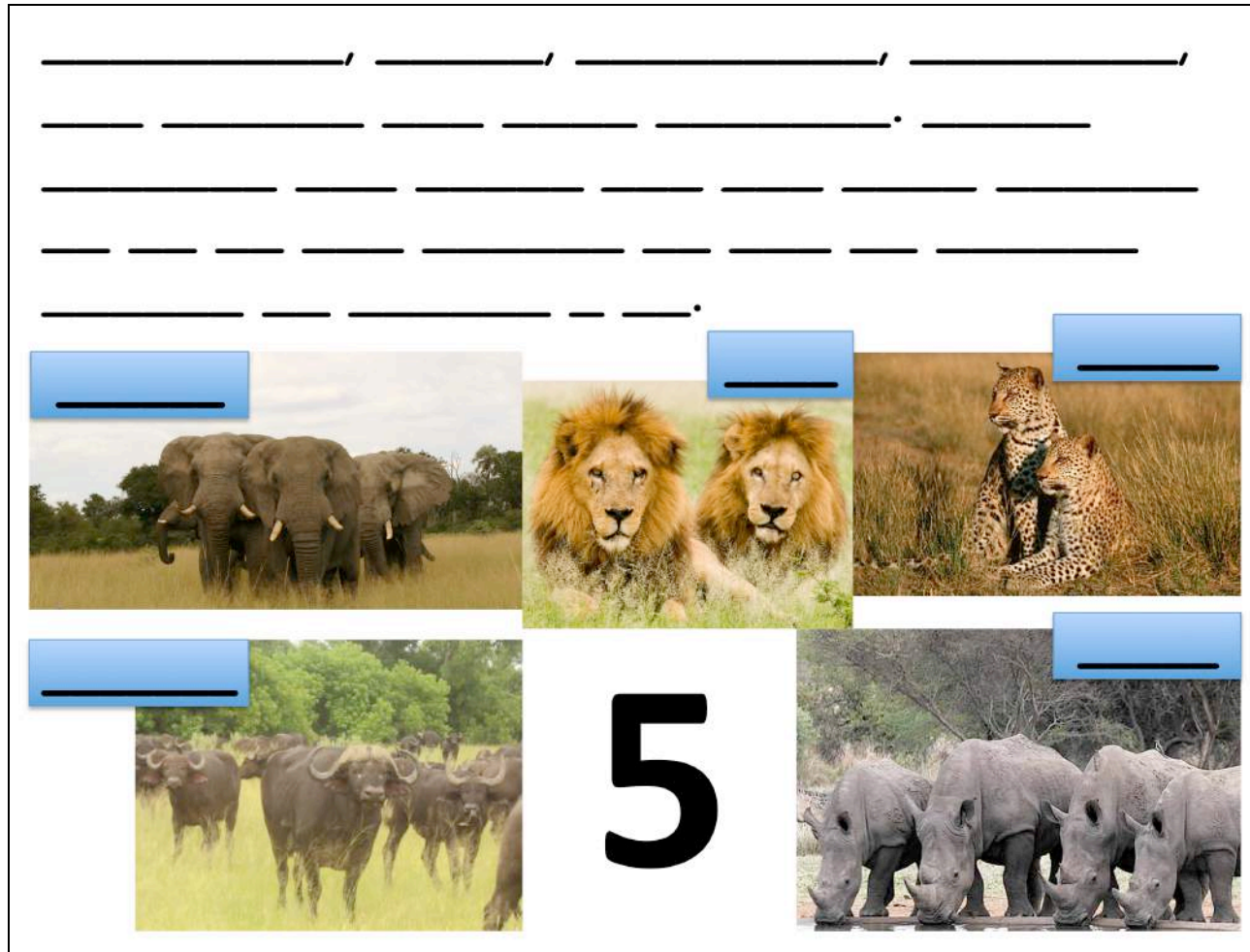_____ _____ ____ ____ __ ___ _____
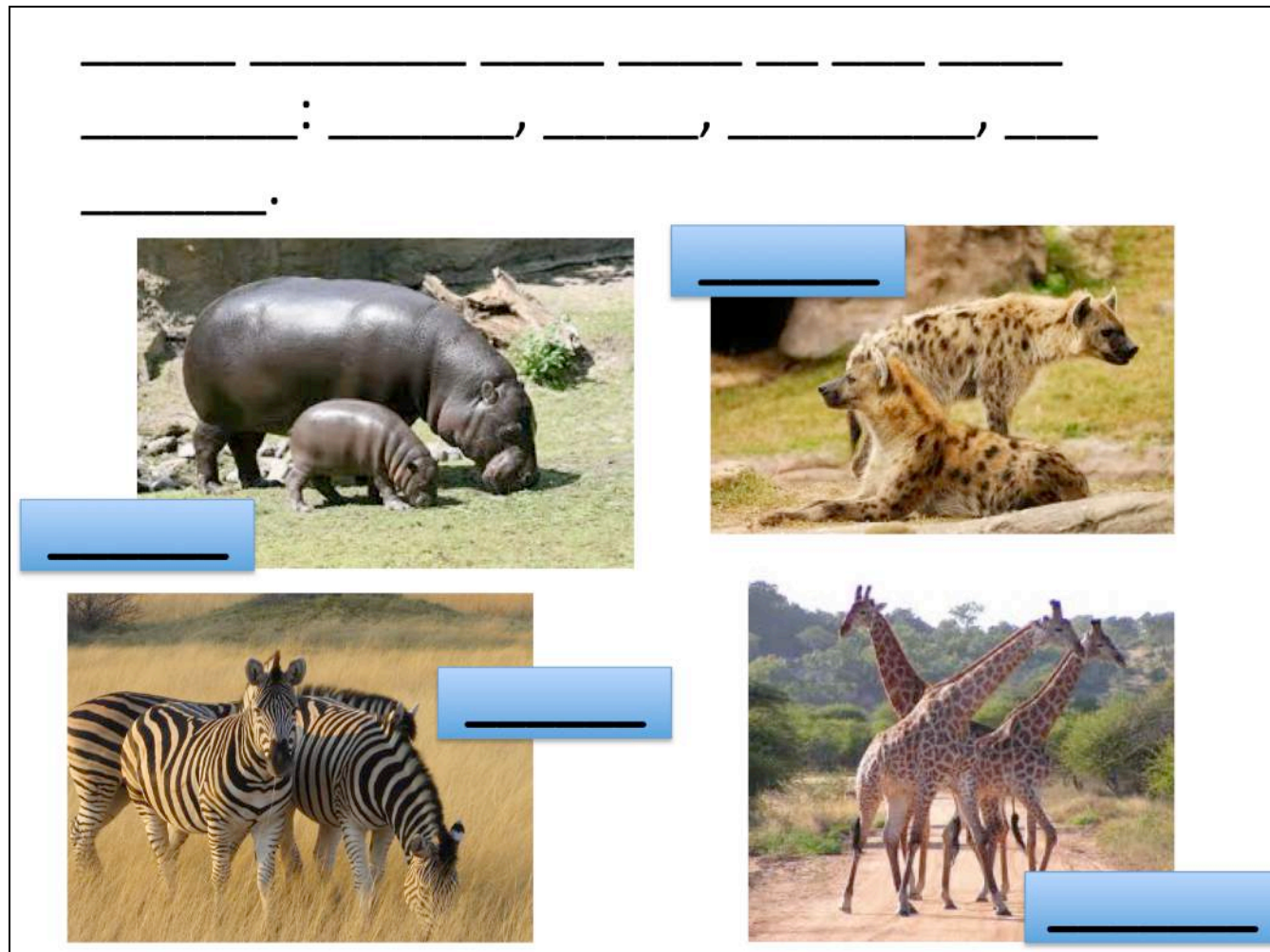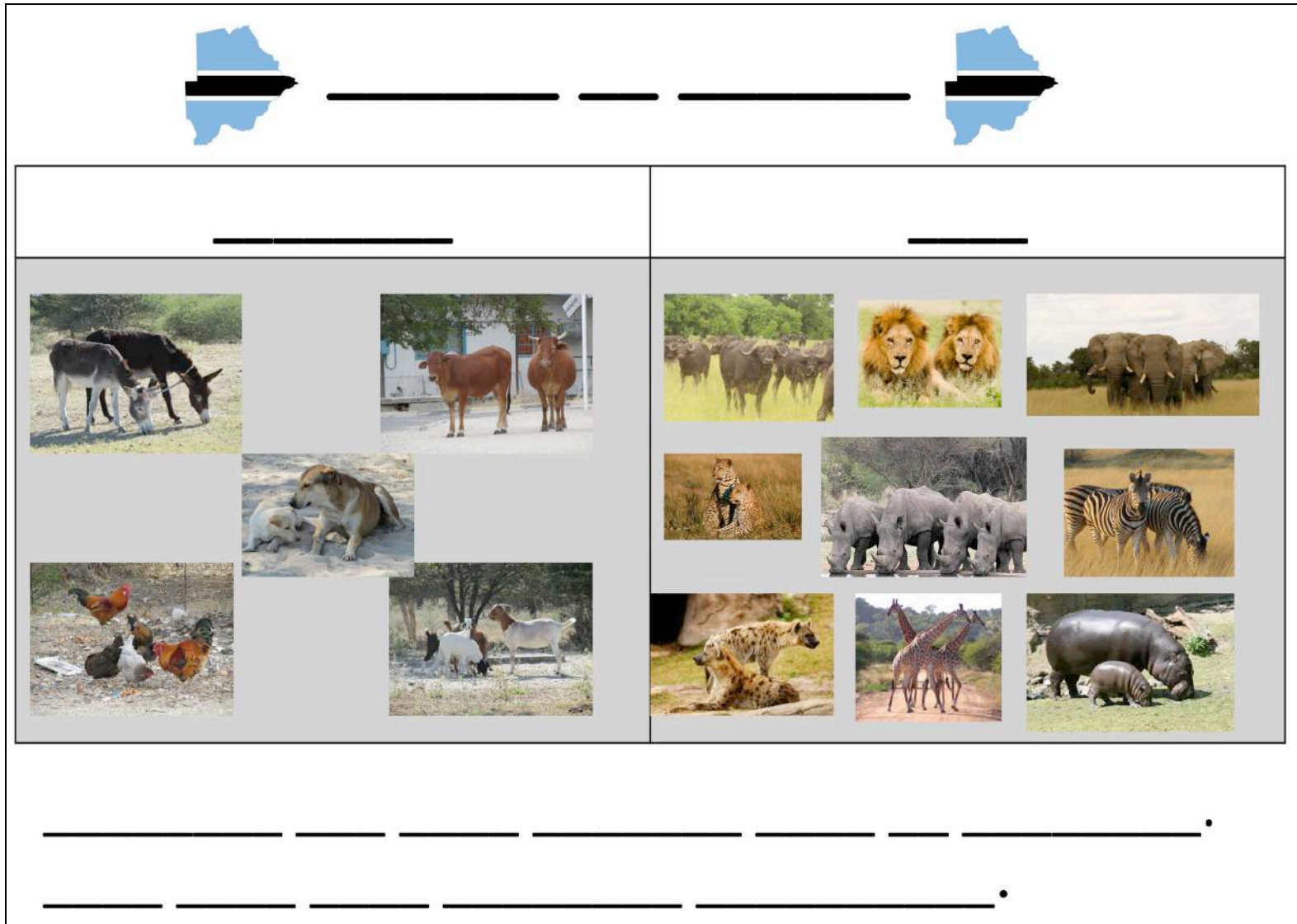_____: _____, _____, _____, ___
_____.

Figure 15 (cont'd)

Appendix G: Pre-/Post-Assessment Rubrics

Table 16

Procedural Stage of Writing Development Rubric

1. Writing Development (Procedural)

Stages	Score
Drawing and/or scribbling	1
Letter-like Forms	2
Letter Strings	3
Late Emergent • Some letters matching most salient sounds (usually initial consonants) • No spaces between words	4
Early Letter Name • Represent most salient sounds (usually initial consonants) • Making substitutions based on letter names and/or articulation • Some spacing • A few high frequency words correct	5
Middle Letter Name • Initial and final consonants • Short vowels used and confused • Blends and/or digraphs incomplete and confused • Consistent spacing • High frequency words correct	6
Late Letter Name • Full phonemic awareness • Spells short vowels, blends, and digraphs correctly • Silent letters and/or preconsonant nasals may be eliminated • Consistent and appropriate spacing • High frequency words correct	7
Conventional Spelling	8

Table 17

Procedural Writing Holistic Rubric

2. Holistic Score (Procedural Writing)

Score	Description
0	No response
1	Not on the topic and does not convey information about how to do the task as in an effective procedural text.
2	On the topic but does not convey information about how to do the task as in an effective procedural text. **OR** Not on the topic but conveys some information as in an effective procedural text.
3	On the topic and conveys some information about how to do the task as in an effective procedural text.
4	On the topic and conveys all/most of the information about how to do the task as in an effective procedural text.

Table 18

Procedural Writing Trait/Feature Rubric

3. Feature/Trait Analysis (Procedural Writing)

Trait	0	1	2
Title	Does not include a title.	Includes an irrelevant or incomplete title.	Includes an appropriate title for the text.
Materials	Does not include any of the needed materials.	Includes materials within the steps.	Includes materials in a materials section.
Steps or Procedures	Does not include steps or procedures.	Includes one or two of the necessary steps or procedures.	Includes all/most of the necessary steps or procedures.
Description of steps	Does not include description in the steps.	Includes some description in the steps.	Includes considerable description in the steps.
Sequence	Does not represent the sequence of the task.	Represents an incomplete sequence of the task.	Represents the complete sequence of the task.
Imperative Sentence Construction	Does not use imperative verbs and/or sentence construction.	Uses imperative verbs and/or sentence construction at least once.	Uses imperative verbs and or sentence construction in all/most of the text.
Graphics	Does not include graphics.	Includes irrelevant graphics.	Includes graphics about the task.

Table 19

Procedural Emergent Reading Holistic Rubric

1. **Holistic Score (Procedural Emergent Reading)**

Score	Description
0	No verbal response and/or only pointing
1	Not on the topic and does not convey information about how to do the task.
2	On the topic but does not convey information about how to do the procedure. **OR** Not on the topic but does convey some information as in an effective procedural text.
3	Conveys some information about how to do the task as in an effective procedural text.
4	Conveys all/most of the information about how to do the task as in an effective procedural text.

Table 20

Procedural Emergent Reading Trait/Feature Rubric

2. **Feature/Trait Analysis (Procedural Emergent Reading)**

Trait	0	1	2
Title	Does not include a title.	Includes an irrelevant or incomplete title.	Includes an appropriate title for the text.
Materials (included)	Does not include any of the needed materials.	Includes one or two of the needed materials.	Includes all/most of the needed materials.
Description of materials	Does not include descriptive language regarding the needed materials.	Includes some descriptive language regarding the needed materials.	Includes clear, descriptive language regarding all/most of the needed materials.
Steps or Procedures (included)	Does not include steps or procedures.	Includes incomplete (all one or 1-3) of the necessary steps or procedures.	Includes 4 or more of the necessary steps or procedures.
Description of procedures	Does not include descriptive language appropriate for the necessary steps or procedures.	Includes 1-2 descriptive language regarding the necessary steps or procedures.	Includes clear, descriptive language regarding 3 or more of the necessary steps or procedures.
Sequence	Does not represent the sequence of the task.	Represents an incomplete or confused sequence of the task.	Represents the complete (all/most), logical sequence of the task.
Imperative Sentence Construction	Does not use imperative verbs and/or sentence construction.	Uses imperative verbs and/or sentence construction at least once.	Uses imperative verbs and or sentence construction in all/most of the text.
Headings	Does not include any headings.	Includes one of the appropriate headings.	Includes two or more of the appropriate headings.

Table 21

Informative/Explanatory Stage of Writing Development Rubric

1. Writing Development (Informative/Explanatory)

Stages	Score
Drawing and/or scribbling	1
Letter-like Forms	2
Letter Strings	3
Late Emergent • Some letters matching most salient sounds (usually initial consonants) • No spaces between words	4
Early Letter Name • Represent most salient sounds (usually initial consonants) • Making substitutions based on letter names and/or articulation • Some spacing • A few high frequency words correct	5
Middle Letter Name • Initial and final consonants • Short vowels used and confused • Blends and/or digraphs incomplete and confused • Consistent spacing • High frequency words correct	6
Late Letter Name • Full phonemic awareness • Spells short vowels, blends, and digraphs correctly • Silent letters and/or preconsonant nasals may be eliminated • Consistent and appropriate spacing • High frequency words correct	7
Conventional Spelling	8

Table 22

Informative/Explanatory Writing Holistic Rubric

2. Holistic Score (Informative/Explanatory Writing)

Score	Description
0	No response
1	Not on the topic and does not convey information as in an effective informative/explanatory text.
2	On the topic but does not convey information as in an effective informative/explanatory text. • e.g., story or other genre **OR** Not on the topic but conveys some information as in an effective informative/explanatory text. • e.g., info book about another topic
3	Conveys some information about the topic as in an effective informative/explanatory text. • 1-2 points (can include list)
4	Conveys all/most information about the topic as in an effective informative/explanatory text. • 3 points and looks like an info/explan book

Table 23

Informative/Explanatory Writing Trait/Feature Rubric

3. Feature/Trait Analysis (Informative/Explanatory Writing)

Trait	0	1	2
Title	Does not include a title.	Includes an irrelevant or incomplete title.	Includes an appropriate title for the text.
Definition/ General Statement	Does not include a definition or general statement.	Includes an irrelevant definition or general statement.	Includes a relevant definition or general statement.
Headings	Does not include category headings.	Includes at least one category heading.	Includes two category headings.
Attributes/ Events	Does not include attributes or events about the topic.	Includes at 1-2 attribute or event about the topic.	Includes 3 or more attributes or events about the topic.
Closing Statement/ Summary	Does not include a closing statement or summary.	Includes an irrelevant closing statement or summary.	Includes a relevant closing statement or summary.
Illustrations	Does not include illustration(s).	Includes irrelevant illustration(s).	Includes illustration(s) about the topic.
Labels	Does not include label(s).	Includes 1-2 relevant labels.	Includes 3 or more relevant labels.
Timeless Verbs	Does not include timeless verbs.	Includes 1-2 timeless verbs.	Includes 3 or more timeless verbs.
Generic Noun Construction	Does not include generic nouns.	Includes 1-2 generic nouns.	Includes 3 or more generic nouns.

Table 24

Informative/Explanatory Emergent Reading Holistic Rubric

1. Holistic Score (Informative/Explanatory Emergent Reading)

Score	Description
0	No verbal response and/or only pointing
1	Not on the topic and does not convey information as in an effective informative/explanatory text.
2	On the topic but does not convey information as in an effective informative/explanatory text. **OR** Not on the topic and conveys some information as in an effective procedural text.
3	Conveys some information about the topic as in an effective informative/explanatory text.
4	Conveys all/most information about the topic as in anan effective informative/explanatory text.

Table 25

Informative/Explanatory Emergent Reading Trait/Feature Rubric

2. Feature/Trait Analysis (Informative/Explanatory Emergent Reading)

Trait	0	1	2
Title	Does not include a title.	Includes an irrelevant or incomplete title.	Includes an appropriate title for the text.
Definition/ General Statement	Does not include a definition or general statement.	Includes an irrelevant definition or general statement.	Includes a relevant definition or general statement.
Headings	Does not include category headings in the text.	Includes at least one category heading in the text.	Includes two category headings in the text.
Attributes	Does not include attributes of the topic.	Includes at 1-2 attributes of the topic.	Includes two or more attributes about the topic.
Labels	Does not include label(s).	Includes 1-3 relevant labels.	Includes all/most of the relevant labels.
Composed Text	Composes irrelevant text.	Names items in the pictures.	Composes some text appropriate for the topic and categories.
Timeless Verbs	Does not include timeless verbs.	Includes 1-2 timeless verbs.	Includes all/most of the timeless verbs.
Generic Noun Construction	Does not include generic nouns.	Includes 1-2 generic nouns.	Includes all/most of the generic nouns.
Table	Does not include the categories or the components in the table.	Includes at least one of the categories OR the components in the table.	Includes two or more the categories and the components in the table.