Use of Test Score and Interview Data in a Comparative Case Study of the Influence of Donated English Language Books Upon Reading Fluency and Comprehension Scores for Tanzanian Secondary School Students

A DISSERTATION SUBMITTED TO THE FACULTY OF THE GRADUATE SCHOOL OF THE UNIVERSITY OF MINNESOTA

BY

Patrick J. Plonski

IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Richard Joerger and Roland Peterson, Co-Advisers

August, 2009

ACKNOWLEDGEMENTS

DEDICATION

This work is dedicated to my family – Judy, Alex, Sarah, and Julia.

ABSTRACT

Research has shown that there is an enormous shortage of text and library books across Africa. Accordingly, millions of donated text and library books have been shipped to Africa by a number of non-profit organizations over the past 20 years through funding provided by public and private organizations. While some research shows that localized textbooks increase student literacy rates, inconclusive data is available regarding the influence of donated English-language books upon student achievement. The purpose of this study was to examine the influence of donated English-language text and library books from the United States upon Tanzanian tenth grade student reading fluency and comprehension scores.

This study investigated the influence of donated English-language text and library books upon student achievement in reading. Research questions were: (a) what is the influence of donated books upon student achievement in reading fluency and reading comprehension?; and (b) What does developing an understanding of teacher and administrator views of the nature and value of these donated books add to research knowledge and understanding concerning reading achievement?

A mixed methods research model was used in a comparative case study in the Dodoma/Singida region of Central Tanzania, East Africa. Pre and posttest reading fluency and comprehension assessments were administered to 78 students

at four secondary schools in February 2007 and again in February 2008. Qualitative data was secured through administration of a series of questions by the researcher to 18 teachers and administrators at these same four schools.

The results showed students experienced increased English-language reading fluency and comprehension scores when provided with books. The teachers and administrators agreed that the donated text and library books had value through providing a greater world view to students as well as providing data not available due to a shortage of book stock. In addition, the interview data revealed that teachers and administrators believed donated English-language books did not cause cultural harm and served to improve student educational capacity.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER 1

INTRODUCTION

For us, I have said before, literacy is quite simply the bridge from misery
to hope. Literacy provides the keys to learning and empowers the
individuals to expand their choices and opportunities for the future. In
doing so, it is a crucial bulwark against poverty and a necessary
foundation for sustainable development. For everyone everywhere,
literacy is, along with education in general, a basic human right. (Former
United Nations Secretary General Kofi Annan, September 12, 2008).

Background

So powerful is literacy, that it may well be the most significant factor that

determines successful participation in modern society (Headlam, 2005).   Literacy

is a critical component of the world development agenda. The Millennium

Development Goals and Education For All goals outline key global development

strategies which demonstrate that education and reading are major components of

international development strategies, especially in Africa (Sachs, 2005; UN

Millennium Project, 2006; Ingram, Wils, Carrol, & Townsend, 2006). Goal two

of the Millennium Development Goals designates universal primary education by

2015 for boys and girls as one of eight key goals. Literacy rates for 15-24 year

olds, as measured by the United Nations, are a key indicator of goal achievement

(UN Millennium Project, 2006).   Reading achievement goals, especially the

literacy indicators referenced by the Millennium Development Goals, are often

measured in terms of reading fluency and reading comprehension (Pressley, 2006;

National Reading Panel, 2000; Schwartz, 1984; Deno, 1985; Farr & Carey, 1986;

Handbook of Reading Research, 2000). Strategies for increasing reading fluency

and reading comprehension, keys to the advancement of literacy, have a base of

scholarship in the United States (where government policies have sought to

increase student reading capacity), and also across the world where scholars have

sought to identify techniques and best practices for advancing literacy (Pressley,

2006; International Reading Association, 2009; Farr & Carey, 1986; Handbook of

Reading Research, 2000; National Reading Panel, 2000).

One challenge to achieving the Millennium Development Goals in the area

of education and literacy is that textbook financing and donation programs have

not provided sufficient textbooks, resulting in low educational capacity (World

Bank, 1987, 2002; Sefue, 2009). In efforts to address issues of global education

and literacy, seven major donor organizations from the West, and a host of

smaller organizations, provide millions of dollars in donated English-language

text and library books annually to the African continent (Sources of Donated

Books, 2005). To some, this is a reflection of colonialism and a misguided belief

that English-language books and instruction are synonymous with education

(Prah, 2003; Brock-Utne, 2001a, 2001b, 2002). To others, providing English-

language textbooks is a cost-effective way for the West to assist African nations

in meeting their educational goals (Books For Africa, 2009; Crystal, 2004;

Nhlapo, 2008; Sefue, 2008, 2009; Annan, 2008).   There is currently insufficient

evidence about whether these book donation programs are an effective means of

increasing student reading fluency and comprehension. Questions regarding

cultural appropriateness of utilizing Western books in African schools also need

to be addressed (Brock-Utne, 2001a, 2001b, 2002).

International Development and Literacy

Literacy has been targeted as an important component in the international development agenda (UN Millennium Project, 2006; Ingram, Wils, Carrol, & Townsend, 2006). The United Nations Education, Scientific, and Cultural Organization (UNESCO), the United Nations agency with jurisdiction over literacy issues, indicates that the world literacy rate is 82 percent, but only 62.5 percent in Africa (UNESCO, 2009). Of the ten countries with the lowest recorded adult literacy rates, nine of these countries are in Africa (Pearce, 2009). The Millennium Development Goals were established in 2000 as the centerpiece of the world's development agenda (King, 2007) and literacy was recognized as a key component of the agenda. Literacy was included in two of the eight goals (UN Millennium Project, 2006). Goal two, for example, notes that universal primary education is a goal along with achieving benchmark literacy rates for 15-24 year olds. Goal three also references education, focusing upon gender equity including in the area of literacy rates. Additionally, goal four of the Education For All initiatives establishes a benchmark of 50 percent improvement in levels of adult literacy by 2015, especially for women (Ingram, Wils, Carrol, & Townsend, 2006).

Importance of Reading Fluency and Comprehension

Reading fluency and comprehension are key components of reading advancement strategies internationally and in the United States (Pressley, 2006; International Reading Association, 2009; Handbook of Reading Research, 2000;

National Reading Panel, 2000). Farr and Carey (1986) call comprehension the very essence of reading, and note that its importance has been recognized for approximately 150 years with continuous efforts to effectively measure its existence and growth. Reading fluency is less universally recognized as critical to reading, but still has been part of the reading research agenda since the early 1900s in the United States (Farr & Carey, 1986; Schwartz, 1984). The concept of Curriculum Based Measurement (CBM), developed in the 1980s, includes reading fluency and comprehension as critical components, and includes them as key benchmarks in CBM reading assessment packages (Deno, 1985; Marshall & Campbell, 2006). Of these two measures, research has shown that CBM measures of fluency are much better measures of student achievement than are CBM measures of reading comprehension. According to reading research, CBM fluency tests are much more sensitive to reading growth than are reading comprehension tests and hence are more significant (Silberglitt, Burns, Madyun, & Lail, 2006; Silberglitt, personal communication, 1/19/09).

Textbooks have been proven to have a significant influence on development levels of students in the United States. For example, the American Library Association investigated this issue demonstrating a positive effect between materials and reading skills (Lance, 1994). A study by Worthy, Moorman, and Turner (1999) confirmed the link between materials and reading performance. However, very few studies conducted in Africa have focused upon the effects of donated English-language textbooks from the West. Studies have largely focused upon the impacts of textbooks designed for local use and in local

languages (World Bank, 1987, 2002; Michaelowa & Wechtler, 2006; Frolich &
Michaelowa, 2005; Fehrler, Michaelowa, & Weber, 2007).

For example, the World Bank undertook large-scale studies in1987 and
2000 in which it evaluated over 89 education projects across Africa. The findings
confirmed the cost-effectiveness and importance of localized and customized
reading materials (i.e. in local languages of instruction and customized to local
curricula) in increasing literacy skills in school settings. Fehrler, Michaelowa,
and Weber (2007) confirmed these findings in a different study of 22 Sub-Saharan
African countries which also documented the importance of textbooks and school
libraries. Additionally, textbooks were shown to be extremely cost effective in
the results of a complimentary analysis of these same 22 Sub-Saharan African
countries (Michaelowa & Wechtler, 2006).   They concluded that textbooks,
teacher guides, and wall charts were relatively low-cost inputs with relatively high
returns in terms of student achievement. Michaelowa and Wechtler (2006) found
that by providing one textbook to every student in a classroom, literacy scores
increased by 5-20 percent. A 10 percent increase in literacy scores also occurred
when a school or classroom library was present.

English Language Textbook Donations in Africa

Having previously discussed the importance of literacy, textbooks, and
library books in Africa, this section now addresses the importance of English-
language text and library books in Africa. While the importance of literacy and
the importance of African-language text and library books upon literacy scores
has been documented, the merits of English language books donated from the

United States is a separate issue.

Need for Text and Library Books

Headlam (2005) asserts that "literacy is such a powerful tool, that its historical greatness for building unity and its usefulness to communicate the truth has meant a continuous effort to deny it to some people while assuring that others are maintained in the elitist society of the literate" (p. 10). "So powerful is literacy," Headlam goes on to argue, "that it may well be the most significant factor that determines successful participation in modern society" (p. 11). Children suffering the results of instruction by limited strategies are being denied access to reading, access to the "literacy club", an "elitist group to which only people who read with understanding are admitted" (p. 12). According to one World Bank report, "Despite more than a quarter century of effort and the investment of tens of millions of dollars, many African students lack adequate textbooks … Where textbooks have been produced, they are not always available to students in sufficient numbers" (World Bank, 2002, p. 1). This same report also indicated that there is a pressing need for textbooks of all types in Africa, where, next to a good teacher, "a good textbook is the most effective medium of instruction" (p. 5). The Academy for Educational Development also referenced the need for textbooks in the developing world (Ingram, Wils, Carrol, & Townsend, 2006) as have statements from officials representing African governments such as Tanzania (Sefue, 2008, 2009) and South Africa (Nhlapo, 2008). Libraries are also in desperate need of books, with African libraries commonly facing the challenge of inadequate book stock and outdated materials

(Alemna, 2006).

Evidence exists that the people of Africa want Western-language textbooks (Sefue, 2008, 2009; Annan, 2008). Gomis and McCoy (2005), for example, found that without an official language policy in schools in Nugaal, Somalia, the language of instruction in high school has defaulted to English because of a perception by the common people that this provides the best instruction for the future of the students. The World Bank (2002) also reported this same trend in favor of Western-language instruction across Africa. Local language education was viewed as second class, and a European language was perceived as necessary in most Sub-Saharan African countries for secondary education and, later, for higher education and for success in business or government. Adequate provision for transition to a second language of instruction was identified as necessary (World Bank, 2002).

In Mali, for example, in 1994 "there was considerable resistance to [instituting] mother tongue instruction among rural peasants, who saw it as a second rate education keeping them from better-paying jobs and higher education" (World Bank, 2002, p. 32). This same World Bank report stated that mother tongue instruction was also resisted by more educated parents, who complained that it lacked good mathematics and reading programs. Somewhat typical is the International Reading Association Pan African reading conference held in 2005 which concluded that "African indigenous knowledge systems, languages, and values should be the foundation for the development of African education systems" (Nhlengetfwa, 2005, p. 6), but only for the first three to four

school years.

In response to the demand, English-language textbooks at all educational levels continue to be shipped to Africa. Key reasons for the continuing shipments include cost-effectiveness, demand from African schools and libraries, and a perception in Africa and the West that these programs are well-founded (Books For Africa, 2009; International Book Bank, 2009; Sabre Foundation, 2009; Brothers Brother Foundation, 2009; Sources of Donated Books, 2005).

English Language on the African Continent

English is currently an official language in 19 African countries (World Factbook, 2009). European languages are spoken by a very small percentage of the African population as a mother tongue (Brock-Utne, 2001a; African Languages, 2001; Childs & Tucker, 2003; Gordon, 2005). However, 11 of 15 former French colonies and all three former Portuguese colonies officially begin instruction in these European languages as a language of instruction from the first day of primary school. In 13 of 15 former British colonies, instruction begins in local languages with English subsequently taught as a second language and then gradually introduced as a language of instruction at higher-grade levels (Gordon, 2005). In 37 African countries local languages are utilized in curriculum along with European languages, resulting in African countries (and countries of the developing world in general) moving towards institutional bilingualism (Wakerley, 2004).

Rationale for English-language Book Donations

To systematically use local tribal languages for school instruction in

Africa requires the preparation of educational materials in some 800 languages

(Gordon, 2005). Hence, the costs of producing books and other educational

materials in local languages at the primary, secondary, and post-secondary levels

may be cost-prohibitive, even when theoretically possible (World Bank, 2002).

Even using common desktop publishing technologies, local language publishing

may not be cost-effective. The cost of paper alone can account for 50-80 percent

of the cost of a book. This has made it more economical to produce books in

more highly capitalized locations off of the African continent (Brock-Utne, 2002).

Additionally, the economics of local language publishing – which results in fewer

book copies being printed and hence reduced economies of scale – leads to local

language books costing two or three times as much as books with greater print

runs in Western languages (Vawda & Patrinos, 1999). For these reasons, all

books are comparatively expensive in Africa -- and local language books can be

especially expensive (Bgoya, 1992).

Attempts to Provide Assistance

The work of Books For Africa (2009) serves as an example of how book

donation programs operate with schools in Africa. Books For Africa (2009) is a

U.S.-based Non-Governmental Organization (NGO) that ships donated English-

language textbooks to the African continent. The demand for these English-

language textbooks in Africa is enormous and exceeds the current supply. Books

For Africa ships and distributes nearly three million new and used textbooks

valued at $20 million annually to Africa. Since its creation in 1988, Books For

Africa has shipped over 21 million books to 45 African countries. Organizations,

such as the Poverty Eradication Network Trust (2009) in Tanzania, distribute books on behalf of Books For Africa.

Other NGOs are also shipping large quantities of English language textbooks to the developing world in general, and Africa specifically. The International Book Bank (2009) shipped approximately 1.6 million new English-language textbooks in 2004, with 90 percent of these books going to Africa. The Sabre Foundation (2009) shipped approximately 210,000 new English-language textbooks to Africa in 2001. And the Brother's Brother Foundation (2009) reported that it has shipped over 80 million books to developing countries including Africa over the course of the past 50 years.

Criticism of Donated English-language Text and Library Books

While there is general and widespread support for more text and library books in Africa, at issue is the use of English-language textbooks and their usefulness (Brock-Utne, 2001a, 2001b, 2002). Opponents of English-language textbook donation programs have concluded that these programs do not increase educational advancement in Africa (Brock-Utne, 2001a, 2001b, 2002; Prah, 2003; Bunyi, 1999). Bunyi (1999) asserts that Western education was brought to Africa by the European colonial powers and as such Eurocentricism was part of its baggage. Bunyi (1999) and other African scholars (Prah, 2003) argue that in order for education to liberate itself from the Eurocentric colonial legacy, African education should be grounded in African indigenous cultures as primary vehicles for social transformation. Bunyi (1999), Prah (2003), and Brock-Utne (2001a, 2001b, 2002) asserted that education in foreign languages is so deficient that mass

education in indigenous African languages would actually increase literacy rates and promote economic development.

Western books and the Western language idioms and culture they contain are clearly imperfect for use in African schools. Mills (1994), Seaton (1998), and Horn (1997) cited examples where inappropriate books were donated from Western countries and shipped to African countries resulting in wasted efforts, wasted funding, and improper education. May and Aikman (2003) reported that in contrast to colonial history, and a history of failure of indigenous students, "education has now come to be seen as a key arena in which indigenous peoples can reclaim and revalue their languages and cultures, and in so doing, improve the educational success of indigenous students" (p. 14). A report commissioned by Somali Family Services (Gomis & McCoy, 2005) argued that book donation programs to Somalia directly contributed to the devaluation of Somali language by giving the community more reason to become literate in English instead of Somali. Pearce (2009) reported that where national languages are officially used as the language of instruction at least in primary education, literacy levels are higher.

While books are shipped from the United States to Africa in enormous quantities, and while Africans are pleased to receive them in most cases, these materials are clearly not tailored towards African curriculum and culture (Brock-Utne, 2001a, 2001b, 2002). For example, math and science books that are sent often utilize American systems of measurement (i.e., inches, pints, and degrees Fahrenheit) rather than the metric systems in use around the globe. Furthermore,

books designed for American curriculum and students include textual references to American household appliances, cultural practices, climate, and geography (Books For Africa, 2009; International Book Bank, 2009; Brothers Brother Foundation, 2009; Sabre Foundation, 2009). Many of these out of context references are inappropriate for African students. Brock-Utne (2002), Prah (2003), and Bunyi (1999) contend that it would be much better to have educational materials that are specifically designed for African audiences and, at the younger grade levels at least, written in local languages that the students can understand.

Additionally, the World Bank (2002) and Michaelowa & Wechtler (2006) reported that a key issue in Africa is that teachers are often unfamiliar with how best to use any books, even local-language books, in their curriculum. In an environment where many African teachers did not have books themselves as students, and where their teaching instruction design has been predicated upon rote memory and copying material on a blackboard, simply bringing books into a school setting seldom results in their effective use.

Despite the criticisms, due to a lack of available books in local languages and because of a perception by many that English-language education provides more opportunity, millions of U.S. school and library books continue to be shipped to Africa annually (Books For Africa, 2009; International Book Bank, 2009; Brothers Brother Foundation, 2009; Sabre Foundation, 2009). And counterbalancing the criticism are statements of support at the highest levels, such as that indicated by the South African ambassador to the United States who

praised a recent book shipment from the United States with these words: "The impact cannot be articulated in words, but they will benefit the people both young and old, those who cannot read but aspire to do so and those who can read and love to do so" (Nhlapo, 2008). Similar statements of support have been made by the Tanzanian ambassador to the United States (Sefue, 2008, 2009).

<div align="center">Research Problem, Significance, and Justification</div>

Research Problem

Components of international development, literacy research, and African studies address the importance, concern, and value of literacy and textbook donations. Student reading ability is key for student achievement in all disciplines. Quality text and library books have been shown to influence reading achievement throughout the world (Lance, 1994; Worthy, Moorman, & Turner, 1999; World Bank, 1989, 2002). Yet, there is currently limited empirical evidence regarding the influence of English-language books from book donation programs upon male and female student reading fluency and comprehension scores in Tanzania. Equally important, little is known about the influence length of time of usage of English-language textbooks may have upon reading fluency and comprehension. Questions also remain regarding the value of donated textbooks from the United States in Africa, given the cultural differences. The reason for this lack of multiple studies and conclusive evidence is that studies gauging the impacts on learners, teachers, and administrators in Africa are difficult to implement due to the difficulty of coordinating the delivery of books to research locations. Likewise, a lack of effective control of the research

environment in African school settings is an impediment to securing quality data.

Additionally, organizations involved in the shipment of textbooks are often under-

staffed without sufficient financial resources to undertake studies documenting

achievements in positively influencing literacy rates (Charity Navigator, 2009).

Significance and Justification

Empirical evidence will help to answer key questions and create greater

understanding about the influence of donated English-language books upon

reading fluency and comprehension scores in one country in Africa. Knowledge

from research is needed upon which further research may build. Finally, it was

hoped that this case study of public, English-speaking secondary schools in

central Tanzania in East Africa could lead to research in other parts of Africa,

other continents, and in other types of school settings (i.e. private schools,

primary schools, and universities), and in other disciplines (i.e., mathematics and

social sciences).

Organizations that ship donated textbooks to Africa (Books For Africa,

2009; International Book Bank, 2009; Brothers Brother Foundation, 2009; Sabre

Foundation, 2009), as well as other donor organizations are interested in knowing

the effectiveness of book donation programs and their influence on increased

reading skills. International assistance agencies such as the United States Agency

for International Development (USAID), the CODE Foundation based in Canada,

World Vision, and Rotary International all invest in international development.

The question is often posed: "How effective are the results?" or "What did we get

for our money?" Answers are often mixed. Typically, the response is that (a) the

materials donated were of obvious benefit because they were requested, and (b) that millions of dollars in cash program expenditures leveraged donated material at a ratio of 15 to one (Books For Africa, 2009). This sometimes leaves donors to conclude that while the programs deliver output (i.e., material assistance) at a very high multiplier, they cannot effectively quantify the impact of this material in terms of improved educational achievement and performance. For organizations operating these material assistance programs, there is generally an assumption that the materials provided are useful, and must be effective because requests continue to come from the developing world for more of this material (Sources of Donated Books, 2005).

<div align="center">Purpose and Objectives</div>

The purpose of this investigation was to determine the influence of donated English language text and library books upon students in central Tanzania. The initial objective was to ascertain the extent to which donated textbooks in high school settings in the Dodoma/Singida region of central Tanzania could improve reading fluency and comprehension scores. The second objective was to develop an understanding of the views of administrators and teachers concerning the value of textbooks for investigating student achievement.

Three major research questions guided this study:

1. What was the influence of English-language donated textbooks from the United States upon the student reading fluency scores? The null statistical hypothesis and alternative hypothesis for this research question were as follows:

$$\text{Ho: } \mu_{1f} = \mu_{2f} = \mu_{3f} = \mu_{4f} \qquad \text{Ha: } \mu_{1f} \neq \mu_{2f} \neq \mu_{3f} \neq \mu_{4f}$$

$\mu_{1f} =$ School 1 reading fluency population mean

$\mu_{2f} =$ School 2 reading fluency population mean

$\mu_{3f} =$ School 3 reading fluency population mean

$\mu_{4f} =$ School 4 reading fluency population mean

The null hypothesis states that the mean increases in fluency test scores for all schools will be the same. The research hypothesis (or alternative hypothesis) is that fluency scores will not be the same due to the influence of English-language donated text and library books inserted as a treatment.

2. What were the impacts of English-language donated textbooks from the United States upon student reading comprehension scores? The null statistical hypothesis and alternative (research) hypothesis for this research question were as follows:

$$\text{Ho: } \mu_{1c} = \mu_{2c} = \mu_{3c} = \mu_{4c} \qquad \text{Ha: } \mu_{1c} \neq \mu_{2c} \neq \mu_{3c} \neq \mu_{4c}$$

$\mu_{1c} =$ School 1 reading comprehension population mean

$\mu_{2c} =$ School 2 reading comprehension population mean

$\mu_{3c} =$ School 3 reading comprehension population mean

$\mu_{4c} =$ School 4 reading comprehension population mean

This null hypothesis states that the mean increases in test scores for all schools for reading comprehension scores will be the same. The research hypothesis (or alternative hypothesis) is that the scores will not be the same due to the influence of books inserted as a treatment.

3. Gaining an understanding of the impressions of teachers and administrators regarding the value and influence of English-language donated textbooks from the United States answered the question, "What is it like for the students to have English-language textbooks in the respective school communities?"

This study also sought to explore the relationships on test scores pertaining to length of time schools had books, student gender, and types of schools.

<div align="center">Assumptions and Limitations</div>

A number of assumptions and limitations were inherent in this study, and they are summarized as follows:

Assumptions

Key assumptions of this study were: (a) reading achievement assessments accurately measured changes in reading fluency and comprehension; (b) reading achievement scores should increase a certain percentage for students at all four schools measured regardless of treatment (including the control group) due to on-going instruction at these schools; (c) it was possible to measure differences in reading achievement scores of students at the four schools being studied; and (d) the interviews conducted in the school settings with teachers and administrators secured honest responses.

Limitations

From a design perspective, this study was limited by geography, and did not seek to extend findings beyond the four schools in the Dodoma/Singida area

of Tanzania from which data were collected. It focused only upon student

achievement tests in fluency and comprehension in reading, and only upon tenth

grade secondary students in the Dodoma/Singida area.

Increasing the strength of the treatment in this study design, and

conducting a full experimental study, would have increased its complexity, time,

and costs. As Gall, Gall, and Borg (2003) noted, because of these limitations

"many educational problems amenable to an experimental approach cannot be

tackled by student researchers" (p. 384). Accordingly, lack of material resources,

financing, and time in country limited the ability of this study to conduct a more

thorough test of student progress in reading with more control of the school-

testing environment. This study was designed as an initial exploratory study of

the influences that may exist between student achievement (as measured by

reading fluency and comprehension) and the availability of English-language text

and library books.

<center>Definitions</center>

Many of the definitions that follow were developed by the United Nations

Education, Science and Cultural Organization (UNESCO) in 1958 and the

National Reading Panel in 2000. Key definitions used in this study were as

follows:

Reading Fluency

The National Reading Panel (2000) defined fluency as "the ability to read

a text quickly, accurately, and with proper expression" (pp. 3-5). Reading fluency

has also historically been referred to as reading rate (Farr & Carey, 1986) and

reading speed (Schwartz, 1984). Reading fluency was measured as words read correctly (AIMSweb, 2009). Reading fluency is measured in this study through a General Outcome Measure (ibid) based upon Curriculum Based Measurement referred to as the Reading Curriculum Based Measurement (RCBM) which measures words read correctly (WRC's).

Reading Comprehension

The National Reading Panel (2000) defined reading comprehension as "the essence of reading" and as "intentional thinking during which meaning is constructed through interactions between text and reader" (pp. 4-5). For the purposes of this study, reading comprehension was measured as correct responses when presented with different word choices (AIMSweb, 2009). Reading comprehension was measured in this study through a General Outcome Measure (AIMSweb, 2009) based upon Curriculum Based Measurement referred to as the MAZE assessment which measures responses correct (RC's). Reading Curriculum Based Measurement (RCBM) has also been identified as a valid measure of reading comprehension (Silberglitt, Burns, Madyun, & Lail, 2006).

Literacy

Traditional western literacy theories have tended to focus upon basic skills such as reading and writing, and the general acquisition of skills. For example, UNESCO defines literacy as the ability of an individual to read and write with understanding a simple short statement related to his/her everyday life (UNESCO, 2006). Such a person would be classified as literate, for example, under the Millennium Development Goals (UN millennium project, 2006). Other cultural

traditions have focused upon non-alphabetic forms of communication (i.e., pictures), memorization, or performance. Gomez (2005), for example, argues that literacy is a process and not a skill that someone has attained or not attained. For the purposes of this study, literacy was defined using the traditional UNESCO definition. Increases in literacy were assessed using an instrument to measure the ability to read certain numbers of English-language words per minute. A separate instrument assessed student comprehension of English-language reading passages measuring correct responses in a multiple-choice test.

Mother Tongue

The mother tongue is defined as the language one learns as a child growing up in the home. UNESCO defines the mother tongue as the main language spoken in the home environment and acquired as a first language, sometimes called the home language (UNESCO, 2006). In some African countries, such as Kenya, the mother tongue is also referred to as ethnic, tribal, local, and/or vernacular language (Cleghorn, Merritt, & Abagi, 1989).

Official Language

Official language is defined as one or more languages that a country utilizes as an official form of communication in education, government, or commerce. UNESCO (2006) defines official language as a language designated by law to be employed in the public domain. This is distinct from a national language, which is a language spoken by a large part of the population of a country, which may or may not be designated an official language (UNESCO, 2006).

Language (or Medium) of Instruction (LOI)

Language of instruction is defined as the language in which subject matter is taught in a public or private school setting. UNESCO defines LOI as "language(s) used to convey a specified curriculum in a formal or non-formal educational setting" (UNESCO, 2006).

Second Language

Second language has traditionally been used in different contexts and can mean (a) the second language learned (chronologically); (b) the weaker language; (c) a language that is not the mother tongue; or (d) the less used language. As a critical issue, it is noted that a student may grow up with one mother tongue and utilize a second language as a LOI. Or, the mother tongue may be used as a LOI while the official language is taught as a second language in the school. For the purposes of this study, second language was defined as a language other than the mother tongue. Generally, this second language was English. The second language was generally acquired in a school setting under the definition utilized in this study. Oftentimes in Africa the languages used as determinants of literacy are second languages (i.e. English, French, Portuguese, or Arabic) (Cleghorn, Meritt,& Abagi, 1989; Brock-Utne, 2002; Prah, 2003).

CHAPTER 2

REVIEW OF THE LITERATURE

This chapter provides a summary of research findings and literature related to concepts that encompass book distribution and donations to developing countries, and reading achievement among indigenous African peoples. Initially, a discussion of the features and merits of mixed research and case study research design are presented. A discussion of the conceptual elements and merits of case study research is also included in this chapter. The case study design allowed the researcher to focus upon tenth grade secondary students in a defined group of schools in a particular country and to use research data from this group as a basis for initial research in the topic area. The intent was for future research to be built upon these findings.   Elements of the overall conceptual framework are then addressed. Conceptual elements addressed include reading and literacy issues, international development, and Africa and textbook donation issues. Topics discussed under these key areas include reading and literacy research, factors contributing to fluency and reading comprehension, the Millennium Development Goals, best practices in development, world language review, languages in Tanzania, educational theories in Africa, globalization and English-language education, and opposition to donated educational material. A theoretical framework is presented in the final section of this chapter.

Mixed Research Methods/Typologies

Mixed methods research design is intended to draw from the strengths of

both qualitative and quantitative designs thereby securing additional research data and triangulating that data to increase validity (Creswell & Clark, 2007). Mixed methods research design focuses on collecting, analyzing, and combining both quantitative and qualitative data in a single study with a central premise that this approach provides a better understanding of the research problem than either approach alone (ibid).

Mixed Methods Research Design

The mixing of data is a unique aspect of the definition of mixed methods research. Data may be mixed by merging/converging the two data sets into one, by connecting the two data sets by having one build on the other, or by embedding one data set within the other (Creswell & Clark, 2007). Creswell and Clark (2007) proposed the advantages of mixed methods research over qualitative or quantitative designs individually to include: (a) Mixed methods research provides strengths that offset the weaknesses of both qualitative and quantitative research; (b) Mixed methods research provides more comprehensive evidence for studying a research problem; (c) Mixed methods research helps answer questions that cannot be answered by qualitative or quantitative research alone (i.e. could textbooks be perceived as valuable even if assessments showed they did not increase student achievement); (d) Mixed methods encourage researchers specializing in qualitative and quantitative research to collaborate across boundaries of different philosophies of research; (e) Mixed methods encourage the use of multiple worldviews or paradigms; and (d) mixed methods research is practical in the sense that the researcher is free to use all methods possible to

address a problem, employing skills in observing people and recording behavior as well as quantifiable techniques.

Despite its value, use of mixed methods research is difficult in that it takes time and resources to collect and analyze both quantitative and qualitative data (Creswell & Clark, 2007). Mixed methods research can also add levels of complexity in terms of data collection, analysis, and presentation when sorting out the different procedures.

Case Study Research Design

Gall, Gall, & Borg (2003) define case study research as focusing upon "the in-depth study of instances of a phenomenon in its natural context and from the perspective of the participants involved in the phenomenon" (p. 619). Yin (1989) asserted that the distinctive need, and advantage, of case study "arises out of the desire to understand complex social phenomena" (p. 14). Additionally, "case study is preferred in examining contemporary events, but when the relevant behaviors cannot be manipulated" (ibid, p. 19). Sometimes, a quasi-experimental study can be used when behavior cannot be modified but the logic of experimental design may still be applied.

A more technical definition of case study put forward by Yin (1989) was: "A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used" (p. 23).

Yin (1989) established a series of six pre-established case study

procedures and protocols key in investigating an empirical topic. They include documentation, archival records, interviews, direct observations, participant-observation, and physical artifacts. These procedures are best implemented in a methodical fashion that has construct validity (establishing correct operation measures for the concepts under evaluation), internal validity (establishing causal relationships as distinguished from spurious relationships), external validity (establishing the domain to which a study's findings are generalizable) and reliability (demonstrating that the operations of the study in areas such as data collection can be repeated with the same results).

In summary, a review of the literature shows that mixed research methods and typologies provide a number of advantages for research design. Most notably, mixed research methods allow for more data to be analyzed and allows for different types of analysis. Additionally, case study research methods allow for a more focused approach in terms of time and geography thus allowing for a better analysis of the phenomenon or issue being studied.

Reading and Literacy Research

There is a significant body of research that addresses the topic of literacy, and how learners acquire literacy skills (Larson & Marsh, 2005; Handbook of Reading Research, 2000; National Reading Panel, 2000; Literacy For All in Africa, 2005; International Reading Association, 2009; Padak, 2000; O'Brien & Moje, 2001; O'Brien, 1997). A common definition of literacy depends on cultural values, institutional agendas, academic research, and individual experiences (Galbraith, 2006).

Larson and Marsh (2005) outlined a series of theoretical traditions of literacy including traditional theory, new literacy studies, critical literacy, new technologies and literacy, and sociocultural-historical theory. With the exception of traditional literacy theories, the theories outlined by Larson and Marsh (2005) focused on individualized learning. Their theoretical model of literacy places less emphasis on the individual and more emphasis on literacy as socially constructed. Traditional Western literacy theories have tended to focus upon basic skills such as reading and writing, and the general acquisition of skills. The United Nations Educational, Scientific, and Cultural Organization (UNESCO) defines literacy as the ability of an individual to read and write with understanding in any language a simple short statement related to his/her everyday life (UNESCO, 2006). Other cultural traditions have focused upon non-alphabetic forms of communication, memorization, and performance (Larson & Marsh, 2005).

For statistical analysis of literacy trends, and analysis by country and/or region, the United Nations Educational, Scientific, and Cultural Organization (UNESCO) literacy portal is a resource (UNESCO, 2009). For example, UNESCO indicated that the world literacy rate is 82 percent, but only 62.5 percent in Africa (71 percent for males, 54 percent for females). The National Center For Educational Statistics (2009) revealed the strong relationship between literacy and earnings capacity. The data showed that in the United States, increased literacy results in dramatically increased yearly earnings.

Key sources of the reading research which served as a foundation for this study included the Handbook of Reading Research (2000), a summary of literacy

research, methodology research, literacy processes, literacy practices, and literacy policies by key scholarly experts in the field. A second key source that underpinned this research study was a report of the United States National Reading Panel (2000). This report included research conducted by scholars in alphabetics, comprehension, fluency, methodology, teacher education, and technology. A useful resource that featured reading research conducted by African scholars in Africa is Literacy For All in Africa (2005). It was published with the assistance of the International Reading Association (2009), a professional organization created in 1956 to improve reading instruction and encourage reading research.

Padak (2000) compiled articles from 34 leading educators who have helped shape literacy instruction for children in schools. O'Brien (2001, 1997) conducted studies of teaching and literacy in and out of secondary schools and with at-risk high school students. Much reading research has focused upon helping at-risk students or poor-performing readers to improve. There is much less research available about students who are reading at or above grade level (O'Brien, 1997, 2003; Pressley, 2006; Shinn, Walker, & Stoner, 2002).

Factors Contributing to Reading Fluency and Comprehension

Central to and relevant to this study are a number of selected factors that impact reading skills (Pressley, 2006; Handbook of Reading Research, 2000). These factors include (a) socio-economic status, (b) parental education/motivation, (c) learner motivation and intelligence, (d) peer group achievement, and (e) gender.

Research on socio-economic status and its impacts on reading skill has been conducted by a number of scholars (White, 1982; Leseman & de Jong, 1998; Chaney, 1994; Downing, Ollila, & Oliver, 1977; Duke, 2000; Filmer & Pritchett, 1999). White (1982) provided an analysis of the relationships between socioeconomic status and academic achievement. White confirmed research from 200 studies that identified a link between wealth of parents and the educational achievement of their children due to factors such as quality of schools and instruction, additional household resources, and family stability. White, however, reveals that this link is not as readily apparent as has been assumed and that socioeconomic factors and their impact upon student achievement are complex and vary widely depending upon the study design and definitions of socioeconomic factors. For example, the correlation between home atmosphere factors and student achievement can range from .22 to .73 depending upon how the variables are classified (White, 1982). Duke (2000) found in a study of 20 early grade classrooms that textbooks were more scarce in low socioeconomic status school districts, that libraries were smaller, and that less time was spent reading. This could indicate that socioeconomic status and book availability (and potentially literacy rates) are linked.

Studies focusing on the relationship between parental education and motivation and student achievement were featured in the Handbook of Reading Research (2000); Leseman and de Jong (1998); Anderson, Wilson, and Fielding (1988); Senechal, Lefevre, Thomas, and Daley (1988); and Leslie and Allen (1999). In the Handbook of Reading Research (2000) it is reported that

"correlational studies have repeatedly documented the significance of such factors as parents' educational level, the uses of print in the home, the number of books in the home, and the frequency of parent-child storybook reading events in children's reading achievement in school" (p. 854). Leseman and de Jong (1998) found that home literacy is multi-faceted, based upon factors such as socioeconomic standing, ethnicity, and parental literacy practices. Anderson, Wilson and Fielding (1988) found that children who choose to read in the home experienced increased reading achievement in school assessments. Senechal, Lefevre, Thomas, and Daley (1998) showed that storybook exposure in the home explained statistically significant unique variance in children's oral-language skills and parent teaching explained increases in written-language skills. Leslie and Allen (1999) confirmed that student home reading and parental involvement served as a predictor of significantly improved reading achievement scores.

The influence of learner motivation and intelligence upon reading achievement levels has also been widely researched and found to correlate (Anglum, Bell, & Roubinek, 1990; Anderson, Wilson, & Fielding, 1988; Leslie & Allen, 1999; Senechal, Lefevre, Thomas, & Daley, 1998; Bee, Barnard, Eyrey, Gray, Hammond, Spietz, Snyder & Clark, 1982; Walberg & Tsai, 1985).

Peer group achievement has also been shown to be a factor in reading achievement (Frolich & Michaelowa, 2005). Frolich and Michaelowa reported that the peer group achievement factor can result in increased student reading scores where a treatment (such as textbooks) is applied. They reported that students who increase their reading ability due to a variety of factors could

increase, through social interaction, the reading scores of their peers who have not had the benefit of the same factors.

Finally, a number of researchers have found that girls learn to read faster than boys, and presented reasons for these findings. Schwartz (1984) reported that females are believed to demonstrate advanced maturity at a younger age. Gurian and Henley (2001) and Moir & Jessel (1992) find that girls tend to use to a larger extent the areas of the brain devoted to verbal and emotional functioning while boys tend to use to a larger extent the areas of the brain geared toward spatial and mechanical tasks. And Pollack (1998) reported that boys in the United States are not reading enough and not encouraged to read enough by society, resulting in their learning to read 12 to 15 months later than girls and resulting in a five to ten percent reading proficiency gap and a widespread lack of reading fluency skills as compared to girls.

Impact of Localized Text and Library Books on Student Reading Ability

This study focused upon the influence of materials (i.e., text and library book resources) upon literacy. While it can seem readily apparent that students cannot learn well without textbooks and related materials, several studies have investigated this contention. In collaboration with factors such as socio-economic status, parental education/motivation, learner motivation and intelligence, and peer group achievement, localized textbooks (i.e. customized to local language and/or curriculum) have been found to be one key factor contributing to improved reading fluency and comprehension (World Bank, 1987, 2002; Frolich & Michaelowa, 2005).

Localized library books have also been shown to be a primary contributor to development of student reading skills in the United States (Guidelines for library-based literacy programs, 2003; Knuth, Perry, & Duces, 1996; Alemna, 2006; Miller, 2001; Niles-Maack, 1986). In research conducted in collaboration with the American Library Association, for example, Lance (1994) found a correlation between school libraries and academic achievement. This study of 221 Colorado public schools in 1988-89 found that students at schools with better-funded library media centers had higher average reading scores, regardless of whether their schools and communities were rich or poor and whether adults in their community were well or poorly-educated. Similarly, a study of United States sixth grade students in three schools reported by Worthy, Moorman, and Turner (1999) confirmed that students who have access to materials of interest are more likely to read and thus more likely to improve their reading performance.

Research has also been conducted in Africa to measure the impact of localized textbooks on student achievement in general, and on reading specifically. Findings from these studies revealed that student access to textbooks positively influenced student reading achievement scores (World Bank, 1987, 2002; Michaelowa & Wechtler, 2006; Frolich & Michaelowa, 2005; Fehrler, Michaelowa, & Weber, 2007; Tusome Vitabu Project, 2006; Fuller & Clarke, 1994; Lockheed & Verspoor, 1991; Michaelowa, 2001; OECD & UNESCO-UIS, 2003; UNESCO, 2004; Fuller, 1987; Lee, Zuzu, & Ross, 2005; Verspoor, 2003).

The most comprehensive assessment of textbook cost, use, and benefits was conducted by the World Bank covering a period of World Bank support for

textbooks in Sub-Saharan Africa from 1985-2000 (World Bank, 2002). This assessment, which investigated 89 World Bank-financed education projects with textbook components, found that the key role textbooks and other written training materials play in enhancing the quality of education is universally recognized and especially important in Sub-Saharan Africa where there is such a severe shortage of reading materials. This report indicated a substantial need for textbooks, indicating textbook-to-student ratios ranging from 1:5 to 1:10. This report found localized textbooks to be extremely cost-effective inputs, leading to improved student performance and attendance, and better use of teacher time in classrooms.

Conclusions from an earlier World Bank Report (1987) also confirmed the positive influence of localized textbooks on student achievement levels. Key conclusions were that (a) without some basic inputs, particularly textbooks and instructional materials, almost no learning can be expected to occur; (b) the safest investment in educational quality in most countries is to make sure that there are enough books and supplies as these materials are effective in raising test scores; (c) evidence points strongly toward the provision of textbooks as being the most cost-effective way of increasing the quality of education; and (d) the scarcity of learning materials in the classroom is the most serious impediment to educational effectiveness in Africa (World Bank, 1987).

Similarly, Fehrler, Michaelowa and Weber (2007) concluded in a study of 22 Sub-Saharan African countries, and a comparison with earlier empirical studies for educational systems in Africa, that textbooks are an efficient means of increasing student achievement. This study further concluded that the availability

of a school library was significant in increasing student achievement scores. The availability of reading material at home was also significant, reinforcing the potential relevance of libraries in general, be it at classroom, school, village, or home level. They also found that a self-selection process might have been involved, with good student performers selecting well-equipped schools with libraries when possible.

In addition to confirming the effective and inexpensive positive effects of textbooks, Frolich and Michaelowa (2005), in a study of five Francophone Sub-Saharan African countries identified a further advantage of textbooks, called the peer effect. The peer effect suggests that one student's access to textbooks in African schools increases student achievement to peers throughout the classroom. In this study, Frolich and Michaelowa found that students with books learn faster. Further, these more knowledgeable and motivated peers benefited other students. Another benefit of textbooks was that when a critical mass of books in the classroom was reached, it was found that teachers began using pedagogical methods that require books, thus positively altering teaching methods (Frolich & Michaelowa, 2005). They hypothesized that it may be more cost effective for student achievement, given their findings, to spread books more widely where the peer effect could increase learning, rather than to have one school with many books and another school with no books.

Michaelowa and Wechtler (2006) also concluded from a review of other studies, and their own analysis, that textbooks are extremely cost-effective in increasing student test scores in literacy and mathematics in Africa. Their

findings come with the caveat that textbooks must actually reach the students in school settings and must be effectively used by teachers. For example, they found that textbooks were very low-cost, high-impact inputs as compared with more expensive inputs such as human resources (teachers and administrators), improved classrooms, or grade repetitions. Specifically, Michaelowa and Wechtler (2006) found a positive effect of textbooks upon student achievement and literacy scores in their study of 22 countries. Family characteristics also played a role as a variable, reiterating findings that access to books (whether at school or home) increased student literacy rates.

Findings from the Tusome Vitabu Project (2006), a study commissioned by CARE International Tanzania, revealed that "the acute shortage of books has greatly affected stimulation of critical thinking and development of independent reading habits among pupils and teachers in primary schools" (p. 1). This study of 1,592 primary schools in 16 districts in Northern Tanzania analyzed the connections between book availability and student readership. It was found that greater availability of local language schoolbooks did increase student readership.

Yet, while much research has been conducted, little empirical analysis has been undertaken to measure the influence of donated, English-language textbooks from the United States upon student fluency and reading comprehension in Africa. A review of the literature reveals a need to bridge the gap regarding the knowledge available about the impact of localized text and library books and the knowledge lacking regarding influences of donated English-language books.

Measurements of Reading Fluency and Comprehension

Key scholars who have focused on topics of assessments of reading achievement include Farr and Carey (1986), Schwartz (1984), Hill and Larsen (2000), and Pressley (2006). Farr and Carey (1986) and Schwartz (1984) provided a historical perspective regarding reading assessments. Types of reading tests include: (a) norm-referenced tests used to compare student scores to the population (also referred to as standardized scores); (b) criterion referenced tests which measure decision-making ability connected to specific skill levels; and (c) informal measures used to gather information on an on-going basis (Farr & Carey, 1986; Schwartz, 1984). Most reading assessments currently in use are norm-referenced (Schwartz, 1984). Hill and Larsen (2000) noted one common problem historically experienced with norm-referenced, standardized tests. They observed that some school administrators arrange for weaker students to be absent the day tests are administered in order to make the data in school appear more favorable.

Schwartz (1984) found that the key indicators of good reading assessments were (a) reliability (they measure in a consistent manner); (b) validity (they measure what is intended to be measured); and (c) practicality (they are easy to administer and score). Schwartz (1984) reported that approximately four to 64 factors identified in reading readiness studies are key to reading development. Four factors were identified as critical to reading readiness. They included (a) physiological factors (gender, vision, and hearing); (b) socio-environmental factors (cultural background, bilingualism); (c) intellectual factors (intelligence, reasoning, and information processing skills); and (d) emotional factors

(motivation, mental health). Schwartz (1984) reported that gender has been found in many studies over the course of the past 50 years to be important in that girls learn to read before boys and maintain their superiority at least through primary grades. Reasons indicated for this reading superiority centered upon female advanced maturity at younger ages in visual and auditory discrimination, and/or gender roles and a social perception that reading may be seen as a more feminine pursuit (Schwartz, 1984).

Curriculum Based Measurement (CBM). A key measurement technique for reading fluency used in this study was Curriculum Based Measurement (CBM). This study drew upon the concepts of CBM, and General Outcome Measures (GOM), the principles upon which CBM is based (Shinn, 1989, 1998; Shinn, Deno & Fuchs, 2002; Deno, 1985). GOM's are a formative assessment technique utilizing certain key measurements in any given field that indicate performance. Examples of GOM's from a variety of fields would be medical fields measuring height, weight, or blood pressure; financial markets measuring the Consumer Price Index; or for-profit firms measuring earnings per share. GOM's are designed to be simple, accurate, efficient, and generalizable. CBM is a GOM designed to be used as a reliable and valid indicator of student achievement in areas such as spelling, mathematics, literacy, and comprehension.

CBM was developed at the University of Minnesota in the 1980s by Deno (1985). CBM was initially implemented in school settings by Germann utilizing the AIMSweb system (AIMSweb, 2009). Shinn (1989, 1998) and Fuchs (Shinn, Deno & Fuchs, 2002) were key collaborators with Deno and Germann in the

development of CBM as an assessment tool.

Curriculum Based Measurement (CBM) is a method of monitoring student progress through direct, continuous assessment of basic skills. CBM uses a system of instruments to assess skills such as reading fluency, comprehension, spelling, mathematics, and written expression. These principles of General Outcome Measures (GOM) and the Curriculum Based Measures used to identify reading proficiency, are imbedded in the AIMSweb instrument used in this study. The Reading Curriculum Based Measurement (RCBM) was specifically used to measure reading fluency, although it is also a valid measure of reading comprehension (Silberglitt, Burns, Madyun, & Lail, 2006). The Curriculum Based Measurement developed by AIMSweb to measure reading comprehension is the MAZE assessment. This study used the AIMSweb system of established benchmarks, which were based upon the concepts of CBM.

CBM uses a number of Reading Assessment Passages (RAP's) as instruments to measure student achievement. For the purposes of this study, Reading Curriculum Based Measurement (RCBM) and reading comprehension (MAZE) instruments were utilized to measure student achievement in reading fluency and comprehension, respectively (AIMSweb, 2009).

Other independent scholars not directly connected to the development of the AIMSweb assessment model, such as Marshall and Campbell (2006), supported the contention that CBM was a reliable measure for reading fluency assessment. Paris (2003, 2005) critiqued Curriculum Based Measurement (CBM) and other reading assessments, reporting that reading assessments of this type

measuring words read per minute have limitations, especially at the higher grade levels. However, as previously noted the very concept of measuring words per minute has been debated for all literacy tests, not only the CBM model (Farr & Carey, 1986; Schwartz, 1984; Pressley, 2006). Silberglitt, Burns, Madyum, and Lail (2006) noted, however, that limitations notwithstanding, CBM test results were valid and that "teachers can be somewhat confident that administering timed passages in the classroom setting would provide data that is acceptably reliable and valid for instructional decisions" (p. 528). Silberglitt et al (2006) cautioned, however, that of the two CBM reading measures, RCBM which measures reading fluency and to a lesser extent reading comprehension is much more sensitive to the measurement of student growth than MAZE, which exclusively measures reading comprehension. Additionally, Silberglitt et al. cautioned that RCBM loses its accuracy at higher achievement levels where skilled readers are simply speed reading (Silberglitt, Burns, Madyun, & Lail, 2006; Silberglitt, 1/19/09, personal communication).

Reading comprehension. Reading comprehension, according to Farr and Carey (1986), is the very purpose of reading. Many current assessments are designed by nature to be cost-effective, hence the cloze procedure is used because of its ease of use and efficiency in testing many students quickly. The cloze procedure, whereby supplying missing words from text to complete a sentence, is a common comprehension testing mechanism, which has been in use for nearly 150 years (Farr & Carey, 1986).

Standardized reading tests were developed in the United States in the early

twentieth century when aptitude and intelligence tests were developed and

implemented on a mass scale to help assign duties for approximately two million

United States Army recruits during World War I (Hill & Larsen, 2000; Farr &

Carey, 1986). The Haggerty Test used this technique in the 1920s, and modern

and common variants of this procedure include the Gates-MacGinitie Tests, the

Stanford Achievement Tests, and the AIMSweb Tests (Farr & Carey, 1986). The

AIMSweb MAZE test is also a common reading comprehension measure using

the cloze procedure (Silberglitt, Burns, Madyun, & Lail, 2006).

Reading fluency. Tests of reading rate (fluency) have also been in

existence since the early 1900s, with debates of their usefulness ongoing

throughout this period. At issue is the extent to which reading quickly is an

important reading skill (Farr & Carey, 1986; Schwartz, 1984; Pressley, 2006).

However, Farr and Carey did note that a number of studies have shown that

reading speed is related to reading comprehension. Assessments are generally of

similar design, measuring the number of words read per minute for a set period of

time. Examples of reading fluency tests have included the Nelson-Denny

Reading Test (1981) using fluency to predict success in high school and college,

the Nelson Reading Skills Test (1977) used to measure grade school reading

fluency, and the Gates MacGinitie Test (1965) and the Stanford Diagnostic

Reading Scales (1974) which attempt to measure reading fluency and

comprehension simultaneously. The AIMSweb assessment models, using

Curriculum Based Measurement, are also an effective, reliable and valid measure

for assessing student proficiency and progress in reading, as reflected by oral

reading fluency (Marshall & Campbell, 2006; Deno, 1985).

In summary, key research findings in reading and literacy research show that literacy is a multi-dimensional field, that different learners acquire literacy in different ways, and that different researchers argue for differing methods of measuring literacy. Most scholars agree that the ability to read and comprehend short statements and sentences is an accepted measure of literacy achievement. The literature also shows that numeric quantifiers (i.e. words read per minute) are viewed as an acceptable measure of reading ability. The research further reveals that literacy can be divided into two main categories: reading fluency and reading comprehension. Finally, a review of the research shows that research has been conducted on the topic of localized text and library books, and their influence on reading fluency and comprehension – but not on the topic of donated English-language books from the United States. Research thus shows that localized books are effective in increasing literacy skills, but that the influence of foreign books is unknown.

International Development Issues

Reading fluency and comprehension are important issues in international development. This is because literacy is a key component of international development. This section will include a discussion of the theory behind the Millennium Development Goals and their connection to literacy issues. Best practices in development are discussed, with focus upon book donation programs. And finally, a discussion of textbook donations in Africa and issues such as language appropriateness, Tanzania language issues, educational theories in

Africa, and arguments for and against English-language education will be discussed.

Millennium Development Goals

King (2007) outlined the process by which the Millennium Development Goals (MDG's) were established as the "centerpiece in the world's development agenda" (p. 377). Furthermore, King noted that multilateral agencies such as the World Bank, the Organization for Economic Development and Cooperation (OECD), and several United Nations agencies (UNICEF, UNESCO, and UNDP) played vital roles in designing the architecture of the world's development agenda. Milestones in the process were the World Conference on Education For All (EFA) in 1990, the OECD report on Shaping the 21st Century in 1996, the World Forum in Dakar, Senegal in 2000, and the Millennium Summit of 2000, which led to the Millennium Declaration, and the establishment of the Millennium Development Goals in 2000. Six goals focusing upon education, including a goal of 50 percent improvement in levels of adult literacy by 2015, especially for women, were also endorsed in 2000 as part of the Education for All initiatives (Ingram, Wils, Carrol, & Townsend, 2006).

Medel-Anonuevo (2005) argued that the Millennium Development Goals could be called the "Mother of all Development Goals" due to their wide-ranging scope, or "Minimalist Development Goals" due to a perception that the goals are the result of a recycling process by governments who were unable to meet promises made in previous decades (p. 54).

Controversies notwithstanding, the Millennium Development Goals represent internationally agreed goals to reduce extreme poverty, disease, and hunger by the year 2015 (King, 2007; UN millennium project, 2006). The eight Millennium Development Goals are grouped into nine intervention areas: rural development, urban development, health, education, human resources, gender equality, science/technology/innovation, regional integration, and public sector management (McCord, Sachs, & Woo, 2005). Underlying these goals is a premise that what is needed is a large increase in public investments to produce a large step increase in Africa's underlying productivity. Education is a key element of the Millennium Development Goals, with an aim of universal completion of primary education, an increase in access to secondary and post-secondary education, and particular attention to increasing girls' school completion rates. Gender equity issues are key in development, predating the establishment of the Millennium Development Goals (Kane, 1996; Stephens, 2000; Wolf & Odonkor, 1998).

Sachs (2005) has become a prime scholarly force behind the United Nations Millennium Project (2006), and the Millennium Development Goals. Sachs argued that what is imperative is increased financial commitment from Western donors to achieve the goals, and that the costs of these investments would be in the range of $100 billion annually (McCord, Sachs, & Woo, 2005).

Following the establishment of the Millennium Development Goals in 2000, and failure to meet key targets, such as gender parity by 2005 (Archer, 2006), there was considerable comment on the impacts of these goals on

education, reasons for failure, and implications. Inoue and Oketch (2008) noted

that numerous Sub-Saharan African countries introduced free primary education

as a means of achieving the Millennium Development Goals by 2015. One result

has been large numbers of new students in schools without funds to pay for items

such as textbooks (Inoue & Oketch, 2008). Agenor, Bayraktar, Moreira, and

Aynaoui (2006) reported that there is a direct economic development link to

increased literacy rates in Africa due to increases in educated labor as a

percentage of the population. However, Gomez (2005) argued that literacy for

women was not important because of technical skill increases and economic

considerations, but rather as a contribution of women's liberation and

empowerment. Gomez (2005) asserted that literacy should not be understood as

something that one has (literate) or does not have (illiterate) but rather as a

continuum of skills and abilities. This line of reasoning calls into question the

very concept of establishing literacy goals.

Archer (2006) reported that the first and only of the eight Millennium

Development Goals targeted for completion in 2005 was the target for

achievement of gender parity in primary and secondary education. All other goals

were set for 2015. The reasoning behind this timing was a perception that all

other goals were critical to the achievement of this goal, according to Archer

(2006), and that the failure to meet this goal undermines the entire Millennium

Development Goal framework. Vandemoortele (2005) argued that the

Millennium Development Goals are politically powerful and attractive as a

framework because they are quantifiable benchmarks. And while they have failed

to meet their goals, Agostino (2005), asserted that this is not cause for alarm. Agostino (2005) argued that the Millennium Development Goals should be viewed as a discourse, a tool, and an agreed-upon instrument for global education and gender equality issues and that in this sense they have already been successful.

Best Practices in Development

Key scholars in the field of development theory have included Chambers (1997), Friedman (2000), Isbister (2001), Korten (1984), and Sachs (2005). All of these researchers argue for systemic change to improve international development practices. Definitions of best practices differ depending upon the perspectives of the individual scholars. Chambers (1997) has found that central issues in development have been overlooked and that many past errors in development have flowed from domination by those with power whereas solutions are often locally based. Korten (1984) has also noted a dysfunction of the global economic system and has argued that development should be more people centered and less organization centered. Isbister (2001) has argued that third world development has been betrayed and that these failures account for why most of the people on the planet are currently living in poverty. Friedman (2000) and Sachs (2005) are particularly well known as their works have been distributed beyond the academic community. Friedman (2000) has become one of the foremost promoters of capitalistic economic development within a global framework. Sachs (2005) was key in developing the strategies behind the United Nations Millennium Development Goals (UN millennium project, 2006) for

positive development and is a high-visibility advisor to the World Bank.

Specific to the topic of literacy, a number of organizations have sought to use best practices in international development and are engaged in international development through shipping donated textbooks to Africa and the developing world. These organizations include Books For Africa (2009), the Sabre Foundation (2009), the International Book Bank (2009), Brother's Brother Foundation (2009), and Room To Read (2009). While all of the books that are shipped are donated, sponsors must pay shipping costs to Africa – costs that can range from $9,000 - $12,000 for a 40-foot sea container holding approximately 22,000 textbooks. Very often these costs are paid by African organizations receiving these books, African immigrants living abroad, or non-governmental organizations contacted by African textbook recipients (Books For Africa, 2009). Occasionally, recipients of these books charge a fee to schools to cover the cost of shipping and distributing books. These fees are approximately $.50 per book. Containers shipped by the IBB and Sabre tend to cost more – approximately $15,000 for a 40-foot container. Recipients may select by title however, so it is promoted as more user-friendly.

The return on investment for such initiatives can be enormous. For example, one source in the United States calculates the value of a library book checked out by a patron at $15 (Prescott Library, 2009). If donated English-language textbooks are effective in school settings, the return on investment per book becomes 180:1. This value is calculated by multiplying the number of books shipped to Africa in a container (22,000) by its value per use ($15) by its

time of usefulness - six years by very conservative estimate (Prescott Library,

2009). Such a calculation brings the utility of a container of books, which costs

approximately $11,000, to approximately $2 million.

Charity Navigator (2009) has developed the best comprehensive analysis

of national and international non-governmental organizations (NGOs) and their

relative efficiency. Charity Navigator has a database of over 5,000 charities and

NGOs and an advanced search component. Charities are given a rating of one to

four stars, a numeric efficiency rating, financial summaries, and comparison to

peer organizations. For example comparing NGOs that ship donated educational

material to Africa for increasing reading skills and knowledge, Books For Africa

is given a rating of 62.36; Sabre Foundation a rating of 42.39; Mercy Corps a

rating of 64.21; World Vision a rating of 61.21; and Brother's Brother Foundation

a rating of 62.48 (Charity Navigator, 2009). This system indicates that it is

possible to give a numeric rating of efficiency and return on investment to an

individual NGO thereby quantifying and ranking NGOs by their adherence to best

practices.

Thus, in determining whether or not an organization is operating using

best practices in advancing literacy goals in Africa, one can use the lens of

particular scholars (i.e. Chambers, Friedman, Isbister, Korten, or Sachs) to

analyze development goals. Such a determination of best practices would weigh

organizational missions and processes and ask the question whether the output is

beneficial. Specifically, such analysis of best practices using the aforementioned

scholars would raise issues such as the appropriateness of shipping donated

English-language books and potential for cultural harm. Or one could look to

comprehensive analysis methodologies, such as that used by Charity Navigator, to

measure whether or not an organization is operating efficiently and with proper

oversight.   Such an analysis would focus upon whether organizations providing

donated English-language books are achieving cost-benefit analysis efficiencies.

In summary, a review of the literature shows that the Millennium

Development Goals provide a model for international development goals and that

this model includes the advancement of literacy as a key component. Further, a

review of the literature demonstrates that there are several methods of

determining best practices in development and that they may be grouped as

follows: (a) analysis of mission success (i.e. is literacy being advanced in a

method that is helpful to local populations); and (b) analysis of organizational

efficiency (i.e. is the organization advancing international literacy goals doing so

in an efficient and cost-effective manner).

Africa and Textbook Donations

A third major area of this study is the issue of Africa-specific issues and

the concept of donated English-language textbooks from the West. Illiteracy in

Africa is a greater issue than elsewhere in the developing world, as nine of the 10

countries in the world with the lowest literacy rates are in Africa (Pearce, 2009).

Issues that merit discussion include languages in use globally, languages in use in

Africa, languages in use in Tanzania, theories about forms of education in Africa,

and arguments for and against the use of donated educational materials from the

West.

World Language Review

There are a number of sources of literature documenting major world languages, and where they are spoken (World Factbook, 2009; Childs & Tucker, 2003; Fishman, 2001; Gordon, 2005; Mann & Dalby, 1987; What languages will the world speak in 50 years, 2004; Krauss, 1992). The world's top ten languages (defined as the number of speakers of the language irregardless of mother tongue) are Chinese (Mandarin), English, Hindustani, Spanish, Russian, Arabic, Bengali, Portuguese, Malay-Indonesian, and French (Fishman, 2001; Krauss, 1992; Phillipson, 2001; World Factbook, 2009). A number of key European languages are now global languages, part of the colonial history of these lands around the world (Cohen, 1980). Only nine percent of the global population are native English speakers (mother tongue), but almost one third of the population speaks English (World Factbook, 2009; Phillipson, 2001).

In Africa, English, French, Arabic, and Portuguese, predominate (African Languages, 2001; Childs & Tucker, 2003; Mann & Dalby, 1987; World Factbook, 2009). For reasons of convenience, many African countries have adopted colonial languages as official languages (Cohen, 1980). A summary of World languages, adopted as official languages in African countries, follows:

English	French	Portuguese	Arabic
Botswana	Burkina Faso	Angola	Algeria
Cameroon	Burundi	Guinea-Bissau	Chad
The Gambia	Cameroon	Mozambique	Egypt
Ghana	Central African Rep.		Eritrea
Kenya	Chad		Libya
Lesotho	Dem Rep. of Congo		Morocco
Liberia	The Congo		Sudan
Madagascar	Ivory Coast		Tunisia
Malawi	Djibouti		
Namibia	Guinea		
Nigeria	Mali		
Rwanda	Rwanda		
Sierra Leone	Senegal		
South Africa	Togo		
Swaziland			
Tanzania			
Uganda			
Zambia			
Zimbabwe			

Source: The World Factbook, 2009; Gordon, 2005; Mann & Dalby, 1987.

It becomes readily apparent from this list that some countries have more than one official language. Africa currently has at least 800 languages, and by some estimates as many as 2,400. Many of these languages are local, tribal languages with limited utility beyond their local region (Mann & Dalby, 1987; Gordon, 2005). Of these estimated 800 languages only 50 have more than 500,000 speakers and only 10 have more than one million speakers (African Languages, 2001; Mann & Dalby, 1987; Gordon, 2005; Childs & Tucker, 2003). Key regional Sub-Saharan African languages include Afrikaans and Xhosa in the South; Fulani, Yoruba, Hausa, and Igbo in the West; Amharic and Oromo in the East; and Kiswahili in the East (ibid).

Clearly, language issues are important when considering English-language textbook donation programs in Africa. As this research study was implemented in Tanzania, a review of the language situation specific to Tanzania will ensue.

Tanzania Language Issues

While many local languages have relatively few speakers, the regional language in Tanzania, Kiswahili, is an exception in that it has many speakers. This means that English-language textbooks must be advantageous enough to compete with a strong regional language. Kiswahili (also referred to as Swahili) is a language with substantial regional strength. Kiswahili boasts some 50 million speakers and has a very strong following in East, Central, and the northern reaches of Southern Africa (Coulmas, 1992; Prah, 2003; Brock-Utne, 2001a, 2001b, 2002). In Tanzania, for example, 90 percent of the population understands Kiswahili (Brock-Utne, 2002). Pearce (2009) reports that because Kiswahili is used as a language of instruction at the primary level, literacy rates in Tanzania are somewhat higher as compared to other African countries.

There is additionally a separate body of scholarship specific to the topic of languages of instruction in Tanzania, and types of textbooks that would be most appropriate (Bgoya, 1992; Brock-Utne, 2001a, 2001b, 2002; Prah, 2003; Rubagumya, 1991, 2003; Rugemalira, 2005). For example, Rugemalira (2005) reported that the Tanzanian government established an effort, through the Primary Education Development Program, to rehabilitate schools, raise enrollment, and achieve universal primary education enrollment by 2005. Statistics for 2002 showed a primary school population of 5,981,338; teachers numbering 112,109; a

goal teacher to pupil ratio of 1:53; and net enrollment of 81 percent (Rugemalira, 2005). In 2009, the total number of children in primary schools was 8.4 million (in 15,673 primary schools) and the total number of secondary students was 1.2 million (Sefue, 2009).

However, the needs in Tanzania are readily apparent with shortages of classrooms, teachers, teacher housing, latrines, desks, and books. Whereas in the 1970s the education level in Tanzania was generally above average for Sub-Saharan Africa (due to an extremely active education policy), quality of education has steadily deteriorated since 1989 (Lambert, 2004). The percentage of government funding for education declined from 31 percent in 1995 to 25 percent in 1998. The literacy rate peaked at 90 percent in 1992, after a long period of increase, and has been steadily declining since (Lambert, 2004). This has improved somewhat in more recent years, with a 64 percent increase in primary school population from 2001 to 2006, and a book to student ratio improving from 1:20 in 2001 to 1:3 in 2006 (Sefue, 2009).

However, schools in Tanzania still face enormous needs, sometimes complicated by Ministry of Education policies in areas such as curriculum. For example, U.S. textbooks do not meet the curriculum outlined by the Ministry. But as there are few textbooks available, the issue is whether it is better to provide U.S. textbooks or to wait for the Ministry of Education to provide locally appropriate textbooks. Currently, the Tanzanian Ministry of Education expends approximately 16 percent of its budget on education. Yet, according to the Tanzanian ambassador to the United States, "many schools do not have proper

libraries … we can only afford an average textbook student ratio of 1:3, let alone

books for supplementary reading … this at a time when the government has

embarked upon an unprecedented expansion of education at all levels" (Sefue,

2009).

Current key demographic and education statistics pertaining to Tanzania

provided by UNICEF (2009) are as follows:

Population: 39.5 million
Population under 18: 20.2 million
Urban population: 25%
Percent of population earning less than $1/day: 58%
Income per capita: $350
Adult literacy rate: 69%
Youth literacy rate (15-24):   81% male   76% female
Primary school enrollment: 73%
Secondary school enrollment: 7% male   5% female
Percent of budget expended on education: 16%

Brock-Utne (2001a, 2001b, 2002) is a particularly forceful proponent of

the use of Kiswahili in Tanzanian schools, and extremely critical of Tanzania's

current government policy of introducing English as a medium of communication

at the secondary school level. Brock-Utne (2002) reported that the use of English

is an elitist issue in Tanzania. Brock-Utne wrote of the "diffusion of English,

often to the detriment of the mother tongues of most people" (p. 10), and reported

that "Tanzania's current education policies lead to social injustice for the masses

and reinstate the inequality of pre-independence times" (p. 14). Tanzanian

teachers "admitted that the use of English as the medium of instruction was a

great barrier to them" (Brock-Utne, 2002, p. 20). Brock-Utne (2002) further

reported that "both politicians and academics are divided on the language issue"

(p. 33), pointing out that language of instruction is a very complex issue in

Tanzania with class, economic, political, and educational implications. As

Rugemalira (2005) noted:

> English is a foreign language in Tanzania, but it comes with tremendous
> power and prestige – being the language of the former colonial power and
> of the sole superpower. It is taught as a compulsory subject for twelve
> years, from pre-school to the fourth year of secondary school. English is
> the medium of instruction in secondary and tertiary education, and
> coexists precariously with the national language (Kiswahili) across various
> domains of public functions (government and business). There are very
> few families where English is the language of the home. … They also
> believe that extra investment in English is needed because this is the
> language of economic and social advancement (p. 69).

The issue of English as a language of instruction in Tanzanian schools and as a

tool for economic development remains an on-going topic of public debate in

Tanzania, with local newspapers periodically raising the issue for discussion by

readers (Should We Use Kiswahili as a Medium of Instruction, 2007; Mwabukusi,

2007).

There is enormous demand for English-language text and library books in

Tanzania. Tanzania is one of the biggest recipients of books from Books For

Africa as compared to other African countries (Books For Africa, 2009).

Additionally, the Tanzanian government appears to be strongly in support of

English-language textbooks, as noted in these remarks made by the Tanzanian

ambassador to the United States at a Books For Africa event:

> Books For Africa is certainly a very, very important component … It's
> really, really touching what seem to be simple ideas can really eventually
> transform lives of people across the continent. And you don't realize this
> until many years later, when you see these young people who read these
> books and who rise to their full potential, taking charge of leadership of
> their countries and turning Africa from what people see as a basket case to
> a continent of huge, huge, opportunity (Sefue, 2008).

The Tanzanian Ambassador reiterated the importance of donated English-language books on a separate occasion, expressing thanks for donated books and indicating that "my government and the beneficiaries in Tanzania appreciate the books that fill a critical gap in the delivery of curriculum and general knowledge to our young people, and in the case of the books that end up in public libraries, for the general population."

It would seem therefore, that there is political support in Tanzania for English-language textbooks. This support appears to come from the highest levels of government, as well as at the village level where students and parents seek proficiency in English as a means of educational advancement.

History of English-language Use in Africa

Which language of instruction (LOI) to use in African schools, sometimes referred to by scholars as "the language question," is a key issue in Africa (Moore, 2004). There are many scholarly variants on the best LOI. Some scholars argue that all school instruction from primary to post-secondary levels must be in local languages *(*Brock-Utne, 2002*)*. This view asserts that local culture is under attack by globalization and neo-colonialism, and that governments must be proactive in structuring all education in local languages. Proponents of the colonial imperialism point of view are many and are often representatives of African countries (Mazuri, 1997; Adegbija, 1994; Prah, 2002; Thiongo, 1986; May & Aikman, 2003; Mammino, 2000). Others argue that while higher education, or even secondary education, can be provided in Western languages, all primary education should be in local languages. This is currently

the policy of major donor agencies such as the World Bank and the International

Monetary Fund, and the position accepted by most African governments

officially, even if not always in practice (Mazuri, 1997; Prah, 2003; The World

Bank, 2002; International Reading Association, 2009). Others assert that while

education even at the primary levels can be in European languages, governments

should promote local languages by providing primary instruction in those

languages alongside European languages (Hurskainen, 2002). Other scholars

argue that there should be no international policy on language instruction in

schools and that every nation should decide to utilize whatever language seems to

be in its own best interests (Crystal, 2004). This *laissez faire* position is the actual

policy in many African countries where instruction may be in any number of

languages depending upon local preferences. The United States and Great Britain

espouse this position, in effect arguing that if schools want English language

books and/or instruction the West should neither promote nor hinder this action

(Johnson, 2004). Some also assert that all higher education should be in world

languages, preferably English (Lovgren, 2004). Crystal (2004) noted that English

predominates at most African universities.

Globalization and the Argument for English-language Education

Skills development is one focus for researchers within the context of the

global marketplace (Curry, Theissen, & Kelley, 2002; Lovgren, 2004; Allum,

2000; Stewart, 1996; Fidrmuc & Fidrmuc, 2009; Crystal, 2001, 2004; Coulmas,

1992; Osborn, 2005). Curry, Theissen, and Kelley (2002) provided a literature

review pertaining to library assistance provided to developing countries in times

of globalization. Lovgren (2004) concluded that more and more scientists who are non-native speakers of English will need to become multilingual.   While multi-lingual speaking constitutes an educational burden for some, it is a situation that has historical precedent in the cases of individuals who needed to learn ancient Greek, Medieval Latin, and Medieval Arabic (Lovgren, 2004). Lovgren discovered that in many parts of the world, English is now regarded as a basic skill, like computer skills, which children learn at an early age so they can study in English later. Lovgren reported that because of its scale and dynamism, science has become the most active and dynamic creator of new language in the world today and that most of this creation is occurring in English, the *lingua franca* of scientific effort. Allum (2000) and Stewart (1996) also reported on global workforce skills issues.   Stewart found that education is a key force in globalization and will define winners and losers to a growing degree. Stewart reported that globalization and the global economy rewards countries which have the human resources to exploit it, but also penalizes those that do not, and that for both developed and developing countries education (and training) has become the key to global trading success.

Fidrmuc and Fidrmuc (2009) found that linguistic unification, even in Europe, could yield economic returns. They found that bilateral trade between European countries depends positively on the probability that two randomly chosen individuals will be able to communicate. It was found that if knowledge of English in all European countries increased by 10 percentage points, European trade would rise by up to 15 percent on average. Increasing knowledge of English

substantially further could increase European trade by up to 70 percent according to these findings (Fidrmuc & Fidrmuc, 2009).

English has become a critically important global language according to some scholars, who concluded that by the end of this century individuals who speak only one language (even if that language be English) will be at a substantial disadvantage in the global marketplace (Lovgren, 2004; Crystal, 2004; Osborn, 2005). Lovgren (2004) reported that 80 to 90 percent of journal literature in scientific fields is printed in English, up from 60 percent in the 1980s. Crystal (2004) indicated that few African countries currently use indigenous languages in higher education and that English is the language of choice in the majority of cases. Approximately 75 percent of world mail, telexes, and cables, 60 percent of world radio programs, and 82 percent of all World Wide Web traffic are in English (Gordon, 2005; Crystal, 2001). Crystal (2001) cited a 1997 study showing the tremendous drop off in World Wide Web medium of communication, with English the top language at 82 percent, and German the second most common language at four percent. Osborn (2005) also found a lack of African languages easily accessible via the Internet.

Crystal (2004) found that the world is facing a language revolution that reflects changes in language that have always occurred throughout history, but that are now accelerating in the face of globalization and a perceived need for a global language. Crystal (2004) argued that languages have always been utilitarian by their very nature and that instead of thinking in terms of official languages, it would be better to embrace a concept of languages that are "official

for a particular purpose" (p. 99). In this respect, the African context where there is a language for home, another language for the market, another language for school, and perhaps another language for government interaction should not be viewed as alarming, according to Crystal (2004). While Crystal (2004) did express concern regarding what he terms a language death that is occurring across the globe, and the loss of culture (96 percent of the world's languages are spoken by just four percent of the world's population), Crystal also asserted that languages have always evolved, changed, and borrowed from one another and that historically, the English language has been the borrower *par excellence*.

> The world of multilingualism is full of purists – people who believe that there exists some form of a language which is intrinsically superior to all others and which it is their duty to protect against change, especially against the influence of other languages (and most especially against English) (p. 99).

Crystal (2004) goes on to state that "Human language cannot be controlled. The more a language becomes a national, then an international, then a global language, the more it ceases to be in the ownership of its originators" (p. 45). Crystal (2004) reported that the English language has become the common language of the world, with approximately 1.4 billion users across the globe, and that this is due to "the need for a *lingua franca* – a concept probably as old as language itself" (p. 9). In the future, Crystal (2004) envisions the development of a whole English family of languages mixed with other, local, languages, and indicated that this will probably be the main linguistic trend of the 21st century.

Wakerley (2004) saw a role for local language instruction at the primary level, especially if the student is unlikely to pursue further education. However,

for students continuing their education, instruction in a European language, such as English, presents advantages in that it allows access to the international community. Wakerley (2004) cited the example of Namibia, which gained independence in 1981 and had ample opportunity to choose any language as an official language. English was selected as the official language, even though it was a language with no previous history in the country.

McGreal (2008) noted a similar situation in Rwanda, where French was abandoned in schools in favor of English. The Rwandan trade and industry minister cited as a reason that English has emerged as a backbone for growth and development in Central Africa and around the world.

Hurskainen (2002) concluded that we should "stop thinking that we either have all school teaching in English, or we have all school teaching in an African language" (p. 5). Hurskainen (2002) found that the current situation in Africa is positive because it is flexible in providing education in English and local languages. Johnson (2004) concluded that there are high stakes in the global language game, but that there is not much that individuals can do about it and that events will take their course.

Johnson (2004), Hurskainen (2002), Wakerly (2004), Stewart (1996), Crystal (2004), and Lovgren (2004) all concluded that English-language instruction in Africa is a reality that should not be opposed. This study attempted to provide information that could be useful in placing these arguments into context by testing the value of English language textbooks in some school settings in Tanzania.

Opposition to Donated Educational Materials from the West

Scholars opposed to the donation of books and educational materials from the West have three major arguments: (a) the issue of cultural imperialism in developing countries (Adegbija,1994; Prah, 2003); (b) the issue of imperfect education from use of foreign languages (Bunyi, 1999; Prah, 2003; Rugemalira, 2005); and (c) the issue of the loss of culture due to the probable extinction of many of these indigenous languages (Fishman, 2001; Krauss, 1992; Hofstede, 2001; Pike & McKinney, 1996; Reagan, 2000). Use of foreign languages in general is a negative factor according to these scholars, especially when the languages come with a history of cultural imperialism and modes of communication imposed by colonial powers.

Cultural imperialism. The issue of cultural imperialism is powerful in the developing world. A number of Afro-centric scholars have discussed the dangers of Western-style education and its negative impacts upon African culture (Adegbija, 1994; Rugemalira, 2005; Prah, 2003).

Adegbija (1994) asserted that Western-educated elites in Africa are clinging to unworkable colonial language policies in order to perpetuate their own political power over the majority of citizens less proficient in the European languages. Adegbija (1994) argued that monolingualism does not guarantee national unity, and that the very fact that local languages are not widely taught in secondary and post-secondary African schools sends a strong message that these languages, and hence local African culture, is of low value.

Prah (2003) agreed with the conclusions of Adegbija, arguing that the

language of instruction in any society is also the language of hegemony and power. Denial of instruction in the mother tongue, therefore, signifies the social and cultural inferiority of the culture and people whose mother tongue use is denied, and is a heritage of colonialism.

Rugemalira (2005) referenced linguistic imperialism at work, and how in Tanzania some parents were convinced that Kiswahili is inherently inferior to English. Parents in one study cited by Rugemalira (2005) suggested that English was the only language in which quality education could be delivered.

Imperfect education. Bunyi (1999) and Prah (2003) argued that foreign language provided for imperfect education in Africa. They argued that local languages are, therefore, the best basis for literacy, since they are already understood by local populations and young children in particular can more easily learn academic content in languages they already understand. Bunyi (1999) found that the costs of providing instructional materials in numerous local languages are not excessive especially if such factors as poor performance, school drop-out rates, time invested, and use of culturally inappropriate materials are taken into account. Bunyi (1999) concluded that far from serving as a great unifying force, Western languages serve as a great divider in Africa – dividing people along class lines with upper classes speaking Western languages and lower classes speaking indigenous languages.

Prah (2003) further suggested that use of European languages in Africa cuts off the elite from the population and that not understanding the official language, the ordinary people can neither identify themselves with the state nor

acquire even the most rudimentary information about public affairs. Prah (2003) asserted that the common people almost never fully learn English as a rule, and that as a result its use as an official language only benefits the elites. Prah (2003) also dismissed the argument that European languages increase the global opportunities for the people of Africa, reporting that only a small percentage of the population will ever utilize this competence.

     Loss of culture. The loss of culture from Western language acquisition is a theme raised by some researchers. Some scholars estimate that of the approximately 6,000 languages in use in the world today, 90 percent will be extinct by the end of this century (Fishman, 2001; Krauss, 1992). Literature about the cultural specificity of education includes Hofstede (2001), Pike and McKinney (1996), and Reagan (2000). Issues of cultural relativism, ethnocentrism, and emics are very relevant to issues of the validity of foreign languages for instruction in developing countries (Hofstede, 2001; Pike & McKinney, 1996; Reagan, 2000). The emic approach, deriving from sounds specific to a language, involves the discovery of native principles of classification and conceptualization and avoidance of pre-conceived models (Pike & McKinney, 1996). The goal of the emic approach is to focus upon the native point of view and to realize the cultural vision from the standpoint of the native. Pike & McKinney, in particular, focused upon the emic approach, reporting that even with regard to how items or concepts are named, culture is inherent. Pike and McKinney suggested that some cultures may not have equivalent words for Western concepts, or may have concepts that are not named in Western literature.

Mental constructs differ across cultures, and how questions are asked may differ from one culture to the next. Societies have cultural expectations. In some traditional societies oral culture is key with truth often mediated through culture. Within a culture, Pike and McKinney report, commonly understood language helps bridge gaps between perceived reality and thought.

Hofstede (2001) found that culture is the collective programming of the mind and leads to patterned ways of thinking which impact values, historical interpretations, and national character. Hofstede referenced a 1971 comparative study of the cognitive development of children in the United States and in Africa. The findings of the investigation revealed that the abilities developed depended upon the tasks assigned and that children gained expertise in tasks and skills that were important in their society and which required frequent repetition (Hofstede, 2001).

Reagan (2000) addressed the specificity of African educational methods and goals. He argued that the Western world has much to learn from African teaching methodologies. Reagan cited communal responsibility for the education of the young, the effective use of oral tradition in passing on knowledge, the centrality of moral training, and the importance of a sense of belonging for the child, and the view of education as integral components of social life rather than something separate from the daily lives of most adults. These are areas, Reagan (2000) argued, where modern Western society could gain insight from Africa about the problems and challenges we face today.

Pike and McKinney (1996), Hofstede (2001), Reagan (2000) all asserted

that culture is important to a society and defines its educational systems. They concluded that it is not possible to superimpose a foreign language onto these native cultures without losing key thoughts, concepts, and cultural wealth. These scholars provide important cautions to those supporting English-language literacy on the African continent and revealed the importance of respecting local culture when advancing literacy goals.

Summary

To summarize, this chapter has reviewed the literature in topic areas relevant to this investigation. Mixed research design has been discussed. Mixed research design increases data quantity and quality by bringing different types of research data together to strengthen research findings. Case study research design has been discussed. Case study enables a researcher to focus upon a specific context and time-bound example of a phenomenon in order to facilitate research inquiry. Pertinent reading and literacy research has been addressed, including factors contributing to reading fluency and comprehension, impact of textbooks on student reading ability, measurement of reading fluency and comprehension skills, curriculum based measurement and the use of General Outcome Measurements as a research tool for reading comprehension and reading fluency research. Reading and literacy research has revealed that it is possible to measure student skills in reading comprehension and fluency using techniques such as General Outcome Measurements. International development issues have been discussed, showing that the Millennium Development Goals represent an agenda for international development and that literacy is a key component of this agenda.

A review of some international development issues have also shown some differing views of best practices in development that can be used to critique international organizations seeking to promote literacy in the developing world. Features of Africa and textbook donation programs have been described and it has been shown that textbook donation programs are in existence, shipping millions of donated English-language textbooks from the United States to Africa. A world language review section has shown that Africa has many languages, and that English has often served as a key language of cross-communication in Africa. Tanzanian language and education issues have been discussed to place this research study into perspective. A history of English-language use in Africa revealed how and why African countries will often designate English as a language of instruction in schools. And finally, arguments in favor of English language education (often focusing upon globalization) and against English language education (focusing upon local culture) have been discussed. Arguments against English language education include arguments against book donation programs.

There is a consensus among researchers that to be forced to learn curriculum in basic areas such as reading, writing, and arithmetic in a foreign language is clearly a less than ideal educational model (Brock-Utne, 2001a, 2001b, 2002; Klaus, 2001). Even at the higher level of instruction, such as secondary and higher education, it would be easier for students to learn in their own local languages (Prah, 2003).

As Klaus (2001) noted in an opening statement at the Annual Conference

of the Comparative and International Education Society in Washington, D.C.,

"there appears to be a general agreement that students learn better when they

understand what the teacher is saying" (Klaus, 2001; Brock-Utne, 2002). This

does not occur in Africa, however, for a variety of reasons – a reality

acknowledged by the many African nations providing instruction in European

languages (Sefue, 2008, 2009). There is also a consensus among researchers

(Sachs, 2005; Friedman, 2000) that development in Africa should be efficient

given the scarcity of financial resources.

Some scholars continue to argue that all instruction should occur in local

languages (Brock-Utne, 2001a, 2001b, 2002), while other scholars say that this is

not practical and that providing instruction in English or other Western languages

may be the best manner for African societies to advance (Crystal, 2004; Wakerly,

2004). Additionally, very strong statements of support for English-language book

donation programs have been voiced by African leaders such as the former United

Nations Secretary General (a native of Ghana) Kofi Annan (2008), and

representatives of South Africa (Nhlapo, 2008) and Tanzania (Sefue, 2008, 2009).

Theoretical and Conceptual Frameworks

The theoretical frameworks of this study were derived from literacy

development theories (Schumm & Arguelles, 2006; Avalos, 2006), international

development theories (Sachs, 2005; UN Millennium Project, 2006; King, 2007),

and African development/education theories (Crystal, 2004; Wakerly, 2004;

Brock-Utne, 2001a, 2001b, 2002; Prah, 2003). A description of these theoretical

frameworks follows.

Literacy Theoretical Frameworks

Schumm and Arguelles (2006), as presented below in Figure 1, summarized key factors that influence success or difficulty in acquiring basic literacy skills, along with indicators of challenges, assessment methods, and instructional strategies.

Figure 1

Factors Influencing Success or Difficulty in Acquiring Basic Literacy Skill

QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

Source: Schumm and Arguelles, 2006. Used with permission.

Factors influencing literacy skills include educational factors (such as

exposure to printed materials), family factors, personality factors, physical

factors, cognitive/neurological factors, and language factors.   This framework

reveals that availability of quality textbooks is one of a number of key factors impacting student achievement in reading fluency and comprehension.

Avalos (2006) summarized a theoretical framework pertaining to issues specific to English-language learners, such as the student participants in this study. English language learners have a mother tongue (referred to as L1) and are seeking to acquire a second language (referred to as L2). For the purposes of this study, the local language in the village would be designated L1, and English would be designated L2. This theoretical framework revealed that students who are reading proficient in L1 become proficient more quickly in L2. This framework is revealing for this study in that all of the students in this study were assessed at L2 (English language proficiency). Had the participants had access to reading materials allowing them to become more proficient in L1 (i.e., a local language) or had the assessment language been L1, reading proficiency would have increased more quickly. This theoretical framework is instructive as issues pertaining to the usability of English-language textbooks in Kiswahili-speaking classrooms are considered. The theoretical framework as outlined by Avalos (2006) is provided below:

Figure 2

Literacy Levels and Oral Language Proficiency

QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

Source: Avalos, 2006. Used with permission.

International Development Theoretical Framework

In addition to theoretical models pertaining to reading and literacy, this

study benefited from theoretical models pertaining to development theory. This

study used the Millennium Development Goals (UN millennium project, 2006)

established in 2000 at the Millennium Summit. Sachs (2005) is closely associated

with the development of the Millennium Development Goals, which have become

a critical measure of development achievement in developing countries. This

study drew upon the theoretical framework of the Millennium Development

Goals, which include benchmarks for achievement in a number of areas, including

education and literacy. Goal two, for example, notes that universal primary education is a goal, that a target is that by 2015 all children will be able to complete a full course of primary schooling, and that key indicators of success include net enrollment ratios in primary education, proportion of pupils who reach grade five, and literacy rates for 15-24 year olds. Goal three also references education, focusing upon gender equity and women empowerment in education. This study used the Millennium Development Goals as a theoretical framework because of the basis upon quantifiable achievement gains (such as literacy rates). A full listing of the Millennium Development Goals, targets for achievement, and indicators of success, are included as Appendix A. The educational goals are included in Table 1.

Table 1

Millennium Development Goals Focusing On Education

Goals	Targets	Indicators
Goal 2: Achieve Universal Primary Education	Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.	6. Net enrolment ratio in primary education (UNESCO); 7. Proportion of pupils starting grade 1 who reach grade 5 (UNESCO) 8. Literacy rate of 15-24-year olds (UNESCO).
Goal 3: Promote Gender Equity and Empower Women	Target 4: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.	9. Ratio of girls to boys in primary, secondary and tertiary education (UNESCO); 10. Ratio of literate women to men, 15-24 years old (UNESCO);

Theoretical Framework for the Study

As has been noted, this study drew from theoretical frameworks pertaining

to reading and literacy theory, development theory, and theories regarding Africa (in such areas as language of instruction, and political and economic advancement). The theoretical framework for this study incorporated theories of literacy, which holds that literacy is influenced by a number of factors, including educational factors which include exposure to print (Schumm & Arguelles, 2006). Literacy theories focusing upon the ability to (and challenges to) develop literacy skills in a language other than one's mother tongue, were also part of this theory (Avalos, 2006). Development theories were also part of the theoretical framework for this study. The Millennium Development Goals specifically focus upon the attainment of literacy skills in the developing world including Africa. Finally, African issues are part of the theoretical framework for this study. The African context includes issues such as language of instruction, local languages, and material scarcity (i.e., books) common in African schools. The African context theory used as part of the theoretical framework for this study is that English is a proper means of providing education, but that as a foreign language it presents unique educational challenges. It can be noted from this framework that there is an area where literacy, development, and Africa overlap (literacy development issues in Africa). A subset of this area of activity is the focus of this research study (the impact of text and library books on literacy development in four schools in Central Tanzania).

A summarizing theoretical framework combining these three broad areas of study is included as Figure 3 below.

Figure 3

Theoretical Framework of Study
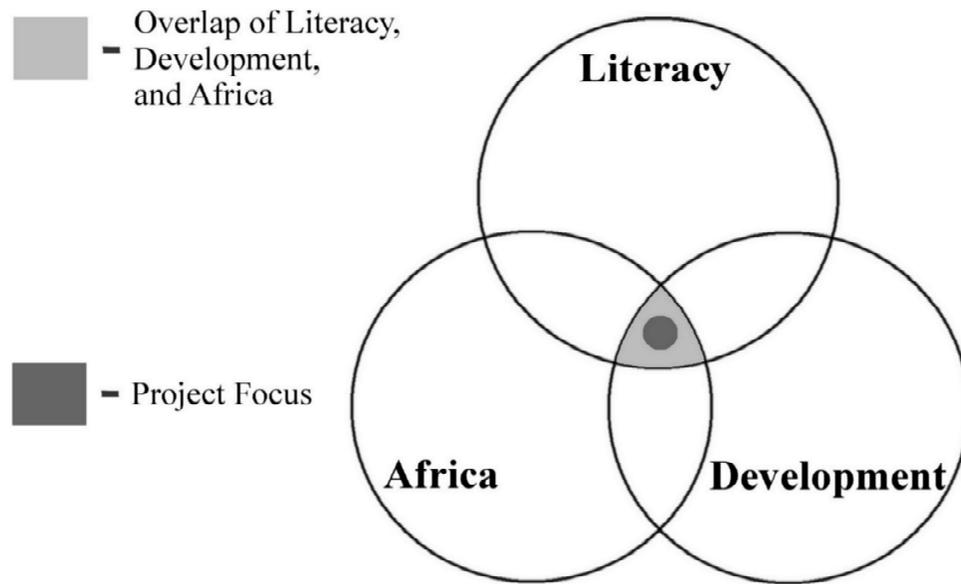
CHAPTER 3

METHODOLOGY

What are the effects of donated English language textbooks from the

United States upon the reading comprehension and fluency scores of Tanzanian

secondary students? The goal of this investigation was to assess the influence of a

textbook donation program upon student comprehension and fluency reading

scores in the Dodoma/Singida region of central Tanzania. A secondary goal was

to develop an understanding of teacher and administrator views of the nature and

value of the donated books. This chapter will provide a presentation of the

methodologies used in this mixed design investigation.

Research Design

This study used a comparative case study that incorporated a mixed

methods design (Creswell & Clark, 2007). This section will discuss the case

study research design, including its mixed methods, qualitative, and quantitative

features.

Case Study Design

Case study is a research strategy based upon the concepts of validity and

reliability (Yin, 1989). Yin established a series of pre-established case study

procedures and protocols to investigate an empirical topic in a methodical fashion.

Yin recommended that the investigation has construct validity (establishing

correct operation measures for the concepts under evaluation), internal validity

(establishing causal relationships as distinguished from spurious relationships),

external validity (establishing the domain to which a study's findings are generalizable) and reliability (demonstrating that the operations of the study in areas such as data collection can be repeated with the same results). This study followed the protocols established by Yin (1989), using as data collection sources at all four schools interviews with teachers and administrators, participant observation, and direct observations. The case of student performance in the Dodoma/Singida region of Central Tanzania was analyzed. In particular, direct observation was employed by the researcher to compare features of the schools. Where appropriate, the researcher used direct observation and assigned rankings to schools to determine how cases (i.e., student reading achievement scores) compared to one another in reading fluency and comprehension score increases. Researcher observations are included as Appendix N. School category type included gender (mixed, all male, or all female), library quality (high, medium, or low), history of books at the school (long, moderate, or none), level of student achievement (high achieving drawn from across the country or standard local students), and levels of school administrative/facility capacity (high, medium, or low).

Issues of the generalizability of research results were acknowledged by the researcher as a challenge due to political instability in a number of African countries. For example, the political stability of an African country may be a key variable determining how well students perform in school settings. In the case of the Dodoma region of central Tanzania, political stability was quite high as compared to Northern Uganda, Somalia, or the Democratic Republic of the

Congo where civil wars are currently being waged (World Factbook, 2009). These wars oftentimes make it impossible for schools to operate effectively and clearly result in lowered literacy levels and reading scores. In this regard, the researcher assessment of school types and levels of administrative stability was an effort to measure variables in addition to the availability of books using direct observation. The researcher acknowledges that time and resource limitations did not allow for a more complete assessment of external factors that influence student literacy in Africa in general and in central Tanzania specifically.

Mixed Methods Research Design

This investigation used a mixed methods research design comprised of a qualitative component and a quantitative component (Creswell & Clark, 2007). A mixed methods triangulation design was implemented in order to secure maximum data for analysis purposes, including qualitative data that helped to provide better understanding of quantitative data secured. The study thus obtained different but complementary data on the topic of reading fluency, reading comprehension, and experience of school officials regarding value to students of donated English-language books. The intent of this design was to bring together differing strengths of quantitative methods (large sample size, trends, generalization) with those of qualitative methods (small sample size, details, in depth treatment). This design was used to directly compare and contrast quantitative statistical results with qualitative results to validate or expand quantitative results with qualitative results. The study used concurrent timing, implementing both quantitative and qualitative methods during a single

phase of the study, as opposed to sequential timing using different phases of data collection and analysis. Classic mixed methods research calls for merging data sets (as opposed to simply collecting data through multiple methods) in a rigorous fashion (Creswell & Clark, 2007). This study analyzed data separately in the findings section, then integrated the data in the discussion section.

Qualitative Design

The qualitative design was based upon methodologies recommended by Creswell (2003), Gall, Gall, and Borg (2003), van Manen (2001), and Yin (1989). Creswell (2003) noted that qualitative research is fundamentally interpretive, and that analysis of data for themes or categories is a mechanism for interpreting data to develop conclusions. The study sought to establish understanding of the lived experience of school administrators and teachers regarding the value of donated textbooks to students. Interviews with purposefully selected individuals assisted the researcher to understand the problem and research question.

Direct observation by the researcher in areas pertaining to library quality, school administration, and book utilization was also used as a source of evidence for this study. For example, the researcher sought to determine through direct observation the extent to which books were used in library settings and the extent to which books were used in classroom settings, and the extent to which students had access to books in either setting. Use of direct observation in this manner was useful, but did not provide comprehensive data systematically and conclusively determining the extent to which books were available to students in the different settings and the extent to which teachers and administrators used books in

classroom settings. After compilation of the responses to the interview questions, data were analyzed and themes were identified as recommended by Creswell (2003).

Qualitative Procedures

This study incorporated interpretive research procedures to secure data intended to understand the experience of teachers and administrators who worked with students with donated English-language books (Gall, Gall, & Borg, 2003). It utilized a subject-subject format, which means the researcher was involved with the participants. Interpretive paradigm holds that objectivity is difficult, if not impossible, to achieve, and that all data is subjective. Key concepts in interpretive research are that the biography of the researcher is part of the research; that the sampling size is not important in the research project; and that the rule of *epoche* requires the researcher to suspend judgment to stay impartial (even if not objective) during a study. Interpretive research utilizes surveys, focus groups, transcripts, video, and quotations to produce an outcome that sheds light on the human condition being analyzed (Lincoln & Guba, 2000).

Interpretive research does require that the researcher consider validity and reliability factors and that the interpretative knowledge claims by the researcher have credibility (Gall, Gall, & Borg, 2003). In particular, in this study the researcher sought to triangulate data collection and data analysis. For example, during interviews a facilitator from PEN Trust knowledgeable fluent in local languages and familiar with cultural practices was present to clarify questions posed and responses given when appropriate. The researcher discussed

interviews with the facilitator following interview sessions to clarify data collected. Additionally, copies of interview transcripts and theme analysis revelations were provided by the researcher to the facilitator for corroboration. Use of triangulation was an effort by the researcher to ensure data collected and themes revealed were valid and reliable, with the understanding that interpretive research by definition involves the researcher and his/her interpretations into the research process.

As previously noted, the researcher is integral to the qualitative research method. Hence no objectivity is assumed. Given this important dimension of qualitative research, it is important that the reader understand the background of the researcher conducting this research. Using the rule of *epoche* (Lincoln & Guba, 2000), the researcher made every effort to act in as objective a manner as possible. However, the biases and perspectives of the researcher must be acknowledged for the record so that the reader may more fully understand the dimensions of the qualitative research findings included in this study.

The researcher for this study was a Caucasian middle-aged male from the United States working as executive director of Books For Africa, a non-profit organization seeking to advance literacy across Africa through the provision of donated English-language text and library books. Part of the rationale for this research was to attempt to collect data to help determine if the books being provided by Books For Africa were useful. Accordingly, the researcher had the full support of the Books For Africa organization in conducting the research. The partner providing assistance in Tanzania, PEN Trust, was a Books For Africa

recipient organization.   The researcher had traveled to Tanzania on several occasions before conducting this research, but had never lived in Tanzania and did not speak Kiswahili. Hence the biases of the researcher in this study were to seek to justify the shipment of books to Africa in general and Tanzania specifically. The goal of justifying and documenting the shipment of books to Africa was to determine if the books being provided were useful and also to secure additional funding to ship additional books. Additionally, the biases of the researcher were to collect valid data that would meet close scrutiny when viewed from outside sources. In summary, the researcher for this study attempted in all cases to act in an honorable and honest manner and had incentives to justify the work of organizations such as Books For Africa and also had incentives to produce quality research.

Interpretive research procedures involved interviewing selected teachers and administrators at each of the four schools as individuals or in groups. The same questions were asked at each interview (See Appendices B and C). Appropriate follow-up questions were explored with the participants. Contact information for the interview participants were provided by the headmaster of the school. All reasonable efforts were made to provide confidentially to protect the identity of the interview participants. Participants were provided written descriptions of the research being undertaken so that they would be fully informed (See Appendices D and E). Participants were clearly informed that their participation was voluntary and that in any final report their names or other identifiers would not be used. Participants were not pressed to answer questions

they did not want to answer and they were encouraged to speak in a forthright

manner without hesitation or fear.

A total of 18 adult participants, 14 male and four female, were interviewed

for this study at the four schools at which student achievement information was

obtained following a pre-established case study protocol. Four participants were

interviewed at a high school for boys in Singida, Tanzania; five participants were

interviewed at a high achievement boarding school for girls in Dodoma, Tanzania;

and nine participants were interviewed at two secondary schools for boys and

girls in Dodoma. Participants included two administrative officials (one

headmistress and one academic officer); six chemistry/biology teachers; three

English/Swahili teachers; two history/geography teachers; one physics teacher;

one mathematics teacher; one librarian; one business teacher; and one civics

teacher. Following interviews, interview data was transcribed and data was

subjected to theme analysis as described by van Manen (2001). Themes that

revealed themselves were identified by the researcher as supported by interview

transcripts.

Quantitative Design

The research hypotheses of this study were: (a) providing English-

language donated books from the United States that are properly used in school

library settings will increase student mean score increases in reading fluency for

the students within the treatment schools, and (b) providing English-language

donated books from the United States that are properly used in school library

settings will increase student mean score increases in reading comprehension for

the students in the treatment schools.

The null hypothesis was proposed that there was no significant increase in student scores for fluency or comprehension beyond the treatment group. The null and alternative statistical hypotheses that guided this study were as follows:

$$\text{Ho: } \mu_{1f} = \mu_{2f} = \mu_{3f} = \mu_{4f} \qquad \text{Ha: } \mu_{1f} \neq \mu_{2f} \neq \mu_{3f} \neq \mu_{4f}$$

$$\text{Ho: } \mu_{1c} = \mu_{2c} = \mu_{3c} = \mu_{4c} \qquad \text{Ha: } \mu_{1c} \neq \mu_{2c} \neq \mu_{3c} \neq \mu_{4c}$$

This null hypothesis states that the mean increases in test scores for all schools (for both the fluency and comprehension assessments) will be the same. The research hypothesis (or alternative hypothesis) holds that the scores will be different due to the influence of books inserted as a treatment.

A pretest-posttest control group design (Gall, Gall, & Borg, 2003; Campbell & Stanley, 1963) was used to conduct the research that was designed to determine the influence of donated English-language textbooks on reading fluency and comprehension scores. Student achievement scores in four schools were investigated. Students of one school were used as a control group. The procedures for assignment of treatment and collection of data were as follows: (a) assignment of treatments to treatment and control group(s) using convenience as a factor; (b) administration of pretests to students in all groups; (c) supplied treatment group with English-language donated text and library books; and (d) administration of a posttest to all groups. Treatments and assessments were administered (Gall, Gall, & Borg, 2003; Campbell & Stanley, 1963) to students of corresponding schools as follows:

Table 2

Treatments and Observations for All Schools

		Pretest		Posttest
School 1 (Control)		O1		O2
School 2 (Treatment)		O1	T1	O2
School 3 (Treatment Previous)	T1	O1	T2	O2
School 4 (Treatment Previous)	T1	O1	T2	O2

T1 = Treatment 1(English-language text and library books)
T2 = Treatment 2 (English-language text and library books)
O1 = Observation Assessment 1(Pretest)
O2 = Observation Assessment 2 (Posttest)

Population and Sample

The population of the reading fluency and comprehension portion of the mixed study consisted of 10th grade secondary school students in four schools (Dodoma and Singida areas). The sample consisted of students at four public (government) English-language instruction secondary schools (one of which served as a control group). Student populations per school varied based upon student availability and access. The school administration provided estimates of student populations in the four schools. Schools one, two, three, and four had student population of 600, 400, 520, and 640 respectively.

Profiles of the four schools included in this study, as well as records of dates and locations of data collection important for case study protocol (Yin,

1989), are included in Appendix F. One hundred twenty eight students were initially tested at the pretest for all four schools. Student samples per school can be represented as follows in Table 3:

Table 3

Student Participant Rates

School	Pretest (T-1)	Posttest (T-2)	Attrition
1	9 male	7 male	22%
	12 female	5 female	58%
	21 total	12 total	43%
2	16 male	9 male	44%
	33 female	19 female	58%
	49 total	28 total	43%
3	30 male	14 male	53%
	30 total	14 total	53%
4	28 female	24 female	14%
	28 total	24 total	14%
Total	73 female	48 female	34%
	55 male	30 male	45%
Grand Total	128 total participants	78 total participants	39%

Due to an attrition rate of 39 percent, 78 students were tested in the posttest assessment. Using the protocol outlined by Campbell and Stanley (1963), only data secured from the 78 students completing pretest and posttest assessments were included in this study. The researcher believed that a probable explanation for the high attrition rate was lack of school administrative capacity and overall student achievement levels. This is evidenced by the fact that the school with the highest quality administration and the most advanced students (School #4) had the lowest attrition rate (14%).

Instrumentation

The research instrument consisted of a standardized, field-tested, reading achievement instrument prepared by AIMSweb (2009) that assessed participant reading fluency and comprehension. AIMSweb reported that this instrument or similar variants have been used in over 20,000 schools in the United States. This research study used two separate instruments. The fluency instrument assessed the ability of the participant to read words correctly in a one-minute test, the Reading Curriculum Based Measurement (RCBM) instrument, with a score of words read correctly (WRC). The comprehension instrument assessed the ability of the participant to interpret the meaning of words correctly in a five-minute test (the MAZE assessment) with a score of correct responses (CR's)(AIMSweb, 2009). Additionally, the RCBM instrument provided some indication of student reading comprehension. While used as a separate measure, the RCBM instrument is sometimes regarded as a measure of both reading fluency and comprehension while the MAZE probe is sometimes regarded as a supplemental measure for

reading comprehension (Silberglitt, Burns, Madyun, & Lail, 2006).

Substantial field-testing was utilized in the development of the AIMSweb Reading Assessment Passages (RAPs). Notably, the AIMSweb instruments were designed to be short (1-15 minutes per student), simple to administer, and accurate (AIMSweb Technical Manual, 2002). The AIMSweb instrumentation is based upon research findings reported by Deno (1985), Shinn (1989) and other researchers whose research is reported in over 190 book chapters and scholarly articles supporting CBM (AIMSweb, 2009).

The instrumentation was developed in the Midwestern United States utilizing data gathered from over 6,100 students and 30 teachers (AIMSweb Technical Manual, 2002). Instruments were developed in 2001using the Fry readability formula and the Lexile-graded standards, a method of estimating reading passage difficulty. From this process, approximately 24 RCBM instruments were developed in grades one to eight. In addition to the RCBM instruments, MAZE comprehension instruments were developed to measure student reading comprehension to provide a more complete picture of students' reading skills.

RCBM instruments for grade eight were used (even though students in the sample are grade 10 equivalent) as this is the highest-grade range instrument available. The researcher had counsel from reading specialists (personal communication, O'Brien, 2006, Silberglitt, 2006) that the instrument was suitable as it was concluded that the student population did not likely exceed United States eighth grade native English speakers in reading ability. The mean score for the

Grade 8 RCBM probe instrument was 147.2 words read correctly per minute (AIMSweb Technical Manual, 2002). The reliability of the instrument utilized in this study (RCBM grade 8 reading fluency) as reported using the coefficient of internal consistency (Cronbach's Alpha) was .90 (SD = 42.0 and SEM = 13.3). Additional data collected by AIMSweb for Reading Curriculum Base Measurement (RCBM) with multi-year aggregates for two school years (1470 students tested) showed mean scores ranging from 129 – 143 words read correctly per minute (AIMSweb, 2009).

The mean score for the grade eight MAZE comprehension instrument with multi-year aggregates for two school years (702 students tested) showed mean scores ranging from 19-24 words correctly identified (AIMSweb, 2009). The mean score increased based upon this data is nine responses correct (RCs) (ibid). MAZE has a validity coefficient of .76 (AIMSweb Technical Manual, 2002) and a mean alternate-form reliability coefficient of .81 (Shin, Deno, & Espin, 2000).

Good and Jefferson (1998) and Silberglitt, Burns, Madyun, and Lail, (2006) noted that the construct validity of CBM reading instruments have been demonstrated persuasively to be as valid or more valid indicators of reading competence as other available reading measures. These assessments of the validity of CBM reading instruments come with the acknowledgement of certain limitations. Specifically, RCBM measures of reading fluency are more sensitive to student growth than are MAZE measures of reading comprehension. Hence, in a comparative sense data secured from the RCBM instruments are more significant than data secured from MAZE instruments. Additionally, RCBM

instruments have been shown to lose their accuracy at higher levels and tend to simply measure reading speed (Silberglitt, 1/19/09, personal communication). Thus, in some cases in this research, the highest level readers may not record substantially increased scores from pretest to posttest because the RCBM instrument is incapable of recording the increases.

The researcher traveled to Dodoma, Tanzania in February and July of 2006 to discuss opportunities for research implementation with assistance from individuals within the Dodoma-based Poverty Eradication Network (PEN Trust). Four large book shipments were sent by Books For Africa to PEN Trust from 2004 – 2007. An official of PEN Trust, familiar with local cultural norms and fluent in Kiswahili, was selected as a facilitator and was on location at all data collection sessions. The presence of the PEN Trust facilitator was included to help ensure reliability and validity of data collected, and to test for internal consistency following data collection and theme identification. The instrument was written and administered in English by the researcher in January/February of 2007 with assistance from officials of the PEN Trust. Interview questions are included as Appendices B and C.

Data Collection

Reading comprehension and fluency scores were secured from pre and posttest assessments. School 1 (the control school) received no books. School 2 (the treatment school) received books after a baseline assessment at the beginning of the school year (January of 2007). For this school, possible changes in fluency and comprehension achievement scores over the course of one year were

measured. School 3 was a treatment school with a population of boys that had received shipments of books several years before testing. School 4 was a treatment school with a population of high achieving girls who had also received books on more than one occasion several years before the study. Hence the measurement for schools 3 and 4 entailed several years of access to English-language books. Of the total sample of 128 students, 61 percent of the students completed the pre and post assessments, leading to an adjusted sample size of 78 total students. Following the protocol outlined by Campbell and Stanley (1963) to control for mortality, only students who completed both the pretest and the posttest were included in data analysis for this study. Treatments were administered as described in Appendix G.

Schools in Dodoma and Singida areas of Central Tanzania were selected because of the available assistance of PEN Trust in: (a) recommending schools that were suitable for testing and providing on-going monitoring of the project throughout 2007, (b) providing donated books to the treatment schools, and (c) providing recommendations regarding project feasibility in local settings. Procedures were implemented according to the timeline included at Appendix G. A timeline of procedures and a protocol of test procedures for administration of the two treatments used for this study are included as Appendices H and I.

Data Analysis Techniques

Analysis of Variance, analysis incorporating a general linear model using repeated measures (RM-ANOVA), were used to analyze the fluency and comprehension data. The RM-ANOVA tested the hypotheses that all group

means are equal by producing an F-statistic (F-ratio). AIMSweb and Statistical

Program for the Social Sciences (SPSS) version 15.0 software were used to

analyze the data. The alpha level for all analysis was established *a priori* at .025.

A Bonferroni post hoc correction was selected to control for family-wise error as

the same analysis was conducted on RCBM and MAZE simultaneously (Field,

2000). Research hypotheses questions one and two were answered using

Repeated Measure Analysis of Variance (RM-ANOVA) analysis procedure to

compare the pre and posttest fluency and comprehension scores of the students at

the four schools (Field, 2003).

The primary independent variable of interest in this statistical analysis was

the provision of donated English-language textbooks. Other independent

variables included length of time schools had access to books, gender, and types

of schools. The key dependent variables were reading fluency and

comprehension test score data. A test of practical significance was conducted to

determine if the results were practically as well as statistically significant. Effect

sizes for significantly different findings were calculated using Cohen's d (Cohen,

1988). The effect sizes were calculated according to Cohen (1988) who stated

that a d value of .20 represents a small effect, .50 represents a medium effect, and

.80 represents a large effect.

CHAPTER 4

FINDINGS

The purposes of this investigation were twofold. The first purpose was to analyze the extent to which donated textbooks in high school settings in the Dodoma/Singida region of central Tanzania could positively influence reading fluency and comprehension scores with analysis by school type and gender. The second purpose was to develop an understanding of the views of administrators and teachers of the value of textbooks for investigating student achievement.

Three major research questions guided this study. They were:

1. To determine the influence of English-language donated text and library books from the United States upon the student reading fluency scores;

2. To determine the influence of English-language donated text and library books from the United States upon student reading comprehension scores;

3. To develop an understanding of the impressions of teachers and administrators regarding the value and influence of English-language donated textbooks from the United States to answer the question, "What is it like for the students to have English-language textbooks in the respective school communities?"

The findings are presented for corresponding research objectives. Findings for research objective number one are in regard to the pre and posttest reading fluency scores of students from the four different schools. Results for research objective number two reveal the differences in the pre and posttest reading comprehension scores of students. The results of research objective

number three reveal understandings of the teachers and administrators regarding the value of the books to their students.

Research Objective One

The null hypothesis that guided this study for research objective one stated there were not significantly different increases expected in student fluency scores. The alternate hypotheses suggested that differences may exist in different schools due to the influence of books inserted as the treatment. The null statistical hypothesis and the alternate research hypothesis that guided this study were as follows:

$$Ho: \mu_{1f} = \mu_{2f} = \mu_{3f} = \mu_{4f} \qquad Ha: \mu_{1f} \neq \mu_{2f} \neq \mu_{3f} \neq \mu_{4f}$$

Repeated measures analysis of variance (RM-ANOVA) procedures were used to test the hypothesis that donated English language books would increase reading fluency scores. Bonferroni and LSD post hoc analyses ($p => .025$) were conducted to determine significant differences among groups. Reading fluency scores for students prior to books being provided and one year later were compared. Reading fluency scores were compiled from data secured through pre and posttest scores achieved on reading probes as provided in Appendices J, K, and L. Treatments were administered as provided in Appendix G.

The data in Table 4 reveal that the raw reading fluency scores for the students of the four schools were different. Differences in raw fluency scores for students in Table 4 further indicate that the fluency scores for students from School 2 (treatment) increased the most ($M = 16.9$, $SD = -1.0$). Differences in

scores for students from School 3 (treatment) also increased (M = 3.9, SD = 3.2).

Differences in scores for students in School 1 (the control) regressed (M = -.02,

SD = -6.6) as did scores for students in School 4 (treatment) (M = -.02, SD = -

2.5).

Table 4

Mean Pre and Posttest Fluency Scores (RCBM) Grouped by School and Gender

School	N	Pretest M	SD	Posttest M	SD	Difference M	SD	Cohen's d
School 1	12	111.8	27.4	111.6	20.8	-0.2	-6.6	
Male	7	106.1	17.5	108.1	20.2	2.0	2.7	
Female	5	119.6	38.4	116.4	23.0	-3.2	-15.4	
School 2	28	103.6	22.1	120.5	21.1	16.9	-1.0	.54*
Male	9	95.2	16.1	110.3	16.4	15.1	0.3	
Female	19	107.6	23.8	125.3	21.7	17.7	-2.1	
School 3	14	96.3	17.0	100.2	20.2	3.9	3.2	
Male	14							
School 4	24	143.3	35.8	143.1	33.3	-0.2	-2.5	
Female	24							
All Schools	78	115.8	32.8	122.4	29.3	6.6	-3.5	
Male	30	98.3	16.8	105.1	19.1	6.8	-10.0	
Female	48	126.7	35.6	133.1	29.5	6.6	-6.1	

Notes: * p = .016; School 1 = Control Group, School 2 = Treatment Group, School 3 = Male Treatment Group, School 4 = Female Treatment Group; figures represent words read correctly in one-minute timed tests

The amount of time students had access to donated English-language books was investigated and found to be a variable which contributed to significant differences in student fluency reading scores. Pretest (M = 115.8, SD = 32.8) and posttest (M = 122.4, SD = 29.3) mean scores in Table 4 indicated that increases in student reading fluency scores were significant (p = .016). Bonferroni post hoc analyses procedures revealed that statistical differences existed between the fluency scores of students from the control School 1 (M = -0.2, SD = -6.6) and the treatment School 2 (M = 16.9, SD = -1.0).

Data in Table 5 revealed that a significant main effect for fluency was also found F (1,72) = 6.05, p = .016.

Table 5

Repeated Measures Analysis of Variance for School, Gender, and School Type for Reading Fluency (RCBM)

Source	df	F	p
RCBM			
Fluency	1	6.05	.016
Fluency*School	3	4.64	.005
Fluency*Gender	1	0.05	.832
Fluency*School*Gender	1	0.40	.531
Error	72	(150.16)	

*p<.025

As reflected by the fluency and school interaction statistics, F (1,72) = 4.64, p = .005, there was a significant difference in reading scores also due to the amount of time students had access to books and the school in which they were enrolled. Data in Table 5 also revealed that the interactions between fluency and gender, F (1,72) = .397, p =.531, and fluency, school, and gender F (1,72) = .397, p = .53, were not significant.

In summary, with regard to donated English-language books, student access (as reflected in the amount of time of access) and the school in which students were enrolled contributed to higher fluency reading scores. A medium effect size (Cohen, 1988) of d = .54 was calculated for the statistical difference between the pre-post fluency scores for students in School 1 (control school) and School 2 (the treatment school). This finding suggests differences are noticeable by a reasonably sensitive observer of the students (Cohen, 1988).

Differences in Fluency Scores by Student Gender

Pre and posttest reading fluency scores were compared by student gender. A RM-ANOVA (Field, 2003) was conducted only with School 1 and School 2, as both of these schools were of mixed gender and directly comparable. Though the school (p = .029) and the amount of time (p = .019) students had access to books were significant, the data in Table 6 indicate that student fluency scores for males and females in School 1 and School 2 were not significantly different.

Table 6

Repeated Measures Analysis of Variance for School, Gender, and School Type for Reading Fluency (RCBM) for Schools 1 and 2

Source	df	F	p
RCBM			
Fluency	1	5.192	.029
Fluency*School	1	6.011	.019
Fluency*Gender	1	.036	.851
Fluency*School*Gender	1	.314	.579
Error	36	(189.747)	

*p<.025

As already shown in Table 4, females in this study scored higher than males in all cases, although the amount of increase varied by gender. A ranking of posttest mean scores showed that School 4 (an all-girls treatment school) scored highest at 143.1 (SD = 33.3), followed by the females at School 2 (a treatment school) who scored 125.3 (SD = 21.7), followed by the females in School 1 (the control school) who scored 116.4 (SD = 23.0), followed by the males in School 2 (the treatment school) who scored 110.3 (SD = 16.4), followed by the males in School 1 who scored 108.1 (SD = 20.2) followed by the males in School 3 (an all-boys treatment school) who scored 100.2 (SD = 20.2). Thus, the highest posttest scores for all schools were scored by female participants. Amounts of increase did vary however, with the males achieving increased scores as measured by the mean score changes in pre and posttest scores. However, to reiterate, amounts of increase in fluency for males and females for Schools 1 and

2 were not statistically significant (p = .851).

Differences in Fluency Scores by School Type

Pre and posttest reading fluency scores were compared by school type.

Reading fluency scores for the students of the four different schools were

summarized in Table 7.

Table 7

Mean Pre and Posttest Fluency Scores (RCBM) Grouped by School

School	N	Pretest		Posttest		Difference		Cohen's d
		M	SD	M	SD	M	SD	
School 1	12	111.8	27.4	111.6	20.8	-0.2	-6.6	
School 2	28	103.6	22.1	120.5	21.1	16.9	-1.0	.54
School 3	14	96.3	17.0	100.2	20.2	3.9	3.2	
School 4	24	143.3	35.8	143.1	33.3	-0.2	-2.5	
All Schools	78	115.8	32.8	122.4	29.3	6.6	-3.5	

Notes: School 1 = Control Group, School 2 = Treatment Group, School 3 = Male
Treatment Group, School 4 = Female Treatment Group; figures represent words
read correctly in one-minute timed tests

A ranking of performance shows that students from School 2 increased the

most (M = 16.9, SD = -1.0) followed by School 3 (M = 3.9, SD = 3.2), followed

by School 4 (M = -0.2, SD = -2.5) and School 1 (the control) (M = -0.2, SD = -

6.6). As revealed in Table 4, a significant main effect for school type was found

$F(1,72) = 4.65$, p = .005.

Schools were also categorized by the researcher using direct observation.

Note analysis in Appendix N.

Summary of Hypotheses Tests for Reading Fluency

In summary, there was sufficient data to support the alternative hypothesis for objective one that differences existed in pretest-posttest reading fluency scores for students from all four schools. A significant main effect for fluency was found and the amount of time students had access to donated English-language books was a factor contributing to significant differences in reading scores. The non-significant findings suggest there was insufficient data to support the alternative hypothesis that student gender influenced reading fluency. Finally, there was sufficient data to support the alternative hypothesis that school type influenced student reading fluency.

Research Objective Two

Research objective two was to determine the influence of English-language donated text and library books from the United States upon reading comprehension scores of students in the four schools. This objective sought to determine the differences in the pre and posttest reading comprehension scores for male and female students who had access to donated English-language books of different durations of time.

The null statistical hypothesis that guided this study stated there were no significant differences in increases expected in student comprehension scores. The alternate hypothesis suggested that differences may exist in different schools due to the influence of books inserted as a treatment. The null statistical hypothesis and alternative research hypothesis that guided this study were as

follows:

$$H_0:\ \mu_{1c} = \mu_{2c} = \mu_{3c} = \mu_{4c} \qquad H_a:\ \mu_{1c} \neq \mu_{2c} \neq \mu_{3c} \neq \mu_{4c}$$

Repeated measures analysis of variance (RM-ANOVA) procedures were used to test the hypothesis that donated English language books would increase reading comprehension scores. Bonferroni and LSD post hoc analyses ($p => .025$) were conducted to determine significant differences among groups. Student comprehension scores from prior to books being provided and one year later were compared. Comprehension scores were calculated based upon pre and posttest student scores achieved as measured in the MAZE assessment included as Appendix M.

Reading comprehension scores for the students of the four different schools were summarized in Table 8. Differences in comprehension scores for students from School 3 increased the most ($M = 9.6$, $SD = 10.0$) followed by School 2 ($M = 7.4$, $SD = 2.2$) and School 4 ($M = 6.8$, $SD = 1.7$). Students from the control school (School 1) increased the least ($M = 3.8$, $SD = 0.5$). The length of time students had access to donated English-language books was a factor contributing to significant differences in student comprehension reading scores. Pretest ($M = 5.0$, $SD = 4.4$) and posttest ($M = 12.1$, $SD = 7.7$) mean scores in Table 8 indicated that increases in student fluency scores were significant ($p = .000$). Bonferroni post hoc analyses procedures revealed that statistical differences existed between the fluency scores of students from School 1 ($M = 3.8$, $SD = 0.5$) and the treatment School 2 ($M = 7.4$, $SD = 2.2$).

Table 8

Mean Pre and Posttest Reading Comprehension (MAZE) Scores Grouped by

School and Gender

School	N	Pretest		Posttest		Difference		Cohen's d
		M	SD	M	SD	M	SD	
School 1	12	3.0	2.0	6.8	2.5	3.8	0.5	
Male	7	3.4	2.1	6.6	3.0	3.1	0.9	
Female	5	2.4	1.9	7.0	2.0	4.6	0.1	
School 2	30	4.7	3.2	12.1	5.8	7.4	2.2	.57*
Male	10	5.5	4.5	13.1	8.4	7.6	3.9	
Female	20	4.3	2.2	11.6	4.1	7.3	1.9	
School 3	14	1.9	2.4	11.5	12.4	9.6	10.0	
Male	14							
School 4	24	8.4	5.3	15.2	7.0	6.8	1.7	
Female	24							
All Schools	80	5.0	4.4	12.1	7.7	7.1	3.3	
Male	31	3.4	3.5	10.9	9.8	7.5	6.3	
Female	49	6.1	4.6	12.2	6.1	6.8	1.5	

Notes: *p = .000; School 1 = Control Group, School 2 = Treatment Group,
School 3 = Male Treatment Group, School 4 = Female Treatment Group; figures
represent correct responses from multiple choice in three-minute timed tests

Effect sizes for significantly different findings were calculated using

Cohen's d analysis procedures. A medium effect size (Cohen, 1988) of d =. 57 was calculated for the statistical difference between the pre-post comprehension scores for students in School 1 (control school) and School 2 (the treatment school).

Data in Table 9 revealed that a significant main effect for comprehension was found, $F(1,74) = 55.780$, $p = .000$. The interactions of Comprehension Score by Gender, $F(1,74) = .050$, $p = .823$, Comprehension Score by School, $F(1,74) = 1.385$, $p = .254$, and Comprehension Score by School by Gender, $F(1,74) = .116$, $p = .734$, were all found to be non-significant.

Table 9

Repeated Measures Analysis of Variance for School, Gender, and School Type for Reading Comprehension (MAZE)

Source	df	F	p
MAZE			
Comprehension	1	55.780	.000
Comprehension * School	3	1.385	.254
Comprehension *Gender	1	.050	.823
Comprehension * School*Gender	1	.116	.734
Error	74	(26.9)	

*p<.025

In summary, student access to the books provided (as reflected in the amount of time of access) contributed to higher comprehension reading scores.

Differences in Comprehension Scores by Student Gender

Pre and posttest reading comprehension scores were compared by student gender. A RM-ANOVA was conducted only with School 1 and School 2, as students in both of these schools were of mixed gender and directly comparable. Though the amount of time students had access to books was significant ($p = .000$), the data in Table 10 indicate that student fluency scores for males and females in School 1 and School 2 were not significantly different.

Table 10

Repeated Measures Analysis of Variance for School, Gender, and School Type for Reading Comprehension (MAZE) for Schools 1 and 2

Source	df	F	p
MAZE			
Comprehension	1	29.529	.000
Comprehension *School	1	2.950	.094
Comprehension*Gender	1	.077	.783
Comprehension *School*Gender	1	.178	.676
Error	38	(17.614)	

*$p<.025$

As previously shown in Table 8, females in this study scored higher total scores, but males showed greater amounts of increase between the pre and post assessments of comprehension. Pretest female scores (M = 6.1, SD = 4.6) and posttest female scores (M = 12.2, SD = 6.1) surpass male pretest scores (M = 3.4, SD = 3.5) and posttest male scores (M = 10.9, SD = 9.8). However, the male comprehension score difference (M = 7.5, SD = 6.3) surpassed the female score difference (M = 6.8, SD = 1.5).

Differences in Comprehension Scores by School Type

Pre and posttest reading comprehension scores were compared by school type. Reading fluency scores for the students of the four different schools were summarized in Table 11.

Table 11

Mean Pre and Posttest Reading Comprehension (MAZE) Scores Grouped by

School

School	N	Pretest		Posttest		Difference		Cohen's d
		M	SD	M	SD	M	SD	
School 1	12	3.0	2.0	6.8	2.5	3.8	0.5	
School 2	30	4.7	3.2	12.1	5.8	7.4	2.2	.57*
School 3	14	1.9	2.4	11.5	12.4	9.6	10.0	
School 4	24	8.4	5.3	15.2	7.0	6.8	1.7	
All Schools	80	5.0	4.4	12.1	7.7	7.1	3.3	

Notes: *p = .000; School 1 = Control Group, School 2 = Treatment Group,
School 3 = Male Treatment Group, School 4 = Female Treatment Group; figures
represent correct responses from multiple choice in three-minute timed tests

A ranking of performance shows that in comprehension scores, students

from School 3 increased the most (M = 9.6, SD = 10.0) followed by School 2 (M

= 7.4, SD = 2.2) and School 4 (M = 6.8, SD = 1.7). The control school (School 1)

had the lowest rate of increase (M = 3.8, SD = 0.5). As revealed in Table 9, the

main effect for school type was found to be insignificant $F(1,74) = 1.385$, p =

.254.

Schools were also categorized by the researcher using direct observation.

The analysis of this direct observation is included as Appendix N. As per Table

11, the data reveal that the highest scoring students of a school (as measured by

increases in comprehension test scores) were in School 3 (a male treatment school with previous access to books and a high-quality library, but no librarian). By contrast, the students in the school with the lowest growth rate were in the control school (School 1) which had no benefit of books.

Summary of Hypotheses Tests for Reading Comprehension

In summary, there was sufficient data to support the alternative hypothesis for objective two that differences existed in pretest-posttest reading comprehension scores for students from all four schools. A significant main effect for comprehension was found, and the amount of time students had access to donated English-language books was a factor contributing to significant differences in reading scores. Bonferroni post hoc analyses procedures revealed that statistical differences existed between the fluency scores of students from the control School 1 and the treatment School 2. There was insufficient data to support the alternative hypothesis that student gender influenced reading comprehension. Finally, there was insufficient data to support the alternative hypothesis that school type influenced student reading comprehension.

Research Objective Three

In order to develop an understanding of the experiences and knowledge of teachers and administrators regarding the value of books for the students, research objective three considers the question "what is it like for the students to have access to the English-language books donated from the United States?" Eighteen interviews, involving 14 male and four female teachers and administrators were conducted as per the protocol included as Appendix I. Questionnaires for schools

receiving books and for the school not receiving books are included as

Appendixes B and C.   Following compilation of the responses, data was analyzed

using the protocol outlined by Creswell (2003), Gall, Gall, and Borg (2003), and

Yin (1989). Six themes were identified. Direct observations of student and

teacher activities, school facilities, and availability of books were also noted,

recorded, and where appropriate incorporated into theme analysis. Key to

research results utilizing qualitative is the identification of themes (van Manen,

2001), which are referenced repeatedly throughout the interview process by

various participants. These themes, referenced by the participants and identified

by the researcher, become part of the research results. Six key themes emerged

from the analysis of the interview data. The themes identified were as follows:

> Theme I: Donated English-language text and library books designed for
>
> use in a U.S. curriculum did have perceived value in Central Tanzanian
>
> schools;
>
> Theme II: There was a need for additional English-language donated text
>
> and library books in school settings;
>
> Theme III: Providing donated text and library books in the English
>
> language did not cause cultural harm;
>
> Theme IV: English-language text and library books would have more
>
> value were they specifically designed for use in a Tanzanian environment;
>
> Theme V: Lack of books was one of many barriers that exist to optimal
>
> learning in Tanzanian school environments;
>
> Theme VI: Lack of library resources to effectively use books provided a

major barrier to their effective use in some of the school settings.

Supporting data for each theme follows in the theme analysis.

Theme I: Donated English-language text and library books designed for use in a

U.S. curriculum did have perceived value in central Tanzanian schools

Questions (See Appendix X) were posed to participants questioning

whether English-language textbooks designed for a U.S. curriculum have value to

secondary students in Kiswahili-speaking Tanzania. Participants were even

encouraged by the researcher to acknowledge that the books were less than useful.

Repeatedly, however, participants indicated that these donated textbooks had

value for students of their schools. Reasons provided for this value included that

the text and library books provided information and a perspective lacking in

resource-poor schools in Tanzania. Specifically, it was noted that if the

Tanzanian government does not have enough funding to provide textbooks,

textbooks from the United States are very much needed.

> "Given the shortage of materials and books … automatically they will be useful in the sense that at least students will have other materials, other books where they can develop their skills, where they can improve their language."

> "The books are very important."

> "They provide materials which are not available."

It was also noted that especially in library settings, the donated books provided a

wealth of information about a variety of subjects.

> "My observation shows that having a library with relevant books is entertaining to students. They feel like visiting the place on their own time. We don't send them there. They feel that if they go there they get information very relevant to them. They go there voluntarily and they

really make use of it. So I think a library is useful by availing students of what they want."

"Originally before we got books from your section, the books in the library were not so relevant and so we would need to buy them. For reference and textbooks. May I say frankly that the ones coming from you are very good for reference."

Some participants from institutions which did receive textbooks indicated that the books were of especially high quality, especially in areas pertaining to science and technology.

"What I found out …. is that the books are really good and exciting, especially the science books and geography books. … It helps the students to get the knowledge they need."

"I remember the last year we didn't have these science books and the student they ask us where we can get that books. … So I think it important to continue to access the books."

"So now we are expected to get more students to perform well in science because there is a lot of reference material than before so they are so helpful to them ..."

It should be noted that this perspective that donated English-language textbooks have value for students came from participants who experienced access to donated text and library books in their schools, as well as those who wanted to receive such books for students use in their schools.

Theme II: There was a need for additional English-language donated text and library books in school settings

Interview participants, including those from schools that had already received books, reiterated that many, many more books are needed. Even administrators and teachers at one school (School 3) that had a very large library

by Tanzanian standards (20,000 books) indicated a need for more. Data from

interviews in this theme confirmed that the books provided are useful in school

and library settings in Tanzania, and those who have seen these books would like

more books of this type. A sampling of quotations is as follows:

> "For example in my department.. I have more than 200 students …
> Maybe I have only 20 or even 50 textbooks. Now 50 textbooks for 200
> students is a problem. So also the number of textbooks have to be added
> according to the number of students."

> "One book for one student I recommend. One book for one student!"

> "The books are not enough. … So now they share one books for 50
> students."

> "So it is better if you add it so every student has one book."

> "We would be thankful if we could have one of those containers. A whole
> container, for this school!"

> "We just need more …"

> "Books are very, very useful to us, and we encourage them to continue
> considering us when materials become available. We still need it … So
> far, I think you have supplied about a quarter of our needs. Just about a
> quarter of our needs. So if we could get more we would appreciate it."

> "And no books. The teachers are coming to us, even one copy please
> give, I will photocopy and give back to you. There is a very great need.
> … About books, we have, but if you go to our library they are very old.
> Not enough copies. Sometimes they lend them to students …. They are
> coming to borrow one or five copies, and sometimes they don't bring them
> back. And you can't complain. You have copies of books. … Because
> you cannot refuse them and say I don't have. They say I don't have a
> single copy … I will bring it back. But they don't bring it back."

> "This kind of sharing, five or more than five sharing one book. This is
> very improper. Learning is not taking place."

> "Our school library has some books, most of the books are old books. We
> don't received nowadays fresh books… We rely upon donations. And the
> fees that we get from the students does not permit us to buy books. Books

are very expensive. So the only thing that we do, we have a few books for individual teachers circulated among the other teachers. And students also are given some small handouts which are being written by teachers themselves.

"We need current books. We need current books."

A – "The school is very short of books, particularly the relevant books …"
Q – "So do you or your students use the library at all?"
A – "Normally they don't use it because they know there is no books."

"There are topics that we don't have a single books. … And even for topics where we do have reference books, the books do not exceed one hundred. That is the maximum."

Theme III: Providing donated text and library books in the English language did not cause cultural harm

Participants were asked whether English language donated text and library books cause cultural harm by downgrading Tanzanian language and culture. Almost all participants reacted strongly that this was not a problem. It was noted by many subjects that Kiswahili is not a global language like English, and hence has limited utility beyond East Africa.

> "And the language which must be used is English. … the student from A level to be going to the university and the language that is used there is English. In most of the universities. So I expect. Oh I would like the books to be in the English language. And also, we are lying to ourselves because English, it is an international language. It is a business language. I don't know whether … I think I won't be living when Kiswahili comes with the nation. I think I will be already gone. .. I will be already gone, I will be already dead when Swahili becomes an international language. I don't know when it comes to stand up as a language. So at one time remember Nyrerre (the founder of Tanzania) told us,… he taught us that … remember, English is an international language. And it was himself who was uplifting Swahili. But he dared say that. So English, English, English must be considered. All the books must be in English."

"Therefore it would be better for them to learn English as they learn Kiswahili. Because you know English is an international language and it will come to help them later on in their life. Therefore it is better if they know English. And if the books are many this will not cause them to replace their language."

"We have this saying, "Tanzania is not an island … we need to communicate with people in other countries". I think English is the major medium of instruction and communication in the world. If the Tanzanians are not going to learn English, then they will be isolated and sit in a corner in Africa and not be doing communication with other people."

It was also noted by some that Kiswahili itself is not a first language, and that many Tanzanians speak local dialects.

"Because in Tanzania, yes the national language is Kiswahili, but we have other languages. We have vernacular. Local languages. So we cannot straightforwardly say as far as language is concerned that the capital language of Tanzania is Kiswahili, because … if you go into Kiswahili you see that there are also varieties and there is also vernacular. Kiswahili in most cases is the second language. Especially in the villages …"

"And maybe why shouldn't we maybe choose a few students from the village to learn Swahili and the rest can speak [the local language] because they are not going to town?" (sarcastic)

A number of participants pointed out that whether good or bad, the decision has been made by the Tanzanian government to provide English-language instruction at the secondary level, hence there is no danger from English-language text and library books because such books conform to government policy.

"I feel that most of the literature has already been prepared in English. So I don't think it is easy for a Tanzanian – particularly at this period – to learn everything in Kiswahili. Most of the literature is in English. That is why even our government is insisting that we instruct our students in English so they can cope with the literature in which things are written."

English is an official language of communication in the government. At

any level you can write in English and it's OK.

"The thing is in Tanzania the medium is English. And we use English as a medium of communication and we teach in English. The problem of saying Kiswahili can be used as a national language, we can't turn back to that, because we started in English and up to this moment it is being used."

"We have inherited this language as the medium of instructions in teaching and in learning…. So to change to Swahili as the medium of instructions is too difficult."

There was also a theme that protestations of the loss of Tanzanian culture

is something that if put forward by rich elites who already speak English.

Saying we can go back to teaching Kiswahili… is for … is for … can I say for rich people? For leaders? Because the leaders their children are in the English medium schools."

Finally, it was noted by a number of participants that science and the

professions have their own languages, and local languages do not meet the need in

this regard.

"According to my opinion, you see science itself has its own language. Now if you change from one instructional system to another, you are creating a new language. And you need very much time to learn that language. So English as a medium of instruction should continue to be used."

"Actually, it is important to use the English language because in some subjects such as physics we use the terminologies and also the laws, principles, … so to change it would be difficult for the students."

"I think especially in promoting Kiswahili kind of the official medium, it faces problems especially in the technical subjects where it does not have enough vocabulary to cover those specific scientific kind of names and all that. And also the people to research and re-write all of these things"

"So having put that words especially maybe in science subjects how can translate that vocabulary in Swahili? That's why in Swahili---primary schools science books some of the words they are so difficult to translate in Swahili. It's too difficult to do that. Because all is using this language

English."

The theme of English-language instruction, and a press for students to speak and learn English was also borne out through touring school buildings. Direct observation revealed that each of the four school sites in this study had public placards on display instructing students and faculty to speak English, and pointing out the value of learning English. Despite these placards however, the researcher noted that both teachers and administrators seemed to prefer speaking in Kiswahili among themselves.

Paradoxically, use of the English language in Tanzania appears to come with a great deal of both promise and hesitancy. On one hand, it is the language of opportunity, both locally and globally. On the other hand, it is a foreign language. The data collected from interviews in this study reflected this complexity. While use of English is advocated, it is clear that part of the main reason for this conclusion is that it is an established Tanzanian government policy. Additionally, there was a sense from the interviews that English had been taught for so long in Tanzanian secondary schools that to revert to Kiswahili would be futile, even if more ideal in a perfect world.

This complexity must be borne in mind when observing interview data from teachers and administrators in this study. The situation is complex with regard to language policy in Tanzania, and participants in this study when faced with the question of whether instruction should be in English or Kiswahili were in fact facing a very difficult, complicated question with a great deal of personal, and policy implications.

For example, the statement by the participant who indicated that those advocating Kiswahili education are "the rich people" who already speak English and whose children are members of the elite, was extremely revealing. There was clearly a perception among the common population that English language instruction was a means of advancement. They did not fail to note that often those who promoted Kiswahili education were members of the cultural elite who themselves speak English and who had opportunities that the common people did not.

Theme IV: English-language text and library books would have more value were they specifically designed for use in a Tanzanian environment

Most participants readily indicated that book donations would have much more value if they were tailored to the Tanzanian curriculum and syllabus.

> "The books you are providing, they are good to some extent, because only some books do fit with the core syllabus, some of the books do not match the syllabus so students are not interested in them. So, maybe you need a Tanzanian syllabus before sending the books. Only some do cope with the syllabus, but the majority do not cope. Particularly the chemistry and the science books."

> "It will bring problems to Tanzania because (the books) are not designed for the curriculum."

> "Perhaps the books they should blend our syllabus …"

It was also noted that such books would have more value if they were written locally in Tanzania utilizing local themes and cultural idioms. To reiterate, participants noted that books being donated from the United States are valuable, but they would be even more valuable if they were designed specifically for Tanzanian audiences.

"I think it is better to design the books which can help our culture, can cover our culture …"

"I see it and I know it and that is a problem for the developing countries that we are starved over here. Because it's very difficult to make progress using books written in another's culture.   So if we could write books in English as a language but using the examples and certain materials that are found in Tanzania here that could make the students real and comprehend. But using such books is just causes a problem and we are using them as a last alternative. But if you could find alternative to establish a project writing those books in English, but using the Tanzanian situation, that would be more useful."

It was also noted by several participants that book dumping, that is, providing useless donated books, has sometimes been a problem in Tanzania. This theme was evident in touring libraries which included multiple copies of donated books written and donated by foreign politicians which appeared to be of negligible value.

"Oh, practically we should bring them. Practically we should bring them. But if I was the one to sign if they should come or not, the first thing is to see if they are outdated or not. … Most cases they are out of date and they have been to more than three schools. They brought books, they are full in the library .. but they are out of use.   You see, but there are books coming…. Biology books, science books. They are very useful. They are not out of date. So ok if they are not out of date, ok, they are useful."

In an ideal world, based upon the data collected in this study, it seems that there is a desire for more text and library books in Kiswahili and designed to the local curriculum. In some ways, however, this was viewed as a luxury that should be provided "if possible." However, to reiterate, subjects interviewed in this study indicated that providing books tailored to local norms should be viewed as a best practice, not as a requirement.

Theme V: Lack of books was one of many barriers that exists to optimal learning in Tanzanian school environments

Participants needed very little prompting to point out the wide range of needs for their respective schools in Tanzania. This theme of school needs was evident by touring the four schools. Direct observation revealed that schools often lacked plumbing, adequate office space, modern facilities, and fencing. The need for science equipment, chemicals, and other school supplies were mentioned by several participants. A sampling of quotations from participants on this theme is as follows:

> "As far as I am concerned as a science teacher, (we need) chemicals.. we have a shortage here. For example, when we do experiments … need to be shared. It is very difficult for a teacher to conduct an experiment (with sharing scientific equipment)."

> "We are in need of chemicals, we need chemicals."

> "My department have many problems because of the chemicals … problem with a very short of chemicals."

> "Actually we are running short of some equipment in science … chemistry, biology. So we are running short of those equipments."

Several subjects indicated a desire for mentorship/exchange programs to secure access to teachers and professionals from the U.S.:

> "I remember when I was in form six I had a teacher from Japan. I would like to ask if it is not possible for … America to provide one teacher----- experienced?"

> "Another thing which I would very much like to see being in existence is some sort of an association between this school and some schools in America. Friendship, of that kind. Exchange of ideas, visits, some teachers to come here and see physically … how the school is being run, see the students themselves, and to gain an insight of how needy we are for those English books."

Classroom needs were indicated by participants on several occasions as exemplified in the following quotes:

"We don't like our classrooms. We don't have enough rooms."

"The serious problem is rooms …. Classrooms. Because this school was built in the 60s and more students are being sent here, but no new classrooms."

Better administration was mentioned as a need:

"Maybe is there planning funds and management of the funds. The funds for the running of the schools and the management of the funds. The schools have been receiving very little money for the running of the school and poor management of the small amount of money spent in the school. …There is little money, and poor management of what little funds there are."

Even relatively minor issues, such as fencing, were noted as a need:

"Also our school has no fence. A school fence."

Interviews with teachers and administrators, as well as being observant in school settings, clearly revealed the need for additional resources. In general, the theme that schools need resources in addition to books was strong.

Theme VI: Lack of library resources to effectively use books provided a major barrier to their effective use in some of the school settings

The problem of an inadequate library or the lack of a trained librarian was a recurring theme noted by participants interviewed in this study. Through direct observation of the four schools included in this study, it was noted that only one had a very high-quality library and a trained librarian (School 4). The other three schools were lacking in this regard. School 3 had a very high quality library

building with a large quantity of high-quality books, but was not utilized by

students because there was no librarian. School 2 had a smaller library which was

not functional due to a lack of a trained librarian and poor organization. School 1

also appeared to have no functional library or librarian. The theme of schools

with books but lacking staff or a library facility was key in that it indicated a

barrier to the utilization of even the best quality books. Direct observation at one

school location for example, revealed approximately 1500 very high-quality, new

books that had been donated over one year previous located (after an exhaustive

search by the book donors and the researcher) in a locked storeroom and forgotten

by the administration. This particular school had a wealth of books, but lacked a

librarian to effectively manage the books and facility. Some testimonials from

participants on this topic is included as follows:

> "We do not have a librarian."

> A – "We have a library, but in actual fact the library is not working. It is
> not working because we don't have a school librarian. I'm not even sure
> of the books because I myself have never been in that library. Yeah.
> Yeah."
> Q – "And why have you not been in the library?"
> A – "I have not been in the library because the books which I need for my
> lesson, chemistry and biology, they are not in the library."

> "So the library has not been working and is closed…. It would be better if
> we could get that librarian. … So we are expecting that the library will be
> coming and the books will be used now."

> "Ok, for the time being I think the school is experiencing a problem with
> the books in the school library. There are few books there, especially
> current ones. Only old books are there. Secondly the library is not
> operating at this point. The reason given by the school authorities is there
> is no librarian. So in general I can just say that the current situation of the
> school library is not good. Very poor organized and little books."

The researcher observed that most of the books provided for the study – and books already in possession by the schools – were held in the school library. While in one school books were observed in classroom departmental offices, and while interview participants occasionally referred to books in their respective departments, most books were observed to be held in school libraries. The researcher was not able to determine in a systematic fashion the extent to which individual students were able to check books out of the library, the extent to which classrooms checked books out for classroom use, or the extent to which students were able to use books in the library.

Summary of Findings

This study examined the relevance and impacts of donated United States text and library books upon student achievement and teacher/administrator perceptions in four schools in central Tanzania. The study analyzed three research objectives pertaining to student reading fluency scores, student reading comprehension scores, and understandings by teachers and administrators of the value of donated books.

Fluency Scores

This study revealed a significant fluency by school interaction, providing evidence that the intervention of donated English-language textbooks did influence increased student reading fluency scores across schools over time. Research objective number one was designed to compare pre and posttest fluency scores for all schools. For the fluency test, a significant main effect for fluency was found, $F(1,72) = 6.047$, $p = .016$. This means that fluency was, on average, a

significant factor in increased student reading scores. Examination of pre and posttest means indicated that students increased reading fluency scores were significant (pretest M = 115.8, SD = 32.8, posttest M = 122.4, SD = 29.3). The fluency by school interaction was also significant, $F(1,72) = 4.641$, $p = .005$. The interactions of fluency by gender, $F(1,72) = .397$, $p = .531$, and fluency by school by gender, $F(1,72) = .397$, $p = .531$, were found to be non-significant. Based on these findings, there was insufficient evidence to support the null hypothesis of no significant increases in student scores for fluency beyond the treatment group. These findings further showed that there was insufficient evidence to support the null hypothesis that school type did not increase student fluency scores. There was also insufficient evidence to support the null hypothesis for that there was no increase in student fluency test scores by gender.

Comprehension Scores

This study found evidence that the intervention of English-language books also influenced increased reading comprehension scores. Research objective number two was designed to compare pre and posttest comprehension scores for all schools. Results of the MAZE test (a measure of comprehension) showed a significant comprehension by school interaction showing the influence of reading comprehension across schools. For the MAZE comprehension test, a significant main effect of comprehension was found, $F(1,74) = 55.780$, $p = .000$. Examination of pre and posttest means indicated that student increased reading comprehension scores were significant (pretest M = 5.0, SD = 4.4, posttest M = 12.1, SD = 7.7). The interactions of comprehension by gender, $F(1,74) = .050$, p

=.823, comprehension by school, $F(1,74) = 1.385$, $p = .254$, and comprehension by school by gender, $F(1,74) = .116$, $p = .734$, were all found to be non-significant. Based on these findings, there was insufficient evidence to support the null hypothesis of no significant increases in student scores for comprehension beyond the treatment group. There was also insufficient evidence to support the null hypothesis that there was no increase in student fluency test scores by gender, and the null hypothesis that school type did not increase student comprehension scores.

Understanding and Impressions of Schools Administrators and Teachers

Research objective number three was created to develop understandings of the value and impressions of teachers and administrators placed upon textbook donations. Six themes were revealed. They included: (a) English-language books from the United States had value in school settings in Tanzania; (b) there was a need for more text and library books in school settings than are currently available; (c) providing text and library books in the English language did not cause cultural harm; (d) providing books more tailored to the local cultural situation and especially tailored to the local syllabus/curriculum could be very valuable; (e) there were many needs for schools in Tanzania and books were only one of these needs; and (f) lack of library resources (i.e. a library or a librarian) and ability to effectively utilize books provided a major barrier to their effective use in school settings.

CHAPTER 5

CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

This case study was designed to examine the influence of donated United States text and library books upon the fluency and comprehension achievement scores of students from four schools in central Tanzania. Further, the study sought to develop an understanding of teacher and administrator views of the influence of these books upon students in their respective school communities. This chapter will initially provide a summary with related conclusions and discussion for each of the three research objectives. Implications of the findings along with recommendations for practice and future research will then be provided.

Research Objective 1: To determine the influence of English-language donated text and library books from the United States upon reading fluency scores for students

Findings from this objective supported the conclusion that English-language donated textbooks did have a significant impact upon the reading fluency scores of secondary Tanzanian students participating in this study. This conclusion, which demonstrated a significant influence of textbooks upon student fluency scores, support similar findings reported by Lance (1994), Worthy, Moorman, and Turner (1999), the World Bank (1987, 2002), Fehrler,

Michaelowa, and Weber (2007), and Michaelowa and Wechtler (2006). Findings

from this study differ, however, from the results reported by the aforementioned

research in that this study revealed that donated English-language text and library

books from the United States, as compared to localized textbooks in local

languages, do also make a significant positive difference in fluency scores.

Another conclusion is that students in schools having access to books for a

longer period of time showed significantly higher performance in reading fluency.

This conclusion confirmed research indicating that the longer students have

access to learning materials and programmatic intervention, the greater the

potential impact (Pressley, 2006). While the findings speak to the impact of

donated English-language books upon the reading fluency scores of secondary

Tanzanian students from the four schools, caution is recommended to not

generalize the findings beyond this case study.

The findings provide evidence to further conclude that in regards to

changes in fluency scores, males and females benefited equally from the donated

English-language text and library books acquiring fluency skills at comparable

rates. This conclusion differs, however, from the conclusions drawn by Schwartz

(1984), Moir & Jessel (1992), and Pollack (1998) who indicated that girls

acquired fluency skills faster than boys.

Implications for Future Research

This was a case study investigation of four schools in the Dodoma/Singida

region of central Tanzania. Acknowledging that many factors influence student

outcomes in formal education settings, the following recommendations for

research are recommended:

1. There should be additional investigations of the influence of donated English-language books upon student reading fluency scores. Likewise, given that English-language donated books may be one very cost-effective means to increase student fluency scores and as a means to help achieve the Millennium Development Goals (UN millennium project, 2006) in literacy, then additional research concerning the impact of additional funding for textbook donation programs is encouraged.

2. Further investigations are warranted to learn more about the interaction between the amount of time books are accessible to students in schools, and how these interactions influence reading fluency scores.

3. Investigations should be undertaken to examine the interactions of school types, duration of student access to books, and gender and the resulting influences upon student reading fluency scores.

4. Research should further investigate the influence of gender on reading fluency growth rates and how providing books can result in increased female literacy rates, as is deemed important in the Millennium Development Goals (UN millennium project, 2006).

Yin (1989) and Gall, Gall, and Borg (2003) indicate that a key issue in case study is the ability to observe what was learned in a particular case, and determine how, or if, this can enhance knowledge of other cases elsewhere. Since this study is the first of its type in Tanzania, additional research upon reading fluency achievement of similar students is needed initially within Tanzania, and

then, perhaps throughout other African countries where books are commonly sent and where English is used as a language of instruction.

Compared to other international education development programs, only modest funding has been previously invested in the area of English-language textbook donation programs (Sachs, 2005). If the results regarding improved fluency scores are as substantial and the rewards as great as preliminary data suggests, more research on related topics may be helpful. Notably, it is recommended that research be done elsewhere in Africa and the developing world on this topic. Additionally, while this initial investigation focused upon reading fluency scores, it is recommended that research also be conducted to determine how donated English-language text and library books contribute to student scores using standardized assessments.

Implications for Practice

The findings of this objective provide the basis for strategies to improve reading fluency scores. They are as follows:

1. Since the evidence suggests that donated English-language books positively influenced student reading fluency growth rates in this study, a recommended practice is for international donors, and non-governmental organizations (NGOs) such as Books For Africa to find additional means to provide more donated English-language library and text books to locations in Tanzania and other locations in Africa.

2. Students having access to books at school for a longer period of time showed higher performance in reading fluency. A recommended practice is for

international donors and organizations providing donated books to work to ensure that books are made more accessible in school settings, giving students greater access to books for longer time periods and thereby potentially further increasing reading fluency scores. An implication for practice is that organizations, such as Books for Africa and the Poverty Eradication Network, expand donations English-language books to central Tanzania and elsewhere in Africa.

  3. Quality administration, availability of libraries, and quality school facilities, were found to contribute to increased student reading fluency scores.   A recommended practice is for international donors and organizations providing donated books to foster those qualities in schools which have been shown to increase reading fluency scores (Schumm & Arguelles, 2006; Handbook of Reading Research, 2000).   Likewise, they should consider offering recommendations to leaders and faculty of schools who have previously or who would like to receive donated books. Notably, simply having books in a school setting does not appear to increase learning without proper administration and access to libraries to ensure proper access for students.

  4. Importance has been placed on gender equity with regard to the achievement of literacy levels under the Millennium Development Goals (Kane, 1996; Stephens, 2000; Archer, 2006; Wold & Odonkor, 1998; Gomez, 2005). Donated English-language books should be provided equally to male and female students thus helping to ensure equal access to educational opportunity and opportunity for increased reading fluency scores.

Research Objective 2: To determine the influence of English-language donated

text and library books from the United States upon reading comprehension scores

for students

Findings from this objective provided evidence to conclude that donated

English-language text and library books did influence significantly higher student

reading comprehension scores across schools over time.

This conclusion supports similar findings reported by Worthy, Moorman,

and Turner (1999), the World Bank (1987, 2002), Fehrler, Michaelowa, and

Weber (2007), and Michaelowa and Wechtler (2006). However, this conclusion

differs from the aforementioned research in that they revealed that donated

English-language text and library books from the United States do also contribute

to significantly positive increases in reading comprehension scores. This study

builds upon research findings reported by the National Reading Panel (2000), Farr

and Carey (1986), Schwartz (1984), and UNESCO (2006) seeking to identify

influences on reading comprehension. Specifically, this study showed that access

to books can significantly increase reading comprehension. This study's findings

further provided evidence to conclude that males and females derived equal

benefit from the donated English books. This conclusion differs from findings

presented by Schwartz (1984), Moir and Jessel (1992), and Pollaack (1998) who

reported that young females had greater ability to increase reading comprehension

skills than young males.

Implications for Future Research

Based on this case study, additional research within Africa must be conducted to determine the extent to which books can be an effective mechanism for increasing reading comprehension scores. Implications for future research from research objective two of this study include the following:

1. Additional research should be undertaken that addresses the influence of the amount of time books are accessible by students in a school upon student comprehension scores.

2. Additional research should be conducted concerning school types and duration of access to books and impacts upon student reading comprehension scores.

3. Research addressing the influence of gender on reading comprehension and how providing books can result in increased female literacy rates, as is deemed important in the Millennium Development Goals, should be conducted.

4. Investigation should be undertaken to determine how a treatment, such as a large influx of donated English-language textbooks into a school environment where few books previously existed, impacts reading comprehension and teacher practices in classroom and library settings. Given that there is such an acute shortage of text and library books in Africa (World Bank 1987, 2002; Sefue, 2009), and given that providing such books may increase student reading comprehension, research to help determine the best methods of incorporating such books into local curriculum and the best methods of organizing libraries to achieve maximum benefits for students, teachers, and administrators, would

appear warranted.

Implications for Practice

Implications for practice from research objective two that this study identified included four strategies to improve reading comprehension scores. The research would suggest the following:

1. Students having books for a longer period of time during their studies showed higher achievement scores in reading comprehension. A recommended practice is for international donors and organizations providing donated books to work to ensure that books are provided for a longer period of time in school settings. Organizations that ship donated English-language books to central Tanzania should continue efforts to provide books, thus making them available to students for a longer time during which students are in school.

2. Students in this study benefited equally from donated United States English language books, regardless of gender. Given the similar performance levels, it is recommended that books be provided equally to male and female students thus ensuring equal access to educational opportunity and increased reading fluency scores. Tremendous importance has been placed on gender equity with regard to the achievement of literacy levels under the Millennium Development Goals (Kane, 1996; Stephens, 2000; Archer, 2006; Wold & Odonkor, 1998; Gomez, 2005). This study shows that making text and library books available to girls can increase their reading comprehension skills. Therefore books should be made available to girls to help reduce the current literacy gap between boys and girls in many African countries.

3. A recommended practice is for international donors, and non-governmental organizations (NGOs), such as Books For Africa, to find means to provide more English-language donated text and library books to locations in Africa where they can be helpful in increasing reading comprehension scores. English-language donated books may be one cost effective means to help achieve the Millennium Development Goals in literacy and this issue should be investigated in more detail (King, 2007; UN Millennium Project, 2006).

4. Quality administration, availability of libraries, and quality school facilities, were found to contribute to increased student reading comprehension scores. A recommended practice is for international donors and organizations providing donated books to foster those qualities in schools which have been shown to increase reading comprehension scores (Schumm & Arguelles, 2006; Handbook of Reading Research, 2000).

Research Objective 3: To analyze the understandings of the value and impressions of teachers and administrators upon English text and library book donations and student reading achievement scores

Findings from this objective formed the basis for the researcher to form six different conclusions. These conclusions are as follows:

1. Donated English-language text and library books designed for use in a U.S. curriculum did have perceived value in central Tanzanian schools.

2. There was a need for additional English-language donated text and library books in school settings.

3. Providing donated text and library books in the English language did not cause cultural harm.

4. English-language text and library books would have more value were they specifically designed for use in a Tanzanian environment.

5. Lack of books was one of many barriers that exist to optimal learning in Tanzanian school environments.

6. Lack of library resources to effectively use books provided a major barrier to their effective use in some of the school settings. These conclusions will be considered and discussed individually.

Conclusion One: Donated English-language text and library books designed for use in a U.S. curriculum did have perceived value in central Tanzanian schools

Analysis of the thematic data provided the foundation for the researcher to conclude that there is, indeed, a perceived value by local officials of donated English-language text and library books in the schools studied. Interviews conducted on location during the course of this study consistently demonstrated a perception that textbooks donated for school use in Tanzania had value for the students, teachers, and administrators in school settings. This finding supports current literature that there is a desire to increase English-language learning in Africa (Headlam, 2005; Rugemalira, 2005; Gomis & McCoy, 2005; World Bank, 2002). This finding extends current literature by revealing impressions specifically tailored to English-language donated text and library books (Sefue, 2008, 2009). This finding of perceived value of English-language text and library

books was supported by statements by the school personnel who were interviewed. The value to the students of the books, which contained current information, seemed clear to the school administrators and faculty who were interviewed. School administrators and faculty of schools which had not received English-language donated books appeared eager to receive them. The administrators and faculty of the schools which had already received some books appeared eager to receive additional books in the future.

This research study did not hypothesize whether or not English language instruction in Africa is positive or negative. It did, however, seek to discern the extent to which the access, or lack of access, to English language books changed reading fluency and comprehension as well as whether the community leaders who received the books felt additional benefits were received within the schools and communities.

The researcher considered the possibility that teachers and school administrators might be indicating the donated books were valuable in order to be polite to the researcher and book donors. It is sometimes a practice in the developing world not to criticize donations in order to ensure future donations (Sachs, 2005). The researcher concluded that the evidence secured through interviewing and the encouragement of interview participants to indicate positive and negative factors regarding book donations indicates that the text and library books did have genuine value to the teachers and administrators in the school systems in this study.

Conclusion Two: There was a need for additional English-language donated text

and library books in school settings

Analysis of the thematic data provided the foundation for the researcher to conclude that there is, indeed, a continuing need for more English-language donated text and library books. This finding supports current literature, including findings by the World Bank (2002); Headlam (2005); Books For Africa (2009); the International Book Bank (2009); and Brother's Brother Foundation (2009). While studies (e.g., Headlam, 2005; Tusome Vitabu Project, 2006) have documented a demand for textbooks, this study extends that knowledge by confirming that there is a demand in central Tanzania for English-language textbooks donated from the United States by organizations such as Books For Africa, PEN Trust, Brother's Brother Foundation, the International Book Bank, and Sabre Foundation. This finding was in agreement with statements of support from key African leaders who have indicated that donated English-language text and library books are useful in African school environments (Annan, 2008; Nhlapo, 2008; Sefue, 2008, 2009).

Conclusion Three: Providing donated text and library books in the English language did not cause cultural harm

Analysis of the thematic data provided by school administrators and faculty led the researcher to conclude that providing English-language text and library books did not cause cultural harm. Participants further stated their perceptions that due to globalization, it is important that Tanzanian students learn a world language, such as English. This finding supports findings by Stewart (1996), Graddol (2004), Wakerley (2004), Hurkainen (2002), Crystal (2004), and

Johnson (2004) that globalization is enhancing the learning of English in places like Africa. Conversely, this study refutes some of the findings of Brock-Utne (2001a, 2001b, 2002), Prah (2003), and Bunyi (1999), who reported that English-language documents and educational materials caused cultural harm in Tanzania and elsewhere in Africa. As one participant of this study stated, such thinking is for the "rich people" who already speak English and want everyone else to speak the local languages. This is not to completely refute Brock-Utne, Prah, and Bunyi, for clearly there are ramifications to loss of local culture. However, it must be noted that almost all of the participants in this study, when directly asked, indicated that English-language instruction supported through donated English-language textbooks in Tanzania should continue.

Conclusion Four: English-language text and library books would have more value were they specifically designed for use in a Tanzanian environment

Analysis of the thematic data provided the foundation for the researcher to conclude that English-language text and library books would have greater value if customized for use in a Tanzanian educational environment. While it was indicated by participants in this study that the books provided by donors, such as Books For Africa and Poverty Eradication Network had value, it also was indicated that if financial resources were available, recipients would have preferred that at least some of the textbooks be custom printed in Tanzania. It was suggested that such books, printed in English utilizing Tanzanian cultural idioms and designed for a Tanzanian Ministry of Education syllabus, would have been more useful for the students. This finding supports research conducted by

UNESCO (2006), the International Reading Association (2009), and Pearce (2009) indicating that locally published books customized to local conditions provide educational advantages and serve as a best practice.

Lack of financial resources appeared to be the primary reason why locally published books were not being produced and distributed in sufficient quantities (Sefue, 2009). Additionally, the donor community appeared to view the production of customized textbooks, either in English or local languages, to be the purview of local ministries of education (Books For Africa, 2009; Sabre Foundation, 2009; International Book Bank, 2009). The cost of producing such books was viewed by organizations such as Books For Africa as cost prohibitive. For example, a secondary textbook can be shipped from the United States to Tanzania for 50 cents. To produce such a textbook in Tanzania would cost $50 - $100 (World Bank, 2009; Bgoya, 1992). Thus, there was logic in the reasoning of organizations such as Books For Africa and PEN Trust and reasons why their operations were structured in their existing fashions. However, were financial resources available, it was indicated by interview participants that the preference would have been for more locally produced (and therefore more culturally appropriate) text and library books.

This finding supported findings reported by Brock-Utne (2001a, 2001b, 2002), Prah (2003), Bunyi (1999), and Rugemalira (2005), who noted that the best textbooks have a local context. Rugemalira (2005), for example, noted that Kiswahili books were a favorite in schools where they are available, and that students were better able to read and understand Kiswahili books because of their

superior command of the language. By contrast, book content "that is from a rather unfamiliar physical and cultural background (largely North American)" was viewed as problematic (Rugemalira, 2005).

The finding in this study that administrators and teachers state that books would have greater value if they were customized to local conditions confirms the findings and practices of the CODE Foundation and Room To Read engaged in local publishing in some African countries. The researcher uncovered concerns that Tanzanian teachers and administrators interviewed in this study that Western books should not be "dumped" on Tanzanian schools. This supports findings reported by Brock-Utne (2002), Mills (1994), Seaton (1998), and Horn (1997) that book dumping has occurred in Africa in the past.

Conclusion Five: Lack of books was one of many barriers that exist to optimal learning in Tanzanian school environments

Analysis of the thematic data and direct observation provided the foundation for the researcher to conclude that lack of books was one of several barriers that existed to educational achievement in Tanzanian school environments involved in this case study. Demand for other services and resources in Africa were made apparent in interviews with participants in this study and through direct observation of school locations. This finding of other barriers confirmed previous statements of barriers made by the Tanzanian government (Sefue, 2008, 2009) and other research in the developing world (Fuller, 1987). Other barriers to enhanced education cited by interview participants included science equipment/supplies, mentorship/exchange programs,

classroom needs, better administration, and fencing.

Development organizations provide various services including clean water, food assistance, health care, and technical training (Sachs, 2005). In the educational environment, different organizations also provide different services: construction assistance, teacher training, funding for administration, voluntary instruction (See Sachs, 2005; Craig, Kraft, & du Plessis, 1998; Pearce, 2009). Sachs (2005), in particular, has argued that problems in Africa are caused by a lack of financial resources and a solution is dramatically increased financial donations from Western countries. Craig, Kraft, and du Plessis (1998) also referenced the many needs of teachers in Africa and throughout the developing world, indicating that access to educational materials is only one need in classroom settings. There is demand in Africa in general, and central Tanzania specifically, for donated textbooks.

Information from the literature and the data provided by the participants provided the basis for the researcher to make two conclusions. First, there is demand for donated text and library books in Tanzania. Second, that while donated books are important, other resources and services may also contribute to increased student achievement in increased reading fluency and comprehension (Fuller, 1987).

Conclusion Six: Lack of library resources to effectively use books provided a major barrier to their effective use in some of the school settings

After analyzing the data and reflecting upon personal observations, the researcher concluded that a lack of library resources (i.e. a library and/or

librarian) likely hampered the ability of students in some schools to achieve increased reading fluency and comprehension scores. Direct observation by the researcher revealed that most books in the schools in this study were held in the library. If the library was unorganized, or if no librarian was available to check out the books, the doors would remain locked and neither teachers nor students would have access to the books. This conclusion confirmed findings of the importance of library resources reported by the World Bank (2002), Michaelowa and Wechtler (2006), Alemna (2006), Guidelines for library based literacy programs (2003), Knuth, Perry, and Duces (1996), Lane (1994), and Mills (1994).

Implications for Future Research

Implications for future research from research objective three include the following recommendations:

1. Generalizations to verify the level of influence that English-language donated library and textbooks from the United States have upon Tanzanian student fluency and comprehension reading scores are difficult to make; therefore additional research within Tanzania is necessary.

2. The extent of the need for books is not fully documented; therefore, more research to determine the need is required.

3. An ongoing debate is the cultural harm of foreign language books; therefore more research on the potential harm is required.

4. The literature as well as results of this study purports greater value to locally adopted materials; therefore more research, including cost-benefit analysis, is needed to support this argument.

5. The value expending resources on textbooks versus expending resources on other educational components (i.e. buildings; faculty, materials) is not known; research should be conducted to determine the overall influence of textbooks, as compared to other factors in the schools and communities, and their contribution to fluency and comprehension reading scores.

6. Investigations of best practices and optimal resources (i.e. a library and librarian, training of teachers) which must be present in local schools to most effectively use donated English-language text and library books should be undertaken to optimize available resources and increase reading fluency and comprehension scores.

Implications for Practice

1. Since the researcher concluded that English-language books from the United States influenced significantly increased reading scores of secondary students in school settings in Tanzania, organizations (including ministries of education in Tanzania, as well as supporting foundations and agencies within the U.S. and the world) should provide resources to ship increasing numbers of English-language text and library books to schools in Central Tanzania.

2. As the researcher concluded that school administrators and teachers believed that minimal cultural harm was experienced by their students, such conclusions should be offered, with cautions, to individuals and organizations who have provided (or are considering providing) support to send donated English-Language text and library books to schools and libraries in Tanzania.

3. Noting that the researcher concluded that providing textbooks more

tailored to the local cultural situation and especially tailored to the local syllabus/curriculum would be desirable, an implication for practice is that localized books should be provided in addition to the donated text and library books from the United States. For example, books that could more easily be customized (such as history and social studies books) could be produced, while books that provide more general knowledge (such as mathematics and science books) could continue to be provided through donations.

4. Additionally, organizations providing donated English-language text and library books should explore opportunities to better match donated books to local curricula.

5. Book donation organizations should explore opportunities to provide additional services that would be valuable if funding becomes available (i.e. librarian/teacher training, and local publishing).

6. A lack of library resources (i.e. a library and/or a librarian) and the ability to effectively utilize books were identified as a barrier to effective donated book use.   This was due to a perception by administrators that books needed to be protected due to their great value. Accordingly, donor organizations (i.e., Books For Africa, Sabre Foundation, International Book Bank, and Brother's Brother Foundation) should explore means of providing such library resources in addition to donated books to ensure that donated textbooks are properly used by secondary teachers and students.

<div align="center">Summary of Conclusions</div>

To reiterate, this investigation brought forth a number of key conclusions

by the researcher. They are as follows:

1. Donated English-language books positively influenced student reading fluency scores indicating that the treatment of books was effective.

2. Males and females benefited equally from having access to the books provided, resulting in equal reading fluency score increases.

3. Donated English-language books positively influenced student reading comprehension scores indicating that the treatment of books was effective.

4. Males and females benefited equally from having access to the books provided, resulting in equal reading comprehension score increases.

5. Donated English-language text and library books designed for use in a U.S. curriculum did have perceived value in central Tanzanian schools.

6. There is a need for additional English-language donated text and library books in school settings.

7.   Providing donated text and library books in the English language did not cause cultural harm.

8. English-language text and library books would have more value were they specifically designed for use in a Tanzanian environment.

9. Lack of books was but one of many barriers that exist to optimal learning in Tanzanian school environments.

10. Lack of library resources to effectively use books provided a barrier to their effective use in some of the school settings.

References

Adegbija, E. (1994). *Language attitudes in Sub-Saharan Africa*. Clevedon,

England: Multilingual Matters.

African languages. (2001). The Columbia Encyclopedia (6th ed.). Retrieved May

12, 2005 from http://www.bartleby.com/65/af/Africaning.html

Agenor, P., Bayraktar, N., Moreira, P., & Aynaoiu, K. (2006). Achieving the

millennium development goals in Sub-Saharan Africa: A macroeconomic

monitoring framework. *The World Economy*, 1519-1547.

Agostino, A. (2005). Education and the millennium development goals.

Convergence, 38(3). 3-10.

AIMSweb – Charting the path to literacy. (2009). http://www.AIMSweb.com

AIMSweb Technical Manual. (2002). *Standard reading assessment passages

(RAPs) for use in general outcome measurement: A manual describing

development and technical features.* Eden Prairie: Edformation.

Alemna, A. (2006). *A manual for school librarians in Ghana.* Legon: Ghana

Book Trust/CODE.

Allum, J. (2000, October 30). *The national skill standards board: Creating the

workforce of tomorrow, today.* Speech presented at the annual evaluation

meeting of the technical education and training modernization project in

Mexico City, Mexico.

Anderson, R.C., Wilson, P.T., & Fielding, L.G. (1988). Growth in reading and

how children spend their time outside of school. *Reading Research*

Quarterly, 23(3), 285-303.

Anglum, B.S, Bell, M.L., & Roubinek, D.L. (1990). Prediction of elementary
student reading achievement from specific home environment variables.
Reading Improvement, 27, 173-184.

Annan, K. (2008, September 12). *A message from Former U.N. Secretary
General Kofi A. Annan.* Recorded remarks presented at Books For Africa
20th anniversary gala, St. Paul, MN, USA, September 12, 2008.

Archer, D. (2006). A right to a decent education. *Adults Learning*, 17(9). 23-27.

Avalos, M. (2006). No two learners are alike: Learners with linguistic and
cultural differences. In J. Schumm (Ed.), *Reading Assessment and
Instruction for all Learners* (pp. 59-86). New York: The Guilford Press.

Baker, L., Scher, D., & Mackler, K. (1997). Home and family influences on
motivations for reading. *Educational Psychologist*, 32, 69-82.

Bee, H.L., Barnard, K.E., Eyres, S.J., Gray, C.A., Hammond, M.A., Spietz, A.L.,
Snyder, C., & Clark, B. (1982). Prediction of IQ and language skill from
prenatal status, child performance, family characteristics, and mother-
infant interaction. *Child Development*, 53, 1134-1156.

Bgoya, W. (1992). The challenge of publishing in Tanzania. In P. Altbach (Ed.)
Publishing and development in the third world (pp. 169-190). London/New
York: Hans Zell.

Books For Africa. (2009). http://www.booksforafrica.org

Brinkerhoff, J. (2002). *Partnership for international development: Rhetoric or*

results? Boulder: Lynne Rienner Publishers.

Brock-Utne, B. (2001a). The language question in Africa in the light of

globalization, social justice, and democracy. *The International Journal of*

Peace Studies, 6(2).

Brock-Utne, B. (2001b). Education for all – In whose language? *Oxford Review*

of Education, 27(1), 115-134.

Brock-Utne, B. (2002). Language, democracy and education in Africa:

Discussion paper 15. *Nordiska Afrikainstitutet.* Uppsala: University

Printers.

Brothers Brother Foundation. (2009). http://www.brothersbrother.org

Bunyi, G. (1999). Rethinking the place of African indigenous languages in

African education. *International Journal of Educational Development,*

19(4-5), 337-350.

Campbell, D.T., & Stanley, I.C. (1963). *Experimental and quasi-experimental*

designs for research. Chicago: Rand McNally.

Chambers, R. (1997). *Whose reality counts? Putting the first last.* London:

Intermediate Technology Development Group.

Chaney, C. (1994). Language development, metalinguistic awareness, and

emergent literacy skills of three year old children in relation to social

class. *Applied Psycholinguistics*, 15, 371-394.

Charity Navigator. (2009). http://www.charitynavigator.org

Childs, G. & Tucker. (2003). *An introduction to African languages.* Amsterdam:

John Benjamin.

Cleghorn, A., Merritt, M., & Abagi, J. (1989). Language policy and science instruction in Kenyan primary schools. *Comparative Education Review, 33*(1). 21-39.

A closer look at the five essential components of effective reading instruction: A review of scientifically based reading research for teachers. (2004). Naperville: Learning Point Associates.

CODE Foundation. (2009). http://www.codecon.org

Cohen, J. (1988). Statistical power analysis for the behavioral sciences (2nd ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen, W. (1980). *European empire building*. St. Louis: Forum Press.

Coulmas, F. (1992). *Language and economy.* Oxford: Blackwell.

Craig, H., Kraft, R., & du Plessis, J. (1998). *Teacher development: Making an impact.* Washington, D.C.: USAID and the World Bank.

Creswell, J. & Clark, V. (2007). *Designing and conducting mixed methods research.* Thousand Oaks: Sage Publications, Inc.

Creswell, J. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches* (2nd ed.). Thousand Oaks: Sage Publications, Inc.

Crystal, D. (2001). *Language and the Internet.* Cambridge: Cambridge University Press.

Crystal, D. (2004). *The language revolution.* Malden, MA: Polity Press.

Curry, A., Thiessen, T. & Kelley, L. (2002). Library aid to developing countries in times of globalization: A literature review. *World Libraries*, 12(2), 15-36.

Degnbol-Martinussen, J. & Engberg-Pedersen, P. (2003). *Aid: Understanding international development cooperation*. Copenhagen: Zed Books.

Deno, S. (1985). Curriculum-based measurement: The emerging alternative. *Exceptional Children*, 52(3), 219-232

Downing, J., Ollila, L., & Oliver, P. (1977). Concepts of language in children from differing socioeconomic backgrounds. *Journal of Educational Research,* 70, 277-281.

Duke, N. (2000). 3.6 Minutes per Day: The scarcity of informational texts in first grade. *Reading Research Quarterly*, 35(2), 202-224.

Farr, R. & Carey, R. (1986). *Reading: What can be measured?* Newark: International Reading Association.

Fehrler, S., Michaelowa, K. & Weber, A. (2007, September). *The cost effectiveness of inputs in primary education: Insights from recent student surveys for Sub-Saharan Africa.* Paper presented at Poverty Reduction, Equality, and Growth Network Conference, Berlin, Germany, September 6-7, 2007.

Feitelson, D., & Goldstein, Z. (1986). Patterns of book ownership and reading to young children to Israeli school-oriented and non-school-oriented families. *Reading Teacher*, 39, 924-930.

Fidrmuc, Jan & Fidrmuc, Jarko. (2009, March 7). Language and trade, *The Economist.* p. 23.

Field, A. (2003). *Discovering statistics using SPSS for Windows*. Thousand Oaks, CA; Sage Publications.

Filmer, D. & Pritchett, L. (1999). The effect of household wealth on educational

attainment: Evidence from 35 countries. *Population and Development Review*, 25(1).

Finnegan, R. (1999). Sociological and anthropological issues in literacy. In D.

Wagner, R. Venezky and B. Street (Eds.), *Literacy: An international handbook*. Boulder, Colorado: Westview Press.

Fishman, J. (2001). *Can threatened languages be saved?* Clevedon:

Multilingual Matters.

Friedman, T. (2000). *The lexus and the olive tree*. New York: Anchor Books.

Frolich, M. & Michaelowa, K. (2005). *Peer effects and textbooks in primary*

education: Evidence from Francophone Sub-Saharan Africa. Discussion Paper No. 1519. Bonn: Institute For Study of Labor.

Fuller, B. (1987). What school factors raise achievement in the third world?

Review of Educational Research, 57(3), 255-292.

Fuller, B. & Clarke, P. (1994). Raising school effects while ignoring culture?

Local conditions and the influence of classrooms, tools, rules and pedagogy. *Review of Educational Research.* 44(1), 119-157.

Galbraith, S. (2006). *Libraries, aid and developing countries: A closer look at*

literacy, publishing and the library development in regional contexts. Retrieved September 6, 2007 from http://www.lwb-online.org/link.html

Gall, M., Gall, J., & Borg, W. (2003). *Educational research: An introduction* (7th

ed.). Boston: Allyn and Bacon.

Goldfield, B. & Snow, C. (1984). Reading books with children: The mechanics

of parental influence on children's reading achievement. In J. Flood (Ed.), *Promoting reading comprehension* (pp. 204-215). Newark: International Reading Association.

Gomez, S. (2005). Literacy and the millennium development goals: One step forward, two steps backwards. *Convergence*, 38(3) 33-47.

Gomis, J. & McCoy, M. (2005). Planning for the future: Researching educational interventions in Nugall, Somalia. Somali Family Services, Mpls., MN. Retrieved June 1, 2006 from http://www.ussfs.org/research.htm.

Good, R. & Jefferson, G. (1998). Contemporary perspectives on curriculum-based measurement validity.   In M. Shinn (Ed.), *Advanced applications of curriculum based measurement.* New York: The Guilford Press.

Gordon, R. (Ed.). (2005). *Ethnologue: Languages of the world* (15th ed.). Dallas: SIL International.

Guidelines for library-based literacy programs. (2003). *International Federation of Library Associations and Institutions.* Retrieved August 26, 2008 from http://www.ifla.org

Gurian, J., Henley, P., & Trueman, T. (2001). *Boys and girls learn differently: A guide for teachers and parents*. San Francisco: Jossey-Bass.

Handbook of reading research: Volume three. (2000). Ed. M. Kamil, P. Mosenthal, P. Pearson, & R. Barr. Mahwah: Lawrence Erlbaum Associates, Publishers.

Headlam, A. (2005). Walking the highway together: Using literacy as the tool to promote unity. In C. Onukaogu & K. Parry (Eds.), *Literacy for all in Africa: Volume one – Teaching reading in African schools,* (pp. 10-24). Fountain Publishers Ltd. and International Reading Association: Kampala and Newark.

Hill, C. & Larsen, E. (2000). *Children and reading tests.*   Samford: Ablex Publishing Corp.

Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations.* Thousand Oaks, CA: Sage.

Horn, C. (1997, April 11). Libraries – An African agenda. *The Bookseller*, p. 11.

Hurskainen, A. (2002, April 20). *The role of African languages in communication.* Paper presented at Swahili-seminaari.   Retrieved April 19, 2005 from http://www.helsinki.fi/hum/aakkl/documents/communication.pdf.

Ingram, G., Wils, A., Carrol, B., & Townsend, F. (2006). *The untapped opportunity: How public-private partnerships can advance education for all.* Washington, D.C.: Academy for Educational Development.

Inoue, K., & Oketch, M. (2008). Implementing free primary education policy in Malawi and Ghana: Equity and efficiency analysis. *Peabody Journal of Education,* 83, 41-70.

International Book Bank. (2009). http://www.internationalbookbank.org.

International Reading Association. (2009). http://www.reading.org/

Isbister, J. (2001). *Promises not kept*. West Hartford: Kumarian Press.

Johnson, P. (2004). Must the whole world speak English? *Forbes.com.*

 Retrieved April 19, 2005 from

 http://www.forbes.com/business.forbes/2004/1129.

Kane, E. (1996). *Gender, culture and learning: Advancing basic education and*

 literacy project. Washington, D.C.: Academy for Educational

 Development and USAID

King, K. (2007). Multilateral agencies in the construction of the global agenda on

 education. *Comparative Education*, 43(3) 377-391.

Klaus, D. (2001, March 17). *The use of indigenous languages in early basic*

 education in Papua New Guinea: A model for elsewhere? Paper

 presented at the Annual Conference of the Comparative and International

 Educational Society in Washington, DC.

Knuth, R, Perry, B. & Duces, B. (1996). Libraries and literacy in developing

 countries. In V. Greaney (Ed). *Promoting reading in developing countries.*

 Newark, Deleware: International Reading Association.

Korten, D. (1984). *People-centered development: Contribution toward theory*

 And planning frameworks. West Hartford: Kumarian Press.

Krauss, M. (1992). The world's languages in crisis. *Language,* 68(1). 4-10.

Lambert, S. (2004). Teachers' pay and contributions: An assessment of recent

 trends in Africa. Paris: UNESCO.

Lance, K. (1994). The impact of school library media centers on academic

 achievement. *School Library Media Research*, 22, (3). Retrieved

September 25, 2007 from www.ala.org/ala/aasl/aaslpubsandjournals

Larson, J. & Marsh, J. (2005). *Making literacy real: Theories and practices for learning and teaching*. London: Sage Publications.

Lee, V., Zuzu, T., & Ross, K. (2005). School effectiveness in 14 Sub-Saharan African countries: Links with sixth graders' reading achievement. *Studies in Educational Evaluation*, 31(2-3), 207-246.

Leseman, P. & de Jong, P. (1998). Home literacy: Opportunity, instruction, cooperation and social-emotional quality predicting early reading achievement, *Reading Research Quarterly*, 33(3), 294-318.

Leslie, L., & Allen, L. (1999). Factors that predict success in an early literacy intervention project. *Reading Research Quarterly*, 34(4), 404-424.

Lincoln, Y. & Guba, E.G. (2000). Paradigmatic controversies. In N. Denzin & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 163-188). Thousand Oaks, CA: Sage.

Literacy for all in Africa: Volume one – Teaching reading in African schools. (2005). C. Onukaogu, & K. Parry (Eds.). Kampala and Newark: Fountain Publishers Ltd. and International Reading Association.

Lockheed, M. & Verspoor. (1991). *Improving primary education in developing countries.* Oxford: Oxford University Press.

Lovgren, S. (2004). English in decline as a first language, study says. *Nationalgeographic.com.* Retrieved April 19, 2005 from http://news.nationalgeographic.com/news/2004/02/0226.

Mammino, L. (2000). Studying the details of the transition from the mother

tongue to the second language. In S. Seepe & D. Dowling (Eds.), *The language of science.* Florida Hills: Vivlia.

Mann, M. & Dalby, D. (1987). *A thesaurus of African languages: A classified and annotated inventory of the spoken languages of Africa with an appendix on their written representation.* London: Hans Zell Publishers.

Marshall, J. & Campbell, Y. (2006). Practice makes permanent: Working towards fluency. In J. Schumm (Ed.), *Reading Assessment and Instruction for all Learners* (pp. 190-221). New York: The Guilford Press.

Marzano, R. (2000). *A new era of school reform: Going where the research takes us*. Auroa, CO: Mid-continent Research for Education and Learning.

May, S. & Aikman, S. (2003). Indigenous education: Addressing current issues and developments. *Comparative Education*, 39(2), 139-145.

Mazrui, A. (1997). The World Bank, the language question and the future of African education, race and class. *A Journal for Black and Third World Liberation,* 3, 35-49.

McCord, G., Sachs, J., & Woo, W. (2005). Understanding African poverty: Beyond the Washington consensus to the millennium development goals approach. In J. Teunissen & A. Akkerman (Eds.), *Africa in the world economy – The national, regional and international challenges*. The Hague: Fondad.

McGreal, C. (2008, October 14). Rwanda to switch from French to English in schools. *The Guardian.*

Medel-Anonuevo, C. (2005). Lifelong learning and its potential for transforming the MDG's. *Convergence,* 38(3) 53-57.

Michaelowa, K. (2001). Primary education quality in Francophone Sub-Saharan Africa: Determinants of learning achievement and efficiency considerations. *World Development,* 29, 1699-1716.

Michaelowa, K. & Wechtler, A. (2006, March). *The cost-effectiveness of inputs in primary education: Insights from the literature and recent student surveys for Sub-Saharan Africa.* Paper presented at the Association for the Development of Education in Africa – Biennale on Education in Africa. Retrieved June 3, 2006 from www.adeanet.org/biennial-2006

Miller, S. (2001). African libraries south of the Sahara. In D. Stam (Ed.), *International dictionary of library histories* (pp. 5-9). Chicago: Fitzroy Dearborn.

Mills, C. (1994). Aid for libraries: Should one look the proverbial gift horse in the mouth? *Australian Academic and Research Libraries,* 25(4), 240-246.

Moir, A. & Jessel, D. (1992). *Brain sex: The real difference between men and women.* New York: Dell Publishing.

Moore, D. (2004, April 16). *The African-languages question beyond the colonial: analysis from global, Soviet, rational choice, and the EU-English perspectives.* Paper presented at the African Literature Association annual meeting, Madison Wisconsin.

Mwabukusi, M. (2007, January 24). Make your English good, teachers told. *The Citizen*, p. 4.

National Center For Educational Statistics. (2009). http://www.nces.ed.gov

National Endowment for the Arts. (2007, November). *To read or not to read: A question of national consequence.* Washington, D.C.: National Endowment for the Arts.

National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction.* Washington, D.C.: National Institute of Child Health and Human Development.

Neuman, S. B. (1999). Books make a difference: A study of access to literacy. *Reading Research Quarterly*, 34(3), 286-311.

Nhlapo, W. (2008, September 12). *Remarks from the South African ambassador to the United States.* Speech presented at Books For Africa 20th anniversary gala, St. Paul, MN, USA, September 12, 2008.

Nhlengetfwa, J. (2005). *Literacy for sustainable development: Reading for all – A pan African voice for literacy.* Conference summary presented at the International Reading Association 4th Pan-African Reading for all Conference.

Niles-Maack, M. (1986). The role of external aid in West African library development. *Library Quarterly*, 56(1), 1-16.

O'Brien, D. & Moje, E. (Eds.). (2001). *Constructions of literacy: Studies of teaching and learning in and out of secondary schools.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

O'Brien, D. (1997). *Engaging 'at risk' high school students.* Washington, D.C.:

National Reading Research Center.

OECD & UNESCO-UIS. (2003). *Literacy skills for the world of tomorrow:*

Further results from PISA 2000. Paris: OECD.

Osborn, D. (2005). African languages and information and communication

technology: Localizing the future. *Localisation Focus*, 4(2).

Paris, S. (2003). Assessing narrative comprehension in young children. *Reading*

Research Quarterly, 38(1), 36-76.

Paris, S. (2005). Reinterpreting development of reading skills. *Reading*

Research Quarterly, 40(1), 184-202.

Padak, N. (Ed.). (2000). *Distinguished educators on reading: Contributions that*

have shaped effective literacy instruction. Newark, Delaware:

International Reading Association.

Papen, U. (2005). Literacy and development: What works for whom? Or how

relevant is the social practices view of literacy for literacy education in

developing countries? *International Journal of Educational Development*,

25, 5-17.

Pearce, C. (2009, April). From closed books to open doors: West Africa's

literacy challenge. *African Network Campaign For Education For All.*

Retrieved April 24, 2009 from www.campaignforeducation.org

Phillipson, R. (2001). English for globalization or for the world's people?

 International Review of Education, 47(3-4), 185-200.

Pike, K. & McKinney, C. (1996). Understanding misunderstanding as cross-

cultural emic clash. In K. Jankowsky (Ed.), *The mystery of culture*

contacts, historical reconstruction, and text analysis: An emic approach
(pp. 39-63). Washington, D.C.: Georgetown University Press.

Pollack, W. (1998). *Real boys: Rescuing our sons from the myth of boyhood*.
New York: Random House.

Poverty Eradication Network Trust. (2009). http://www.pentrust.org

Prah, K. (2003). Going native: Language of instruction for education,
development and African emancipation. In B. Brock-Utne, Z. Desai and
M. Qorro (Eds.), *Language of instruction in Tanzania and South Africa*
(LOITASA). Dar es Salaam: E & D Limited.

Prescott Library. (2009). www.prescottlibrary.info.

Pressley, M. (2006). Reading instruction that works: The case for balanced
teaching. New York: The Guilford Press.

Putting reading first: The research building blocks of reading instruction –
Kindergarten through grade three. (2nd ed.). (2003, June). *Center for the
improvement of early reading achievement.*

Read, T. (1996). Developing local publishing capacity for children's literature.
In V. Greaney (Ed.), *Promoting reading in developing countries*.
Newark: International Reading Association.

Reagan, T. (2000). *Non-western educational traditions: Alternative approaches
to educational thought and practice.* Mahwah: Erlbaum.

Room To Read (2009). http://www.roomtoread.org.

Rubagumya, C. (1991). Language promotion for educational purposes: The
example of Tanzania. *International Review of Education*, 37, 67-87.

Rubagumya, C. (2003). English medium primary schools in Tanzania: A new

  linguistic market in education? In B. Brock-Utne, Z. Desai & M. Qorro

  (Eds.), *Language of instruction in Tanzania and South Africa*

  (LOITASA). Dar es Salaam: E & D Limited.

Ruddell, R. & Unrau, N. (2004). *Theoretical models and processes of*

  reading. (5th ed.). Newark: International Reading Association.

Rugemalira, J. (2005). Theoretical and practical challenges in a Tanzanian

  English medium primary school. *Africa and Asia,* 5, 66-84.

The Sabre Foundation. (2009). http://www.sabre.org.

Sachs, J. (2005). *The end of poverty: Economic possibilities for our time*. New

  York: Penguin Press.

Saenger, P. (1999). History of reading. In D. Wagner, R Venezky, & B. Street

  (Eds.), *Literacy: An international handbook.* Boulder: Westview Press.

Schumm, J., & Arguelles, M. (2006). No two learners are alike: The importance

  of assessment and differentiated instruction. In J. Schumm (Ed.), *Reading*

  assessment and instruction for all learners (pp. 27-86). New York: The

  Guilford Press.

Schwartz, S. (1984). *Measuring reading competence: A theoretical-prescriptive*

  approach. New York: Plenum Press.

Seaton, M. (1998, April 17). Spreading the word. *The Bookseller*, pp 24-26.

Sefue, O. (2008, September 13). *Remarks from the Tanzanian Ambassador to*

  the United States. Speech delivered at Books For Africa 20th anniversary

  breakfast, St. Paul, MN, USA, September 13, 2008.

Sefue, O. (2009, April 29). *Remarks from the Tanzanian Ambassador to the United States.* Speech delivered at Books For Africa reception, St. Paul, MN, USA, April 29, 2009.

Senechal, M., Lefevre, J., Thomas, E.M., & Daley, K.E. (1988). Differential effects of home literacy experiences on the development of oral and written language. *Reading Research Quarterly*, 33(1), 96-116.

Share, D.L., Jorm, A.F., Maclean, R., Matthews, R., & Waterman, B. (1983). Early reading achievement, oral language ability, and a child's home background. *Australian Psychologist*, 18, 75-87.

Shinn, M.R. (1989). *Curriculum-based measurement: Testing special children*. NewYork, NY: Guilford.

Shinn, M.R. (1998). *Advanced applications of curriculum-based measurement*. New York, NY: Guilford.

Shinn, M.R., Deno, S.L., & Espin. (2000). Technical adequacy of the ORF task for curriculum-based measurement of reading growth. *Journal of Special Education.* 34, 164-172.

Shinn, M.R., Deno, S.L. & Fuchs, L.S. (2002). *Using curriculum-based measurement in a problem-solving model*. New York: The Guilford Press.

Shinn, M.R., Walker, H.M. & Stoner, G., (2002). *Interventions for academic and behavior problems II: Preventive and remedial approaches*. Bethesda, MD: National Association of School Psychologists.

Should we use Kiswahili as medium of instruction? (2007, May 9). *The Citizen*, p. 16.

Silberglitt, B. (2009, January 19). Personal communication.

Silberglitt, B.; Burns, M., Madyun, N., and Lail, K. (2006). Relationship of

      reading fluency assessment data with state accountability test scores: A

      longitudinal comparison of grade levels. *Psychology in the Schools*,

      43(5), 527-535.

Snow, C.E., Burns, S.M., & Griffin, P. (Eds.). (1998). *Preventing reading*

      difficulties in young children. Washington, DC: National Academy Press.

Sources of donated books. (2005). *Peace Corps Information Collection and*

      Exchange. Washington, D.C.: Peace Corps.

Stephens, D. (2000). Knowledge and power: The design and implementation of

      gender policies in education in Malawi, Tanzania and Zimbabwe.

      International Journal of Educational Development, 20 (1), 29-48.

Stewart, F. (1996). Globalisation and education. *International Journal of*

      Educational Development, 16(4), 327-333.

Thiongo, N. (1986). *Decolonizing the African mind: The politics of language*

      in African literature. Nairobi: Heineman

Tusome vitabu project: Impact assessment report. (2006). *Care International*

      Tanzania.

UN millennium project – 2002-2006. (2006).

      http://www.unmillenniumproject.org.

UNESCO (2004). *Education for all: The quality imperative. EFA global*

      monitoring report 2005. Paris: UNESCO.

UNESCO (2006). *Literacy for life: Education for all global monitoring report*

2006. Retrieved August 26, 2008 from http://portal.unesco.org/education

UNESCO (2009). http://portal.unesco.org

UNICEF (2009). *United Nations Children's Fund: Information by country.*

http://www.unicef.org

Utts, J. & Heckard, R. (2006). *Statistical ideas and methods.* Thomson: Belmont.

Vandemoortele, J. (2005). Ambition is golden: Meeting the MDGs.

Development Journal of the Society for International Development, (1), 5-

11.

van Manen, M. (2001). *Researching lived experience.* Ontario: The Althouse

Press.

Vawda, A. & Patrinos, H. (1999). Producing educational materials in local

languages: Costs for Guatemala and Senegal. *International Journal of*

Educational Development, 19 (4-5), 287-300.

Verspoor, A. (2003). *The challenge of learning: Improving the quality of basic*

education in Sub-Saharan Africa. Discussion paper presented at the

ADEA biennial meeting 2003, Paris, France.

Wagner, D. (1999). Indigenous education and literacy learning. In D. Wagner, R.

Venezky, & B. Street (Eds.), *Literacy: An international handbook.*

Boulder, Colorado: Westview Press.

Wakerley, V. (2004). The status of European languages in Sub-Saharan Africa.

In W. Mosley (Ed.), *Taking sides: Clashing views on controversial*

African issues (pp. 271-278). Guilford: McGraw Hill.

Walberg, H., & Tsai, S. (1985). Correlates of reading achievement and attitude:

A national assessment study. *Journal of Educational Research*, 78, 159-167.

What languages will the world speak in 50 years? (2004, February 27). *American Association for the Advancement of Science.* Retrieved April 19, 2005 from http://www.eurekalert.org/features.

White, K. (1982). The relationship between socioeconomic status and academic achievement. *Psychological Bulletin*, 91(3), 461-481.

Wolf, J. & Odonkor, M. (1998). How educating a girl changes the woman she becomes: An intergenerational study in northern Ghana. *ABEL Technical Report Number 8.* Washington, D.C.: Academy for Educational Development and USAID.

The World Bank. (1987). *Educational policies for Sub-Saharan Africa: Adjustment, revitalization and expansion.* Washington, D.C.: The World Bank.

The World Bank. (2002). *World Bank support for provision of textbooks in Sub-Saharan Africa: 1985-2000. Africa Region Human Development Working Paper Series.* Retrieved June 3, 2006 from http://www.siteresources.worldbank.org/africaext/resources/no_27.pdf

The World Factbook. (2009). http://www.cia.gov/cia/publications/factbook.

Worthy, J., Moorman, M., & Turner, M. (1999). What Johnny likes to read is hard to find in school. *Reading Research Quarterly*, 34(1), 12-27.

Yin, R. (1989). *Case study research: Design and methods*. Newbury Park: Sage Publcations.

APPENDIX A

Millennium Development Goals

Goals	Targets	Indicators
Goal 1: Eradicate Extreme Hunger and Poverty.	Target 1: Halve, between 1990 and 2015, the proportion of people whose income is less than $1 per day; Target 2: Halve, between 1990 and 2015, the proportion of people who suffer from hunger.	1. Proportion of population below $1 (1993 PPP) per day (World Bank); 2. Poverty gap ratio [incidence x depth of poverty](World Bank); 3. Share of poorest quintile in national consumption (World Bank); 4. Prevalence of underweight children under five years of age (UNICEF-WHO); 5. Proportion of population below minimum level of dietary energy consumption (FAO).
Goal 2: Achieve Universal Primary Education	Target 3: Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.	6. Net enrolment ratio in primary education (UNESCO); 7. Proportion of pupils starting grade 1 who reach grade 5 (UNESCO) 8. Literacy rate of 15-24-year olds (UNESCO).
Goal 3: Promote Gender Equity and Empower Women	Target 4: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.	9. Ratio of girls to boys in primary, secondary and tertiary education (UNESCO); 10. Ratio of literate women to men, 15-24 years old (UNESCO); 11. Share of women in wage employment in the non-agricultural sector (ILO); 12. Proportion of seats held by women in national parliament (IPU).
Goal 4: Reduce Child Mortality	Target 5: Reduce by two-thirds,	13. Under-five

	between 1990 and 2015, the under-five mortality rate.	mortality rate (UNICEF-WHO) 14. Infant mortality rate (UNICEF-WHO) 15. Proportion of 1 year-old children immunized against measles (UNICEF-WHO)
Goal 5: Improve Maternal Health	Target 6. Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio	16. Maternal mortality ratio (UNICEF-WHO); 17. Proportion of births attended by skilled health personnel (UNICEF-WHO)
Goal 6: Combat HIV/AIDS, Malaria and other diseases	Target 7. Have halted by 2015 and begun to reverse the spread of HIV/AIDS	18. HIV prevalence among pregnant women aged 15-24 years (UNAIDS-WHO-UNICEF); 19. Condom use rate of the contraceptive prevalence rate (UN Population Division); 19a. Condom use at last high-risk sex (UNICEF-WHO); 19b. Percentage of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS (UNICEF-WHO); 19c. Contraceptive prevalence rate (UN Population Division); 20. Ratio of school attendance of orphans to school attendance of non-orphans aged 10-14 years (UNICEF-UNAIDS-WHO)
Goal 7: Ensure Environmental Sustainability	Target 8. Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases	21. Prevalence and death rates associated with malaria (WHO); 22. Proportion of population in malaria-

	Target 9. Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources; Target 10. Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation; Target 11. Have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers	risk areas using effective malaria prevention and treatment measures (UNICEF-WHO); 23. Prevalence and death rates associated with tuberculosis (WHO); 24. Proportion of tuberculosis cases detected and cured under DOTS (internationally recommended TB control strategy) (WHO); 25. Proportion of land area covered by forest (FAO); 26. Ratio of area protected to maintain biological diversity to surface area (UNEP-WCMC); 27. Energy use (kg oil equivalent) per $1 GDP (PPP) (IEA, World Bank); 28. Carbon dioxide emissions per capita (UNFCCC, UNSD) and consumption of ozone-depleting CFCs (ODP tons) (UNEP-Ozone Secretariat); 29. Proportion of population using solid fuels (WHO); 30. Proportion of population with sustainable access to an improved water source, urban and rural (UNICEF-WHO); 31. Proportion of population with access to improved sanitation, urban and rural (UNICEF-WHO); 32. Proportion of households with access to secure tenure (UN-HABITAT)
Goal 8: Develop a Global	Target 12. Develop further an	33. Net Official

Partnership for Development	open, rule-based, predictable, nondiscriminatory trading and financial system (includes a commitment to good governance, development, and poverty reduction both nationally and internationally); Target 13. Address the special needs of the Least Developed Countries (includes tariff- and quota-free access for Least Developed Countries? exports, enhanced program of debt relief for heavily indebted poor countries [HIPCs] and cancellation of official bilateral debt, and more generous official development assistance for countries committed to poverty reduction); Target 14. Address the special needs of landlocked developing countries and small island developing states (through the Program of Action for the Sustainable Development of Small Island Developing States and 22nd General Assembly provisions); Target 15. Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term; Target 16. In cooperation with developing countries, develop and implement strategies for decent and productive work for youth Indicators; Target 17. In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries; Target 18. In cooperation with the private sector, make available the benefits of new technologies, especially information and	Development Assistance (ODA), total and to LDCs, as percentage of OECD/Development Assistance Committee (DAC) donors' gross national income (GNI)(OECD); 34. Proportion of total bilateral, sector-allocable ODA of OECD/DAC donors to basic social services (basic education, primary health care, nutrition, safe water and sanitation) (OECD); 35. Proportion of bilateral ODA of OECD/DAC donors that is untied (OECD); 36. ODA received in landlocked developing countries as a proportion of their GNIs (OECD); 37. ODA received in small island developing States as proportion of their GNIs (OECD); 38. Proportion of total developed country imports (by value and excluding arms) from developing countries and from LDCs, admitted free of duty (UNCTAD, WTO, WB); 39. Average tariffs imposed by developed countries on agricultural products and textiles and clothing from developing countries (UNCTAD, WTO, WB); 40. Agricultural support estimate for OECD countries as percentage of their GDP (OECD); 41. Proportion of ODA

	communications technologies.	provided to help build trade capacity (OECD, WTO); 42. Total number of countries that have reached their Heavily Indebted Poor Countries Initiative (HIPC) decision points and number that have reached their HIPC completion points (cumulative) (IMF - World Bank); 43. Debt relief committed under HIPC initiative (IMF-World Bank); 44. Debt service as a percentage of exports of goods and services (IMF-World Bank); 45. Unemployment rate of young people aged 15-24 years, each sex and total (ILO); 46. Proportion of population with access to affordable essential drugs on a sustainable basis (WHO); 47. Telephone lines and cellular subscribers per 100 population (ITU); 48. Personal computers in use per 100 population and Internet users per 100 population (ITU)

APPENDIX B

Questionnaire Used For Schools Receiving Books

1) What does it mean having these books delivered to your school?

2) In what ways, if any, will these books transform your school? Culturally? Academically? Socially?

3) English is not the native language here in Tanzania, so what if any benefit is derived from having English-language books?

4) Is there a danger of loss of cultural heritage by having more English taught? Tell me more …

5) Share with me what was the status of your library before these books arrived?

6) What is it like now?

7) What would you like Books For Africa to know about this delivery of books to your school in Tanzania? Were the books of high enough quality for your needs? Were the subject areas useful? Do you think these books will increase reading performance?

8) Has there been a learning adjustment in having this new delivery of books to your school? Has it been difficult to integrate these books into the classroom curriculum.

9) What does your school need, right now, more than anything else?

APPENDIX C

Questionnaire Used For Schools That Have Not Yet Received Books

1) Does your school have any books? What kind?

2) Does your school need English-language books for its classrooms and library?

3) Why?

4) English is not the native language here in Tanzania, so what if any benefit are derived from having English-language books?

5) Is there a danger of loss of cultural heritage by having more English taught?

6) What does your school need, right now, more than anything else?

APPENDIX D

Consent Statement -- Written Statement of Research

LITERACY RESEARCH PROJECT
DODOMA, TANZANIA
EAST AFRICA
JANUARY 2007 THROUGH JANUARY 2008

Thank you for your participation in this special research project designed to test the impacts of English language textbooks donated by Books For Africa (based in the United States of America) upon student reading ability. This project will begin in January of 2007 with a baseline test to measure reading ability. There will be additional assessments in 2007, and a final assessment in January of 2008. Students in four schools have been randomly selected for participation in this project.   The goal is to determine if donated textbooks from Books For Africa will change reading achievement levels. A number of teachers and administrators in participating schools will also be interviewed to learn more about the impacts of donated books upon faculty and students.

Books For Africa hopes to use this information to improve book donation programs.   Mr. Patrick Plonski, lead researcher for this project from the University of Minnesota (based in the State of Minnesota in the United States of America), will use data from this project to complete his PhD dissertation. Books For Africa, the largest shipper of donated textbooks to the African continent, and the Poverty Eradication Network (PEN) Trust based in Dodoma, Tanzania, are also key partners in this project and will assist in data collection and in working with schools and students. This is a voluntary project and if anyone does not want to participate for any reason, they will not be forced to do so. Questions regarding this project may be directed to Andrea Wall of Mungwe ABC Athman with PEN Trust or to Mr. Patrick Plonski (Patrick@booksforafrica.org).

Thank you again for your assistance in this effort to improve education and student literacy in Tanzania.

APPENDIX E

Kiswahili Translation of Consent Statement

Kwa niaba ya wenzangu katika Utafiti huu, nawashukuru Wadau wote kwa ushiriki wenu wa dhati katika kazi hii ya kipekee ya utafiti wa manufaa na faida ya vitabu vya kiingereza kwa Walengwa ambavyo vinatolewa bure na "Books For Africa (yenye makao yake Marekani).

Mradi huu utaanza rasmi Januari 2007, kwa majaribio ya uwezo wa kusoma. Kutakuwa na majaribio zaidi katika mwaka huo huo, ikifuatiwa na jaribio hitimisho litakalofanyika Januari 2008. Katika majaribio hayo, wanafunzi wa kidato cha nne wamechaguliwa (randomly) kushiriki. Makusudi ya zoezi hili ni kutaka kujua kama vitabu vinavyotolewa kwa hisani na "Books For Africa" vinaleta mabadiliko na ufanisi katika ubora wa usomaji wa lugha ya kiingereza kwa Walengwa.

Baadhi ya Waalimu na viongozi mbalimbali katika shule husika watasailiwa pia,ili kujifunza na kujua zaidi namna ya kupima manufaa na faida ya vitabu hivyo katika Taasisi na kwa Wanafunzi wao.

 "Books For Africa" inagetemea kutumia matokeo ya utafiti huu katika kuboresha huduma zake za ugawaji vitabu kwa hisani. Mradi huu utaongozwa na Mtafiti kiongozi, ndugu Patrick Plonski kutoka Chuo Kikuu cha Minnesota (kilichopo Minnesota – Marekani) ambaye atatumia makusanyo na matokeo ya utafiti huo katika kukamilisha uandikaji wa kitabu kwa ajili ya Stashahada yake ya juu (PhD dissertation). Utafiti huu unafanywa pia kwa ushirikiano na "Books For Africa (BFA)", ambao ndio wasambazaji wakubwa wa vitabu vya hisani kwa Afrika, na "Poverty Eradication Network (PEN) Trust" ya Dodoma, Tanzania ambao ni kati ya Wadau wakubwa wa vitabu husika. "PEN Trust" watahusika zaidi na ukusanyaji wa taarifa na kufanya majaribio kwa wanafunzi na mashule teule.

Utafiti huu ni huru na ni wa hiyari; hivyo kwa sababu yeyote ile mtu yuko huru kushiriki au kutokushiriki.

Kwa mawasiliano zaidi tafadhali wasiliana na Andrea Wall (+255 755

812145), Mungwe ABC Athman (+255 754 310620) au Patrick Plonski (Patrick@booksforafrica.org). Nawashukuru tena kwa ushirikiano wenu katika juhudi za kuboresha elimu Tanzania.

Appendix F

Profiles of Schools in Study

School 1
Control School
Categories: Mixed general school of males and females with very few books

- Approximately 600 students at A level 1 – 6
- Mix of boys and girls
- Very modest, dated library with few books available
- Researcher met with Headmaster on 7/21/06 for inspection and to request permission
- Secured interview data on location on 1/31/07
- Informed by PEN Trust that 21 students tested on March 26, 2007.
- Final test data secured in Feb/March, 2008

School 2
Treatment School
Categories: Mixed general school of males and females with very few books

- Approximately 400 students
- Mix of boys and girls
- Very modest, dated library with few books available. Library under re-organization and no librarian.
- Tested 51 students at this school on 1/26/07
- Confirmed by PEN Trust that Dodoma Secondary picked up their text and library books on 2/13/07
- 4/2/07 PEN Trust reported that none of the new books provided had been unpacked because the school is waiting for librarian from Mazengo University to provide assistance in proper establishment.
- 8/23/07 PEN Trust reported that it was confirmed that the books had been delivered and were on the school premises
- Final test data secured in Feb/March, 2008

School 3
Treatment School (historical)
Categories: General school of males with very high quality library

- Approximately 520 students
- Boys school, form 3-6. Interviewed headmaster on 1/29/07; Most students new transfers, hence little access to the library.
- Tested students at 1/29/07 (30 male students tested)
- Toured school on 1/30/07 looking for books. Good library, but underutilized with many books covered with dust. After hours of looking, found 20 boxes of books in locked room outside of headmasters room

where they had been sitting for two years. This school had been asking for more books, but was not using what they had. Also, no librarian on staff and hence no or little student access to books. Plan to hire a permanent librarian in Feb of 2007.

- Received report from PEN Trust on 8/6/07 that they had toured the library and found all of books on shelves from new delivery.
- Final test data secured by PEN Trust officers in April, 2008

School 4
Treatment School (historical and high-achieving students)
Categories: High achieving boarding school of females from across Tanzania with very high quality library

- Approximately 670 students
- All girls boarding school with students from across Tanzania
- Established as a "special school" for academically talented students in 1993
- Located approximately three miles outside of Dodoma on a small campus
- Has a large library of approximately 20,000 books with many dated titles. Library has been in use for many years. Received Books For Africa delivery of 19 boxes of books (1,157 books) on 8/16/04 and received an additional 16 boxes of books (approximately 700 books) on 7/21/06
- Met with headmistress on 7/21/06 as part of a Books For Africa delegation. Interacted with students and teachers for approximately two hours, presented books, and toured library including meeting with librarian.
- Tested students on 1/31/07 (28 female students tested)
- Final test data secured in Feb/March, 2008

APPENDIX G

Treatments Administered

- School 1 was designated as the control group and received no books from the United States donor Books For Africa in addition to what they were currently utilizing. (This school had very limited supplies of English-language and local language books). The reading fluency and comprehension assessments were completed initially by 21 total students (nine male and 12 female). Only 12 students (seven male and five female participants) completed the pre and post year assessments, representing an attrition rate of 43 percent for this school.

- School 2 was designated as the treatment group and received a standard shipment of secondary school English-language books from Books For Africa in January of 2007 after a baseline assessment. This school was included to measure the impacts of books on student achievement over the course of one school year. Forty-nine total students (16 male and 33 female) completed the initial reading fluency and comprehension assessments. Twenty-eight students (nine male and 19 female) completed the pre and post year assessments, representing an attrition rate of 43 percent for this school.

- Schools 3 and 4 had already received donated English language textbooks two years previous, received additional textbooks in 2007, and were monitored through pre and post testing. School 4 was a girls school, and school 3 was a boys school. These schools were selected to further measure the impacts of time as a variable on student achievement. It is generally assumed that the longer students have access to books, the more pronounced will be their achievement (International Reading Association, 2008). Schools 3 and 4 also allowed for gender-specific data collection, and collection of data from one high-achieving school (school 4). Twenty-eight female students were tested at School 4 with an attrition rate of 14 percent, leaving valid response data for 24 female students. 30 male students were tested at School 3 with an attrition rate of 53 percent, leaving valid response data for 14 male students.

    The rationale for structuring the research design in this fashion was as follows:

- Public schools were selected because they tend to have fewer resources than private schools, and were more typical of the situation throughout the country;

- Achievement levels of tenth grade students (United States equivalent) were tested because at this level students had acquired a greater level of English-language proficiency;

- Reading fluency and comprehension assessments were utilized because these were optimal measures of the impact of text and library books on

student achievement (AIMSweb, 2008).

APPENDIX H

Timeline of Procedures

- A field-tested and culturally appropriate instrument for testing secondary students in reading skills in Tanzania was identified;
- A series of meetings with PEN Trust and candidate schools was held in Dar es Salaam and Dodoma, Tanzania in February and July of 2006;
- School sites were toured in July of 2006 to select suitable schools;
- One school was selected as a control group with selection made for reasons of convenience and at the recommendation of PEN Trust in January of 2007;
- Baseline comprehension and fluency assessments at three schools were secured in January of 2007 at the beginning of the school year with the instructor on site utilizing the assistance of PEN Trust. Qualitative data was also secured from teachers and administrators during this same period. PEN Trust officials secured baseline assessment data from School 1 in March of 2007.;
- Conducted final testing at schools 1, 2, and 3 in February/March of 2008 with the researcher on site utilizing PEN Trust offices as a base of operations. PEN Trust secured final data in April of 2008 at School 4;
- Conducted data analysis following input of data after return from Tanzania in April of 2008.

APPENDIX I

Protocol of Test Procedures

1) Hand in list of students from benchmark test to school administration if posttest or request students for testing from the headmaster if pretest;
2) Get as many of these students as possible in the room at the same time to test;
3) Hand out MAZE instrument to class;
4) Have students write their names on the test papers;
5) Administer THREE-MINUTE assessment (group);
6) Collect all tests;
7) Set up three testing stations for individual assessments;
8) Call up students for individual tests;
9) Verify student names;
9) Administer three different RCBM one-minute reading tests for each student;
10) Record number of errors while student is reading;
12) Calculate total number of errors and words read at the end of the student reading;
13) Ready for next student to test!

Time needed: 10 minutes to set up and explain to class
              3 minutes to administer the MAZE test
              10 minutes to collect tests and set up for individual RCBM tests
              3 minutes per student to test individual (40 students x 3 tests = 120
                      minutes/3 testers = 40 minutes total
              1 minute per student to score and set up for next student (40
                      students/3 testers = 20 minutes

              Total of approximately one hour and 20 minutes to test 40 students

APPENDIX J

AIMSWEB Curriculum Based Measurement (CBM) Probe #1

Jellyfish are creatures found in most bodies of salt water, from the tropical waters of the Caribbean Sea, to the cold, dark waters of the Arctic Ocean. Jellyfish are unusual creatures. When seen in the water, it's hard to believe they are a species from this planet. They look like aliens hanging suspended in water with their luminous layers of tissue and flesh. They have long, curly tentacles and plastic like bubble tops that sway in the sea. Although it's difficult to believe, jellyfish have no heart, blood, brain, or gills. You can see through their mostly hollow stomach cavities where their food is digested and dissolved. Jellyfish have no proper eyes or ears. In fact, it's possible to believe that jellyfish are just brainless blobs without the slightest spark of intelligence. Amazingly enough, despite their lack of sight and hearing, jellyfish can distinguish touch, temperature, light, and darkness. They also know the direction and pull of water currents. Jellyfish come in an assortment of colors and shades. The jellyfish living in cooler waters are generally pale or milky white in color. Many of the jellyfish that live in warmer, tropical waters are often strikingly colored in shades of magenta, scarlet, yellow, and orange. A jellyfish can be as tiny as a thimble, and some can grow to be as colossal as a satellite dish. Most jellyfish can maneuver feebly in the water; however, their poor swimming skills place them at the mercy and whimsy of ocean currents. Some jellyfish ride the ocean currents alone, while other species travel in special groups called colonies. The man-of-war is an example of a highly adapted jellyfish that travels with a colony. The man-of-war serves a special function in its colony. It catches prey with a very long tentacle that can trail as far as one hundred feet through the sea. The man-of-war's prey includes shrimp, squid, and fish. It also produces potent venom that is harmful to humans who may swim nearby, unaware of the man-of-war's clever and stunning snares.

APPENDIX K

AIMSWEB Curriculum Based Measurement (CBM) Probe #2

Mr. Harper was seventy-nine years old. However, that didn't prevent him from rising every morning at sunrise and walking the property lines of his farm. Mr. Harper knew his farm's boundaries and what property belonged to him and what didn't. Most mornings he found evidence of trespassers on his land the night before, but he didn't mind. The trespassers left sharp footprints in the turf when they came for the windfalls of apples and plums that littered the orderly rows of his orchard. They came for the bud-blooms on his evergreens and the sweet acorns that fell from his oaks. Sometimes Mr. Harper was lucky enough to come upon the culprits. White-tailed deer were to blame for nibbling the apples on his apple trees. Sometimes he was fortunate enough to catch them dancing on their hind legs as they stretched to reach fruit that had not yet fallen. Mr. Harper was the proprietor of a tree farm that he'd inherited from his grandparents many decades ago. The trees that now dwarfed him were planted when he was only a toddler. He was an adolescent when the orchards had yielded their first crop of fruit. Even though he was now an old man and had been a widower for ten years, he was not a lonely man. How could an old man feel lonesome when a family of squirrels transformed the grand oak trees in his front yard into an apartment complex? How could he feel lonesome when there was so much work to be done? Mr. Harper treated his wild guests like royalty because he wanted them to return season after season and keep him company. To keep the animals happy, he put out seed for the birds that nested in his trees and salt-block appetizers for the deer herd that roamed his land. He wooed his raccoon friends with peanut butter sandwiches nailed to fence posts. In return, they provided him with entertainment all winter long. Mr. Harper enjoyed everything about his tree farm, but his favorite part was watching the scenes of nature unfold before him.

APPENDIX L

AIMSWEB Curriculum Based Measurement (CBM) Probe #3

In the field of geology, there isn't a scientist with more skill, determination or motivation than Dr. Isabel Rodriguez. Dr. Rodriguez started her collection of rocks at an early age. When she was a child, she would take rocks home to her family's cattle ranch at the edge of the desert. As a grown woman, she turned her childhood interest into a career and now teaches geology to college students from the United States and other countries. As a college instructor, she trains young men and women to be skilled geologists. She shows them how to read maps of major landforms and how to tell the difference between a diamond and a lump of glass. She provides her students knowledge they can use while looking for rocks and fossils in the field. For example, her students learn that the Red Mountains in Colorado are tinted red because of iron compounds and that the best source for gems are rivers flowing from volcanoes. One afternoon, as part of her lecture, Dr. Rodriquez held up her pencil. "The graphite in the lead of this pencil is chemically identical to diamonds," she said. "But because they have different crystal structures, they have very different physical properties. You can write with graphite in the pencil, but it is basically worthless. On the other hand, the diamond comes in a variety of colors and is priceless." In the field, Dr. Rodriguez is a rock-finding whiz, amazing her students during their outings across the sun-baked desert. Although many fossils and semi- precious stones lie in plain view, they are clear only to her keen eyes. "An opal has a blue-green glow," she tells her students as they walk across the desert. "When you find one, notice how it reflects sunlight." Dr. Rodriguez is constantly digging up new treasures. Finding a million-year- old carbon imprint of a fern frond trapped in a sandstone wall is not unusual for Dr. Rodriquez. On outings with her students, she is frequently heard saying, "This stone is amazing. Students, come and look at this find!"

APPENDIX M

AIMSWEB MAZE Probe

Mr. Mooney is an expert at his occupation. In fact, he is one of (has, and, the) few experts left in an occupation (this, that, right) is slowly dwindling and lacking well-(finished, trained, can) professionals.   Mr. Mooney shampoos animals. He (were, finished, is) known to boast that there is (in, one, no) animal too filthy, too big or (too, is, all) wide, and no animal too ferocious (to, an, for) him. He can get them all (polished, top, clean) and contrite. Mr. Mooney has the (right, bristly, week) to boast.   Once, when Mr. Mooney (top, is, was) younger, he was called upon to (shampoo, polished, beauty) the walruses at the local zoo. (That, When, If) Mr. Mooney was finished with those (heads, walruses, next), their bristly coats were gleaming, their (remained, roof, tusks) were polished to perfection, and the (next, gleaming, few) hairs they possessed on the top (of, the, for) their heads were fit for a (assistant, younger, beauty) pageant.   The next week, the zookeeper (were, that, was) heard whispering to his assistant that (the, for, and) walruses that were usually crabby and (impolite, terrible, even) were unusually courteous and kind. According (to, their, at) the zookeeper, they remained that way(start, from, for) an entire week after Mr. Mooney (with, had, have) soaped them up and washed them (over, heard, down). Rumor has it that whenever they (give, see, for) someone coming at them with a (scrub, filthy, even) brush and a bar of rose-(coated, scented, animal) soap, they start to squeal with (glory, everywhere, delight), flip over on their backs, and (wag, fit, squeal) their tails in excitement.   Whenever the (perfection, walruses, zookeeper) are brought up, Mr. Mooney smiles. (Yes, Fact, Arrived), they were a triumph for him, (he, but, been) if asked what his most memorable(help, to, job) was, he will tell you about (them, the, impolite) time he was asked to groom (her, Mrs., rose) Richman's peacocks. Even to this day, (those, when, were) Mr. Mooney recalls the sight that (greeted, spilled, brush) him when he arrived at Mrs.(Mooney, flip, Richman's) mansion, he shudders.   Apparently there had (been, at, spilled) a terrible accident while some workers (polished, were, was) repairing Mrs. Richman's roof and tar (coats, been, had) spilled everywhere. As Mr. Mooney drove (finished, up, smiles) to her large house, he couldn't (help, boast, sight) but gasp at the flock of (walruses, polished, peacocks) coated in a thick, black mess. (Mansion, Remained, Their) beautiful plumage was black and their (hairs, eyes, large) were tragic and downcast. Never one (to, at, coated) give up or despair, Mr. Mooney (greeted, feathers, climbed) out of his van and went (on, to, they) work.

APPENDIX N

Reading Fluency and Comprehension Scores and School Categories

	School Number			
	1	2	3	4
School Ranking by Fluency Scores	2	3	4	1
School Ranking by Comprehension Scores	3	2	4	1

School Categories
Gender

	1	2	3	4
Mixed	x	x		
All male			x	
All female				x

Library Quality

	1	2	3	4
High			x	x
Medium		x		
Low	x			

Quality of Librarian

	1	2	3	4
High				x
Moderate		x		
Low/none	x		x	

Book history

	1	2	3	4
Long			x	x
Medium		x		
None	x			

Student levels

	1	2	3	4
High achieving				x
Standard	x	x	x	

Admin/facility capacity

	1	2	3	4
High				x
Medium		x	x	
Low	x			