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Miles Avery Pearson

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MANJAKO LITERACY AND ISSUES IN LANGUAGE OF INSTRUCTION

A Masters Thesis

Presented to

The Graduate College of

Missouri State University

In Partial Fulfillment

Of the Requirements for the Degree

Master of Science, Applied Anthropology

By

Miles A. Avery Pearson

December 2014

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MANJAKO LITERACY AND ISSUES IN LANGUAGE OF INSTRUCTION

Sociology and Anthropology

Missouri State University, December 2014

Master of Science

Miles A. Avery Pearson

ABSTRACT

Students in Caio, Guinea-Bissau cannot read. This is due largely to the mismatch between the language at home and the language of instruction in schools. Students in Caio speak Manjako, but classes are taught in Portuguese, the official language, which students do not understand. This makes it more difficult for students to develop literacy skills and succeed in school. Literature shows that literacy is achieved best when it is taught to students in their mother tongue. This project involved creating and testing Manjako literacy materials and concludes with recommendations for implementing a Manjako literacy program. The materials included flashcards, sample words and sentences, short stories, and an interactive Manjako literacy computer program. These were developed during fieldwork and were tested in experimental classes with children from the village of Caio. The orthography, developed by Dr. Margaret Buckner, and the materials proved successful in representing and teaching Manjako literacy. This thesis recommends that Manjako should be used in schools before introducing Portuguese and that a new pedagogy should be introduced in schools which focuses on class participation instead of lecturing and rote memorization. This thesis can also serve as a model to aid in the literacy development of other languages in the area.

KEYWORDS: Manjako, Manjaku, literacy, mother tongue, L1, native language, Caio, Guinea-Bissau, education, orthography

This abstract is approved as to form and content

Dr. Margaret Buckner
Chairperson, Advisory Committee
Missouri State University

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Approved:

Dr. Margaret Buckner

Dr. William Wedenoja

Dr. Christina Biava

Dr. Thomas Tomasi, Associate Dean, Graduate College

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INTRODUCTION

Problem

West Africa has the lowest literacy rates in the world (Integrated Regional Information Networks 2014:1). One of the reasons for this is that students are schooled in languages that they do not speak. Such is the case for Guinea-Bissau, a country in West Africa. Schools in Guinea-Bissau use the official language, Portuguese, as the language of instruction. This means that all written materials and everything the teacher says is supposed to be in Portuguese. However, Portuguese is only spoken by approximately ten percent of the population (Kohl 2012:650). The majority of the Portuguese speakers reside in the capital city, Bissau. Most teachers do not speak fluent or even adequate Portuguese, especially in rural areas. When the language of instruction is a language that students (and even teachers) do not speak or understand, education suffers, and students do not learn to read. Those who do become “literate” do not become functionally literate. Their reading is so slow and non-fluid that it would only be useful for the most rudimentary of purposes.

Research shows that education and reading should begin in a pupil’s mother tongue (first language) (Benson 2010:323). When there is a choice between teaching literacy in a first language (L1) or a second language (L2), the L1 should be chosen. Literacy skills transfer between languages (Carson, Carrell, Silberstein, Kroll, and Kuehn 1990:246). This means that the skills that are learned when learning to read and write one language can be used when learning to read and write another language. Transferring literacy from an L1 to an L2 yields better results than vice versa, even if the

goal is strictly to become literate in an L2. Students who learn to read and write in their L1 and then properly transition into learning an L2 are better readers and writers in the L2 than students who have been taught literacy in an L2 the entire time (Hovens 2002:259). Putting mother tongues first yields better proficiency in L1 literacy and L2 literacy.

In many situations, in particular in rural areas, children grow up speaking a language other than the official language. A country's official language, which is used in education, is a dominant language of a former colonial power. Children have very little exposure to the dominant language in early childhood, and when they begin school, they are thrust into a language that is incomprehensible to them. They are forced to try to overcome the language barrier while simultaneously trying to learn the materials in class. Instead of learning to read and write, i.e., learning what symbols represent what phonemes in their language, they are trying to learn a completely new language. They are trying to learn new symbols, what phonemes they represent, how phonemes are combined to make words, and translate those words into their own language. This is the case with Manjako in Caio, Guinea-Bissau.

Objective

There is a better alternative. Dr. Margaret Buckner, a professor of linguistic anthropology, and Caçarné Dadioucoumé, a native Manjako speaker and co-founder of *Apprenda*, (a French NGO that aims to improve educational outcomes in Caio), have collaborated and developed an orthography for Manjako. This orthography could be used to teach Manjako speakers literacy in their own language.

Prior to arrival in Guinea-Bissau, my exposure to Manjako was limited to several short stories that I digitized for my work as a graduate assistant. I became interested in the language and became part of the ongoing Manjako literacy project. For my applied thesis I have used the orthography to create Manjako literacy materials. These materials were tested in Caio, Guinea-Bissau in experimental literacy classes with pupils from the village. In this thesis, I describe and evaluate the materials that were used, provide further materials that were developed after completing fieldwork, and propose recommendations for implementing a literacy program. My research aids in the development of an ongoing literacy project in Caio, Guinea-Bissau, and contributes to the larger movement towards mother-tongue education. It is also the first research of its kind with Manjako. In this thesis, I examine the literature on mother-tongue education and show why it would be best for Manjako and perhaps for speakers of other L1s in the country.

BACKGROUND

Terminology

Literacy. Literacy, a seemingly simple concept, actually has a variety of definitions and a wide range of meanings depending on how it is used and who is using it. Oxford Dictionary defines literacy as “the ability to read and write.” Roberts (1994) says that most definitions of literacy are on a scale and range between a simple definition (“the ability to encode and decode written symbols”) to a complex definition (“the ability to interpret events and experiences in a social and political context”) (Roberts 1994:209). Fishman’s definition of literacy would fall under Roberts’ more complex definitions; he states that literacy is “a phenomenon that requires local cultural validity and that may, therefore, take different forms, pursue different goals, be linked to different contextual and institutional supports from one speech community to another and even from one speech network to another” (Fishman 1989:25). It can be argued that for someone to be literate, they not only must be able to derive meaning from symbols, but must also be able to use the information appropriately in a social context. For instance, filling out a tax form would be a complex literacy task. An individual must be able to understand what terms mean, respond appropriately, and navigate through the procedure to file properly. The notion of being “computer literate” has the same connotations. To be computer literate, one must have a working knowledge of how to use a computer to accomplish certain meaningful tasks in certain contexts. Literacy is relative and contextually dependent. “A middle school student reading and writing at a seventh-grade level could be deemed literate among her peers, but illiterate among university graduate

students” (Williams and Snipper 1990:1). Literacy can be relative to the levels of others and how well it is used to accomplish certain tasks.

According to Williams and Snipper (1990:1) there are three types of recognized literacy: functional, cultural, and critical. Functional literacy is the most basic coding and decoding that makes it possible to read simple texts. Cultural literacy requires having shared experiences to fully understand texts. Critical literacy involves identifying the political component that is inherent in reading and writing.

The sources that provide statistics for literacy rates give confusing explanations about how literacy is measured and who is considered literate. UNICEF (2014) gives their definition of “adult literacy rate” as “percentage of persons aged 15 and over who can read and write,” but they count persons aged 15 to 24 years in their “youth literacy rate.” So they give contradictory qualifiers for who fits into which category, and provide the most basic definition for how they define literacy. UNICEF's literacy rates were obtained mainly from UNESCO, which obtains its data from an annual literacy survey, the Demographic and Health Surveys (DHS), and Multiple Indicator Cluster Surveys (MICS). The UNESCO Institute for Statistics (UIS) uses the United Nations definition of literacy: “the ability to read and write, with understanding, a short, simple statement about one’s everyday life” (UNESCO 2004:23). However, even this definition of literacy varies among different surveys, sources, and modes of survey administration. In Guinea-Bissau, the MICS of 2000 defined literacy as “the ability to read easily or with difficulty a letter or a newspaper.” This definition provides no information on the participants’ ability to understand what he or she is reading. The measurement of literacy in the 2003 Census in Haiti used the questions “1) Do you (Does he or she) know read and write?

[sic] 2) What is the highest education level attained?” (UNESCO 2014). From these questions, it appears that the participants may not have been able to understand the surveyor or may not have been present for the survey. In addition, the modes of these surveys are either “household declaration” or “self-declaration,” meaning that the reliability of these statistics is dependent on the honesty of the surveyees. In summary, surveying organizations do not give clear measures of literacy, which brings into question the accuracy of what is known about world literacy.

Other Terms. The term “mother tongue” refers to a language that an individual is born into and/or the language that is most commonly used in a specific place. The terms “native language” and “first language (L1)” are synonymous with mother tongue and are used interchangeably throughout this paper. “Second language (L2)” is a language that is introduced or learned after a learner’s first language has already been established. Likewise, a “third language” (L3) is one that has been introduced after the second language. An L2 (or L3) is different from a foreign language, in that an L2 (or L3) plays a role in a specific region, whereas a foreign language is used outside of a region (Engel de Abreu and Gathercole 2012:974).

Mother Tongues in Education

When there is more than one language within a region, the question arises of which language or languages should be used in education. For most of history, the language of government authority (or frequently the colonial power) has been used as the medium in education, while minority languages have been oppressed and seen as lesser languages. Europe has a long history of colonization and proselytization, in which languages of the dominated peoples have been seen as inferior. Most of these languages

also did not have a writing system, which was often seen as proof of inferiority. Over the past century, many colonies have gained independence from their colonizers, but the languages of the colonial powers are often still used in education. Often ex-colonies are still dependent on their former colonizers for development efforts, and some countries see it as more beneficial to use a widely spoken language in their education system in order to make their citizens useful in the globalized world (Kohl 2012:651). Only in the past several decades have minority languages gained considerable ground in their use in schools.

Many of these early studies on the effects of bilingualism lacked experimental methods (Darcy 1953:21). Darcy attempted to fix this problem by compiling the studies that had reliable methodologies and re-examining the results. She concluded that there are few studies in which bilingual pupils perform better on intelligence tests, and she claimed that the studies that favor bilingualism did not sufficiently control variables of socioeconomic status and degrees of bilingualism. In other words, the reliable studies examined by Darcy show that monolingualism correlates with higher intelligence than does bilingualism.

Contrary to Darcy, research by Peal and Lambert has shown the positive effects of using mother tongues in education. Methods in early multilingual research were unreliable. Instead of testing the effects of mother-tongue literacy versus L2 literacy, pupils were lumped into categories of bilingual or monolingual and their intelligence was tested and compared with each other's. Researchers frequently concluded that bilingualism was harmful and detrimental to intelligence (Peal and Lambert 1962:1). Peal and Lambert's study was one of the first to show that bilingualism correlates with

greater performance on intelligence testing. They claimed that bilingualism was a language asset and bilinguals had more diversified mental abilities and greater mental flexibility than monoglots.

Hypotheses of Multilingual Education. Macnamara (1966) published one of the more coherent theories on bilingual teaching in schools (Cummins 1979:223). The situation Macnamara studied was different from many of the bilingual programs that are being advocated for currently. He studied schools in Ireland that were attempting to make students learn in Gaelic in place of English. At the time of his research, English was the dominant language in Ireland; 90 percent of the population were English-speaking monoglots (Macnamara 1966:3). An organization called the Gaelic League was pressuring administration to revitalize the Gaelic language, and the government declared that Gaelic would be taught in schools or used as a medium of instruction for at least one hour every day by a competent teacher (Macnamara 1966:3). Macnamara studied the effects of this forced L2 instruction and determined that spending too much time in a second language damages the development of the mother tongue (Macnamara 1966:136). This led to his formation of the “balance effect” hypothesis, which states that when two languages are learned simultaneously, the acquisition of one will come at the loss of the other. When an English-speaking child is taught arithmetic in Gaelic, his or her Gaelic does not improve, his or her arithmetic only suffers. Macnamara’s balance effect hypothesis claims that students should not learn two different languages simultaneously, and a mother tongue should be used rather than a second language.

The “linguistic mismatch” hypothesis supplements the balance effect hypothesis. The linguistic mismatch hypothesis proposed by Downing (1974:77) states that a child’s

acquisition of literacy suffers when the language used in school and the language used at home do not match. The L1 may be perceived as not important enough to use in schools or not developed enough to warrant reading or writing. UNESCO concurs with this hypothesis in a report that stated, “it is axiomatic that the best medium for teaching a child is his mother tongue” (Cummins 1979:223). The linguistic mismatch hypothesis is the precursor that has laid the foundation for the contemporary arguments in favor of mother-tongue literacy in education.

The “threshold” hypothesis proposed by Clarke in 1979 states that a child must excel beyond certain thresholds in order to reap the cognitive benefits of bilingualism (Talliefer 1996:461). Clarke states that there are two thresholds: a lower threshold and a higher threshold. The hypothesis does not specify what these thresholds actually are, only that there are certain unspecified levels that a child must exceed in order to develop mental benefits. If a child’s bilingual abilities do not exceed the lower threshold, then he or she has negative cognitive effects. This is termed “semilingualism,” where there is a low level of functioning in both languages. The hypothesis further states that if a child attains a very low level of competence in a specific language, then the child’s interaction through *that* language will be impoverished. Ergo the hypothesis does not appear to claim that learning a second language damages the learning of the first language. If a child’s abilities exceed the higher threshold, then he or she will have positive cognitive effects. A child who exceeds the higher threshold will be highly skilled in both languages. This level is termed “additive bilingualism.” If a child’s abilities fall between the two thresholds, then he or she has native-like abilities in one of the two languages, and there is no cognitive benefit or detriment (Cummins 1979:230).

Different theorists interpret the threshold hypothesis differently. As explained by Pichette, Segalowitz, and Connors (2003:392), a learner's L2 knowledge must exceed a certain threshold in order for literacy skills to effectively transfer from L1 to L2. The threshold hypothesis does not address how L1 and L2 skills affect each other or the type of education programs that promote advancement beyond the thresholds.

Cummins proposes a "developmental interdependence" hypothesis that addresses the issues that are left out of the threshold hypothesis (Cummins 1979:233). The hypothesis states that the level of L2 development is limited by a child's skills in his or her L1 at the time of L2 introduction. If a child is well developed in his or her L1 when the L2 is introduced, then there is the potential to develop good L2 skills as well. However, if the L1 is not very developed at the time of L2 introduction, then both the development of the L1 and L2 will be stunted (Cummins 1979:233). In essence, a negative feedback loop is created when the L2 is introduced before developed L1 skills have been acquired.

Transfer of Literacy Skills. According to Roberts (1994), the question of whether or not literacy skills transfer from an L1 to an L2 does not yield a simple yes or no answer. The answer depends on the definition of literacy that is used and which aspects of literacy are referred to. There are certain literacy skills that will transfer from and L1 to an L2 and there are other skills that will not. When literacy is viewed as a system of encoding and decoding symbols, skills associated with this type of literacy will transfer (Roberts 1994:211). These skills include directionality, sequencing, ability to distinguish shapes and sounds, knowledge that a written symbol represents a sound, knowledge of text structure, using context clues, and the confidence in oneself as a reader

and writer. A variety of studies have shown that literacy of this type will transfer. Chu-Chang (1981) compiled a review of 16 programs that examined the effects of L1 literacy on L2 literacy learning; the results overwhelmingly showed that literacy skills did transfer (Roberts 1994:211).

There are several factors that affect the transfer of literacy skills from a first to a second language. Carson encapsulates Cummins' claim best, that "there is a cognitive/academic proficiency that is common to all languages and that this common language proficiency allows for the transfer of literacy-related skills across languages." This transfer, termed "interlingual transfer," occurs when skills that were developed in an L1 are transferred to an L2 (Carson 1990:246). Hacquebord (1989) suggests that active L1 reading is beneficial for the effective transfer of literacy skills to an L2. Skills will not be altogether prevented from transferring if a learner is not engaged in active reading, but it is beneficial for the learner to be reading. This interlingual transfer was demonstrated through a study of Turkish immigrants in the Netherlands, where active L1 readers displayed stronger reading skills in their L2 than those who were not active L1 readers (Pichette et al. 2003:392).

Roberts claims that literacy defined in more complex terms does not transfer. For example, Weinstein (1984) says that literacy is a "model of communication that takes on meaning within specific social contexts" and "a way of processing information which will affect ways of interacting" (Weinstein 1984:477-478). Such definitions of literacy take into account how, where, and when people use literacy. Literacy in one social context might be keeping records of taxes and payments, while literacy in another context might involve reading and analyzing articles and legal documents. Under these terms,

literacy is embedded in specific social contexts, and it goes far beyond simple encoding and decoding. Roberts claims that this type of literacy is non-transferable.

Multilingual Situations, Studies, and Practices. There are a variety of types of multilingual education. Some programs focus on utilizing mother tongues to promote good comprehension and effective literacy. Others promote foreign language learning to provide resources for a globalized world. This section examines the dimensions of multilingual practices around the world.

In Switzerland, there are four national languages: German, French, Italian, and Romansch. The Swiss have a trilingual education system, in which students learn their territory's official language as an L1, another national language as an L2 and English as an L3. The dialect of German spoken in the German-speaking territories is known as *Schwyzerdütsch* (Swiss German), and is considered by many to be an identifier of their Swiss identity. Students in territories with other L1s learn standard German as an L2 instead of Swiss German. This causes confusion when Swiss from different areas attempt to communicate; many find it easier to use English (L3) as the medium. This contributes to a Swiss ideological language debate and poses questions such as "Is English threatening the national unity in Switzerland?" or "Will English become a *lingua franca* in Switzerland?" (Weber and Horner 2012:71-72).

The language situation in Singapore is being affected by both Mandarin Chinese and English. Singapore has four co-official languages: Malay, Mandarin, Tamil, and English. Each of the former three languages is recognized as the official language to one of the three major ethnic groups, respectively Malay, Chinese, and Indian. However, these ethnic groups speak many more languages than those that were assigned to them as

the official language. Languages spoken by Chinese Singaporeans include Cantonese, Hokkien, and Teochew. Many Malay Singaporeans speak Javanese, and many Indian Singaporeans speak Hindi, Gujarati, Punjabi, Urdu, or Bengali. During Singapore's colonial period, English medium schools were reserved for the elite, and all other schools were taught in Malay, Tamil, or Mandarin. After independence in 1965, more parents began sending their children to English medium schools. In response, the government introduced statewide bilingual schooling, where English was used as the initial medium and one of the other official languages was used as a medium in the later grades. Once the government realized that this bilingual schooling was troublesome for those who did not speak Mandarin, Tamil, or Malay as a mother tongue, it launched a campaign that attempted to correct the problem by convincing Chinese Singaporeans to speak Mandarin instead of their mother tongues. This did not work. Many of those targeted actually began switching to a variety of English in order to prepare children for school, which led to the development of Singlish, a Singaporean variety of English. As China has become a large economic power, Mandarin has gained functional value, and many non-Chinese Singaporeans have requested Mandarin schooling for their children. The global economy seems to be a greater driving force than language policy in the choice of language use in Singapore (Weber and Horner 2012:72-73).

During Nelson Mandela's presidency in the 1990s, South Africa's government recognized 11 national languages: English, Afrikaans, Zulu, Xhosa, Sepedi, Setswana, Sesotho, Tsonga, Swati, Venda, and Ndebele. The government enacted a trilingual educational system using an African mother tongue as an L1, English as an L2, and Afrikaans as an L3. However, the system was relatively unsuccessful, primarily because

English was perceived as being linked with opportunities of upward social mobility. The newer democratic system has been rather flexible in using a mixture of both mother tongues and English. For example, in the city of Johannesburg, where there are several mother tongues, schools have introduced English as early as first grade to accommodate the variety of languages. Weber and Horner use this example to support their claim that, “the best system of education might be a flexible system of additive bilingual education, giving the children access to both [the official language] and indigenous languages” (Weber and Horner 2012:77).

Nigeria recognizes several languages in education including English, Hausa, Yoruba, and Igbo. The Nigerian National Policy on Education contains two main policies: the mother-tongue medium policy and the multilingual policy. The mother-tongue medium policy states that a student's home language should be used as a medium of instruction in preschool and early primary school. The multilingual policy says students should switch from an indigenous language to English halfway through primary school and learn another indigenous language (Hausa, Yoruba, or Igbo) in secondary school. One problem with the policies is that the “L1s” in which students begin pre/primary school are often not the students’ home languages. There are over 500 languages in Nigeria and only a few are used in schools (Verner 2013:12). The policy rarely accomplishes the goal of producing pupils who are trilingual in English and two indigenous languages (Weber and Horner 2012:77).

After independence in 1963, Malaysian schools slowly transitioned away from an English medium towards a Malay medium. In 2004, English made reappearance as a medium in the select subjects of science and technology, with the desire to make students

an asset in technological development internationally. When English was introduced in these subjects in early primary schools, teachers were well equipped with language and teaching support that included materials (e.g. PowerPoints and interactive English language blogs), in-service training, support from English teachers, and mentoring by senior teachers. In their assessment of the Malaysian approach, Parkinson, Baba, and Mackay (2011:80) recommend that language programs should either move towards implementing mother-tongue education or provided extensive support for teaching L2s.

With the multitude of languages and dialects in India, the Indian government introduced the “three-language formula” for education in 1964. This required all students to study three languages in the first 10 years of school. The formula was designed to have the “mother tongue” (actually the official language of each state) as a medium in primary school; Hindi, the national language, would be introduced as the medium at the upper primary level; and English would be introduced somewhere between grades six and ten (Wagner, Daswani, and Karnati 2010:26). However, the official language in each state was a standardized version of a single dialect. Many students were unable to understand the materials and instruction and were pushed out of the education system.

Wagner et al. (2010) studied the effect of technology and computer-aided learning on mother-tongue literacy in southern India (the state of Andhra Pradesh). In this study, computer-aided learning was implemented in the hopes that it would facilitate more rapid learning and allow students to progress independently and at their own pace. The results showed slightly positive effects with computer-aided students performing slightly better than those who were not computer aided (Wagner et al. 2010:31).

An experiment called “The Evaluation of Experimental School: outline of a balance of 25 years of experimentation of bilingual education in Niger” was conducted by Hovens (2002). The experiment encompassed 1,664 students in 36 schools. Half of the schools were monolingual and used French as the only medium starting from the very beginning. The other schools were bilingual and used one of five different national languages (L1s) as a medium from the onset through the third grade. French, Niger’s official language, was introduced in second grade as a subject of study. In fourth grade, French replaced the national languages as the medium. Tests were administered in reading, writing, and math in both French and the respective national language at the beginning of fourth grade. Students from the bilingual schools performed better on tests in both their national languages and in French than the monolingual school students. Students who began in their L1 outperformed the French-taught students, even when the tests were in French.

Hovens (2002:249) conducted a bilingual experiment in Guinea-Bissau called the “CEEF-experiment: An alternative for primary education in Guinea-Bissau.” The experiment included 1,214 students from 32 schools. Half of the schools used only Portuguese (the official language and an L3 for most) as a medium from the onset of school. The other half taught in Kriol (an L2 or L1) as a medium for the first two years of school, and then switched to a Portuguese medium in the third grade without prior introduction to Portuguese. Students in the participating schools were given math, reading, and writing tests in both Kriol and Portuguese to compare the monolingual and bilingual schools. The monolingual students performed significantly better than the bilingual students. Hovens suggests that this was due to the abrupt switch of the

language medium in the bilingual schools without any prior introduction, and that Portuguese was introduced too early. Students should have been given more time with the Kriol medium before being introduced to Portuguese, and they should have studied Portuguese for several years before it became a medium. Hovens' conclusion from his two studies was that students should begin school using the mother tongue as a medium. To introduce an L2 or an L3 into education, the L2 or L3 should be started as a subject and studied for several years before transitioning into it as a medium of instruction (Hovens 2002:264).

These multilingual situations involve infinite variables, and it cannot be concluded that a system that worked in one place will work in another. Likewise it cannot be concluded that a system that failed in one place will fail in another. Each education and language situation is unique, and a system should be designed specifically for that particular environment.

Orthography

In order for communication through text to be effective, it is necessary to have a standard way to write. This involves a group of people agreeing upon a system of spelling and grammar to make it easy to communicate through writing. Systems of writing are usually phonemic systems, though they are not perfect representations of spoken language. Orthographies must balance representing the sounds of the language, on one hand, and keeping an orthography simple, on the other. Not all allophones are visible in an orthography. "Although spelling is represented as the graphic representation of sounds, learning to spell is actually about acquiring a writing system that is divorced in many ways from speech" (Jaffe 2000:502). In other words, a writing system is not meant

to perfectly represent a spoken language; it should be a compromise between simplicity and representation of spoken sounds.

Sebba (1998:20) argues that there are two models for making orthographic choices: the “autonomous” model and the “ideological” model. The autonomous model says that the best orthography should be accurate and learnable. Each phoneme should be assigned one symbol. The object is to make the orthography as accurate as possible, to try to reduce spoken language to written language. Priestly (1992) proposes three principles to consider for choosing an orthography that align with the autonomous model (Sebba 1998: 36-37). Priestly says orthographies should be 1) learnable (not too complex), 2) familiar (based on knowledge speakers already have), and 3) panlectic (take into account conventions of related words from other dialects and languages in the region that already have orthographies). The ideological model deals with issues of power and identity. Under this model, orthographic choices have symbolic meaning, and purpose and status should take priority. Jaffe’s (2000:497) research identifies with the ideological model, where language choice and orthographic choice involve implications of power, status, creativity, authenticity, diversity, representation, and truth. She claims that choosing a method already employed in another language will identify the new orthography with that other language, giving power to the other language and making the language with the new orthography symbolically subordinate. Conversely, orthographic choices that are distinct from the language with an established orthography will give the language with the new orthography an independent identity, and it would not be symbolically subordinate.

Issues of power play a role within the language as well. A standard orthography can become linked with a spoken dialect that becomes accepted as a standard way of speaking. As one way of speaking becomes standard, all other ways of speaking become non-standard and can often be associated with incorrectness or a lack of education (Jaffe 2000:505). Within the ideological model, dynamics of power and position that surround the language community are intertwined with the adoption of an orthography.

FIELD SETTING

Guinea-Bissau

Guinea-Bissau is a country located on the northwest coast of Africa. It is bordered to the west by the Atlantic Ocean, to the north by Senegal, and to the east and south by Guinea (Figure 1). The climate is mostly tropical, and there are two seasons, a rainy season and a dry season. The population in 2012 was estimated at 1,664,000 (United Nations 2014). The country is inhabited by several ethnic groups including Balanta (30%), Fula (20%), Manjako (14%), Mandinga (13%), Pepel (7%), and others (16%). Guinea-Bissau was a colony of Portugal until 1974 when it achieved independence. Portugal had been the colonial power in the area since the mid-15th century when it first made contact in the area. Education was neglected during the colonial period as the Portuguese did not take steps to educate the colony (Encyclopedia Britannica Inc. 2014).

While there have been some improvements since independence, Guinea Bissau still has a very inefficient education system. Guinea-Bissau ranks third lowest in the world on the United Nations' (UN) Human Development Index (HDI) of 2008 (UNICEF 2014:1). This is in large part due to Guinea-Bissau's education system (education is one of three components the UN uses to quantify the HDI) (United Nations 2014). School completion rates are very low and dropout, failure, and repetition rates are very high. Only 60 percent of students who enroll complete primary school, and only 22 percent of students complete secondary school (Integrated Regional Information Networks 2013:1).

Schools in Guinea-Bissau suffer from several factors, which include lack of funding, political turmoil, and language of instruction in schools. According to UNICEF,

Guinea-Bissau spends only 11 percent of its national budget on education, which is the lowest percentage of any country in West Africa. Of this small proportion, 90 percent is spent on teacher salaries, leaving only 10 percent to use towards teacher training, materials, buildings, curriculum development, and other expenses (Integrated Regional Information Networks 2013). Frequent political turmoil, military coups, and loss of funding have plagued education in Guinea-Bissau. Organizations such as UNESCO, WHO, and the UN will not provide funding to Guinea-Bissau because of its unstable government (personal communication with Jan van Maanen, the Dutch consul to Guinea-Bissau, on December 16, 2013). Following the military coup in April 2012, 90 percent of state primary and secondary schools closed (Integrated Regional Information Networks 2013).



Figure 1. Map of Guinea-Bissau. (U.S. Central Intelligence Agency 2014)

Schools are also suffering because the language of instruction for schools in Guinea-Bissau is Portuguese, which 90 percent of the population does not speak. The use of Portuguese in the schools was mandated in 1917. Colonial authorities passed a law that required the use of Portuguese exclusively in education system and public administration. This was an attempt to suppress the use of Kriol, which authorities considered to be “bad Portuguese” (Kohl 2012:650). Most places in the country have a trilingual situation, where children grow up with a minority language, e.g., Manjako or Balanta, as their L1, Kriol as their L2, and Portuguese as their L3. So in most schools in Guinea-Bissau, children are attempting to take classes in their L3.

Kriol is a Portuguese-based creole, which originated when the Portuguese first made contact with the West African coast in the mid-15th century (Kihm 1994:3). There was a lot of traffic between Portugal, the Cape Verde Islands, and West Africa (around Senegambia) that facilitated the development of a creole. People who were known as *grumetes* (“shipboys”) are largely credited with the development of Kriol. *Grumetes* was the term given to Africans who had become Christians and worked for Portuguese traders as intermediaries between the Portuguese and native West Africans. They settled in villages at Portuguese outposts. According to linguistic evidence, Kriol had been fully established by the beginning of the 17th century. The first documents in Kriol were written in the late 19th century. They were written on Kriol linguistic data and were studies of the language. Education in the country was entrusted to missionaries, and it was mandated that schools could only be taught in Portuguese. However, colonial exploitation created a greater need for trade communication and a *lingua franca*, which turned out to be Kriol. During the struggle for independence in the 1960s and 1970s,

Kriol grew as a language of national unity and identity. Some Kriol poetry was produced, as well as songs, comic books, and a film. Currently, there is not a standard orthography for Kriol. Kriol is more commonly used in larger cities, and children in rural areas have little contact with Kriol until they become older (Kihm 1994).

Sociolinguistic Situation

There are over 20 languages spoken in Guinea-Bissau including Portuguese (the official language) (~10%), Kriol (the national language) (51%) (Kohl 2012:650), Balanta (26%), Fula (18%), Manjako (12%) Mandinka (11%), Pepel (9%), Biafada (3%), Mancanha (3%), Bijogo (2%), Jola (2%), Mansoanka (1%), Banyuk (1%), Nalu (1%), Soninke (1%), Bajara (1%), Bayote (0.5%), Kobiana (0.04%), Cassanga (0.04%), and Bassari (0.03%) (National Archives and Records Administration 2003). Guinea-Bissau is a member of the Community of Portuguese Language Countries and is dependent on Portugal in terms of politics, education, and development corporations. This dependency likely drives the importance of maintaining the status of Portuguese in spite of it only being spoken by 10 percent of the population (Kohl 2012:651). In 1990, Guinea-Bissau was converted into a parliamentary democracy and a free market, and Portuguese influence began to rise with new businesses and in the media.

Kriol is the most widely used language in the country. It is spoken as a mother tongue in urban areas and frequently as an L2 for interethnic communication. Data show that it is spoken by approximately half the population, but Kohl claims that Kriol use continues to grow, and it may be understood by as much as 80 percent of Bissau-Guineans (Kohl 2012:651). Generally, Guinea-Bissau is considered to have a trilingual

situation with a local language being the L1, Kriol being the L2, and Portuguese being the L3. This is not the case in some urban areas where Kriol is the L1 for many people, and even Portuguese is the L1 for a few. Nor is it the case in areas where people may speak two different local languages as an L1 and L2 and speak Kriol as the L3.

In the village of Caio, the dominant language is Manjako, more specifically the Üyu dialect of Manjako. Portuguese is used in schools, though students and most teachers do not speak fluent Portuguese. Kriol is heard in the “downtown” area near the administrative post, where weekly markets are held and there is more communication among several ethnic groups. Throughout the rest of the wards, Manjako is used almost exclusively.

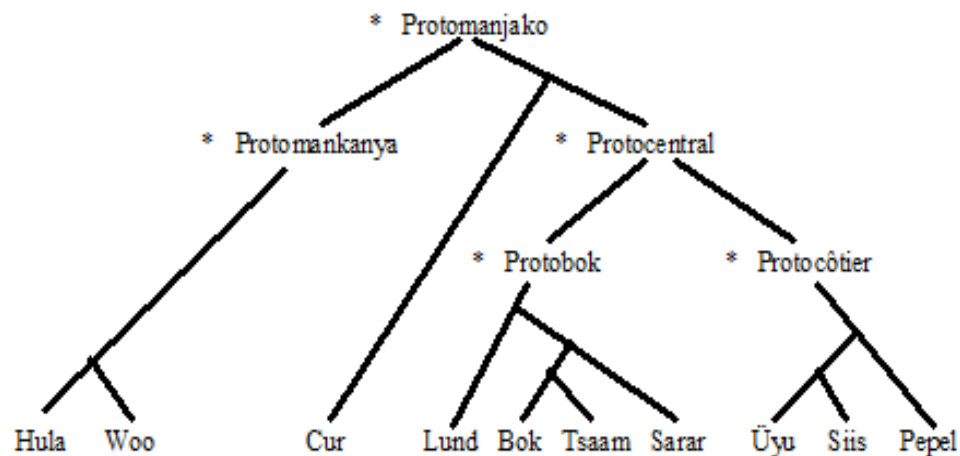


Figure 2. Manjako dialect tree (Doneux 2003).

Manjako is a member of the Niger-Congo language family and is classified as Niger-Congo>Atlantic-Congo>Atlantic>Northern-Atlantic>Bak>Manjaku-Papel>Manjaku (Doneux 2003). There are several (exact number varies by source)

dialects of Manjako including Cur, Lund, Bok, Tsaam, Sarar, Üyu, Siis, and Pepel (Doneux 2003). Figure 2 shows a language tree of the Manjako dialects from Proto-Manjako. Pepel is usually considered to be an independent language, but Doneux shows that it is closer to Üyu than the Eastern Manjako dialects.

Caio

Caio is a rural village on the northwest coast of Guinea-Bissau (Figure 3). The village is divided into 12 wards: 1) Ucemnik, 2) B'nyangay, 3) Pupal, 4) C'bebi, 5) B'soy, 6) B'labac, 7) Dikanceng, 8) C'mambu, 9) B'ley, 10) Kasuguta, 11) Barala, and 12) Kacëm. Houses are scattered throughout the village and connected by dirt roads. The village stretches between rice fields and mangroves on the coastal side and cashew forests towards the interior. Wet-rice farming is the major subsistence activity of the village. Cashews are harvested and sold as cash crops. Some of the village women also fish; fish are also obtained by trade or purchase from Pepel fishermen. Most houses are built with dirt bricks, though some are made of cement. Roofs are corrugated tin and are supported by beams made from split palm trees. Water pumps that provide drinking water are located throughout the village. Wells throughout provide water for cleaning and washing.

Caio is difficult to access. From the capital, Bissau, it is necessary to take a bush taxi to the town of Canchungo, where one must switch to a different bush taxi and proceed 18 miles on a dirt road. The condition of the road is so poor that it takes about two hours (with stops) to complete the journey from Canchungo to Caio. The bush taxi ends in the “downtown” area of Caio. Then, the four-mile journey from downtown to C'mambu, where fieldwork was carried out, must be made on foot.



Figure 3. Map of Caio (Google Earth 2014).

I stayed in the C'mambu ward in an annex to a family house owned by the head of the extended family. I shared the house with my professor and a colleague. I held Manjako literacy classes on the veranda and used the orthography that had been created for the Üyu dialect.

Apprenda

Apprenda is a French NGO whose main objective is to further educational success in Caio, which includes developing Manjako literacy in Guinea-Bissau. *Apprenda* has already built a center (Figure 4) in Caio to train teachers in pedagogy and in Manjako

literacy. Recently, computers have been added to the center. The building is currently not being used.



Figure 4. *Apprenda* teacher training facility (Photo: Buckner 2014).

Manjako Orthography

Outside of Bible development, the work of Margaret Buckner and Caçarné Dadioucouné has been the only work focused on developing a written form of the Üyu dialect of Manjako. Dr. Margaret Buckner is a professor in linguistic anthropology who lived in Guinea-Bissau for several years working on a health project and learning Manjako. Caçarné Dadioucouné is a native Manjako speaker born in France and co-founder of the French NGO, *Apprenda*, described above. Together they have developed an orthography that they felt would best suit the language. The orthography uses a Latin alphabet and contains the letters *a, e, i, o, u, ë, ï, ü, b, f, g, j, k, l, m, n, p, s, t, w, y, r, d, c, mb, mp, nd, ng, nk, nt, and ny*.

There are certain implications that come with some of the orthographic choices in this system. Learning to read and write in Portuguese can create interference with the standard for Manjako orthography. French also has a similar influence, as many Manjako live abroad in France, and there is a large Manjako population in Senegal, where French is the official language. This was taken into account when deciding on the *ny* (palatal nasal). The Portuguese representation for this phoneme is *nh*. The main benefit of using the *nh* is the fact that it is the method that many Manjako have already been taught in Portuguese education. The same argument could be made for the French representation for this sound, which is *gn*. Spanish uses a different letter, *ñ*, to represent this phoneme. The benefit of the *ñ* is that it stands alone as an independent phoneme without combining two letters, which would cut down on confusion. Any of these four would have been an acceptable representation. However, using *ñ* or *nh* would have meant introducing an extra letter (*ñ* or *h*) into the orthography, and *gn* makes the least phonetic sense of any of the options. The letter *y* is already in the orthography and using *ny* phonetically corresponds to the *y* and will expectantly cause the least confusion.

The palatal affricate (č) is represented in Manjako by *c*, instead of the Portuguese or French representation, *tch*. The important part in orthographic choice is not so much what to choose, but to choose a method and stick with it so that it can be learned and broadly understood. The choices here happen to be *ny* and *c*.

All vowels in Manjako can be lengthened (*aa, ee, ii, oo, uu*). However, when central vowels (*ee* and *oo*) are lengthened, they become raised and therefore merit special attention. Manjako contains long *e*'s and *o*'s that are represented by *ee* and *oo* respectively. The *ee* and *oo* are also more closed than the short vowels. The minimal

pairs such as *man te* “I understand” and *man tee* “I shave” illustrate the phonemic difference between the vowels.

Manjako has tensed vowels, which are shown with diacritical marks over the vowels. The symbols *ĩ*, *ü*, and *ẽ* were chosen to represent the tensed version of the relaxed *i*, *u*, and *a*, respectfully. The *ẽ* was chosen instead of *ā* for a tensed *a* because missionaries had already been using it.

Using unique standards for orthographic representation can have social benefits as well. Sebba (1998:33) claims that orthographic choice has symbolic power. Instead of taking after the ex-colonial power, Manjako will have its own representation. This emphasizes Manjakoness, and creates an antistandard to the Portuguese method. Choosing unique ways of representing sounds gives power and independent identity to Manjako.

METHODS AND RESULTS

Due to the broad nature of this project, it was necessary to have an eclectic methodology. The Manjako literacy project spans the fields of anthropology, linguistics, education, and politics. The two methods that I employed most were participant observation and experimentation. This project involved eight weeks of fieldwork in Caio, Guinea-Bissau. Prior approval for this project was obtained from the Missouri State University IRB (December 3, 2013; approval #14-0239). During that time, I acquired rudimentary Manjako skills that enabled me to create literacy materials and teach experimental literacy classes (Figure 5). I also had a chance to observe a formal class in Portuguese. At the end of fieldwork, I developed further materials using what was learned in the experiments to make more appropriate and functional materials for learning literacy.

Class Setting

Materials were tested in experimental Manjako classes. Classes were voluntary and attended by students from C'mambu and other local wards. School-aged children would attend regular "school" during the morning or afternoon. To avoid overlapping with school, these Manjako classes were held in the evening after schools had closed for the day. Classes were held on the veranda of the house in which I stayed. Shortly after dark, the head of the household would turn on a generator that provided light for the classroom. A long table was set up on the veranda with the materials laid out, and people ranging from the age of three to thirty would gather around the table. The initial classes were larger, having between 20 and 30 students, but as the weeks progressed, the class

size slowly dwindled to between 10 and 20 students. The younger children would not participate in class; they would just watch or flip through one of the alphabet books. Most of the older students would participate in the reading exercises, but usually only about ten would participate in the writing exercises. There were a limited number of pens for the class, and some of the students preferred not to write. There were no girls who would write. The boys would attempt to not let the girls have the pens, but even when I gave the girls pens, they said that they did not want to write. Classes would usually last between 30 minutes and an hour, and always end with writing.



Figure 5. Experimental Manjako classes (Photo: Buckner 2014).

Materials and Activities

The materials that I developed and used in Caio included an alphabet book; flashcards (of several varieties); a notebook that included sample words, sample

sentences, and stories; madlibs; and writing exercises. Here I describe the materials and how well they worked in experimental classes.

Alphabet Book. The alphabet book (Figure 6) was a material that was created before I arrived in Guinea-Bissau. It contained a page for each Manjako consonant and nasalized consonant (*b, c, d/r, f, g, j, k, l, m, n, ng, ny, p, s, t, w, y, nd, nk, nt*). *D* and *r* represent allophones of a single phoneme so were presented together [with the words *man dan* (I drink) and *karan* (he/she drinks)]. It was not possible to design a Manjako alphabet book in the same fashion as an English alphabet book, in which each letter is represented with a word that starts with said letter, e.g., “**a**pple,” “**b**anana,” “**c**at.” Each noun in Manjako requires one of ten nominal prefixes (*na, ba, b, ka, k, u, ng, p, m, i*), making it impossible to begin a noun with any other letter. Consequently, the letter in focus was printed in bold in the middle of the word.

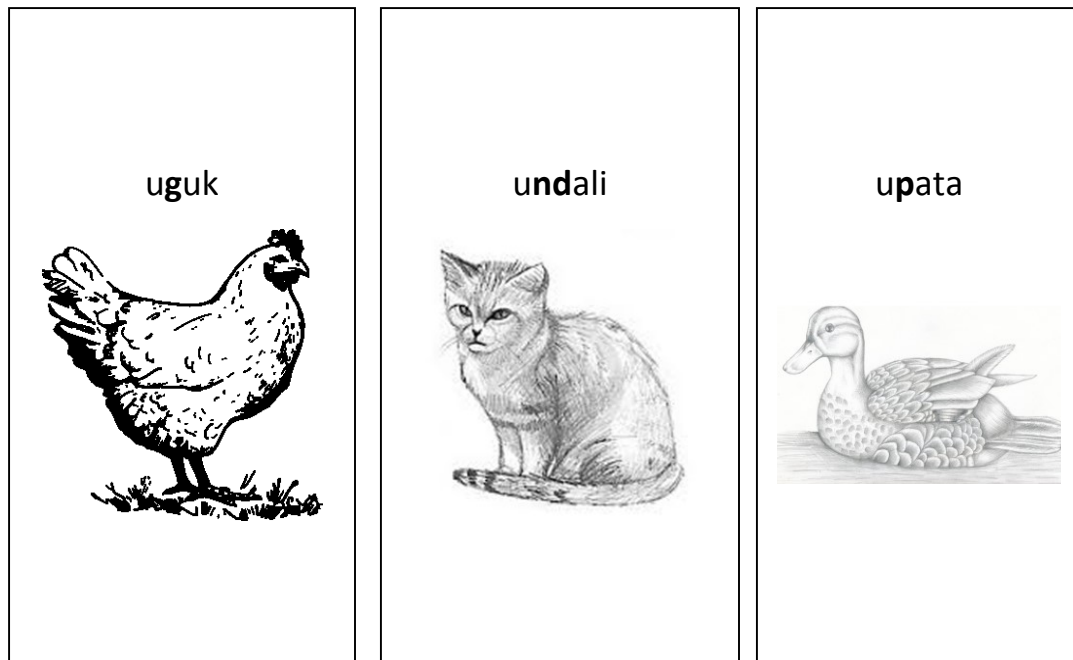


Figure 6. Example pages of alphabet book.

Blank note cards were taped over the pictures after showing a group of children an alphabet book. It was immediately apparent that the children would not read the words at the top page, but instead say the word after looking at the picture. After this, I covered each picture with a note card that could be flipped up to expose the picture. The “reading” became much slower as children were forced to read the words instead of the picture.

Flashcards. There were several varieties of flashcards that I created: letter, body part, animal, place, pronoun, verb, prefix and suffix. There was a flashcard for each letter (Figure 7) in the orthography. Many students had learned the Portuguese alphabet in school and were familiar with the majority of the letters. For those students, the new letters (or new conventions) were *c*, *mb*, *mp*, *nd*, *ng*, *nk*, *nt*, *ny*, *ë*, *ï*, *ü*, *ee*, and *oo*. These flashcards were shown to students, and students were asked to make the sound of the displayed letter.

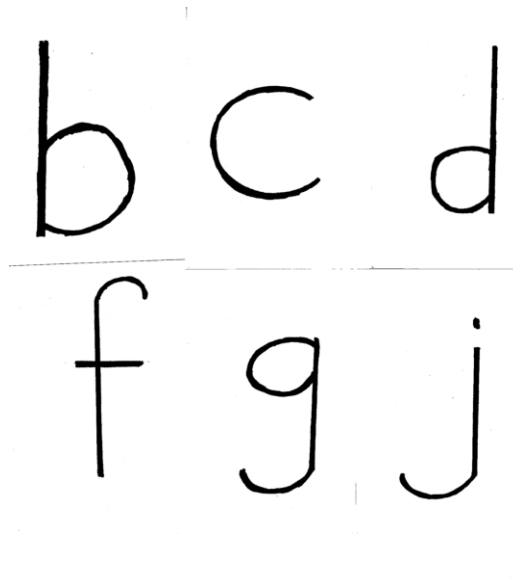


Figure 7. Six letter flashcards.

There was resistance from several students regarding *c* versus *tch* and *ny* versus *nh*. These students were older and had a better knowledge of Portuguese. They would insist that I had spelled the words wrong until I was able to communicate that this was the method that had been designated for Manjako spelling.

The body part and animal flashcards (Figure 8) were used in classes following the use of the letter cards. Each card had the name of a body part or an animal. Cards were held up individually and the class would work together to pronounce the word. The body part cards had a special advantage because I was able to point to the body part when there was confusion about the word on the card. Students were able to read the majority of the cards without great difficulty.



Figure 8. Animal flashcards.

Later, place flashcards were presented to the class, followed by pronoun, verb, and affix cards. The place flashcards had names of the local wards in Caio and, as when the animal and body part flashcards were shown to the class, students would pronounce the word on the cards. The pronoun (Figure 9), verb (Figure 10), and affix (Figure 9) cards were introduced in the same fashion.



Figure 9. Pronoun and affix flashcards.

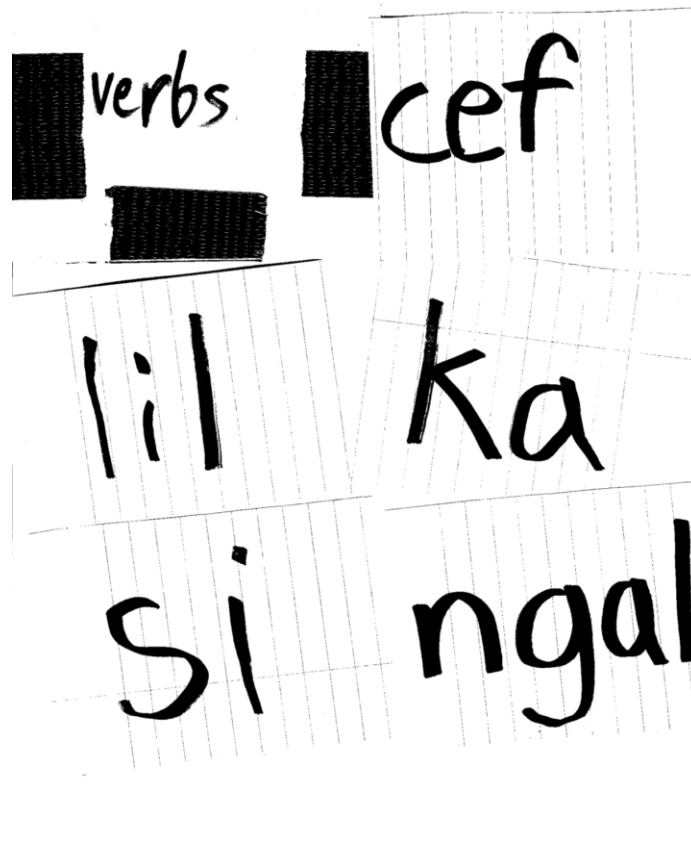


Figure 10. Verb flashcards

Reading, Writing, and Sentence Construction Activities. Students were then asked to combine the pronoun and verb cards to make simple sentences. This was intended to be an individual activity, but quickly became a group effort. The other flashcards were added to the activity, and students were able to make more complex sentences. Using cards to make sentences was intended to be a fun alternative to simply writing sentences. Students were much more reluctant to write sentences on their own. When asked to create their own sentences, they would end up writing the same sentences as each other. When they used the flashcards, they were somewhat more creative. This activity soon became very disorganized with students grabbing cards at will. The organized stacks of cards would get completely shuffled in the chaos of the activity.

This sentence construction activity was ameliorated by making a flashcard folder (Figure 11). The folder contained a pocket for each letter used in the orthography. Each pocket contained about ten letters. Students were asked to make sentences using the letters from the folder. Then students would put the letters back into the corresponding pocket to avoid mixing.

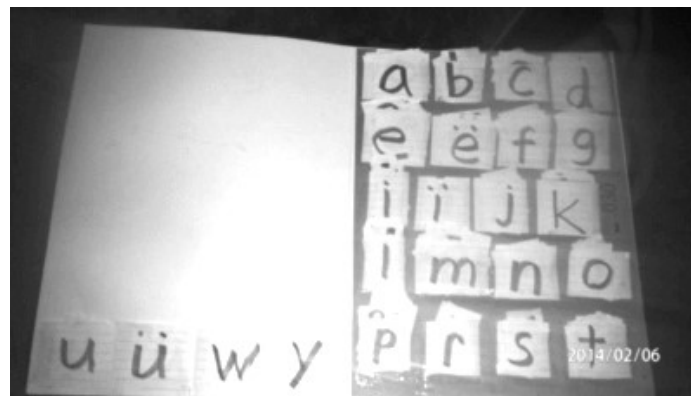


Figure 11. Flashcard folder.

The notebook with written texts was the closest thing to a “textbook” for Manjako. The notebook contained sample words, sample sentences, and one story. Several pages were filled with Manjako words. I would point to a word and the class would read the word aloud. This was also done with the several sample sentences that were written out. There was only one story that had been prepared and written in the notebook. The story was shown to the class, and students would collectively read the story aloud. The reading level of students became apparent when they read the story. The reading was very slow; each letter was sounded out individually instead of recognizing the whole word (sight-word reading). It was not possible to know the students’ reading comprehension. Comprehension questions had not been prepared, because my knowledge of Manjako was rudimentary at best.

Each class would conclude with writing exercises. These exercises were similar to American spelling tests. I would read aloud a word from one of the flashcards, and students would attempt to write the word correctly on a scrap of paper. After each word, I would show the students the flashcard. Between five and ten words were given for each writing exercise. Students would usually scratch out words that they had misspelled and write the correct spelling next to it. This was done in spite of my attempts to get students to leave their mistakes. Scratching out misspellings made it difficult to analyze writing samples and identify problem words or problem sounds. There was an attempt to expand the writing portion to have students create their own sentences, but it was unsuccessful. Even to say the phrase “Create your own sentence” was difficult. One had to say “You, write a sentence you want to write.” *Wi, mtiban ufrasi ui mngal p’tiban ui.* After an example was given, most students would copy the sample sentence verbatim, and those who did not changed only one or two words in the sentence.

Madlibs. The madlib activity was based on the American Mad Libs phrasal template game. In the game, a short story is provided with several blanks left to be filled in with words. The reader asks the writer to provide specific words: a noun, a person, an animal, a color, a type of food, etc., and the reader takes the writer’s answers and fills in the blanks in the story. The reader then recites the (often nonsensical) story aloud. This was essentially what was replicated in the Manjako madlib activity, but there was a major obstacle: Manjako does not contain the same semantic and metalinguistic categories as English. Students may be taught the Portuguese word for “verb” and be able to identify some Portuguese words as verbs or nouns, but students have never had those same categories imposed on Manjako. There is not a Manjako word for “verb,” “noun,” or

“pronoun.” There are also fewer overarching classificatory words, for example, there is a word for “animal” *usam*, but there is not a word for “tree.” There are words for specific types of trees (“palm tree” *b’cēm*, “mango tree” *b’mangu*, or “cashew tree” *b’kaju*), but not a categorical word that represents any type of tree. Likewise, there are words for “mother” *anin*, “father” *asin*, “older sibling” *c’mak*, or “lineage member” *und si kaic*, but there is not an overarching word for “relative.” The lack of categorization in Manjako (compared to English) made it difficult to develop a series of madlibs, but one exercise was still created:

Manjako	English
<u>(nyan)</u> nalon asina <u>(c’ko)</u> . Katim ul kajak <u>(katim)</u> . Aka <u>(usam 1)</u> . Unu ulon <u>(usam 2)</u> are <u>(usam 1)</u> . <u>(katim)</u> arebac. <u>(katim)</u> are <u>(usam 2)</u>	There was once a <u>(person)</u> who lived in <u>(place)</u> . His/her name was <u>(name)</u> . He/she had a <u>(animal 1)</u> . One day a <u>(animal 2)</u> ate <u>(animal 1)</u> . <u>(name)</u> was mad. <u>(name)</u> ate <u>(animal 2)</u> .

Creativity was a problem for this activity as well. First, there was not much opportunity for variation in the madlib, and second, students would all write the same words, which repeatedly produced the same story, or very similar stories.

Assessment and New Materials. The mistakes in the prepared materials were miniscule. Most often one letter would be added, or displaced by an incorrect letter, such as *djo* instead of *jo* or *unhil* instead of *ungil*. Some words from the Bok dialect were also

mistakenly used, for example *ucëmal* (Bok) instead of *umal* (Üyu). Some of these words were used for several weeks before a teacher corrected me, outside of class. The only dictionary that was available was an Excel spreadsheet with fewer than 1,000 Manjako words. So it was difficult to always be accurate, and students would not correct me because it was the first time they were seeing Manjako in written form.

After experimental Manjako classes, I created more and better Manjako materials. Stories were obtained from three of the children in the family I stayed with. The stories were added to the notebook. The materials that I had used in the classes were further developed. Appropriate corrections were made to the materials, and they were all typed, laminated, and compiled into a portfolio. The portfolio contains, flashcards, example words and sentences, short stories, a flashcard folder, and a madlib activity. I also created a computer program using Microsoft PowerPoint that was inspired by other language and reading software such as Rosetta Stone and the Starfall phonics website. The program has lessons that focus on pronunciation of letters and morphemes. Later lessons focus on whole-word recognition and learning to read and write simple phrases. Pictures and sounds are incorporated into the program. Dr. Buckner will take these materials to Caio, and copies will be sent to Caçarné Dadioucoumé for *Apprenda*. These materials are included as part of this thesis.

A Day in School

Due to some logistical problems, it was difficult to observe formal classes in Caio. As a result only one class period was observed. The class had 26 students who were between approximately 11 and 14 years old. Class was held from 2:00 p.m. to 6:00 p.m. with a half-hour break. Three hours of class time was spent reciting a single short

story in Portuguese. The story was only about ten sentences long, and took up two pages with illustrations in a story book. A single student would stand in front of the class and read the story one word at a time, and the class would repeat the word in unison after each word the student said.

Student: "O--"
Class: "O"
Student: "coelho--"
Class: "COELHO"
Student: "foi--"
Class: "FOI"
Etc.

Each of the 26 students stood in front of the class and read the entire story in this call-and-response fashion.

Some students appeared to be following along, while others were not looking at their books and were seemingly repeating each word mindlessly. They did not pay any attention to the written words and may have not even paid attention to the meaning of the words or flow of the story. After the last student had completed reading, there were only 30 minutes of class left. The remainder of the time was spent reviewing homework. Several students answered questions from the homework, math problems and Portuguese conjugations on the board.

DISCUSSION

Materials and Classes

Overall, the materials were largely successful for teaching the orthography. All of the reading exercises were straightforward: simply reading the words that were printed on flashcards or paper. These exercises included the flashcards, the sample sentences, and the story. These exercises were done as a group. Here, the faster readers were able to participate more than the slower readers since they were the ones setting the pace.

The lack of English categories made the madlib activity difficult to create and implement, but if more madlibs were to be developed by teachers who know the language better, they might be able to create a better template and be able to better explain how the madlibs work. The madlib activity was successful in holding the interest of students, but not for very long. When most of the students gave the same answers, not even my interest could last very long. If a teacher could get the point across to give words different from each other, the activity would be much more functional. This would also aid in writing exercises. If students begin to give different answers, they can transfer that concept over to writing, where they could create their own sentences. When students create different phrases, they can further benefit from reading each other's materials.

Initially, the spelling tests were intended to be a source for keeping track of progress. I hoped that I would be able to see the errors students were making and monitor their progress through class. However, students would scratch out their mistakes and replace them with the correct spellings, and I was unable to get them to

stop. Consequently, I was not able to methodologically keep track of student improvement. However, I was able to make inferences on general trends in improvement, such as correct use of the *c* or using *ny* instead of *nh*.

It is important to note that these classes were taught by an instructor with a rudimentary grasp of the language, and the materials were being created extemporaneously. If the lessons and materials were produced by teachers that are fluent in Manjako, they would be able to create much more complex and challenging materials and lessons. They would also be much better at teaching classes and explaining things to students in Manjako.

The point should be raised that students who participated in the classes were already familiar with the Manjako letters and corresponding sounds because they had already been taught the majority of the same letters in Portuguese. This supports the claim that literacy skills do transfer between languages; the skills learned in Portuguese transferred into Manjako. It could be argued that this means that there is not a need to change schooling from Portuguese to Manjako, but that claim would be rather reactionary. Portuguese has sufficed to teach students rudimentary reading skills, but it has not been enough to produce proficient readers. As the literature has shown repeatedly, literacy is achieved best when it is learned in an L1, then transferred into an L2. I propose that if the time that students spent learning to read and write in Portuguese was spent learning to read and write Manjako before Portuguese, then their literacy skills would be better in both languages. Students would be able to read faster, more fluidly, and more comprehensively, and they would be able to transfer these more advanced skills into Portuguese.

Orthographic Issues

Regarding the Manjako orthography, the letters that proved to be the most troublesome were the *c* and the *ě*. Initially students were using *tch* in place of *c*, because *tch* was the Portuguese method. The *ě*, *i*, and *ü* were completely new letters, but *ě* was the most problematic. This is likely because it occurs very frequently. However, these difficulties with the *c* and *ě* were short lived. Students began to use the letters correctly in spelling very quickly, and after several classes, some of the students had virtually no problems using the letters correctly.

When to write *ě* was an issue. Manjako is full of short schwas, which sound very similar to the tensed central mid vowel, *ě*. It can be heard within consonant clusters such as *undka* or *ng'sam*, but the schwa is allophonic and not phonemic. For this reason, the schwa was left out of the spellings.

Pedagogy

Attending only one formal class does not provide much observational data, but if that class was even mildly representative of the education students receive in Guinea-Bissau, then there needs to be an extreme pedagogical changeover. Over 85 percent of the class period was spent on one single short story. This class period seemingly had the intention of teaching reading. However, each student spent only about five minutes actually reading a story. The rest of the time, students would be mindlessly repeating words. The style of reading that was being practiced was slow, non-fluid, choppy reading. The lecture style of teaching in Guinea-Bissau facilitates rote memorization, and this is not producing functionally literate readers. The literacy that is produced by

schools is superficial; it gives only the illusion of literacy. Reading is so slow and wrought with difficulty that it could only serve the most rudimentary purposes.

Reading and Writing

The orthography proved to be an acceptable representation for spoken Manjako, but I would not deem the level of literacy displayed by the students fluent literacy. Reading speed was very slow. They were still in decoding mode, where each letter was pronounced individually. This is similar to the manner a child might sound out a new and unfamiliar word. The students did not appear to have moved to the point of sight-word reading, where the word is read as a whole instead of pronounced letter by letter. Literacy in decoding mode may be sufficient for rudimentary written communication, but is not sufficient for complex reading tasks such as academic reading, reading for enjoyment, reading for a job, etc.

The only time I have seen someone in Caio read or write (outside of school) is for record keeping. One of the young men had a notebook where he kept track of payments and donations for age-set ceremonies. He had made a chart with columns for names, dates of attendance, payments, and donations. This appears to be the only functional use of literacy, which raises the question of whether there is a need to change literacy practices. My answer would still be that there is. The Manjako are already being trained in literacy, but they are receiving a second-rate form of training. With the alternative of being trained in Manjako, they would develop a much higher level of literacy with the same amount of time and effort. How, or whether or not, they use those literacy skills is their decision, but to teach a lesser form of literacy when a better option is available is senseless, maybe even oppressive.

Recommendations and Considerations for Implementation

As a result of the literature review and field work, I can offer some recommendations for implementing Manjako literacy in schools. The literacy materials mentioned in this paper can be used to teach literacy, but more materials will be required for full implementation. Fluent Manjako speakers should be involved in the development of materials. Speakers could transcribe oral Manjako stories, make up stories, or write down other oral cultural material. If more funding is needed to create materials and implement this literacy program, *Apprenda* could write a grant. There is an organization based in Senegal called the Association in Research and Education for Development (ARED) that is dedicated to developing reading and learning materials in African languages. The materials are first written in Fula and assessed, and then adapted into other dialects or languages. UNESCO is the sponsoring organization for ARED, and UNESCO may sponsor the same thing for creating materials in Manjako (UNESCO 2011).

The next step would be to train teachers in the orthography. Classes for teachers could be held in the *Apprenda* teacher training facility. The computers could be set up with the literacy software that is included in this thesis. This program and the other materials could be used for training. After training, teachers could also create more materials to teach student classes.

Once teachers are trained, literacy classes could be held at the training center or in regular schools. Based on the literature, I would recommend that Manjako literacy be introduced in kindergarten, and studied for a minimum of two years before Portuguese is introduced as a subject (foreign language). I would also recommend that Portuguese be

studied as a subject for a minimum of two years before it becomes a medium in education.

The pedagogy that is currently used in classes needs to change. The current system promotes rote memorization and does not focus on the actual learning of materials and making students literate. Literacy classes should be interactive to make sure that students understand, not memorize, the material. Classes should focus on producing students who are fully literate.

CONCLUSION

Students in Caio, Guinea-Bissau cannot read. They are part of an education system that is structured in a manner that presents them with great obstacles that they must overcome in order to achieve literacy. Literature has shown that becoming literate in a mother tongue initially is better than starting literacy in another (foreign) language. The Manjako would benefit from learning to read and write Manjako and from using a Manjako medium in classes. The experimental Caio classes showed that the Manjako orthography was successful in representing spoken Manjako and was learnable. The materials also worked for teaching Manjako, and provided insight for the materials that were created after fieldwork.

Sources that provide literacy rates give confusing definitions of what literacy is and how literacy is measured, which brings into question how much is really known about literacy levels in the world. The students in Caio who are “literate” read at such a slow pace that it could only be useful on the most elementary levels. By training pupils in Manjako literacy, their abilities would increase in both Manjako and in Portuguese. The pedagogy in schools should also be rearranged from a lecturing style that promotes rote memorization to an interactive participation style that promotes understanding and use. Implementing mother-tongue education is not simple, but with appropriate planning, patience, and cooperation, it can be done.

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