Unified English Braille and Literacy Development in English-Speaking Africa:

Benefits, Challenges and Policy Implications

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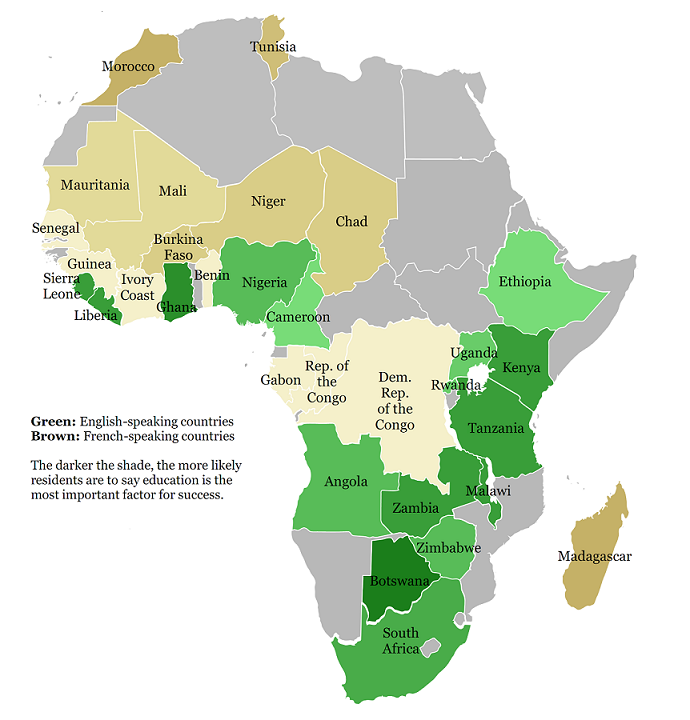
**Key Objectives**

1. Around 7.1 million of the world’s 38 million blind people live in sub-Saharan Africa (Lewallen & Courtright, 2001); yet, there is a dearth of empirical research regarding their specialized literacy needs. The author provides current and important information to fill the gap in knowledge of consumers, practitioners, policymakers, and the international community.
2. Survey data collected on the new Unified English Braille (UEB) code and literacy (2015), and information obtained from a focus group of participants at the 6th Africa Forum for the Blind in Uganda (2015), showed there are inequities in the development and advancement in the provision of literacy services in most English-speaking African countries.
3. The author advocates for the setting up of viable structures and programs to promote and sustain literacy for children, youth and adults who are blind. These supports could include: retraining of all teachers of the visually impaired in braille literacy and other aspects of the expanded core curriculum; organizing state, national and regional Braille Challenge competitions for pupils who are blind; conducting workshops for special education lecturers in tertiary institutions; encouraging eligible youth and adults to complete the correspondence course on UEB from the Hadley Institute for the Blind and Visually Impaired; setting up well-equipped braille publishing houses; and initiating a systematic program of training transcribers and parents in the newly-approved code in English and major local languages.
4. It is proposed that two new regional entities, namely, the Braille Authority of West Africa (BAWA), and the Braille Authority of East, Central and Southern Africa (BAECSA) be set up. Both bodies will coordinate in each region the transition plans for UEB. The functions of the newly-constituted bodies would be similar to those of the well-established South African Braille Authority (<http://sabrailleauthority.org.za/>. Furthermore, the new bodies would operate within the framework of the African Union (AU) to foster deeper understanding among governments and ensure greater commitment of financial resources, as achieved during the African Decade of Disabled Persons 2000-2009 (http://www.un.org/esa/socdev/enable/disafricadecade.htm).
5. Finally, the newly-established regional bodies would also liaise with the International Council on English Braille (ICEB) for purposes of monitoring and sustaining standards, and accessing resources and expertise.

**Background and Introduction**

Africa is the world's second largest and second most populous continent. At about 30.2 million km (11.7 million square miles) including adjacent islands, it covers six percent of earth's total surface area and 20.4 percent of its total land area. The continent is surrounded by the Mediterranean Sea to the north, both the Suez Canal and the Red Sea along the Sinai Peninsula to the northeast, the Indian Ocean to the southeast, and the Atlantic Ocean to the west. It contains 54 fully recognized sovereign countries, nine territories and two de facto independent states with limited or no recognition. (Figure 1 provides the geographical features of Africa).

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| Figure 1: The Continent of Africa |



With 1.1 billion people as of 2013, the African continent accounts for about 15 percent of the world's human population (Gudmastad, 2013). As would be expected, there are great linguistic, educational, economic and cultural differences within the main geographic divisions of western, eastern, southern and northern Africa, from one sub-region to another, within a given sub-region, and even within a given country. In eastern, southern and western Africa, English arrived in each region as the language of the colonists toward the end of the eighteenth century, and was used only for administration at first. Gradually its usage increased, especially with the emergence of a European-type, elitist educational system, coupled with the desire of many to understand English, which is considered the most widely spoken language in the world today (Banjo, 2000).

**Current Situation of People who are Blind in Africa**

According to Lewallen and Courtright (2001), around 7.1 million of the world’s 38 million blind people live in sub-Saharan Africa. The prevalence of blindness first came to the attention of European and North American missionaries while these African countries were still under colonial rule. It is to the credit of these foreign missionaries that specialized educational services, with particular emphasis on learning braille for religious literacy and ultimately Christian indoctrination, was first introduced to the people.

The Royal Commonwealth Society for the Blind - currently known as Sightsavers - also had grave concern for the mounting scourge of blindness in the various African communities (Wilson, 1964). Thus, the British Empire embarked upon strategic technical missions to some African and Middle Eastern territories, and a major publication entitled *Blindness in British African and Middle East Territories*, (1948) documented the historic effort. This report subsequently led to greater awareness of blindness education and rehabilitation programs in various African and Middle Eastern countries.

According to Lewallen and Courtright (2001), there are about 320,000 of the estimated 1.4 million blind children in the world living in sub-Saharan Africa. This is a region where today most countries provide for less than one percent of their children and adults with special needs. Against this background, it is not surprising that these countries have limited educational and social services, in spite of their governments being signatories to international instruments and protocols that claim to support full opportunities in home, school and work situations for their citizens with disabilities.

**Rationale for the Current Study**

Given the current interest in braille literacy among English-speaking countries, the author undertook a research project to ascertain the position of African countries on the new Unified English Braille (UEB) code and general literacy needs. To date, two African countries out of the eight member nations of the International Council on English Braille (ICEB) have endorsed the UEB (McLennan, 2015). In the ICEB member-states, braille readers, transcribers and educators reviewed the new code that contains all the symbols required to write literary material, as well as mathematics, science and technical subjects.

Evaluators of the new code project felt there are several benefits that can be derived from the new code. For instance, UEB would minimize ambiguity in the braille code, so one braille symbol will only have one meaning in UEB. The simplified code rules would be easier to teach and learn. Automated translation software will be more precise, so the need for detailed proofreading should be reduced. Less time spent on proofreading should in theory mean more time and effort can be put into producing more braille materials. More importantly, the uniformity in the code and increased production from computerization would lead to increased exchange of books in braille format among ICEB member countries. This would be a definite advantage to low-income countries that continue to experience difficulty with timely and large-scale braille production because of their weak economies and lack of effective political will.

Having studied and evaluated the foregoing benefits, in 2004, ICEB voted that UEB was sufficiently complete to be considered an international medium and available for braille authorities of individual countries to vote on its adoption for their use (Bogart & Koenig, 2005). By this adoption, it is anticipated that UEB will eventually replace Standard English Braille (SEB) used in the English-speaking world. Therefore, the aim of this research was to gather information on the level of knowledge and awareness of the stakeholders regarding the UEB code in English-speaking African countries, and to document each country’s plans (if any) for transition activities related to UEB.

**Methods**

**Instrument and Participants**

The author designed a 21-item questionnaire to elicit responses from consumers, administrators, parents, librarians, policymakers, coordinators of examinations, etc. The questionnaire consisted of a cover letter which defined Unified English Braille as “an English language braille code standard, developed to permit representing literary and technical materials in use in the English-speaking world, in uniform fashion.” The cover letter also contained information that participation in the research was voluntary, answers provided would be kept confidential, and there were no risks with participation.

Next, the author sought assistance from a selected group of experts to evaluate the questionnaire items. Three special education experts in North America who had worked in various capacities in East and West Africa, and another group of three special educators in Nigeria, reviewed the draft questionnaire. All the experts reviewed and provided useful comments that were subsequently incorporated into the final questionnaire.

Following approval by the Institutional Review Board (IRB) of Missouri State University in U.S.A., the author distributed the questionnaire to key leaders in the education and rehabilitation of persons who are blind or partially sighted in each of the English-speaking African countries. He utilized email, phone calls, and discussion with a focus group to gather needed information for this paper. Also, he sent two email reminders to all the contacts during the same semester. The email messages and phone calls occurred in the spring semester of 2015, while the focus group meeting took place during the 6th African Forum for the Blind held in Kampala, Uganda, in October of the same year. (The countries’ response rates to the survey are indicated in Table 1).

Table 1: Countries’ Responses

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| **Country** | **Number of Responses** |
| Gambia | 1 |
| Ghana | 1 |
| Kenya | 4 |
| Liberia | 3 |
| Nigeria | 7 |
| Sierra Leone | 2 |
| South Africa | 8 |
| Zambia | 4 |

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| Total | 29 |

**Data Analysis**

Given the small sample size, data analysis consisted primarily of calculating the number and percentages of participants’ responses to the quantitative items. Additionally, the author identified logical clusters of participants’ responses to open-ended comments, as well as comments shared during the focus group meeting in Kampala, Uganda. The participants’ responses were subsequently grouped into thematic categories, as illustrated in the Results section below.

**Results**

In Section One, participants’ responses from the survey, and information from the focus group meeting, indicated varied levels of development and advancement in regard to the UEB code and literacy. All the eight countries that completed and returned the questionnaire reported having in each country a national association or union exclusively for people who are blind. Administratively, in each country’s national and state Ministry of Education, there is a unit or section with responsibility for special needs education. Furthermore, in most of the countries, limited library services for the blind exist in mainly urban areas. However, it was reported that the South African Library for the Blind (SALB) in the Eastern Cape was outstanding in its structure, organization, and circulation of audio and brailled books within the country and neighboring countries.

In Section Two of the survey which elicited information specific to participants’ understanding and implementation of UEB, only South Africa and Nigeria could affirm their adoption. This position is in consonance with available international publications which indicate that the two countries adopted UEB in 2005 (De Klerk, 2012; Obi, 2012). Ghana reported that discussions were held during the 5th Africa Forum of the Blind in Accra in 2011 toward official launching of UEB; however, the efforts did not materialize because of financial and logistical difficulties.

Regarding assistance to implement UEB, five of the seven respondents from Nigeria stated that current awareness of the new code is very limited in the most populous country in Africa; hence, assistance from other ICEB countries for training in the new code and setting up a national braille printing house would be a welcome development. Three Nigerian participants acknowledged that between 2005 and 2009, UEB workshops were conducted in selected states in southwest Nigeria, with the use of training manuals from Australia.

By 2012, South Africa had unified the braille code for their official 11 languages (De Klerk, 2012). This code is now known as the Unified Braille Code (UBC). Initially, UBC materials were produced only for pupils in grades 1-3. After 2008, non-technical literature for all grade levels became available in the unified code and the technical aspect was phased into lower grades. Although the transition has progressed well, a number of respondents expressed the need to train personnel in the technical aspects of the code.

Other countries, notably Kenya, Zambia, Liberia, Ghana, Sierra Leone, and the Gambia, decried the lack of progress toward the adoption of UEB in their respective countries. The majority of respondents have either heard or read about the UEB code, and expressed the desire for their governments to plan for its adoption and implementation in order to improve the quality of literacy for their citizens who are blind.

The open-ended comments participants provided in Section Three of the survey were revealing and similar to opinions expressed during the focus group meeting in Kampala, Uganda. These comments are thematically summarized thus:

1. There is need for English-speaking African countries to increase access to books on various subjects, and the UEB could result in realizing this objective. Participants felt that with UEB, materials could be efficiently and accurately produced in English as well as other major languages within each country, with computer-aided mechanisms.
2. Unlike Canada, the United States, Australia and the United Kingdom, there are no national braille libraries for the blind in most African countries (Alemna, 1993). However, it was noted that the Republic of South Africa was an exception in this regard. In the small libraries that have been established in a number of countries, it was revealed the bulk of books and magazines on the shelves consist of donated old literature from overseas libraries and often lack cultural relevance to their populations. It was suggested that pending the establishment of viable braille publishing houses, local transcribers could be retrained in UEB code so they can produce books and magazines written by indigenous authors.
3. Since all the English-speaking countries have some universities that train personnel in blindness and low vision, their lecturers should be accordingly trained in UEB and other areas of the expanded core curriculum. Such specialized training will better position them to impart the requisite knowledge and skills to their preservice teacher candidates. This is an important first step toward raising awareness about UEB because it is the graduates of these tertiary institutions who will be involved in instructing pupils who are blind at primary and secondary school levels in each country.
4. In Nigeria where there is currently a registered entity to promote braille literacy activities - the Braille Advancement Association of Nigeria (BAAN), as well as in those countries yet to establish such a body, adequate funds should be set aside to actualize their mission and vision, and to formulate effective transition plans. This is a critical issue because governments have tended to place low priority on the educational needs of people with sight loss and other disabilities.

**Discussion**

Over the past 100 years, Anglophone African countries have made some strides in the provision of literacy and general educational services for their citizens with blindness. Even after attaining independence from colonial powers in the 1950s and 1960s, these countries have established their own residential and inclusive schools, instituted special education teacher-training programs, created special education units within their national and state ministries of education, and adopted policies on special needs education, including the aspect of braille books production.

It is encouraging that both quantitative and qualitative information in this survey point to great enthusiasm of braille users in English-speaking Africa for the new UEB code. For several decades, experts have advocated for improved literacy of blind people on the continent, stressing, *inter alia*, that “Braille itself is a subject needing careful attention” (Salisbury, 1964; p. 5). The development and utilization of the new UEB code is a testament to the significance of the subject of braille in the education, employment and socialization of persons who are blind worldwide, and the blind people of Africa should not be left behind in the provision of effective braille literacy.

However, as shown in this research, blind consumers in Africa are yet to derive maximum benefit from accessible school books and recreational literature. Data from this research, as well as anecdotal evidence, point to the fact that in most African countries, it is common to find nonprofit organizations and individuals operate small-scale braille production centers to transcribe books, magazines and exam papers. It is the author’s considered opinion that a viable national braille press in each country (similar to Pioneer Printers in South Africa) would complement existing transcription services, and lead to greater efficiency in the production and distribution of culturally-relevant and educationally-appropriate books in English and major local languages in line with each country’s education policy.

In regard to Nigeria, the idea of a national braille press was initially proposed at the First West African Conference of the Blind, held at the Institute of Education, University of Ibadan, Nigeria (Butcher & Taylor, 1964). At that historic conference, the stakeholders resolved that: “In view of the extent of blindness in Africa and the urgent need for reading materials both international and local language there is an urgent need to establish a Braille Press” (p. 41).

The important question in 2016 remains: Why have several countries (including Nigeria) failed to establish a viable national braille press? As noted previously, special education is generally a low priority for most African governments; in fact, general education throughout Africa is in a sorry state today, due to weak economies, poor planning, inadequate trained manpower, and limited infrastructures. In times of economic crisis and armed conflict, the needs of persons with disabilities tend to be compromised. This is why ICEB as well as other international funding agencies must prevail on African governments to intensify their efforts in actualizing objectives that are enunciated in instruments and protocols to which they have signed off. Poor funding should no longer be a pretext for failing to develop needed services and infrastructures that will improve the quality of life of their citizens with disabilities.

The special education profession deserves mention in the overall scheme of things. Speaking on the immense work to be accomplished, and the vital role of teachers at the First West African Conference of the Blind, Salisbury (1964) declared thus: “The African teaching service has a splendid opportunity to show the world how to tackle successfully a devastating problem” (p. 5). The visionary British pioneer of Open Education for the blind in the Islamic emirate of Katsina in northern Nigeria further elaborated that the starting place in the task of influencing teachers is “in the training colleges” where some measure of success in preparing teachers of the blind had already been achieved in East Africa. Such training programs abound in several countries in Africa today. These colleges and universities that have been approved to operate specialized training programs are where the curricula can be adapted to accommodate specialized topics as the UEB code and other aspects of the expanded core curriculum so their graduates can confidently instruct their blind pupils

However, comments provided by study participants indicate these teacher-training programs in Nigeria in particular are yet to incorporate into their curricula aspects of the UEB code. For the purpose of this research, the author obtained and reviewed the syllabi from four of the eight tertiary institutions in Nigeria that train teachers and rehabilitation workers for the blind, including one tertiary institution that had once hosted a workshop on UEB. He found no mention of UEB and related topics in all the syllabi reviewed. This may be a systemic problem in universities in other African countries where, as a rule, new policies related to education at the tertiary level must first be discussed and ratified by the Joint Consultative Council on Education in each country. Thus, it is necessary for advocates to ensure that specialized topics like the UEB code, and indeed other topics related to special education, are presented at governmental meetings for discussion and eventual ratification.

It is also imperative for these countries to seek assistance for training from well-resourced overseas universities and organizations. As indicated by the majority of participants, there is need to look outward for expertise and supports. In terms of in-service training, the newly-established Global Issues Division 18 of the Association for Education and Rehabilitation of the Blind (AER), could assume, as one of its goals, the voluntary provision of in-service training in the UEB code and related topics. This would be a much-needed collaborative project by experienced members of Division 18. Furthermore, in the domain of braille literacy for blind students, international organizations like the World Braille Foundation (see [worldbraillefoundation.com/aboutus.htm](file://C:\Users\Judy%20Dixon\PAA131\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\PAA131\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\AppData\Local\Microsoft\Windows\INetCache\PAA131\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\PAA131\AppData\Local\Microsoft\Windows\Temporary%20Internet%20Files\Content.Outlook\AppData\Local\Microsoft\Windows\INetCache\Content.Outlook\IZFKN7Q5\worldbraillefoundation.com\aboutus.htm)) could expand their supports in the promotion of literacy in the various schools for blind and partially sighted children in Africa.

At the focus group meeting in Uganda, the author provided an opportunity for the five participants to read from a book in the new UEB code. The book entitled: *A Winning Anthology* (RNIB, n.d.)consists of a selection of personalized, winning essays from some countries on how braille literacy has impacted people’s lives. Interestingly, all the participants expressed positive opinions on the UEB code; they did not encounter difficulty with the changes in UEB, including the recognition of capitalization.

**Limitations of the Research**

A number of possible limitations may have impacted the study findings. These include: the use of a convenience sample, the number and the homogeneity of the participants, the subjective comments provided, and the scrutiny of university course syllabi from one country only.

Also, there were no respondents from examinations agencies in the study, in spite of concerted efforts made by the researcher. Today, in Nigeria and throughout Anglophone Africa, official agencies are mandated to conduct examinations for general student populations, including those with blindness and other disabilities who have completed a prescribed level of education (Ajuwon, 2012). Therefore, it is important to ascertain the opinions of candidates with blindness in standardized examinations, including their special accommodations, to determine the effectiveness and accuracy of the medium in which examinations questions have been provided.

**Recommendations for Future Practice**

It is noteworthy that braille users in Africa are unanimous with regard to the benefits that can be derived from the new UEB code. However, the multiple challenges that have been highlighted in this study toward the widespread adoption and implementation of the new code must be successfully tackled before any meaningful impact can be realized. In this context, the stakeholders have a lot to learn from much of the ideas and implementation literature from ICEB countries, in terms of planning their implementation of UEB and in the design of a robust research agenda.

There are important decisions that must be carefully considered at the highest level of governance. First, to facilitate transition to UEB, there is need to constitute two new entities: the Braille Authority of West Africa (BAWA), and the Braille Authority of East, Central, and Southern Africa (BAECSA). Both BAWA and BAECSA will operate within the ambience of the African Union (AU), with the goals of promoting awareness and commitment to full participation, equality and empowerment of persons with blindness or other disabilities. This would parallel the activities instituted during the African Decade of Disabled Persons - 2000-2009 (http://www.un.org/esa/socdev/enable/disafricadecade.htm).

Second, each newly-formed regional entity will constitute a Task Force to develop multi-year, short- and long-range goals in stages similar to those created by the Braille Authority of North America (BANA). The suggested four phases could be delineated thus: information-sharing about UEB, with input from consumers; development of infrastructures for procurement and production of materials in UEB, including training manuals; instructional phase, when readers, producers and instructors acquired competence in UEB; and implementation phase, when all new transcriptions in technical subjects, and English and major local languages will be in UEB format. This multi-year, four-phase approach will be particularly useful in the majority of Anglophone countries that are yet to embrace UEB.

Third, the literacy needs of the current crop of blind students in inclusive and residential schools and vocational centers must be a priority. As a starting point, the Braille Challenge competitions in some of the countries can be modified to reflect activities in UEB format. Additionally, international organizations like the World Braille Foundation, Sightsavers, and Christoffel Blindenmission can increase their support for blind students to acquire electronic equipment that will enable easier access to information in UEB format.

Fourth, there must be provision for effective preservice and inservice training in UEB mathematics and literary formats. In particular, SABA and other ICEB member countries can liaise with African higher institutions to provide such quality professional training in line with international guidelines and standards. Meanwhile, eligible sighted professionals and blind adults can be encouraged to complete Hadley Institute courses related to UEB (http://www.hadley.edu/FindaCourse.asp)

Fifth, large-scale braille production, training, and certification of transcribers will need urgent attention in every country. These transcribers must be able to accurately produce books in English and local languages. In addition, it is critical that proper arrangement be put in place to ensure timely delivery of transcribed materials to requestors.

Sixth, researchers must examine the significant impact of adopting and using the new code within each country and across the continent. We have seen studies from other ICEB countries that investigated differences between SEB and UEB codes, the consumers’ reading processes, and the perceptions of code change and methods for increasing positive attitudes toward the new code. Scholars in Africa must take the lead to monitor outcomes at different levels, including how consumers of different ages are using UEB-compliant materials in a multi-lingual environment.

**Conclusion**

In Africa, we have become increasingly alarmed for some decades about the growing illiteracy rate among our children, youth and even adults. This illiteracy is occurring at the very time in our contemporary society when the need for true literacy is increasing. It is evident that our quality of life increases in direct proportion to our ability to read and write effectively. Today's jobs require much more skill and technical know-how than ever before, and unskilled and manual-labor jobs are becoming rapidly obsolete. This precarious trend is putting our blind children, youth and adults in grave danger.

The stakeholders can no longer look at these literacy challenges with equanimity, or use localized Boko Haram insurgency in one country or region to justify the failure to do what is right to provide effective specialized literacy programs for our blind population and their teachers. Policymakers in English-speaking Africa must realize that braille is a fundamental right of people who are blind; therefore, improved Braille literacy must now be in the forefront of their agenda. Such realization will be a sure way to guarantee them the chance for success in home, school and community settings, and as taxpaying members of society.

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