

## Approaching the question of language of instruction in African education

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### 0. Introduction.

Most countries of the world need to address the question of multilingualism, no matter how monolingual they might be or pretend to be. In this paper I attempt to bring to your attention current research from a variety of disciplines relating to the question of how education systems deal with multilingualism and how to manage the language of instruction (LOI) question. This question complicates further the enormous task of educational reform in Africa. This seminar represents the occasion to establish a coherent system of ongoing collaboration. One form that this collaboration might take would be in the area of document exchange among countries and their partners. With this in mind, I have included a rather extensive bibliography in my handout and in my paper. I would be glad to try to provide copies of papers to which I refer to anyone interested. In this paper I focus on the areas of child development, bilingual education, pedagogy, reading and literacy, and cultural ideology.

What does research teach us about instruction in maternal/local languages in Africa? Though there are lessons to be learned from elsewhere in the world, some of the most important experience is being gained here and now in Africa, so it is important also to look at home before searching from all over the world. Great successes have been enjoyed by many of the countries represented at this seminar. Clearly, we all have a great deal to learn from each other.

As I will demonstrate, the results from North American multilingual education research on the advantages and benefits to children of proper bilingual education are extremely convincing. The ideal of increased multilingualism is becoming attractive throughout the United States. In fact in the *Boston Globe* newspaper on 12 April 1998, school officials in Miami, Florida announced a plan to create the first school system in the US to require all students to be bilingual and biliterate. Officials recognize the competitive advantage that students who are bilingual have over their monolingual counterparts. Ironic that those that don't have multilingualism want it, and those that do, have challenges in managing it in the education system. Multilingualism should not be seen as an obstacle to development. In my mind multilingualism is one of Africa's greatest and least-exploited resources.

### 1. Social and cultural aspects of LOI educational reform

In his work my Malian colleague Kassim Kone laments the degree to which European education has been imposed in Africa, but he is also disappointed at the fact that educated Africans have not been more instrumental in effecting change in education. He writes:

So far in Africa, we have failed to educate our people. Much of this is due to Africans educated in the Western system, and from the Western perspective, who have learned to understand, speak, read and write in languages other than their own. Our being educated in another language is not a problem in and of itself, but the most serious problem resides in our inability to communicate to our brother, sister, daughter or niece, son or nephew, the farmers, the herders, and the fishermen, among others, what we have learned at school. If you happen to be educated and if you are African, ask yourself: "How much of what I have learned can I translate in an understandable way to the people who speak my mother tongue?"<sup>4</sup>

The maternal languages of Africa are the only possible linguistic choice during the primary education cycle to remedy this crisis, and to guarantee optimal transmission of the child's social and

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<sup>4</sup>Ibid., p. 13.

cultural values, thereby affirming the child's own identity, binding the child together with parents, to the community of the school and to the local environment. This guarantees optimal transfer of academic, cognitive, social and cultural skills to a foreign language medium later in the cycle. The inadequacy of a foreign language medium to perform this cultural function has now become clear to all parties.

"It is important to bear in mind that language fills not only communication, but also symbolic functions within a society."<sup>5</sup> African languages have powerful ties to their symbolic and cultural functions. In "francophone" Africa, the official French language policy has never taken into account the symbolic and cultural role played by African languages.

As put so very well by Henry T. Trueba:

Language is one of the most powerful human resources needed to maintain a sense of self-identity and self-fulfillment. Without a full command of one's own language, ethnic identity, the sharing of fundamental common cultural values and norms, the social context of interpersonal communication that guides interactional understandings and the feeling of belonging within a group are not possible. Furthermore, without language and a strong self-identity, the ability to learn other languages and understand other cultures is impaired.<sup>6</sup>

An education system should play a role in eliminating subtractive bilingualism and in promoting additive bilingualism and thereby biliteracy. Using a foreign medium is submersive, and subtractive. Wallace Lambert describes cases where transformation of a situation from a subtractive bilingualism to an additive bilingualism had very positive impact on the children involved. For Franco-American children who had been denied the chance to learn in French in the state of Maine, the curriculum was changed so that one third of it was carried out in French. After a five-year study, the children in the partial French classes clearly outperformed those in the control classes in various aspects of English-language skills and in academic content, such as math, learned partly in French. Another aspect of this transformation was the change in the self-image of the French-trained youngsters who ... began to reflect a deep pride in being French as well as American and a realization that both languages were important media for education.<sup>7</sup>

The education system should validate and maintain the linguistic and cultural ties of the child with the home community. G.R. Tucker found that there is a cumulative and positive impact of bilingual education on all youngsters when they are allowed to remain in bilingual programs for a period of time greater than two or three or even five years and when there is an active attempt to provide sustained content learning in their mother tongue in addition to introducing teaching via the L2.<sup>8</sup> There must be strong links between a child's home socialization and identity and those established at school. School must complement the home. These observations are borne out in research from other disciplines.

### **1.1. Cultural politics, ideology and language of instruction**

There is a significant body of literature which continues to grow relating to what is known as the "critical pedagogy" movement. Through the work of Paulo Freire, Giroux, and many others, this movement addresses the need for educational reform as a vehicle for the emancipation of the individual

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<sup>5</sup>Christian, Donna. 1988. Language planning: the view from linguistics. p. 193. in Frederick J. Newmeyer, ed., *Linguistics: The Cambridge Survey, Volume IV Language: The Socio-Cultural Context*. New York: Cambridge University Press.

<sup>6</sup>Trueba, Henry T. 1993. The Relevance of Theory on Language and Culture with Pedagogical Practices. p. 259. in Barbara J. Merino, Henry T. Trueba and Fabián A. Samaniego, eds. *Language and Culture in Learning*. Washington, DC: The Falmer Press.

<sup>7</sup>Lambert, Wallace E. 1990. "Persistent issues in bilingualism". pp. 214-5 of Harley, Birgit, et al.

<sup>8</sup>Ibid., p. 215.

within society, and for the freeing of a society from dominance either within or from outside of their territory. The relevance to the situation in Africa is clear, and thus a brief summary of their philosophy is presented here; the links to the democratization process and to the sharing and distribution of knowledge are readily apparent. It is crucial to address the question of literacy for what purpose, and how will that literacy empower people? Giroux writes:

Education in Freire's view becomes both an ideal and a referent for change in the service of a new kind of society. As an ideal, education "speaks" to a form of cultural politics that transcends the theoretical boundaries of any one specific political doctrine, while also linking social theory and practice to the deepest aspects of emancipation. ... his cultural politics represents a theoretical struggle against all forms of subjective and objective domination as well as a struggle for forms of knowledge, skills, and social relations that provide the conditions for social and, hence, self-emancipation.<sup>9</sup>

The rejection of the "autonomous" model of literacy has led many to view "literacy as necessarily plural." Literacy experts no longer believe the great divide theory which would argue that there are great differences between those that have and those that don't have literacy. It is now recognized that children and various social groups have a continuum of varieties of literacy, each with an ideological basis, as expressed here:

Different societies and social subgroups have different types of literacy, and literacy has different social and mental effects, in different social and cultural contexts.

Literacy is seen as a set of discourse practices, that is, as ways of using language and making sense both in speech and writing. These discourse practices are tied to the particular world views (beliefs and values) of particular social or cultural groups.

Such discourse practices are integrally connected with the identity or sense of self of the people who practice them; a change of discourse practices is a change of identity.

... The discourse practices associated with our schools represent the world view of mainstream and powerful institutions in our society; these discourse practices and their concomitant world view are necessary for social and economic success in our society.<sup>10</sup>

"Language and literacy acquisition are forms of socialization"<sup>11</sup>. When the former colonizer's language is the medium of education and of literacy acquisition, the system becomes one of socializing the student to the colonizer's ways of using language in speech and print, and ultimately to the colonizer's ways of taking meaning, of making sense of experience. A foreign language cannot be a neutral vehicle in this regard, nor can it be a vehicle of the child's culture. Furthermore, it constitutes a subtractive bilingualism.

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<sup>9</sup>p. xiii of Giroux, Henry A. Introduction to Paulo Freire. 198?. *The politics of education, power, and liberation*. Massachusetts: Bergin & Garvey Publishers, Inc.

<sup>10</sup>Gee, James Paul. 1989. "Orality and literacy: From *The Savage Mind* to *Ways with Words*". *Journal of Education*. Volume 171, no. 1. Boston: Boston University School of Education. pp. 39-40.

<sup>11</sup>*Ibid.*, p. 59.

### 1.2. The culture of the curriculum as textual authority.

The curriculum wields power and authority, whether overt or covert. In the following citation, the author refers to the struggle over curriculum and textual authority as a struggle to control the basis for the production and legitimation of knowledge:

Within dominant forms of curriculum theory, learning is generally perceived as either a body of content to be transmitted or a body of skills to be mastered. In the first instance, curriculum is made synonymous with acquiring the cultural capital associated with the "great books". ... In the second instance, the emphasis is on ... knowledge as technique or method.

... What is lost is the notion of a critical education. ... The curriculum is a text. The struggle is over textual authority.<sup>12</sup>

What is at stake in the struggle over curriculum and textual authority is the struggle to control the very grounds on which knowledge is produced and legitimated. This is both a political and a pedagogical issue. It is political in that the curriculum with its representative courses, texts, and social relations is never value-free or objective. Curriculum by its very nature, is a social and historical construction which links knowledge and power in very specific ways.

... a hierarchy of forms of knowledge, to which access is socially distributed.<sup>13</sup>

The choice of the classic great books of the Western World for the curriculum constitutes a choice which excludes other possible elements. If the literature of the former colonial power in the colonial language is exclusive in this role, if all texts are written by expatriates, then the result can only be a marginalization and silencing of other groups who thereby become subordinate and unable to find a voice through the education system. It is necessary to make room in the school for national languages, literatures, and cultures. Whether or not room can be made is a political decision - a question of political will in the face of opposition from many different forces. A Nigerien colleague here expresses how Nigerien society is marked by cleavages partially caused by the power of exogenous languages, vehicles for formal education (French) and religious education (Arabic):

La société nigérienne est à ce jour marquée par une série de clivages fondés, entre autres, sur l'appropriation des langues exogènes, seuls véhicules d'enseignement aussi bien à l'école moderne conventionnelle qu'à l'école informelle coranique. Aucune des langues maternelles locales n'est enseignée, à aucun titre, dans aucune de ces écoles. Il s'en suit dès lors une sorte de partage des pouvoirs politiques et économiques fondé sur l'acquisition des langues exogènes et des avantages divers que génère leur statut officiel ou fonctionnel.<sup>14</sup>

Certes la promotion des langues maternelles locales remet en question des intérêts particuliers pérennisés et de ce fait, déchaîne beaucoup de passions et de résistances mais elle est inéluctable. Reste à définir la meilleure façon de la réaliser sinon les Africains demeureront les seuls élèves au monde à ne pas apprendre [dans] leur (s) langue(s) à l'école et à penser dans celles des autres.<sup>15</sup>

<sup>12</sup>Giroux, Henry A. 1990. "Reading texts, literacy, and textual authority". p. 87. *Journal of Education*. Volume 172, no. 1. Boston: Boston University School of Education.

<sup>13</sup>Ibid., p. 88.

<sup>14</sup>Maman, Mallam Garba. 1997. "Envers et revers de la gestion officielle du plurilinguisme au Niger". page 4. *Plurilinguisme*. Bruxelles: Centre de Recherche sur le Plurilinguisme.

<sup>15</sup>Ibid., p. 7.

## 2. Reading & literacy

Turning now to recent work on reading and literacy, in the state of Massachusetts the Reading Association and the Association for Bilingual Educators produced a position paper in 1995 in which the positions shown in 7 of your handout were taken. They reiterate the often cited cognitive advantages of mother tongue instruction in the following list:

1. Children who are bilingual and biliterate demonstrate enhanced cognitive abilities in some areas.
2. Knowing how to read and write in the first language supports the development of reading and writing in English.  
When students are allowed to use their first language, performance in reading and writing in English is enhanced, particularly in the development of concept knowledge and critical thinking.
4. In learning English as a second language, writing develops alongside reading, listening and speaking.
5. Authentic situations facilitate writing development in both first and second languages. Authentic situations are defined as those that offer students opportunities to use writing in ways that are meaningful and purposeful to them.
6. Bilingualism does not explain the underachievement of language minority students. It is important that teachers and specialists search for underlying causes of learning difficulty, including educational, cognitive, linguistic, sociopolitical, and affective factors.<sup>16</sup>

In the above citation, point number six is particularly relevant to the African situation. In the US, as in Africa, MTE has many critics. Critics are quick to want to condemn the bilingual system. However, given the widely recognized advantages of bilingualism, failure of students means there is something wrong with the way it is being practiced and not with the principle.

In a report which has just appeared in the United States, a team of experts combined their experience to produce a document on reading which represents a consensus of the findings of the past few decades with regard to the *Prevention of Reading Difficulties in Young Children*.

One program described is the family literacy program and also the intergenerational literacy program, both of which enhance literacy growth whether within the family in the former case, or among adults and children who may be unrelated in the latter case. Research shows that family literacy experience has an important impact on literacy achievement in school, and that it can effectively function as a strategy to make up for the lack of literacy activities in a family.<sup>17</sup> This would be the ideal situation in the reformed African school where parents are directly linked to the literacy activities of their children.

Among many ideas and resources, the document synthesized the work of Marilyn J. Adams on beginning to read as shown in the citation below. She emphasizes the importance of having many and varied experiences with literacy.

- ... direct instruction in phonics, focusing on the orthographic regularities of English, was characteristic of good, effective reading instruction, but she noted the need for practice in reading, for exposure to a lot of reading material as input to vocabulary learning, and for motivating, interesting reading material.
- ... importance of teaching children explicitly about the code of English

<sup>16</sup>Massachusetts Reading Association. 1995. "Teaching Literacy to Bilingual Children: Effective Practices for Use by Monolingual and Bilingual Teachers". Springfield, MASS: Massachusetts Reading Association. pp. 1-10.

<sup>17</sup>National Research Council. 1998. *Preventing reading difficulties in young children*. Washington DC: National Academy Press. pp. 145-6.

orthography ... good readers must have access to many experiences with literacy that go beyond the specifics of phonics instruction.<sup>18</sup>

The document also deals with techniques teachers should use to plan their instruction as shown here:

- ◆ creating a literate environment in which children have access to a variety of reading and writing materials;
- ◆ presenting explicit instruction for reading and writing, both in the context of "authentic" and "isolated" practice;
- ◆ creating multiple opportunities for sustained reading practice in a variety of formats, such as choral, individual, and partner reading;
- ◆ carefully choosing instructional-level text from a variety of materials, with a reliance on literature, big books, and linking reading and writing activities;
- ◆ adjusting the mode (grouping) and explicitness of instruction to meet the needs of individual students;
- ◆ encouraging self-regulation through cognitive monitoring strategies; and
- ◆ "masterful" management of activity, behavior, and resources.<sup>19</sup>

Approaches to reading instruction are shown here:

Three classroom approaches represent three distinct and frequently discussed views on explicitly how to develop beginners' phonics and decoding skills in a print-rich environment:

1. Whole language in which the emphasis is on connected text, with alphabetic learning assumed to go on implicitly.

The whole language approach gives priority to child's construction of meaning; phonics lessons are conducted opportunistically in the context of meaningful reading and writing; the teacher is facilitator; authentic, performance-based assessments, such as portfolio entries, are preferred to formal or skill-focused assessments.

2. Embedded phonics in which sound-spelling patterns are systematically embedded in connected text.

Phonics instruction is sequenced according to a list of rhyming word families; deleting parts of words to focus on the spelling and sound of the rest of the word; then one substitutes different sounds and spellings to lead children to patterns for new words; trade books are selected containing words based on instructed spelling patterns.

3. Direct code, in which letter-sound correspondences and practice take place with various kinds of text.

Start working on how print works through linguistic awareness activities; use big books, writing, and language games; phase 2 focuses on learning to read and spell words independently; letter-sound correspondences and spelling conventions are explicitly taught; independent reading is introduced thru a graduated series of books; work on sounding it out strategy; phase 3 more books and a wider selection]<sup>20</sup>

<sup>18</sup>Ibid., p. 174.

<sup>19</sup>Ibid., pp. 196-7.

<sup>20</sup>Ibid., pp. 198-204.

A consensus emerges from this report that all three of the reading methodologies cited either alone or in combination can be effective provided that the conditions shown here are fulfilled:

Adequate initial reading instruction requires a focus on:

- ◆ using reading to obtain meaning from print,
- ◆ the sublexical structure of spoken words,
- ◆ the specifics of frequent, regular spelling-sound relationships,
- ◆ frequent opportunities to read, and
- ◆ opportunities to write.

Adequate progress in learning to read English beyond the initial level depends on:

- ◆ having established a working understanding of how sounds are represented alphabetically,
- ◆ sufficient practice in reading to achieve fluency with different kinds of texts written for different purposes, and
- ◆ control over procedures for monitoring comprehension and repairing misunderstandings.

... Reading is typically acquired relatively predictably by children who:

- ◆ have normal or above average language skills,
- ◆ have had experiences in early childhood that fostered motivation and provided exposure to literacy in use,
- ◆ are given information about the nature of print via opportunities to learn letters and to recognize the sublexical structure of spoken words, as well as about the contrasting nature of spoken and written language, and
- ◆ attend schools that provide coherent reading instruction and opportunities to practice reading.<sup>21</sup>

One often repeated requirement for success is a print-rich, literate environment in which the child has frequent opportunities to read. Indeed, this is what I wish for the African child: a print-rich, literate environment in L1. These recommendations are made in reference to a child's initial literacy in L1. For students from language-minorities in the US, the report recommended the findings shown here:

- ◆ Hurrying young non-English speaking children into reading in English without ensuring adequate preparation is counterproductive.
- ◆ Learning to speak English first contributes to the children's eventual fluency in English reading, because it provides a foundation to support subsequent learning about the alphabetic principle through an understanding of the sublexical structure of spoken English words and of the language and content of the material they are reading. The abilities to hear and reflect on the sublexical structure of spoken English words, as required for learning how the alphabetic principle works, depends on oral familiarity with the words being read.
- ◆ Similarly, learning to read for meaning depends on understanding the language and referents of the text to be read.
- ◆ Moreover, because being able to read and write in two languages confers numerous intellectual, cultural, economic, and social benefits, bilingualism and biliteracy should be supported whenever possible. To the extent possible, non-English speaking children should have opportunities to develop literacy skills in their home language as well as in English.

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<sup>21</sup>Ibid., pp. 314-5.

Recommendations:

- ◆ If language-minority children arrive at school with no proficiency in English but speaking a language for which there are instructional guides, learning materials, and locally available proficient teachers, then these children should be taught how to read in their native language while acquiring oral proficiency in English and subsequently taught to extend their skills to reading in English. ...<sup>22</sup>

### 2.1. Reading, literacy and education

Statistics relating to "francophone" Africa show troubling rates of literacy. A rate of from 10%-15% literacy in french is widely acknowledged. Adult literacy and school-based literacy are generally taught in two different languages, thus having no complementarity.

It is universally recognized that children who have been read to by their parents and caretakers, from birth, enjoy far greater academic success rates than their non-read to counterparts. What provisions must be made in educational reform in Africa so that this ideal becomes possible for the African family? If this were possible it would be a sign of a successful reform.

What is the impact upon a child's creative spirit and imagination of a system which required initial literacy in a foreign language which is not spoken in the child's community environment? If no one speaks the language of instruction, clearly the child will find no experience outside of the school to complement the process going on in school. The child does not have the possibility of learning the language spontaneously or naturally. If a majority of the curriculum is devoted to perfecting oneself in a foreign language, where is the capacity to equip the child to contribute creatively and ingeniously to the development of the country? How can we create a literate environment?

Stephen Krashen distinguishes what he calls free voluntary reading (FVR)<sup>23</sup> in contrast with direct skill-based reading linked to targeted goals of the curriculum. He suggests that FVR is a powerful tool for education and also the key element missing in not only maternal language education programs but also foreign language education programs. FVR contributes to a child's literacy foundation so that the child can attain higher levels of literacy competence in L1 and L2.

FVR can be implemented in the school as part of the curriculum or outside of the school, at the library, or at home. FVR in the school is effective for vocabulary development and proficiency in understanding of grammar, writing and redaction, and oral/aural language input capacity. In some context, the child needs to be able to select reading material; and also to have the chance to do silent reading for long periods of time.

Using the classification of reading materials proposed by Krashen, one must admit that the African child and the African adult both have the same problem: neither has access to FVR-encouraging material. Whether it be in the milieu of the school, or in the adult literacy class, the two groups only have access to materials linked to directed instruction; they thus have no choice when it comes to choosing reading material, if they have any at all. For most Africans, seeing a book and having access to a book are rare.

### 2.2. Where can we find reading materials?

An effort must be made to uncover all of the hidden authors in Africa and the neglected drafts and manuscripts. There is an important latent wealth of material, heretofore untapped, in African languages. Once the political will exists, it is easy to unearth manuscripts, many of which would be appropriate for FVR. A recent example from Niger: In the Department of Lettres Modernes of the Université Abdou Moumouni of Niamey, most students write a substantial memoire in which they are required to transcribe a Nigerien language and translate into French with critical notes an epic poem or

<sup>22</sup>Ibid., pp. 324-5.

<sup>23</sup>Krashen, Stephen. 1993. *The Power of Reading: Insights from the research*. Englewood: Libraries Unlimited, Inc.



some comparable piece of oral literature. Students are graded on their translation and their critical notes, and the Nigerien-language manuscripts are normally filed and neglected. With some of my former students, we recently began to put all of the Nigerien-language manuscripts on the computer and are now preparing to publish them for the Nigerien reading market. Examples abound when we look into the African diaspora and at the international areal research networks which have developed among African, European, and American scholars. Unexploited African language material abounds - we harvested nearly 100 Hausa language tales from an American doctoral dissertation. Two versions of the Sunjata Epic have been offered from a folklore dissertation. Some storybook authors who published their books only in translation, have offered us the original African language manuscripts for monolingual publication. Such materials are only waiting to be repatriated monolingually. In Niger, a colleague is buying market cassettes of women singers in Hausa, and Fulfulde, and Zarma, and transcribing them for eventual monolingual publication. These are only a few examples of the great potential which exists. If this were done in a systematic fashion, there are infinite possibilities.

Another wealth of resources exists among speakers of the languages. Auto-generated literacy materials represent an ideal source for the development of reading materials. Furthermore, many people have even written manuscripts of their own which they had never imagined there would be a chance to publish - it is important to ask among the target population and the results can be overwhelming. In "francophone" Africa, people have rarely been asked.

When it comes to selecting the works to be included in the classroom library for the reformed school, or the village library, here also one has to take the African child's world into consideration, and realize the importance of using the textbook and the curriculum to validate that world in the child's eyes. This means giving the child access to works written by authors from the same background. There must also be works written in the child's voice. This will entail a predominant reliance on authors from the country and from Africa. Works must be appropriate in terms of local language, culture and social studies. The child must identify with the works read.

One possible strategy recently adopted by certain school districts in the United States is to stipulate that a certain percentage of the works used in the education system be written by authors of a specific origin. Some have stipulated that works by minority authors must make up say 40% of the textbooks in the curriculum. This could be done with regard to African authors or further by specifying the nationality of authors. Epic poems from African authors are today recognized throughout the world, especially outside of Africa, as masterpieces comparable in stature to the world's best. Isn't it time that the masterpieces from the great African empires and from African authors be allowed into print and into the classroom? Why when high school students in Seattle, Washington are reading the Soundiata Epic of the Malian Empire in English in their social studies class, should not the Malian child, who can recite it, have the right to read in Malian languages that same widely recognized work of art in the classroom? The same kinds of stipulations could be made by ministries of education with regard to the percentage of works purchased from indigenous rather than foreign publishing companies.

One can no longer afford to jeopardise the future of the African child, and thereby the future of African countries, by trying to avoid hurting the feelings of the former colonial power who is trying to maintain its textbook market. What is decided for children today determines the Africa of tomorrow.

### **2.3. "Latent literacy"**

Due to a lack of reading material, one can know how to read and not be literate - becoming truly literate requires a great deal of practice. There seems to be a high level of latent literacy in Africa which could be harnessed by a decision to furnish the population with meaningful, interesting, reading material.

As part of my work on educational reform in Mali in 1997, I wanted to see what kinds of reading materials were available in Bamako bookstores in national languages: I found an interesting though

limited selection, and bought a set of Bamanan storybooks, a bilingual version of the Soundiata epic, and a Fulfulde poetry contest anthology. In the hotel cafe I was reading the Soundiata epic to myself, trying to figure out the Bamanan structures, when I realized that the waiter whom I had greeted was looking over my shoulder - so I began to read aloud and he began to smile - with my finger moving along the line, he began to read along with me, and then he took the book and continued reading. A woman working there then joined us, another school leaver, and she ended up winning the reading contest which we held and got to take home the prize, a book of Bamanan stories. I will not forget her delight, laughing as she realized that she was reading Bamanan.

It is not always required that you be "alphabetised" in order to read your own language, as the above example demonstrates. Someone with the beginning of literacy in a foreign language can quite easily transfer those skills to their own language - the alphabets share a great many conventions. The image of school as a place where one learns languages has created the idea that learning to read in any language is a monumental task. I would not expect that the 10-15% figure includes the 75% of school goers who leave the school, and yet therein lies a high latent literate population. Further research into this area would certainly be worthwhile. This strategy of conversion of literacy skills from L2 to L1 is one that could help to link the school to the community, and to contribute to the needed literate environment.

An encouraging case of the spread of Pulaar language literacy comes out of Senegal, and has been documented in the research articles written by members of the Fula NGO, some by Sonya Fagerberg-Diallo. This is most encouraging and demonstrates the validity of the idea that people will read things that they choose to read, when things which are meaningful to them socially, culturally, and economically are made available to them. *Aventure Ambigue*. Voila - the creation of a literate environment! In Uganda and other countries, also in literacy an NGO known as ACTIONAID uses the Freirian "reflect" literacy method and relies on auto-generated curricula and teaching materials in L1.

#### **2.4. A literate, print-rich environment.**

It is important to develop feasible strategies for creating a literate print-rich environment in local languages in Africa. Others have suggested that reforming the curriculum towards maternal languages and establishing teacher training in national languages are two sensitive areas replete with political obstacles. Textbooks and reading material may represent an area which is less political and which can serve as a significant vehicle for reform. Textbooks and reading materials are lacking in countries where MTE reform is being implemented. Children need these materials now while we await the time when African languages can realize their full potential, as media of instruction in a truly reformed formal education system, thereby uniting with the impressive literacy movement within the nonformal sector. This is an area where collaboration with outside partners is indispensable to respond urgently to this critical need.

### **3. Curriculum, bilingualism, bilingual education and child development**

Multilingual education is pursued in North America for the purpose of integrating minority groups, and less frequently to enrich the majority. In Africa, it is the majority of the population which has been disenfranchised from the formal education system. It is thus in pursuit of a more democratic education system serving a broader portion of the population that reform movements are implemented to integrate the majority into the system.

Research from North America deals with bilingual education involving the plethora of linguistic and ethnic minorities. Because of the political sensitivity of this question and its relation to American identity, much of the research is devoted to documenting the advantages to the bilingual child, with

respect to cognitive and intellectual development, creativity, and the ability to transfer these advantages from literacy in one language to another. This is driven by the need to convince skeptical and sometimes biased decision-makers of the value of bilingual education. The model assumes a school system teaching initial literacy in L1, the child's first and home language.

### **3.1. On the quality of bilingual education.**

My colleague Kassim Kone, cites a Mande proverb which says N'i ma i juj≠n d≠n, i labanko b'i k≠n≠ gan, meaning that "When you forget your past, your future will confuse you."<sup>24</sup> This can serve as a metaphor representing the language and culture of L1 and L2 in the education system. The advantages which I have summarized here, accrue in a formal academic setting in which the languages partner to that education system are accorded equal status in the context of the school; here equality refers to all core aspects such as teachers and their training, curricula, documentation, textbooks, and systems of assessment/examination. Thus, one language is not seen as being transitional towards or diminished vis-a-vis another. There needs to be a philosophical acceptance and an ideological equality as well. L1 must be at least as strong as L2 in this regard. L1 should be maintained for content areas of the curriculum throughout the system. This is where the political and ideological aspects of curriculum reform come into play.

My Boston University colleague, Maria Brisk, harps on this theme that bilingual education must be quality education and not compensatory education. Every African country has its own goals for education and for the training of its citizenry - the learning of a foreign language should only be a small part of those goals, since the demands placed upon the educated entail much more than simple language mastery. One key factor is the acceptance by society, schools, families, and students of the value and importance of academic bilingualism as a resource.

In bilingual communities in the US, teachers are encouraged to make direct contacts with their students' parents and family. The idea of intergenerational literacy programs, as introduced in 8 of HO, is one which could be effective in the reformed African school where the LOI matches the language of the community. Literacy classes for parents could also be integrated. In 13 of your HO, in Massachusetts,

Parent-teacher cooperative projects allow teachers to learn what and how their students learn at home. For example, the Intergenerational Literacy Program in Chelsea, Massachusetts, uses portfolio parent-teacher conferences as a tool for discovering home literacy practices. Parents are asked to develop literacy portfolios reflective of literacy activities conducted at home. The classroom teachers develop their own literacy portfolios. During parent-teacher meetings the portfolios are discussed. As a result, teachers changed their expectations of some students when they realized that at home these students were already doing things that had not yet been taught at school. (Paratore, et al., 1995).<sup>25</sup>

### **3.2. The experience gained from bilingual education.**

Early research on bilingual education saw bilingualism as harmful to the child - bilingual competence was seen as divided into two separate entities, one for each language, and the two were seen as mutually harmful in that the intellect devoted to a second language was seen as detracting from that available for the first language. Later research showed that L1 and L2 competence were mutually beneficial, enhancing one another, and in fact inseparable in the sense that they are combined into one

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<sup>24</sup>Kone, Kassim. 1995. "The Aftermath of the Brazzaville Conference in French West Africa: The Area of Education". p. 13 of Hutchison & Nguessan.

<sup>25</sup>Brisk, Maria. 1998. *Bilingual Education: From Compensatory to Quality schooling*. Mahwah, NJ: Lawrence Erlbaum Associates. p. 84.

metacompetence which transfers and channels academic and cognitive skills from one language to another under the ideal circumstances in an educational setting.

What are the circumstances necessary to foster the optimal transfer from L1 to L2 in the school?

Earlier research from the 1970s and 1980s prescribed exclusive use of L1 for three to four years before the introduction of L2 as a spoken language. Experience has now shown that this is not necessary, and that there are innumerable possible formulae and combinations which will work provided that L1 literacy and content-area development are taken care of. The proviso is that the use of L1 to teach curriculum content areas must continue throughout the system. Thus the perpetual debate that has gone on in francophone African experimental schools about how early oral French should be introduced into the curriculum of the mother tongue LOI school is now resolved, if this research is accepted. In reference to American bilingual education, Brisk states: "The issue is not when English is introduced but what happens to the native language once English is introduced."<sup>26</sup> For "francophone" Africa however, in a context in which L2 is not widely spoken and a literate environment for L1 is not imminent, I would recommend that French as a subject - that is for oral competence - should not begin until the third year of primary school.

*The bilingual proficiency framework of Cummins and Lindholm's study*

The work of Cummins and Toukoma and Skutnabb-Kangas has resulted in certain assumptions which have been widely recognized in bilingual education circles in the Americas. They propose a threshold level of linguistic proficiency which a child must attain in order to avoid cognitive disadvantages and to allow the potentially beneficial aspects of becoming bilingual to influence cognitive growth. Their work now suggests two thresholds: a lower level of bilingual proficiency which will prevent negative consequences of bilingualism, and a higher level at which long-term positive cognitive benefits are guaranteed.

Here both kinds of language proficiency come into play: communicative (basic conversation skills that require little cognitive attention and have considerable contextual support) and academic (skills required in cognitively demanding tasks like reading and writing which do not have contextual support) (Cummins, 1979a, 1979b, 1987, etc.).

Lindholm (1991) set out to test the three assumptions related to the theoretical relationship between language and thought which result from the work of Cummins, as shown in of HO:

*threshold hypothesis:*

The first assumption holds that high levels of proficiency in the two languages will facilitate cognitive processing. Lindholm's research supported the threshold hypothesis, as shown here:

Results showed that the second- and third-grade students who had developed the conversational skills to be rated as orally proficient in both languages scored higher, though not significantly higher, than students who were rated fluent in their first language but limited in their second language, in academic tests in both English and Spanish.

... the gap between students dominant in their native language and bilinguals, which was minimal or nonexistent in the early grades, increased across the grades.<sup>27</sup>

*2 types of language proficiency:*

<sup>26</sup> Ibid., p. 105.

<sup>27</sup> Ibid., p. 13.

The second assumption holds that there are two types of language proficiency, academic and communicative, and the extent to which one is proficient in these two types may vary. With regard to communicative and academic language proficiency she observed that:

... by third grade in the bilingual program, after only one academic year of reading instruction in English, bilingual [Spanish-speaking minority] students scored higher, but not significantly higher, than English-dominant students in language achievement, though equivalent in reading achievement. In addition, the bilinguals outperformed the English-dominant and Spanish-dominant students in English math achievement, and in Spanish reading achievement as well.<sup>28</sup>

... reading is highly dependent on academic language skills, oral English proficiency is not correlated with academic English proficiency, and both types of language proficiency are associated with English reading ability.<sup>29</sup>

Research in children's and adults' acquisition of these types of language proficiency indicates that it takes about two years to master the basic communicative proficiency in a second language and five to seven years to develop adequate academic language proficiency in a second language. (National Commission on Excellence in Education, 1983. as cited by Lindholm)

*transfer of content across languages:*

The third assumption holds that there is transfer of content across languages from L1 to L2.<sup>30</sup> With regard to the achievement and content transfer assumption, Lindholm writes:

The fact that the students were able to score as well as they did in English without content instruction in English (except one year of English reading for the third graders) demonstrates that the math, reading, and language concepts were available to them in both languages. These findings are consistent with previous research suggesting that there are interconnected pathways of content within and across languages (e.g. Cummins, 1987) enabling transfer of content to occur.

... [However] students can only demonstrate transfer of content across languages once they have acquired sufficient language skills to do so, and the level of language sufficiency will vary depending on the language requirements of the subject matter. For example, while there was a high correlation between English and Spanish reading achievement, the correlation was much higher between English and Spanish math achievement.<sup>31</sup>

This last point is important since it implies that a bilingual who performs well in a given academic area in L1 will have the capacity to transfer that knowledge to L2 after learning communicative proficiency and working in some content areas in L2.<sup>32</sup>

The implication of this information for the African school is that even in an environment where L2 is not widely spoken, the development of communicative proficiency in L2 will make possible higher levels of academic achievement in L2 if L1 academic proficiency has been allowed to flourish through sufficient content work across the curriculum.

<sup>28</sup>Ibid., p. 14.

<sup>29</sup>Ibid., p. 15.

<sup>30</sup>Ibid., p. 15.

<sup>31</sup>Ibid., p. 15.

<sup>32</sup>Lindholm cites Lindholm & Fairchild, 1989.

Lindholm writes:

A number of studies have been conducted with bilingual children showing that intellectually, bilingual children's experiences with two languages seem to result in mental flexibility, superiority in concept formation, and a more diversified set of mental abilities, whereas the monolinguals appear to have more unitary cognitive structures, which restricted their problem-solving ability. ... The important point is that there is evidence to suggest that bilingual development may facilitate cognitive and academic functioning.<sup>33</sup>

Clearly, before the optimal transfer of academic skills from L1 to L2 can occur, the level of spoken proficiency in L2 must be sufficient to support that transfer. Lindholm concludes that the two types of proficiency being considered here need to be developed in both languages before high levels of academic achievement can be expected. In order to develop both areas requires a considerable investment of time, and thus one must wait patiently to see children performing at high levels in L2.<sup>34</sup> The partners to a reform process must thus not be too quick to judge. There has been a tendency to critically evaluate and judge maternal language programs too quickly.

#### *metalinguistic skills*

Bialystok's work in the area of metalinguistic skill can be linked to that of Cummins and Lindholm. Though her terminology differs from theirs, her work toward defining *metalinguistic skill* represents another framework through which to demonstrate the academic power of bilingual linguistic competence. She proposes that *analyzed knowledge* and *cognitive control* are the two skills associated with structuring knowledge and accessing knowledge. She writes: "... within each of three key domains of language problems (conversational, literacy, and metalinguistic), the demands along the two dimensions ... vary significantly. The decrease in contextualization from conversational to metalinguistic tasks increases the need for analyzed knowledge, while the increase in the requirement to focus on form and suspend meaning increases the need for cognitive control."<sup>35</sup> She distinguishes unanalyzed knowledge from *analyzed knowledge*; the access to the structure of meanings brought about through analyzed knowledge permits their use in specific contexts for the construction of particular goals. This is analagous to Piaget's distinction between figurative and operative knowledge. Others have distinguished between *declarative* knowledge and *operational* knowledge. Analyzed knowledge is used for problems requiring the manipulation of structural components as opposed to a more global perception of meaning. Her dimension *cognitive control* involves the selection and coordination of information, usually within time constraints. At the heart of *cognitive control* is the ability to separate form or structure from meaning. She observes that:

Since meaning is the salient aspect of a linguistic message, deliberate focus upon certain formal parts of the message is difficult. Similarly for coordination, more formal cues are involved in solving a metalinguistic task than in participating in a conversation. It is the ability to accomplish this selection, to know what information is required, to retrieve it, and to coordinate it into a solution within given time constraints that is the responsibility of cognitive control.<sup>36</sup>

Studies comparing the performance of bilingual and monolingual children on a variety of metalinguistic tasks generally reveal an advantage for bilinguals who have an advanced awareness of

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<sup>33</sup>Ibid., p. 4.

<sup>34</sup>Ibid., p. 16.

<sup>35</sup>Bialystok, Ellen. 1985. "Toward a definition of metalinguistic skill". *Merrill-Palmer Quarterly*, Vol. 31, No. 3. Detroit: Wayne State University, Department of Psychology. p. 233.

<sup>36</sup>Op cit., pp. 232-5.

the arbitrary relationship between words and meanings and of the analyzable relationships between structures and meanings. For Bialystok the awareness enters into the aspect of cognitive control.<sup>37</sup> This is thus a gift which the African child comes equipped with but for it to be realized requires achieving sufficient levels of analyzed knowledge.

What emerges from these various sources are dichotomies like the following:

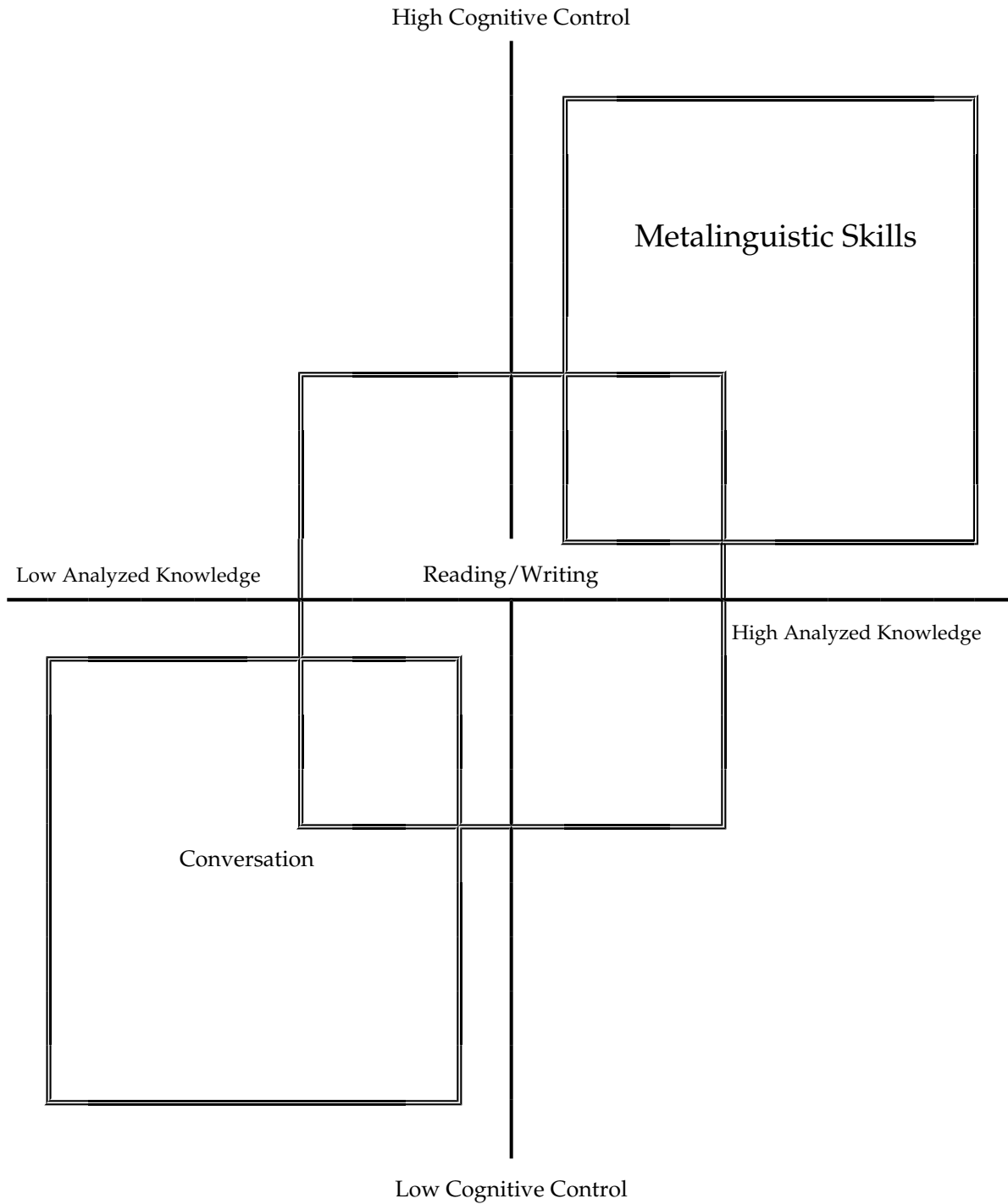
<i>lower cognitive demand</i>		<i>higher cognitive demand</i>	
communicative proficiency	-->	academic proficiency	
contextualized knowledge	-->	decontextualized knowledge	
unconsciously acquired knowledge	-->	analyzed knowledge	
low metalinguistic skill	-->	high metalinguistic skill	

Other evidence comes from a grammaticality judgement test presented to monolingual and bilingual children from ages 4 to 7 years. Although roughly equivalent in their ability to detect grammatical deviations, the two groups differed in their focus of attention during the corrections. The monolingual children, less able to isolate form and meaning in a sentence, could not repair the grammar without also tampering with the meaning; bilingual children could focus directly on the forms approximately 2 years earlier than the monolingual children in the study.<sup>38</sup>

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<sup>37</sup>Ibid., p. 244.

<sup>38</sup>Ibid., p. 244.



Cognitive framework underlying the development of language abilities.<sup>39</sup>

*Bilingualism's effect on intelligence.*

Lambert has compared English-French bilingual and monolingual ten-year olds, equated for social-class background, on a series of verbal and nonverbal tests of intelligence and tests of language

<sup>39</sup>Ibid., p. 232.



competencies in each language. In looking at the research over the years he cites the cognitive advantages of bilingualism and then refers to the work of a number of scholars in this regard:

... All these studies ... indicate that bilingual young people, relative to monolingual controls, show definite cognitive and linguistic advantages as these are reflected in measures of cognitive flexibility, creativity, divergent thought, or problem solving.  
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- ◆ Ben Zeev: "bilinguals have greater cognitive flexibility; her subjects had greater skill at auditory reorganization of verbal material, more "flexible manipulation of the linguistic code," and more sophistication in "concrete operational thinking".
- ◆ Inanco-Worrall: Bilingual subjects were some two years more advanced in a feature of cognitive flexibility demonstrated in separating word meaning from word sound.
- ◆ Leopold: He felt that this cognitive flexibility was characteristic of the thought of bilinguals.
- ◆ Vygotsky: Inanco-Worrall also found a bilingual precocity in the realization of the arbitrariness of assignments of names to referents, a feature of thinking Vygotsky believed was a reflection of insight and sophistication.
- ◆ Scott (1973): 2 groups of English-Canadian children, one having been given the opportunity to become bilingual over a period of years, while the second group had not been given this opportunity. Using data collected over a seven-year period, he checked on effects that becoming bilingual might have on divergent thinking, a special type of cognitive flexibility which some consider an index of creativity, or at least of a rich imagination and an ability to scan a host of possible solutions rapidly. Results: functionally bilingual youngsters were at grades 5 and substantially higher scorers than monolinguals with whom they had been equated for IQ and social-class background at the grade 1 level. Also showed more right-hemisphere involvement among bilinguals.

#### *Additive vs. Subtractive Bilingualism.*

Lambert<sup>41</sup> notes that all of the successful outcomes reported on in bilingual education have involved cases in which the education system is adding a second, socially relevant language to one's repertoire of skills, normally after children have acquired cognitive and academic proficiency through their first language. Thus, the learning of the second language does not portend the replacement of the first language, resulting in *subtractive* bilingualism, of the kind experienced by ethnolinguistic minority groups victim of discriminatory education policies. Only through *additive* bilingualism do the advantages described here accrue to the children involved. "In the subtractive case, one's degree of bilinguality at any time would likely reflect a stage in the disuse of the ethnic home language and its associated cultural accompaniments, and its replacement with another more "necessary" language. This form of bilingualism can be devastating because it usually places youngsters in a psycholinguistic limbo where neither language is useful as a tool of thought and expression - a type of "semi-lingualism," as Skutnabb-Kangas and Toukomaa (1976) put it."<sup>42</sup>

Kessler and Quinn (1980) in a similar study focused on science inquiry, physical science problems and hypothesis testing as taught to Hispanic-American students compared to middle-class white monolingual English-speaking American students of same age. The result was that the Spanish-English bilinguals generated hypotheses of a much higher quality and complexity than did the monolinguals; this problem-solving quality was reflected also in the language used, as indexed by a syntactic complexity measure, so that the bilinguals clearly were using more complex linguistic structures. They also found substantial correlations between their measure of hypothesis quality and syntactic

<sup>40</sup>Lambert, Wallace E. 1990. "Persistent issues in bilingualism". p. 211 of Harley, Birgit, et al.

<sup>41</sup>Lambert, Wallace E. 1990. "Persistent issues in bilingualism". pp. 213-4.

<sup>42</sup>Ibid., 213

complexity, providing an important link between problem-solving capacity and linguistic skills. (Lambert, 1990:215).

When and how a child should be immersed in L2 depends on the sociolinguistic context, and whether or not L1 is being adequately supported in the home and in aspects of the school environment. The child must be thoroughly rooted and secure in L1 with fully developed cognitive-academic proficiency and with a solid foundation in literacy in order for the introduction of L2 to be truly additive.

#### 4. Conclusion

In Africa, bilingualism, indeed multilingualism, is endemic - most African children arrive at school knowing at least two languages. If we accept the conclusions of a large international body of research praising the benefits of academic bilingualism, then this rampant multilingualism should be viewed in the educational context as a rich natural human resource, which in many African countries has yet to be exploited. An important role of the education system is thus to convert natural communicative bilingualism into academic bilingual proficiency. This conversion or connection can be made in either or both of the languages a child already speaks, and/or the partnership can be shared with another school language. Once this has been accomplished, then it will also become feasible for the formal system to connect with the various elements making up the latent literacy hidden throughout the non-formal system.

Submerging the child in a foreign language from the very first day of primary education is known as *submersion*, and it is the extreme form of subtractive bilingualism which allows no place for L1. This is what is practiced in the classic French-medium school. It is this form of "bilingual" education which is illegal according to various statutes in the United States.

Many have observed that the curriculum of a school system is not composed of neutral knowledge and content (Apple, 1992, Freire, Gee, Giroux, Macedo, et al). The words of these scholars take on even more importance when applied to the educational reform environment in Africa. Indeed, when choosing between an African language curriculum and a colonial language curriculum, the socio-cultural, economic, and political consequences of that choice or a combination thereof, become important. What counts as legitimate knowledge in any setting is really the result of complex power relations, struggles, and compromises among identifiable class-based, race-based, gender-based, ethnicity-based, religion-based, and international power-based forces - all of these parties have their interest at stake.<sup>43</sup> Consider the following:

Luke (1988) talked of school texts as the simultaneous results of political, economic, and cultural activities, battles, and compromises; they are designed and authored by real people with real interests; they are published within the political and economic constraints of markets, resources, and power. The meaning of texts, then, and how they are used are conditions of differing community commitments, including teachers and students.

... Texts are, according to Inglis (1985), messages about the future, and as part of the curriculum, they participate in creating what a society has recognized as legitimate and truthful. In a way, they help to create a major reference point for what knowledge, culture, belief, and morality are supposed to be. ... [texts] dominate what students learn. ... the world of books is not really cut off from the world of commerce. ... Books are not just cultural artifacts; they are also economic commodities, the products of the ... dynamics of the publishing industry.

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<sup>43</sup>London, Clement B.G. 1994. "Linking cultures through literacy: A perspective for the future." p. 176 of Ellsworth, Nancy J. et al, eds.

... A *common culture* finds it extremely difficult if not impossible to become an extension to everyone of what a minority effort mean and believe. ... It requires ... the creation of the conditions necessary for all people to participate in a creation and recreation of meanings and values. Moreover, it requires a democratic process in which all people, not simply those who see themselves as the intellectual guardians of the Western tradition or the Eurocentric emphasis, can be involved in the deliberation of what is important (Apple, 1990).<sup>44</sup>

There is a consensus emerging from the North America literature which is important for similar African efforts, and that consensus has to do with the quality of curriculum and instruction in both languages. Brisk (1998) writes: "A bilingual curriculum takes advantage of both languages to teach language, literacy and content areas. ... effective programs underscore the importance of strong home language development ... " The message is undeniable that success in L2 depends on depth of knowledge of L1. Students need to develop cognitive and academic competence through both languages. The development of literacy in a language usually entails the prior ability to speak and communicate in that language. The introduction of a foreign language will be most successful if accompanied in the curriculum by continuous use of the native language in content areas. In a Navajo language program in the US, students began their L1 literacy in the first grade and continued through the sixth grade with classes in Navajo literacy throughout. When they go on to grades 7 through 12, their language is maintained through one social studies or science course a year in Navajo.<sup>45</sup> When L1 is neglected at home or in school, or both, it no longer supports second language development and can cause language and literacy problems. (Brisk) She continues as shown here:

Elementary students who after a year of native language instruction received their education only in the second language showed difficulties in reading typical of students with reading problems (Bossers, 1991). Moreover, Beebe and Giles (1984) found that if learning a language is perceived as requiring the neglect of one's own language and cultural group, it becomes difficult to acquire the second language to a high level of proficiency.<sup>46</sup>

I would like to conclude with words from a report by Thomas and Collier, in which they describe the three key predictors of academic success in bilingual programs. These, shown below, they say are more powerful than specific program type or student background variables.

- ◆ Cognitively complex academic instruction through student's first language for as long as possible and through second language for part of the school day;
- ◆ Use of current approaches to teaching the academic curriculum through both L1 and L2, through active, discovery[-oriented], cognitively complex learning; and
- ◆ Changes in the sociocultural context of schooling, ... a supportive, affirming context for all; an additive bilingual context ...

[and then ... ]Instructional approaches emphasizing: whole language, natural language acquisition through all content areas, cooperative learning, interactive and discovery learning, cognitive complexity of all lessons.<sup>47</sup>

<sup>44</sup>Ibid., 176-7.

<sup>45</sup>Holm, A. and W. Holm. 1990. Rock Point: A Navajo way. *Annals of the American Academy of Political and Social Science*, 508, pp. 170-84.

<sup>46</sup>Brisk, 1998:105.

<sup>47</sup>Thomas, Wayne P. and Virginia Collier. 1996. "Language-Minority Student Achievement and Program Effectiveness. *NABE News*. p. 33-4. In their work they have shown that students reach the 50th percentile on L2 standardized tests after from 4-7 years, whereas it takes students who were not schooled in their first language 7-10 years.

The critical importance of these elements applies equally well to the African context. A rough schema therefore of the order in which languages are introduced and then used as medium for content areas of the curriculum is captured here:

	communicative proficiency in:	cognitive/academic proficiency in:	language medium for content areas:
prior to school:	L1		
early years of school:	L1	L1	L1
	L2	L1	L1
later years of school:	L2	L1/L2	L1/L2
	L2	L1/L2	L1/L2

In general, there is a convergence with regard to the results coming from the reading specialists and from the bilingual education movement. Both groups agree that:

- ◆ oral competence in a second language should precede literacy instruction, and in Cummins terminology, communicative proficiency should precede academic proficiency;
- ◆ a high level of communicative proficiency facilitates natural development of academic proficiency; threshold level of academic proficiency in L1, plus communicative proficiency in L2, leads to commensurate higher level of academic proficiency in L2;
- ◆ bilingual competence/proficiency does not entail two separate competencies, but rather an interdependent cross-language competence, suggesting a common storehouse of knowledge.

Thomas and Collier establish four interdependent dimensions which must interact in the process of language development in both L1 and L2: social and cultural processes, language, cognitive development, and academic development.



The message which emerges from this research is loud and clear. Under optimal conditions, bilingual education which ensures quality curricula and development of academic competence through both L1 and L2 in a school environment where L1 and L2 are accorded the same status and respect has the potential to resolve many of the problems of the French and English medium schools of Africa. An education system should not be judged on how those coming out of it speak a foreign language, but rather on how well they can contribute to the future productivity and development goals of their country.

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