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**Language Learning and Linguistic Policy in Education:
Considerations for Successful Bilingual Programs in Madagascar**

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EXECUTIVE SUMMARY

This report examines the research and literature on language acquisition, bilingualism, and bilingual/multilingual educational programs around the globe. The goal is to identify key indicators of good educational practice and provide recommendations for the development of language educational policy in Madagascar.

First, the report examines theory on first and second language acquisition to provide the theoretical framework underlying bilingual education programs. Subsequently, it describes the methods and approaches to second language acquisition and bilingual models observed internationally. Second, it highlights findings from bilingual education research.

Third, it examines bilingual education models and language of instruction policy in the industrialized world presenting examples from Canada, the United States, New Zealand, Germany, and the Netherlands.

Fourth, it explores language policy and bilingual education practices in developing countries in Asia, Africa, and Latin America presenting the cases of Vietnam, India, Bolivia, Guatemala, Tunisia, Kenya, South Africa, Mauritania, and Benin.

Finally, based on bilingual theory and research and on the lessons learned from world countries (industrialized and developing), the report provides recommendations for the development of bilingual education programs, language policy, and educational reform in the country of Madagascar.

Lessons Learned from Educational Theory and Research

Malagasy children are mainly instructed through the Audiolingual Method. Teaching French is meaningless to them because this is a language which is spoken neither at home nor in the community and it is instructed in non-engaging manners. Instead, they must be taught based on following current educational methods if they are to be successful learners and achieve academically in the content areas.

Malagasy children cannot acquire the French language in a natural way because it is not spoken at home or in the community. In addition, they do not receive *comprehensible input* because they are instructed in French, a language they do not understand and by teachers who do not speak it. Thus, they are educated in highly stressful environments and second language learning cannot be successful.

Malagasy children experience subtractive bilingualism. Their native language is considered inferior comparing to the French. As a result, the Malagasy educational system is based on *subtractive bilingualism* and has high repetition and drop-out rates; there is only a small minority of students who are able to make it to higher education.

There are two types of transitional bilingual programs: the *Early-Exit* and the *Late-Exit*. The *Late-Exit Transitional* programs follow the principles of bilingual education which state that it takes only 1-2 years to develop *Basic Interpersonal Communication Skills* (BICS) in a second language but it takes 5-7 years to develop *Cognitive Academic Language Proficiency* (CALP). CALP is necessary for school achievement.

The *Early-Exit Transitional* programs, like the current educational system in Madagascar, do not follow the same principles. Only two years of Malagasy instruction are not enough. Before children develop a strong command of their native language and the CALP in their second language they switch to French. Therefore, they are not able to understand academic concepts in the content areas such as math and science and are set for school failure, grade repetition, and drop-out.

Lessons Learned from the Industrialized World

Various types of bilingual programs have been implemented in the industrialized world. These programs are not on a national scale and they address different needs of diverse student populations. Although the socio-political and linguistic context in the industrialized countries is very different from the one in Madagascar, these countries can teach important lessons on bilingual education.

In the industrialized countries, the second language is the language that is widely spoken in the community and children have the opportunity to practice it in and out of the classroom. In Madagascar, on the contrary, French is not the language of the community and children do not have any opportunity to acquire it outside of the formal classroom setting.

In the industrialized countries, there is a wealth of bilingual programs which can serve as examples for Madagascar with respect to their structure and form; a wealth of exemplary instructional materials for bilingual and foreign language programs; and many exceptional models for pre-service and in-service teacher training.

The examples of Canada and New Zealand which support additive bilingualism can also teach Madagascar about the importance of valuing the native language and culture and actively involving parents and the entire community in children's learning.

Lessons Learned from the Developing World

Various types of bilingual programs have been implemented in the developing world. Most of these programs operate on a national scale and they address different needs of the society. In some countries these programs emphasize learning on a lingua franca which is one of the countries indigenous languages while they simultaneously stress the importance of other indigenous languages like in the case of Vietnam. Whereas in other countries, bilingual programs focus on maintaining the colonial language together with other indigenous languages like in the case of South Africa.

Vietnam can be an example for Madagascar illustrating that a successful shift from the colonial language to the national language is possible if good planning and determination for success co-exist. In addition, it is an excellent example of additive bilingualism where the children's native languages are valued in the schools and the community.

Madagascar can learn from the experience of India about methods of bilingual and multilingual education, English language instruction, curriculum and materials development including low cost IT materials, private schools curricula, and teacher training methods.

Malagasy educational planners can benefit by looking at the examples of Bolivia and Guatemala in bilingual models, teacher training, materials development, parent participation, and program implementation and evaluation procedures. One important difference between these countries and Madagascar, however, is that in Bolivia and Guatemala, Spanish is widely spoken by the majority of the population while in Madagascar, French is not.

The example of Tunisia for Madagascar is very important. It clearly shows that even if there is emphasis on the native language and Late-Exit Bilingual Programs are in place, when the second language is not spoken widely in the community children face serious academic risks. Malagasy policy makers must think carefully before they consider such an option for their educational system.

In Kenya and South Africa bilingual or trilingual education is the norm. Early-Exit bilingual programs are ineffective. Outdated teaching methodologies result to student underachievement and academic failure. In Kenya and South Africa there is pluralism of linguistic minorities and a lingua franca is a necessity. In Madagascar there is no need for a lingua franca because all people speak Malagasy.

Despite the good planning procedures, children's progress in Mauritania has declined because of lack of materials, lack of bilingual teachers and the implementation of two new systems at the same time: the bilingual education model and "L'Approche par les Competences." The country is now preparing to invest heavily in teacher training and reform of teacher preparation programs. Madagascar will face the same problem if it follows the same route with Mauritania: there are not many Malagasy teachers who are fluent in both Malagasy and French and it will take many years and a lot of financial and other resources to train all these teachers in French and in bilingual education methods. In the meantime, children will continue failing in Malagasy schools.

In Benin children are instructed in French from grade one. Despite the heavy investment on educational materials and teacher training, the grade repetition and low academic achievement rates are very high. Madagascar can learn from the example in Benin that when the language of the school is not spoken in the community bilingual programs especially in poor countries with limited resources and means cannot be successful.

Evaluation of the Current Educational Policy in Madagascar

Today, in Madagascar, an Early-Exit bilingual program is in place. The current educational system is failing because:

- Students are instructed in French, a language that they don't speak at home or in the community.
- Teachers teach in French, a language that they don't master themselves.
- Malagasy language is not valued and is considered inferior to French and the system promotes subtractive bilingualism.
- The Malagasy educational system is an *Early-Exit Transitional* bilingual program and such programs have not been successful worldwide.

- The switch to French occurs too soon (in grade three) before the children develop a strong command of their native language and before they develop the CALP in French.
- As a result, the cognitive and psychosocial development of Malagasy children is at great risk; they cannot master well any one of the two languages (Malagasy or French); and they cannot master knowledge in the content areas.
- The instructional materials are mainly textbooks which are not engaging and they are written in a language that children cannot read.
- The teachers are not trained on current educational practices and bilingual education methods.

A continuation of the exiting educational system is not recommended for the following reasons:

- The system is not based on the principles of a educational theory and research
- It has been proven unsuccessful.
- It cannot be improved even with heavy investment on additional instructional materials and teacher training because it promotes a language that teachers and students do not speak, is an Early-Exit model, and is based on subtractive bilingualism.

Options for Educational Reform: Advantages and Disadvantages

There are three new options suggested for educational reform in Madagascar:

- Two-Way Bilingual education
- Late-Exit Transitional Bilingual Education
- Instruction in Malagasy with French and English as Subjects

Option I: Two-Way Bilingual education option suggests that Malagasy and French will be given equal emphasis and will both be used as media of instruction in primary, secondary, and higher education.

Advantages:

- The option is based on additive bilingualism
- Malagasy is given equal value to French
- Children do not switch from Malagasy to French in any subject but are instructed each subject in the same language throughout their schooling and in higher education
- Children are instructed by teachers who speak well the linguistic medium they use in the classroom
- It may satisfy some of the people who support instruction in French

Disadvantages:

- This option is difficult to succeed because it will require major educational reform in all educational levels and in teacher education programs
- Heavy investment and long term-teacher training will be required. Training will take many years and a lot of effort for Malagasy teachers to learn French and improve their skills in Malagasy
- Heavy investment on instructional materials which will be useless if later a new decision is made for another educational reform

Option II: The Late-Exit option suggests transitional bilingual education from Malagasy to French. Children will begin with Malagasy-only instruction in grade one, and switch to French-only instruction by grade seven. This option proposes beginning the switch from Malagasy to French on grade five and differs from the current model which is an Early-Exit bilingual model.

Advantages:

- It is a program based on additive bilingualism because is a Late-Exit Transitional Model
- Some of the existing instructional materials will be usable
- It may satisfy most of the people who support instruction in French

Disadvantages:

- It will still require new instructional materials
- It will require heavy investment on teacher training
- It will be difficult to train all teachers in French and on bilingual education methods
- Taking as an example Tunisia which has a Late-Exit Transitional bilingual program, it may not be successful because the second language (French) is not spoken in the community

Option III: This option suggests using Malagasy as medium of instruction in primary, secondary, and higher education for all subjects except for foreign languages (English and French).

Advantages:

- This option is empowering for the Malagasy people because it advocates for their home language and is based on the principle of additive bilingualism
- Teacher training will focus on effective teaching methods and not on learning French. It will not require many years until positive student outcomes are evident
- Students will be able to develop cognitively and psychosocially without detrimental interruptions to their normal development
- Students will be instructed in their home language and thus, they will improve in all content areas of the school curriculum because they will understand the concepts presented
- Teachers will teach in a language they can speak
- Students will do better in French and in English. Based on research findings, it is known that students who gain a strong command of their native language do better when they learn other languages
- Parents will be more involved in school and be able to better assist their children with homework
- With careful planning and good design and evaluation procedures, this educational option can be very successful and can result in a decrease of grade repetition and drop out rates
- Higher education will be accessible by all students who are capable and cognitively competent and not only by the few who speak French

- If later, educational planners decide to give more emphasis to English versus French new financial investment on instructional materials and teacher training will not be necessary because the main curriculum will remain in Malagasy

Disadvantages:

- This option may dissatisfy the 0.57% of the Malagasy people who communicate mainly in French
- It may also dissatisfy some academic circles and political forces who may wish to maintain the status quo
- It will require major reform in higher education and teacher education
- Some parents may be skeptical in the beginning believing that their children will only be able to succeed in the society if they speak French. However, the examples of Bolivia and Guatemala show that when parents see the educational benefits of instruction in the mother tongue, they finally embrace the school system and become some of its stronger supporters.

Concluding Comments

Malagasy policy makers must consider all the findings from educational research and the lessons learned from other countries. They must learn from the educational issues Madagascar has been facing these past decades due to educational reforms which are rooted in politics and not in principles of equity and equal access to education for all.

The arguments about the great importance of the mother tongue in the development of children can be endless.

What is really important in a child's life apart from the educational attainment is the sense of safety, belonging, and self-worth. When children come to school at the age of 6, all they are and all they know are their *mother tongue* and their *family practices and traditions*. When they are told that what they know and who they are is of no worth and value, that it is inappropriate for school, that school uses a language and ways that are more worthy and superior than their home language and practices, and that the ways of the school are the ones which should be observed, followed, and respected, the children's entire world starts falling apart ...and it is hard to start building on the "ruins."

"Ny hazo no vanon-ko lakana, ny tany naniriany no tsara."

("The solidity of a canoe is obvious when the land where the tree had grown was fertile.")
Malagasy Proverb

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INTRODUCTION

Bilingualism and multilingualism are worldwide phenomena and are living realities for most countries in the world. The question about the language of instruction in the schools has not only been the concern of linguistically heterogeneous countries but of linguistically homogeneous societies as well. Although many are the nations which have one official language, few are the ones which do not host linguistic minorities. Linguistic diversity in the world has become more obvious in our days due to political, economic, and social developments such as globalization, human and civil rights movements, and democratization.

Bilingualism has been viewed as a privilege and as a handicap depending on the culture and values of the society and created some of the hottest debates in education in many parts of the world. Language in schools is not only an educational concern: it is also like education itself, a social, cultural, political, and economic issue.

By examining the issue of bilingualism around the world one can find many similarities among different societies. Although the similarities with respect to the needs of linguistic minorities are many, there is not a “one size fits all” solution. Every society and every country which deals with bilingualism in education must consider carefully its national, historical social, political, and economic context and take appropriate action always with respect to individual human and civil rights and in accordance to educational theory and research aiming not only the education of its children but also their psychosocial growth and development.

The purpose of this report is to provide a summary of the main theories of first and second language acquisition as well as of the various instructional approaches and models of language learning. The application of educational theories and approaches to educational policy in the world is presented in the light of social and national considerations in various societies, industrialized and developing. The report discusses the experience of selected industrialized countries in bilingual education with respect to native and second language instruction. Bilingual education in selected countries of Africa, Asia, and Latin America is also examined. Lastly, the report outlines various options for programmatic planning and educational policy and reform with respect to bilingual and multilingual education in Madagascar. It presents the educational implications with regard to curriculum, student learning and evaluation, teacher preparation and training, teacher support and evaluation, parent involvement, and adaptation and modification of instructional materials. Finally, it discusses issues affecting educational policy and reform and its socio-political implications.

PART I: BILINGUAL EDUCATION

Theoretical Perspectives and Practical Applications

In making policy decisions about the language of instruction in schools, policy makers and educational planners need to first consider the underlying theories of language acquisition and the approaches of language teaching and learning. When linguistic policies are based only on political and social trends and demands and do not consider the ways that children learn they can not be successful. On the contrary, they may have detrimental implications for the academic, social, and emotional growth of children and may jeopardize the efforts for improvement of the education and literacy levels of a nation. Considering the importance of educational theory and instructional systems in language acquisition and learning as well as the philosophical and ethical considerations with respect to the value of the mother tongue, the major theories of first and second language acquisition along with the main approaches of language teaching, are examined in this report. Below, follows a very brief summary of the theoretical perspectives, while in ANNEX 1, the theories and approaches together with their implications for educating children in a first and second language are presented in more detail.

First Language Acquisition Theories and their Implications for Second Language Learning

Language is the combination of conventional symbols which are structured in an orderly manner and is used for communication. Varieties of language include standard forms, dialects, pidgins, and creoles. All varieties of language are invaluable. The notion that only the standard form of a language is a true language is not real and is rooted in politics. Schools of thought in language acquisition differ greatly and may range between the belief that the child is born “tabula rasa” which in Latin means “clean slate” and implies that all learning occurs by forming associations to the notion that children are pre-wired by nature to learn language and that language acquisition takes place during specific critical periods in a child’s life. Theoretical perspectives which have influenced language research are the behaviorist, the nativist, the cognitive, and the constructivist approaches.

Behaviorist theory on language acquisition is associated with B.F. Skinner who supported the notion that people behave the way they do because of the response which a certain behavior has elicited in the past from the environment. Therefore, depending on whether the consequences of the verbal behavior are rewarding or not the child will either increase or decrease the behavior. So, language can be acquired as a habit. The behaviorist approach is very methodical and empirical and has been proven successful with certain types of learners and learning environments. However, it is very restrictive and suggests that the students act the way they do only based on the environment. Learning is prescribed and does not allow a lot of opportunity for interaction and interpersonal communication so students find it difficult to use what it was learned in the classroom in real life situations.

Nativism moved the exploration of language acquisition from the behaviorist view “the observable” to the idea that humans have innate dispositions based on rules which allow

them to learn language. So, children are born with the ability to learn any grammar of any language. A very important contribution of this theory is the *Critical Period Hypothesis*. It suggests that there is a “Critical Period” between 2 and 7 years of age. During this period, a child can master any language “perfectly” especially with respect to the pronunciation and the phonological system of the language and therefore be able to speak the desirable language with native like accent.

The *Cognitive* theory analyzes the ways the mind processes information and acquires knowledge while the concept of *Constructivism* emphasizes the importance of the role of the teacher as the facilitator of learning and not as the information giver. John Dewey, Jean Piaget, and Lev Vygotsky developed ideas which led to the evolution of constructivism. Piaget believed that students must be engaged in active participation in the classroom and to be allowed to go through the *trial and error* process having ample time to do so. Lev Vygotsky believed that learners actively process meaning and emphasized the importance of culture and social interaction on the development of the mind and that it is the responsibility of the adults to help the child organize the information received from the environment and to learn how to communicate effectively. John Dewey believed that inquiry plays a key part in learning and education must be grounded in real experience so, teachers must provide students with the appropriate environment, tools, and supplies for learning and create real life situations which allow personal participation.

Cognitivism and Constructivism have contributed significantly to the development of current approaches and methods in second language teaching. They moved language instruction away from drills and grammar exercises, memorization and repetition of meaningless vocabulary. They suggest that these strategies are ineffective and should be replaced with authentic learning experiences where students are learning the second language within a meaningful context. Students can then transfer language skills learned in the classroom to the real world.

The theory of Multiple Intelligences (MI) was developed by Howard Gardner. The MI theory suggests the notion that individuals have strong areas of aptitude and may have exceptional intelligence in one or more areas of human ability. Gardner presented the following intelligences: *Linguistic*, *Logical/mathematical*, *Spatial*, *Musical*, *Bodily/kinesthetic*, *Interpersonal*, *Intrapersonal*, and *Naturalist Intelligence*. Although this is not a language acquisition theory, it is included in this section, because it has influenced significantly first and second language teaching and learning. The theory of MI leaves a lot of room in the classroom for creativity and meaningful teaching and learning. The teacher follows various instructional methods to respond to each and every student’s learning style maximizing learning, and making the educational exchange a happy and rewarding experience for all children.

Lessons Learned

Behaviorism	Implications for Educating Malagasy Children
<p>*Behavior shaped or changed by consequences through positive versus negative reinforcement.</p> <p>*Operant conditioning alone can explain the development of language.</p>	<p>*Language teaching through imitation, memorization, and repetition. Malagasy children are instructed mainly in this manner. Not recommended if used in isolation.</p> <p>*If used selectively, it is effective for behavior management and special education.</p>
Nativism	Implications for Educating Malagasy Children
<p>*Children are born with the ability to learn any grammar of any language.</p> <p>*Universal Grammar</p> <p>*Language Acquisition Device (LAD)</p> <p>*There is a <i>Critical Period</i> during which language learning occurs.</p>	<p>Malagasy teachers can use a Natural Approach to language teaching and teach language as an integrated system (and not teach grammar, vocabulary, and syntax in isolation).</p> <p>If second language is introduced as a subject in the early years of schooling (and not to the expense of native language teaching), it can allow Malagasy children more years of second language instruction and the chance for better pronunciation in the second language.</p>
Cognitivism and Constructivism	Implications for Educating Malagasy Children
<p>Cognitivism analyzes the ways the mind processes information and acquires knowledge.</p> <p>Constructivism emphasizes the importance of the role of the teacher as the facilitator of learning and not as of the information giver.</p> <p>Culture and social interaction are very important for the development of the mind.</p>	<p>Malagasy students must be engaged in active participation in the classroom and must be allowed to go through the “<i>trial and error</i>” process in discovering learning.</p> <p>Inquiry plays a key part in learning and education must be grounded in real experience. Malagasy teachers must provide students with the appropriate environment, tools, and supplies for learning and create real life situations which allow personal participation. When language is taught within a meaningful context, students can transfer language skills learned in the classroom to the real world.</p>
Multiple Intelligences Theory	Implications for Educating Malagasy Children
<p>Individuals have strong areas of aptitude and may have exceptional intelligence in one or more areas of human ability.</p> <p>The Multiple Intelligences are: <i>Linguistic, Logical/mathematical, Spatial, Musical, Bodily/kinesthetic, Interpersonal, Intrapersonal, and Naturalist Intelligence.</i></p>	<p>Malagasy teachers must be familiar with the MI theory which emphasizes appreciation for individual differences and special abilities and leaves a lot of room in the classroom for creativity and meaningful teaching and learning.</p> <p>Malagasy teachers can follow various instructional methods including auditory, visual, tactile, and kinesthetic approaches to respond to each and every student’s learning style maximizing learning.</p> <p>Students who are at risk for grade repetition and drop out can benefit tremendously from this instructional approach.</p>

Table 1: Theoretical implications for teaching Malagasy children

Second Language Acquisition Theories

Krashen’s five hypotheses of second language acquisition have been proven very successful not only in second language teaching and learning but also in other areas of student learning. His hypotheses are applicable to both children and adults. The *Acquisition-Learning Hypothesis* supports the notion that people acquire language in two independent ways: one through acquisition and the other through learning. The *Natural Order Hypothesis* suggests that individuals acquire the different parts of the language in a predictable order. The *Monitor Hypothesis* is concerned with the ways language acquisition and language learning are used. The *Input Hypothesis* suggests that the only way we acquire language is through “comprehensible input” which means through language that we understand and we can make sense of. The *Affective Filter Hypothesis* gives emphasis to the psychological variables which contribute to language acquisition.

Cummins suggested two more hypotheses of second language acquisition: the *Developmental Interdependence Hypothesis* which states that when children have mastered their native language through native language instruction, they can transfer those skills to the second language; and the *Threshold Hypothesis* which supports that native language instruction is crucial because when children do not develop their native language well, learning a second language may be detrimental to their cognitive development. The implications of these hypotheses for educating Malagasy children are in the summary Table 2.

Lessons Learned

Acquisition-Learning Hypothesis	
Language is acquired in two independent ways: through <i>Language acquisition</i> which takes place subconsciously and through <i>Language learning</i> which is the conscious process and deliberate effort to acquire language.	<p>Malagasy children acquire their native language subconsciously. However, they do not have the same opportunity with French because French is not spoken outside of the classroom; it is not spoken at home, at the playground, or in the community.</p> <p>This implies that if Malagasy children are to learn French or another second language, they can only do it in the classroom and by using appropriate and successful second language teaching methods and instructional materials.</p>
Natural Order Hypothesis	
The <i>natural order hypothesis</i> suggests that individuals acquire the different parts of the language in a predictable order.	<p>Malagasy teachers must be aware that children learn language naturally. The order they learn language is not the same with the order presented in grammar textbooks (i.e. from the simple rule to more complex rules). The natural order of language acquisition cannot be altered through teaching interventions or by changing the order in grammar books.</p> <p>Effective language teaching happens when language is taught within a meaningful context and when children are engaged in meaningful activities.</p>
Monitor Hypothesis	
<p>The <i>Monitor hypothesis</i> is concerned with the ways language acquisition and language learning are used.</p> <p>The language individuals produce, is the language they have <i>acquired</i> and that the language they have <i>learned</i> functions only in one way: as a “Monitor” or “Editor” for error correction.</p>	<p>Malagasy teachers must be aware that in order children to use the “<i>Monitor</i>” successfully, three conditions need to be present: Children (1) must know the language rule, (2) they must be thinking about correcting the produced language, and (3) they must have time to make the corrections. These three conditions rarely co-exist in real life.</p> <p><i>Language learning</i> is useful because there are certain forms of the language that are difficult to acquire without explicit instruction of the language rule. However, if teachers ask children to focus too much on the “correct” form of their language output, the process of language production slows down significantly.</p>
Input Hypothesis	
The <i>input hypothesis</i> suggests that the only way we acquire language is through “comprehensible input” which means through language that we understand and we can make sense of.	Teachers must provide students with “comprehensible input.” Through the current Early-Exit bilingual model in Madagascar, children start learning scientific content in French too soon without understanding and therefore they do not receive comprehensible input.

Affective Filter Hypothesis	
<p>The <i>affective filter hypothesis</i> suggests the idea that psychological variables in language acquisition are very important.</p> <p>If the student is stressed the comprehensible input will be blocked by the “affective filter” and will never reach the brain.</p>	<p>When Malagasy children feel relaxed and content and have high self-esteem is more likely to learn comprehensible input as well as to produce better language output. This is not the case today, because Malagasy children experience a lot of stress to learn French and in addition feelings of low self-esteem and low self-worth with respect to their native language.</p> <p>Teachers must create a safe and happy environment in the classroom and encourage children to learn the second language through appropriate teaching strategies while they show respect and appreciation for the children’s native language.</p>
Developmental Interdependence Hypothesis	
<p>The <i>Developmental Interdependence Hypothesis</i> states that when children have mastered their native language through native language instruction they can transfer those skills to the second language.</p>	<p>Malagasy children before they have an opportunity to master their native language, they switch to French instruction. As a result, they cannot transfer the necessary skills and they fall behind in academics and in second language learning.</p>
Threshold Hypothesis	
<p>The <i>Threshold Hypothesis</i> supports that native language instruction is crucial because when children do not develop their native language well, learning a second language may be detrimental to their cognitive development.</p>	<p>The cognitive development of Malagasy children is interrupted because before they have a chance to master their native language, schooling occurs in a language they do not understand and therefore, they cannot develop and expand their knowledge and their cognitive abilities.</p>

Table 2: Second language acquisition theories

Approaches to Second Language Teaching and Bilingual Models

Approaches

This section provides a brief overview of several of the approaches to foreign and second language teaching and learning (a more detailed description can be found in ANNEX 1). It is important to explain the difference between the two terms: “foreign language” and “second language.” Usually, the term “foreign language” refers to learning a language which is not the language of the school, it is not spoken widely in the society, and it is not needed for every day communication but it is learned for enrichment and advancement purposes (i.e. a German child who lives in Germany and learns English as a foreign language). The term “second language” usually refers to learning a language which is the language of the school, is spoken widely in the society, and it is needed for every day communication and professional purposes; therefore it must be learned because otherwise the individual cannot have equal access and opportunity in education and the job market (i.e. a German child who lives as an immigrant in the United States and must learn English in order to be able to fully participate in school and in the society).

Having in mind this distinction between the terms “foreign” and “second language,” it is important to also keep in mind that often, these two terms are used interchangeably in the bibliography. For this reason and for practical purposes, in this report, the term “second language” will be used for any language that it is learned after the first/native language, which is the mother tongue of the child (i.e. Malagasy children learn Malagasy as their first language and French as their second language). Below follows a brief description of the approaches to second language teaching.

The *Grammar Translation Method*’s goal is to learn a second language in order to read its literature and to benefit from the mental discipline and intellectual development that result from language study. According to the *Direct Method*, language can be taught without translation or the use of the learner’s native language if meaning is conveyed directly through demonstration and action. The *Audiolingual Method* relies on structured drills and exercises of rote memorization and dialogue repetition. It stresses initial learning through the spoken word followed by the teaching of the written word. The *Total Physical Response* suggests that child language learning is based on motor activity and the coordination of language with action is crucial to the learning process. The *Silent Way* assumes that the learning process of second language learning is very different from the process of learning the first language and addresses the learners’ needs to feel secure about learning and to assume conscious control of learning. The *Community Language Learning Approach* is based on the idea of creating a community of learners who know and trust each other and can communicate in the same native language. According to *Suggestopedia*, when students are not anxious, they are more receptive and language learning occurs much faster than with the traditional language learning methods. The teacher must be authoritative and have great poise and a positive, uplifting attitude. The *Notional-Functional Approach* focuses on the pragmatics aspect of the language and gives emphasis on communication and the ability to manipulate language in a variety of contexts.

The *Whole Language Approach* views language as a “whole” and therefore, it focuses on teaching Language Arts as a whole. It opposes teaching separately the subjects: reading, writing, grammar, vocabulary, phonics, and word recognition. *Content-Based Instruction* is an approach to second language learning in which language is taught through content area instruction. It is a very effective and successful approach because it teaches language in a meaningful context by providing authentic learning situations. *Sheltered Instruction* takes in consideration second language learners’ need for academic language development and their need for content area instruction. It utilizes hands-on activities, cooperative learning strategies, guarded vocabulary, and visuals as the means for instruction. The Cognitive Academic Language Learning Approach (CALLA) suggests that second language learners can be successful in school if they: master the language functions needed in order to perform in school; the content knowledge in the different areas of the curriculum at their grade level; and the learning strategies needed for comprehension and knowledge of facts and processes.

Malagasy curriculum planners must study carefully the above and other approaches to first and second language teaching and learning in order to develop effective curricula for Malagasy students and for pre-service and in-service teacher training. Whereas some approaches are outdated such as the “Grammar-Translation Method” and the “Audiolingual

Approach,” others such as the “Whole Language Approach” and the “Content-Based Instruction” are current and their effectiveness has been proven by research. However, all approaches have elements which can be utilized and elements which should be avoided. For this reason, one single approach is not recommended; instead a comprehensive approach to language teaching which incorporates elements which have been proven successful from various approaches is more appropriate to follow.

Models

Ovando (2003) described the various bilingual models as follows: *Structured Immersion Programs* are the programs which use only the second language. Native language use and/or support are not allowed. The students receive instruction in the second language following specific and specialized second language teaching methodologies and strategies. These programs are widely used in the United States and especially in California and Arizona, States which have outlawed bilingual education for immigrant students and allow English-only instruction.

Partial Immersion Programs provide mainly second language instruction and for part of the day limited instruction in the native language with the goal to move on to 100% instruction to the second language.

Transitional Bilingual Programs are the programs which provide extensive instruction in both the native and the second languages. Slowly, and as soon as the students acquire the second language at a certain level, they are instructed in the second language only in a monolingual program. Transitional bilingual programs are categorized into the *Early-Exit Transitional Bilingual Programs* where the students move to monolingual programs after two years of bilingual instruction or by the end of second grade and the *Late-Exit Transitional Programs* where the students exit bilingual education by the end of fifth or sixth grade. Transitional bilingual programs have been developed in many countries (such as Canada, the U.S., Guatemala, Bolivia, and others) and may vary with regard to exiting criteria and guidelines. However, based on findings from bilingual education research, Early-Exit Transitional Bilingual programs are not recommended. An Early-Exit program is the example of Madagascar where before children have an opportunity to acquire strong command of their native language (Malagasy) and an adequate level of the second language (French), they switch to French instruction and as a result they are set for academic failure.

Maintenance or Heritage or Developmental Bilingual Education programs provide extensive instruction in the native language and in the second language. Students receive part of the school day instruction in their native language in all grades regardless of their level of proficiency in the second language. Maintenance or heritage programs have been developed in many countries such as the country of New Zealand for the Maori population.

Two-way immersion (enrichment) programs are the programs in which speakers of two languages are instructed together in the same classrooms with the goal to learn each others' language and become bilingual and biliterate. Instruction takes place in both languages and all academic work and activities are conducted in both languages. Good examples of such programs can be found in several countries (i.e. Canada).

Lessons Learned

Approaches of Second Language Teaching and Bilingual Education Models	Implications for Malagasy Children
<p>There are various approaches to second language teaching (i.e. <i>Whole Language Approach</i>, <i>Content-Based Instruction</i>, <i>Sheltered Instruction</i>, <i>Cognitive Academic Language Learning Approach</i>, and others) and models of bilingual programs (i.e. <i>Structured Immersion</i>, <i>Partial Immersion</i>, <i>Transitional</i>, <i>Maintenance or Developmental</i>, and <i>Two-Way Immersion (Enrichment) Programs</i>) which have been implemented in various countries and educational systems around the globe.</p>	<p>Malagasy teachers and instructional planners must investigate all the different approaches to second language teaching and selectively incorporate all or parts of these approaches in the classroom. The focus given on the Audiolingual method today in Madagascar only brings poor results especially with students who have diverse needs and learning styles.</p> <p>Malagasy educational planners must study the various bilingual education models through examples in other countries and implement the one which will be in accordance to the bilingual approach they will choose to follow. Piloting these models is also recommended.</p>

Table 3: Approaches and models of bilingual education

PART II: EVIDENCE FROM BILINGUAL EDUCATION RESEARCH

From birth to age 5, children develop their primary language at a very fast pace. This language development is crucial to their conceptual development since language and thought are interdependent (Cummins, 1979; Wolfe, 1992). However, young children under the age of 5 do not have yet a strong command of their native language. When they are instructed in a second language instead of their native language the outcomes may be detrimental to their conceptual and linguistic development. Children may experience among other problems, partial development of the second language and decline or loss of their native language (Wong-Fillmore, 1991). The partial command of two languages and not the mastery of at least one language may put children at risk for school failure (Wong-Fillmore, 1991).

In addition to academic problems, second language learners with partial command of their native language may also experience social and emotional problems. Cummins (1993, 1996) discusses the psychosocial benefits of bilingual education on minority students and the importance of positive interactions between students and educators. He argues that bilingual education which places respect for and maintains positive attitudes towards their native language and culture empowers minority students and families. Negative feelings of inferiority may be disabling and detrimental to their psychosocial and emotional growth.

When minority children do not have the opportunity to master their native language, they may have difficulty to communicate effectively and connect at a deeper level with their own parents and other family members who may not be fluent in the second language. This difficulty or in some cases inability to communicate with close family members may have very serious negative consequences for the overall development of children and may jeopardize their cognitive, emotional, and social growth (Cummins, 1989; Wolfe, 1992; Wong-Fillmore, 1991). On the contrary, as Cummins (1979) suggested with his *Developmental Interdependence Hypothesis*, when children have the opportunity to master well their native language through native language instruction, they have the ability to transfer the native language skills to a second language successfully while at the same time maintain high self esteem and personal pride for their heritage and family culture and tradition (Wolfe, 1992).

One of the objectives of bilingual education is to ensure that students who speak a language other than the language of instruction in school do not fall behind in academics. According to Cummins' (1976) *Threshold Hypothesis*, when children do not develop their native language well, learning a second language may be detrimental to their cognitive development. When children master a second language with respect to grammatical, discourse, sociolinguistic and strategic competence and have the ability to negotiate ideas and interpret meanings in various contexts, they have achieved *communicative competence* (Canale & Swain, 1980).

In a study of 1,210 immigrant children in Canada, Cummins (1980) found that it takes about 5-7 years to acquire second language proficiency. This type of language profi-

ciency is what Cummins called Cognitive Academic Language Proficiency (CALP) and it is the language that the student needs in order to be successful in school and perform on grade level. The CALP is different from the social language, which Cummins named Basic Interpersonal Communication Skills (BICS) and it takes about 1-2 years to develop. Often, teachers and other adults confuse the BICS and CALP because they hear the child speaking the second language fluently and with no accent in the playground or in social situations. They assume that the child has mastered the second language and cannot explain the child's low academic performance. As a result, the child may be misdiagnosed as a student with a disability or may continue to fall behind in academics and be at risk for school failure and drop-out.

Barry McLaughlin (1992) discussed common myths and misconceptions about bilingual education including: the pace that young children learn a second language, the right age at which second language instruction should begin, the amount of exposure to the second language, the effect of individual differences and learning styles on second language acquisition, and the relationship between oral fluency and academic language achievement. B. McLaughlin (1992) argued that there are common beliefs about second language acquisition which are merely misconceptions and that second language acquisition research has revealed different findings. Some of these misconceptions are:

“children learn second language quickly and easily,...the younger the child, the more skilled in acquiring a second language,...the more time students spend in a second language context, the quicker they learn the language,...children have acquired a second language once they can speak it,...and all children learn a second language in the same way.”

According to B. McLaughlin (1992), the critical period hypothesis has been questioned by many researchers. Children do not necessarily learn a second language faster than adults or adolescents. What makes it seem easier is that children may be more motivated to learn a second language in order to communicate and play with their peers; the language children have to produce is simpler; the vocabulary they need to master is smaller; and the level of competence is expected from them is not as high. Therefore, teachers should not assume that children will master the second language fast and easy without proper instruction and teaching intervention.

Regarding the best age to acquire a second language, B. McLaughlin (1992) argues that the optimal age to begin learning a second language is at birth and to learn both languages simultaneously. But if a child begins his/her life as monolingual and speaks only one language from birth then the question is when the second language learning should begin. Although research suggests that younger children and especially immigrants who begin learning a second language at a younger age are more successful in second language acquisition (Cook, 1986; Krashen, Long, & Scarcella, 1979) especially with respect to correct pronunciation, research also indicates that where the variables of age and language exposure are held constant, adults and adolescents acquire language faster than younger children (Krashen, Scarcella, & Long, 1982).

Research findings from studies conducted in Europe indicated similar results. Studies on British children learning French, on Swedish children learning English, on Swiss children learning French, and on Danish children learning English (Buehler, 1972; Florander &

Jansen, 1968; Gorosch & Axelsson, 1964; Stern, Burstall, & Harley, 1975 as cited in B. McLaughlin) found that older children learn a second language better than younger ones do. B. McLaughlin (1992) stresses that the above findings may reflect second language teaching in European countries where the instructional programs were more traditional in the sense that they emphasized formal grammatical analysis and older children are better skilled and equipped to succeed in such instructional approaches. The findings however, according to B. McLaughlin, were also supported in language programs in Canada which did not emphasize explicit grammar instruction. It was also found that when the French language was introduced to older children in grades seven or eight, these children performed better on French language tests than the younger ones who began learning French in kindergarten or first grade (Genesee, 1981, 1987 as cited in B. McLaughlin).

B. McLaughlin (1992) does not suggest that early exposure to a second language will bring negative results to the education of children because early introduction to a second language allows longer time to language exposure and instruction which can lead to good language proficiency. In addition, he emphasizes that early introduction to a second language allows the development of native-like pronunciation since young children have the ability to develop various motor patterns which are responsible for pronouncing speech sounds.

In reference to the amount of time and intensity students should spend in a second language context making reference to full immersion programs where the instruction is only in the second language, B. McLaughlin (1992) argues that bilingual classrooms where both languages (the native and the second) are being used have been proven more beneficial to language acquisition (Cummins, 1981; Ramirez, Yuen, & Ramey, 1991 as cited in B. McLaughlin). Since a longer period of time is required to acquire academic language in the second language and this is a prerequisite for academic success (Collier, 1989; Cummins, 1981), it is very important to maintain instruction in the native language.

B. McLaughlin (1992) supports that all children do not learn a second language the same way. Second language instructional methods must take in consideration the students' cultural background and family literacy practices; the ways of communication and expression; the individual learning styles and level of development. Therefore, a variety of instructional methods must be utilized including direct and indirect methods of instruction, cooperative learning, peer tutoring, small and whole group activities, individual assignments, and other instructional methods which take in consideration the diversity of the student body (B. McLaughlin, 1992).

Crawford (1989) advocating for bilingual education in the US, presented ten common fallacies about bilingual education. He argued that as it has been supported consistently by educational research, bilingual education is not failing. Bilingual education has positive effects on children's development and is supported by the majority of the parents of bilingual children (Crawford, 1998).

The same year, Lily Wong-Fillmore (1998) wrote her declaration supporting bilingual education which was followed by a supplemental declaration on the same topic (Wong-Fillmore, 1998a). In her declaration, Wong-Fillmore (1998) argued that the idea of providing English language learners with English only instruction without native language support is contradictory to the evidence we have from international research the past sev-

eral decades on second language acquisition and can be proven detrimental to a child's conceptual and linguistic development. According to Wong-Fillmore (1998), full immersion programs which instruct immigrant students in English only cannot provide the support the children need to acquire linguistic and content area competencies at any given grade level. Concluding her declaration, Wong-Fillmore (1998) argues:

“Can children who have as much difficulty expressing themselves as these children do possibly be regarded as having ‘a good working knowledge of English’ after a year in school? I think not. The point is that full fluency is not achievable by even the youngest learners in just one or two years, no matter what kind of program they are in. It will take much longer -- at least three or four years longer -- for the children in our sample to acquire English sufficient to enable them to fully participate in a mainstream class” (Conclusion section, para. 1)

In order for children to understand and acquire the complex academic concepts of the curriculum in areas such as mathematics, science, language arts, and social studies, they must have a strong linguistic foundation since all parts of the curriculum are taught through the use of language (Wong-Fillmore, 1998). When children are forced to fully communicate and learn in an environment where they do not understand the language, linguistic abilities as well as comprehension in the content areas and conceptual development fall significantly behind and it is very difficult to close this gap of underachievement at any stage later on in a child's schooling. However, when second language learners are educated in classrooms which provide English language instruction and native language support by teaching the concepts and content of the grade level curriculum in a language which children can understand, they do not fall behind academically and are able to transfer concepts and content knowledge to the second language successfully during the language acquisition process (Wong-Fillmore, 1998).

Cummins also agrees that one year of intensive immersion language program is not sufficient to prepare second language learners for school success. All children who are acquiring a second language need bilingual support for at least five years to achieve academically (Cummins, 2001). Hispanic immigrant children who received bilingual support the entire kindergarten year by the end of the school year were still not able to pass the reading readiness test (Gouleta, 2004). If children are to master reading skills in a second language the instruction of decoding strategies is not enough. Children need to be exposed to meaningful content, be taught comprehension and phonics reading strategies explicitly, and be exposed to a variety of reading materials and rich vocabulary.

In bilingual programs, the transfer of academic language skills happens in a two-way mode from the first language to the second language and vice versa. The bilingual programs which have been reported to bring the most positive outcomes for first and second language development in minority students have been the dual language and developmental programs which support literacy in the native language throughout elementary school (Cummins, 2001). Cummins (2001) also argues that standardized testing is not necessarily a good indicator of student progress and can be one of the reasons for over-representation of culturally and linguistically diverse students in special education programs.

Summarizing significant evidence from the research on bilingual education, Cummins (1999) concludes:

“Bilingual programs for minority and majority language students have been successfully implemented in countries around the world; bilingual education, by itself, is not a panacea for students’ underachievement; the development of literacy in two languages entails linguistic and perhaps cognitive advantages for bilingual students; significant positive relationships exist between the development of academic skills in the first and second language; and conversational and academic aspects of language proficiency are distinct and follow different developmental patterns” (pgs. 2-3).

He asserts that “the process of dialogue” (pg. 6) which is so important to scientific progress has not been followed in the area of bilingual education and that unfortunately the media has been ignoring the:

“consensus among virtually all North American researchers that: (a) countless successful bilingual programs have been implemented in countries throughout the world, and (b) two-way bilingual immersion programs have produced consistently positive outcomes for both language minority and majority students and constitute a viable policy-option for helping to reverse bilingual students academic underachievement” (Cummins, 1999, pgs. 6-7).

Very important points to keep in mind in planning effective bilingual education programs are that: (1) students in good bilingual programs are taught in both the native and the second language; (2) bilingual education is based on the belief that if students become literate in their native language, they will be able to transfer these skills to their second language and will develop strong literacy skills (Education Week: Bilingual Education, 2001; Krashen, 1997); and (3) effective bilingual programs provide native language instruction in the children’s primary language in all academic subject areas while at the same time, they are developing proficiency in the second language (Wolfe, 1992).

Lessons Learned

Lessons Learned from Bilingual Education Research	Applicability to the Malagasy Educational System
Young children do not have a strong command of their native language. Instructing them in a second language can be detrimental to their cognitive development. They may experience partial development of their second language and decline of their native language.	Malagasy children are introduced to French too soon and therefore have difficulty mastering fully both their native and their second language.
Bilingual education which places respect to and maintains positive attitudes towards the children's native language and culture empowers students and families. Negative feelings of inferiority may be disabling and detrimental to children's psychosocial and emotional growth (additive versus subtractive bilingualism).	Malagasy children experience subtractive bilingualism. Negative attitudes towards their language create feelings of inferiority and act as disabling factors which may play detrimental role to children's educational and emotional growth.
When children have the opportunity to master well their native language through native language instruction, they have the ability to transfer the native language skills to a second language successfully while at the same time they maintain high self esteem and personal pride for their heritage and family culture and tradition.	This is not the case with the Malagasy children who switch to instruction in French in grade three. This "premature" switch to the second language does not allow any transference of academic skills from the native to the second language and as a result, the students fall behind in academics.
It takes about 5-7 years to acquire second language proficiency. This type of language proficiency is the Cognitive Academic Language Proficiency (CALP) and it is the language that the students' need in order to be successful in school and perform on grade level. The CALP is different from the social language, which is the Basic Interpersonal Communication Skills (BICS) and it takes about 1-2 years to develop.	Because Malagasy children switch to French instruction in grade three having received limited exposure to oral French language in grade one and oral and written in grade two, they are not able to master the CALP and therefore, they fall behind in school.
Children do not learn a second language faster than adults or adolescents. What makes it seem easier is that children may be more motivated to learn a second language in order to communicate and play with their peers; the language children have to produce is simpler; the vocabulary they need to master is smaller; and the level of competence is expected from them is not as high. Teachers should not assume that children will master the second language fast and easy without proper instruction and teaching intervention.	Malagasy children do not have the same reasons to be motivated in learning French like other immigrant children who learn the language of their host country, because Malagasy children do not need to speak French in the playground in order to communicate with their peers. In addition, due to inadequate teacher training and ineffective teaching methodologies, it is even more difficult for them to learn French.
Early exposure to a second language (as long as this exposure does not occur to the detriment of the native language) does not necessarily bring negative results to the education of children because early introduction to a second language allows longer time to language exposure and instruction which can lead to good language proficiency. In addition, early introduction to a second language allows the development of native-like pronunciation since young children have the ability to develop various motor patterns which are responsible for pronouncing speech sounds.	Children in Madagascar are not just introduced to French as an "extra" language that it would be useful to learn from an early age. Instead, they are forced to be instructed in French to the detriment of their mother language. If early introduction of French was based on the principle of additive bilingualism and it was not viewed as more important than Malagasy, then children would be able to acquire the second language (French) easier and with no negative implications for their native language, cognitive development, and content area knowledge.

(Table continues in next page)

Lessons Learned from Bilingual Education Research	Applicability to the Malagasy Educational System
In reference to the amount of time and intensity students should spend in a second language context, research has shown that bilingual classrooms where both languages (the native and the second) are being used have been proven more beneficial to second language acquisition than full immersion classrooms where students are instructed only in the second language. Since a longer period of time is required to acquire academic language in the second language and this is a prerequisite for academic success it is very important to maintain instruction in the native language.	In the case of Malagasy children this is not happening. After instruction switches from Malagasy to French, except for a few subjects which continue being instructed in Malagasy up to grade 5, all other subjects are offered in French and in the secondary grades Malagasy is taught only as a subject.
All children do not learn a second language the same way and second language instructional methods must take in consideration the students' learning styles, cultural background and family literacy practices. A variety of instructional methods which take in consideration the diversity of the student body must be utilized.	Teacher training in Madagascar must consider diverse teaching methodologies and teachers must incorporate them in a systematic way in the classroom. So far, this is not the case and teachers follow outdated methods of instruction.
In order for children to understand and acquire the complex academic concepts of the curriculum in areas such as mathematics, science, language arts, and social studies, they must have a strong linguistic foundation since all parts of the curriculum are taught through the use of language. When children are forced to fully communicate and learn in an environment where they do not understand the language, linguistic abilities as well as comprehension in the content areas and conceptual development fall significantly behind and it is very difficult to close this gap of underachievement at any stage later on in a child's schooling.	Malagasy children are often instructed in French but through the use of the Malagasy language because the teachers themselves lack knowledge in French. Children are forced to learn complex academic concepts in a language they do not understand and their teachers do not master. Children's conceptual development falls significantly behind and is very difficult to close this gap of underachievement at any stage later on their schooling.
One year of intensive immersion language program is not sufficient to prepare second language learners for school success. All children who are acquiring a second language need bilingual support for at least five years to achieve academically. If children are to master reading skills in a second language the instruction of decoding strategies is not enough. Children need to be exposed to meaningful content, be taught comprehension and phonics reading strategies explicitly, and be exposed to a variety of reading materials and rich vocabulary.	Malagasy children are not given the option to master the second language because they switch too quickly to second language instruction. Teachers need to consider that decoding strategies are not enough to master reading in French and that a variety of strategies including teaching language within a meaningful context will help children master French faster and better.

Table 4: Bilingual education research and their applicability to Madagascar

PART III: BILINGUALISM IN THE INDUSTRIALIZED WORLD

In this section, the issues of second language learning and bilingual education in five industrialized countries are presented. The socio-political, cultural, and economic contexts in these countries as well as the reasons for learning a second language differ significantly from those in Madagascar. However, by studying the situation in these countries, Malagasy policy makers and educational planners can gain a deeper understanding about bilingual education systems and approaches and develop insight and an educated perspective about what needs to be done in Madagascar. Bilingual education theory and research has made considerable advancements in these countries and in particular in the United States and Canada. Many lessons can be learned from these countries' experiences. Although in various societies is different, the ways children learn as well as the principles of bilingual education and good teaching methodologies are universal.

The Canadian Experience

In Canada, the majority of the people speak English and French. The French Canadian language differs from the standard form of French spoken in France. French Canadian contains Anglicisms due to the co-existence of the two languages together in the same country for centuries. In Canada, there are two varieties of French: the Acadian and the French-Canadian (or Quebecois French). The two varieties of the French language differ in terms of pronunciation and vocabulary (Bond, 2001). In addition, a great percentage of the population speaks languages other than English and French. In 1996, about 59.1% of the population spoke English as their native language, 22.9% of the population spoke French, and 18% of the population spoke indigenous and other languages such as Spanish, Greek, Portuguese, Ukrainian, Chinese, Arabic, German, Polish, Cree, Vietnamese, etc (Statistics Canada, 2001).

Canada is well-known for its innovation in the immersion approach to bilingual education. In the early 1960s, the first French immersion experiment started in St. Lambert with the goals to: provide bilingual (English-French) competence to students while they maintain normal levels of English language development; high academic achievement in all areas of the curriculum; and instill in them the appreciation of the French Canadian language and culture while they maintained their cultural identity and appreciation for their native language and culture (Crawford, 1989).

The program started with 26 English speaking children in kindergarten. This was an early total immersion model and children first learned to read in French while an English language arts class was introduced in the second grade. The teachers were all fluent bilinguals but only spoke to children in French. The children, however, could still communicate in English and ask questions of clarifications in English until the end of the first grade. The teachers avoided over-correction when the children made mistakes in French in order to minimize their anxiety and make second language learning a positive experience (Crawford, 1989). The children had limited interactions with francophone children and by the end of sixth grade they had achieved receptive, listening, and reading skills in French at similar levels with native French speakers while their speaking and writing skills were not developed at the same level. The children's cognitive abilities and English language competences were well developed and bilingualism did not have any negative effect on these two areas. After the St. Lambert experiment, a variety of French immer-

sion programs grew in Canada including delayed immersion programs (beginning French in the middle elementary grades) and late immersion (in the early grades of secondary school) (Crawford, 1989).

As Crawford states, according to Lambert, the success of the Canadian French immersion programs was the outcome of a combination of co-existing factors (Crawford, 1989): The St. Lambert program offered students the opportunity to learn a second language through great amounts of comprehensible input in low anxiety conditions and promoted *additive bilingualism* rather than *subtractive bilingualism*. The English speaking children (according to Lambert), whose native language was the high-status language in Canada, learned French as a language for enrichment and therefore this was an additive bilingualism experience.

To further the explanation on the difference between additive and subtractive bilingualism, Crawford (1989) gives the example of the Baker and de Kanter *Structured Immersion Program* in the US. He argues that it is very different in its principle and underlying values than the Canadian bilingual enrichment method in the sense that it is a monolingual remedial method which aims to replace the native languages of minority children with English targeting cultural and linguistic assimilation.

In 1973, the first minority language program, the Ukrainian Bilingual Program, was developed in Alberta as a three year pilot program. The program was replicated in other regions and other similar programs were established with other languages such as Arabic, German, Hebrew, Mandarin, Polish, and Spanish (Wu & Bilash, in press). The same year (1973), the Cree Way Project was developed for Cree children with the goals to promote the Cree tribal language and culture. This program has shown several positive outcomes including active participation of students in school and higher proficiency on languages, parents' motivation and enrollment in Cree syllabic courses, lower dropout rates of Cree children, and a rate of 99% of Cree graduates who return to their native communities to contribute with their expertise (Stiles, 1997).

In addition, the Chinese Bilingual Program (which is a dual language immersion program, English/Mandarin) was established in 1982 in Alberta enrolling about 1,000 students from grades kindergarten through six. Most children who enroll in the program are first generation Chinese immigrants who speak little or no English. There are also a small number of native English speakers enrolled. The socioeconomic level of the families varies. The program is a dual language immersion program and fifty percent of the instruction is conducted in Mandarin (the subjects of social studies, art, health, physical education) while fifty percent is conducted in English (the subjects of mathematics, science, and perhaps music). Language arts are taught in both languages. Children have two teachers every day, a native Mandarin and a native English speaker. Children who graduate from this bilingual program enroll in junior and senior high schools which offer about three hours of instruction per week in Mandarin. What is interesting about this program is that the Chinese students who participate may speak other Chinese languages at home such as Cantonese, Hokkienese, Toisanese, and Shanghaiese and therefore, when enrolled in kindergarten, they are instructed in two languages (Mandarin and English) which are both new to them. Although formal evaluations of the students' Mandarin language development have not taken place, other evaluations indicate that the students are able to master the content areas of the curriculum (Wu & Bilash, in press). The common element of the immigrant (Ukrainian, Chinese)

and the indigenous (Cree) bilingual programs in Canada is that they all promote additive bilingualism, a factor which contributes tremendously to their success.

With policies such as the Official Bilingual Act and the Multicultural Act, Canada has embraced linguistic and cultural diversity in exemplary ways giving great importance to national unity rather than cultural and linguistic assimilation to the majority language and culture. Following the methods of additive rather than subtractive bilingualism in schools, the Canadian educational system has been able to produce bilingual program models which have brought numerous positive outcomes for the educational, social, and emotional development of minority students. Canada today is an international example in the area of bilingual education.

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Immigrant children in Canada who do not speak English or French and need to acquire the language. French Canadian children and indigenous (i.e. Cree) who are the minority comparing to the English Canadian children, need to acquire English but not to the detriment of French.	<p>The goal of education is bilingualism and/or multilingualism as well as multiculturalism.</p> <p>Canada follows an additive bilingual approach.</p>	French and English immersion, transitional bilingual education, sheltered content area programs, two-way bilingual programs, and English or French as a Second Language programs are the most common teaching approaches.	<p>Malagasy educational policy makers can benefit from the Canadian experience. Through the notion of additive bilingualism and innovative educational planning. Canada has contributed significantly in what we know today about successful bilingual education models.</p> <p>Programs such as the St. Lambert experiment and the Chinese-English dual immersion program can serve as good examples for bilingual education in Madagascar.</p> <p>In the case of Canada, however, bilingual well-trained teachers and instructional materials as well as some exposure to the second language outside of the classroom were in place. This is not the case in Madagascar, where at the present time there not many (if any) well-trained bilingual teachers, good bilingual instructional materials do not exist, and children are not exposed to French at all outside of the school environment.</p>

Table 5: The Canadian experience

The United States Experience

In the United States today, schools follow a variety of methods to educate bilingual and immigrant students. Two of the most extensively used methods are English as a Second Language (ESL) programs which are conducted in English and may or may not include native language

support and bilingual programs which may include: (a) English as a second language instruction; (b) native language instruction or support; (c) sheltered instruction; and (d) content-area instruction. Some bilingual programs are transitional and these programs may include native language instruction in the lower grades to English only instruction in the upper grades through gradual exit plans (Early or Late-Exit) (Krashen, 1997).

Krashen (1997) argues that native language support is crucial to the academic progress of the individual and that the argument that many people have succeeded without bilingual education has no basis; because such people usually had the advantage of effective schooling in their native language in their country of origin (ie. the example of some Asian or European students). Children who arrive in the US having received good education in their home country have attained both literacy and content area knowledge and basically have achieved the goal of every good bilingual program (Krashen, 1997).

The case of the United States is one of a single dominant language (English). Policy makers see the use of a single language of instruction as a tool for the acculturation and assimilation of new immigrants. Although research supports bilingual education showing positive effects on children's literacy rates, academic achievement, high-self esteem and on the creation for the nation of a human capital with rich language resources (Crawford, 1997; Wong Fillmore, 1991), views toward bilingual education in the US have continued to change and remain highly controversial.

The notion in some States that English is a superior language compared to the native languages of the immigrant children has led to a culture of subtractive bilingualism which can be detrimental to the development of true bilingualism and/or multilingualism. However, the example of the US provides a wealth of information on the issue of bilingual education and should be taken into consideration when planning bilingual programs.

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Immigrant children who enter the US or US born children of non-English speaking households need to learn English. They fall behind in all academic areas, and are at risk for school failure and drop out.	The goal of bilingual education is assimilation. Lately, there is a push for English immersion programs. Because of the subtractive bilingualism attitude in the US bilingual education faces serious challenges.	English immersion, transitional, two-way bilingual education, sheltered programs, and English as a Second Language (ESL) programs are the most common teaching approaches.	Malagasy policy makers can learn from the US experience: (1) The notion of subtractive bilingualism and the inferiority of the native language is very similar between the two countries (US and Madagascar) and has proven to be in both cases detrimental to the education of children. (2) Bilingual programs can shed light on how children can learn a first and a second language.

Table 6: The US experience

The New Zealand Experience

Although English is the majority language in New Zealand, the country has a two official languages policy: English and Maori. In addition to these two languages, other languages such as

Greek, Samoan, Chinese, Italian, Gujarati, and others are spoken by the country's ethnic minorities (Holmes, 1997). New Zealand's national language policy is the "desirability of the goal of bilingualism for all New Zealanders" (Holmes, 1997, pg. 18).

Although there has no been any further progress in the development of the country's national policy since 1992, decisions regarding individual languages have been made and languages have been incorporated into school curricula. One example is the Samoan language which is the first community language to enter New Zealand schools' curriculum. Some other languages offered at School Certificate level are Indonesian, Japanese, French, Spanish, Chinese, and Korean (Holmes, 1997). Maori, an indigenous language, is spoken only by a small percentage of the Maori population although it is estimated that 15% of the population in New Zealand is Maori. In an effort to preserve the endangered Maori language, in 1987, the government of New Zealand passed the Maori Language Act.

Today, primary and secondary schools offer a variety of bilingual programs in English and Maori ranging from programs where Maori culture and language are being taught explicitly to programs where Maori is taught as a subject a few days per week (Hill & May, 2004). Individual research studies and overall evaluation of the various bilingual programs indicate that the bilingual education efforts in New Zealand have been successful in terms of student achievement in dual language proficiency, content area achievement, and in maintaining the Maori language and culture (Hill & May, 2004).

Key factors of the New Zealand's bilingual programs include: an additive approach to bilingualism and active commitment to equality; skillful and knowledgeable teachers who are Maori fluent; good instructional design based on the principles and theories of bilingual education, good home-school relationships and strong parent and community participation and involvement; a wider language policy consistent with the theoretical principles and research findings of bilingual education; and additional funding and resources for the development and enhancement of the bilingual programs (Hill & May, 2004).

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Immigrant children who need to learn English and Maori children who need to maintain their native language while they are learning English.	The goal is to develop competency in English and Maori and learn other foreign languages. Additive bilingualism attitudes.	English-Maori dual immersion, transitional bilingual education, heritage, sheltered content area programs, two-way bilingual programs, and English as a Second Language (ESL) programs are the most common teaching approaches.	Malagasy policy makers can see in the New Zealand example that additive bilingualism is very important along with parent participation and involvement. The New Zealand example clearly shows that even an endangered language can be revitalized and serve as the medium of instruction in high educational levels. The beliefs that the Malagasy language does not lend itself for scientific inquiry and higher order thinking and vocabulary are proven inaccurate through the New Zealand experience which demonstrates that every language can achieve high educational purposes.

Table 7: The New Zealand experience

The German Experience

About 10 million people in Germany are of non-German origin and have a native language other than German. Of these foreign inhabitants about 25% come from other European Union countries (Gogolin & Reich, 2001). The largest cultural and linguistic minority comes from Turkey, a non-EU country, followed by the Bosnians, Croatians, Serbians, and Italians. In addition, there are indigenous non-German speaking minorities such as Frisians, Danes, and Sorbs.

The most important objective of German schools is to shape and develop the personality. Taking this into consideration one can understand the humanistic nature of the educational curriculum of the German Gymnasium for centuries with respect to foreign language teaching. In Germany, foreign language teaching has always been regarded highly and implemented for centuries: ancient languages such as Latin and Greek have been taught in universities. Modern languages such as English and French, aside from their importance in higher education, were also regarded as useful in everyday life and gained even more attention after World War II (Bliesener, Ulrich, Tapia, Ivan, Ed., Blochmann, Georg, M.Ed., 1998).

In Germany, usually, foreign language instruction (English or French) begins in the third grade and at the secondary school level (the Gymnasium), two foreign languages are compulsory beginning at grades seven or eight. Parent and students' interest in more foreign language instruction is growing continuously. Languages taught include among others English, French, Greek, Italian, Polish, Russian, Danish, Turkish, Latin, Spanish, Dutch, Hebrew, Chinese, Japanese, and Arabic. The medium of instruction is the German language with the exception of some private or bilingual schools (Bliesener et.al., 1998).

With respect to the needs of immigrant children and linguistic minorities, each Lander has taken a variety of measures including preparatory classes, bilingual classes with instruction in their native language, intensive courses in German, extracurricular activities, and courses on the culture and history of their countries of origin. In addition to the immigrant populations, Germany also hosts indigenous populations such as the North Frisian and the Sorbian people. For these people some bilingual programs have been developed offering native language instruction from the pre-school years (Mercator-Education, European Network for Regional and Minority Languages Education (ENRMLE), 1997).

Looking at the language situation in Germany, both additive and subtractive bilingualism are evident. Additive bilingualism is promoted in foreign language instruction for children who speak German as a native language. However, in the case of immigrant and indigenous children who speak a native language other than German, there have not been strong policies in place to ensure bilingual education and the promotion of native language proficiency.

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Immigrant children from non-German speaking backgrounds need to master German. And North Frisian, Dane, and Sorbian children need to maintain their native language and master German.	The goal is to master German to learn at least two more languages (English and French).	Foreign language instruction is offered at the primary and secondary school. Regarding immigrant children and linguistic minorities, each Lander has taken a variety of measures including preparatory classes, bilingual classes with instruction in their native language, intensive courses in German, extracurricular activities, and courses on the culture and history or their countries of origin.	Malagasy policy makers and educational planners can see from the German experience that when good instructional methodologies, teacher training, instructional materials, and parental support and involvement are in place, children can learn more than one foreign language. Mastering first Malagasy well and following an additive bilingualism approach, children in Madagascar can learn French and English without this impacting negatively in their cognitive and academic development.

Table 8: The German experience

The Netherlands Experience

The Netherlands is a country of 12 provinces and extremely densely populated. Dutch is the official language of the country and is spoken in all provinces with the exception of one: the province of Friesland where the majority of the people speak Frisian or Frysk. In addition to the Frisian language, other languages are also spoken in the Netherlands by the immigrant populations.

In the Netherlands, the provincials and central governments have the responsibility of controlling education with laws and regulations on mandatory examinations, subjects and ways that the education and educational administration are organized. The central government evaluates the overall quality of the educational programs through inspections in schools and annual planning approval. However, according to the Constitution, schools are free to choose their own curriculum and methods of instruction. As a result, about 70% of the Dutch primary schools and about 80% of all secondary schools are private and most of them have a religious affiliation such as Catholic or Protestant. Surprisingly, however, the curricula and instructional approaches followed amongst these schools do not differ greatly. Compulsory education in the Netherlands is though the age of 16 (Mercator-Education, European Network for Regional and Minority Languages Education, 2001).

Primary education in the Netherlands enrolls children between the ages of 4 and 12, thus grades one through eight. One important characteristic of the Frisian primary schools is their small size (averaging 125 students). Based on the Primary Education Act, the goals which have been developed for both the Dutch and Frisian languages and the indicators for mastery of grade level content and skills are identical. However, in Friesland, the majority of primary schools spend only about 30-60 minutes on one lesson in Frisian per week. Fifty six percent of the schools in 2001 used Frisian as the medium of instruction in all grades and about 16% of the primary schools.

Secondary education enrolls students between the ages 12 to 18 and includes different educational directions: pre-university education, higher general secondary education, and pre-

vocational education. All these three directions begin with a period of basic education from two to three years and during this period (since 1993) Frisian language is a mandatory subject. In the higher grades, it is an elective subject. Although Frisian is allowed to be used as the medium of instruction in secondary education, this phenomenon is rare. In vocational education, Frisian is not included in the formal curriculum with the exception of agricultural education, where Frisian is used not only as a medium of instruction but also learning materials written in Frisian. In addition, social services' training has included subjects of multilingualism and multiculturalism with attention to Frisian to prepare service providers for their future careers in dealing with Frisian speaking individuals (Mercator-Education, ENRMLE, 2001).

Higher education in the Netherlands includes university education, distance learning through the Open University, and higher professional education. With the exception of teacher education, in all universities the medium of instruction is Dutch and in some cases a foreign language. Students, however, are allowed to write their thesis in Frisian. In adult education, Frisian may be used in literacy courses and some instructional materials may be in written Frisian. In addition, in Friesland, there is a cultural college which offers informal adult education covering a wide variety of subjects taught in Frisian language (Mercator-Education, ENRMLE, 2001).

With respect to teacher training and since Frisian is a mandatory subject in Frisian primary schools, pre-service primary teachers study Frisian as a subject and are required to obtain a certificate in order to be able to teach Frisian in primary schools. Secondary pre-service teachers are also given the option of attending special courses in order to obtain the certificate which qualifies them to teach Frisian. Although most teachers receive the certificate, their level of expertise in Frisian may be in some cases questionable (Mercator-Education, ENRMLE, 2001).

A noteworthy program was piloted in Friesland in the school year 1997-98. Five primary schools followed by two more began a program in trilingual education aiming to create fully bilingual students in Dutch and Frisian and provide them with the skills to communicate on a basic level in English. In order to meet these goals the languages were taught not only as subjects but they were used as instructional media and all teaching was done in the foreign language. In grades one through six, instruction was conducted 50% of the time in Frisian and 50% in Dutch. In grades seven and eight, 40% of the time children were instructed in Frisian, 40% in Dutch and 20% in English which meant two afternoons per week (Mercator-Education, ENRMLE, 2001).

Mercator-Education, ENRMLE (2001), summarizes several research studies conducted on the results of bilingual and trilingual education in the Netherlands:

(a) with respect to communicative language proficiency in both languages, research in both Frisian and Dutch speaking children revealed that at the end of primary school, proficiency in Dutch was adequate or good but Frisian proficiency was not (De Jong & Riemersma, 1994, cited in Mercator-Education, ENRMLE);

(b) the quality of Frisian in Frisian and Dutch speaking children between grades five and eight was affected by the Dutch language and children's attitudes to learn Frisian were mostly negative; with respect of the use of Frisian as the medium of instruction in Friesland, research findings revealed that children had lower scores in core subjects, few schools had a language policy for Frisian and Frisian was rarely used except in grades one and two, and when Frisian was used

as the medium of instruction Frisian children's scores were slightly improved while Dutch children's scores were slightly worse (Van Langen & Hulsen, 1999-2000, cited in Mercator-Education, ENRMLE);

(c)the trilingual education program is being examined longitudinally and results from the first two years have revealed so far that although Frisian children (ages between 4 and 6) are capable bilingual speakers, Dutch children have not mastered the same skills in the Frisian language comparing to their native (Dutch) language (Fryske Akademy, cited in Mercator-Education, ENRMLE);

Despite the efforts which are being made for the development of effective bilingual programs in Friesland and the fact that both languages (Frisian and Dutch) are spoken in the province of Friesland outside of the school environment, due to the notion of subtractive bilingualism, children have not been developing the same level of proficiency in both languages.

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Immigrant children who need to master Dutch. Frisian children who need to learn Dutch and maintain the Frisian language.	The goal is to educate children in Dutch and in Frisian. A subtractive bilingualism attitude makes Frisian language learning difficult.	Bilingual, trilingual, immersion, and transitional programs are in place.	Malagasy policy makers can consider the example of the trilingual program piloted in Friesland aiming to create fully bilingual students in Dutch and Frisian and provide them with the skills to communicate on a basic level in English. However, for such a program to be successful, all components (instructional materials, curriculum, etc) must be in place together with strong teacher training.

Table 9: The Netherlands experience

PART IV: LANGUAGE POLICY IN THE POST-COLONIAL WORLD

European colonization lasted from the sixteenth century to the first half of the twentieth century. Colonial languages ruled in most part of the colonized world. The linguistic mosaic of the spread of colonial languages on the globe reveals English, French, and Portuguese in Africa, English, French, and Dutch in Southeast Asia, and English in South Asia (Riney, 1998). After World War II, the linguistic situation in the colonized world began to change. Political leaders and various groups in different countries started calling for replacement of the colonial language to the indigenous languages and the developments in each country have been very different.

Some factors which have contributed to the retention or replacement of the colonial language may have been the degree of linguistic homogeneity in the country, the linguistic distribution of the population with respect to indigenous languages as the mother tongue, as well as the colonial heritage (Riney, 1998).

In a study of the various post-colonial language policy developments and the spoken-written differences between colonial language and indigenous languages, Riney (1998) examined the extent to which the presence or absence of pre-colonial use of writing systems have contributed to these differences. Distinguishing the languages for publication from official, national, colonial, and indigenous languages and investigating the shift from colonial languages to the present in 59 countries, Riney (1998) found that the developments with regard to the language of publication (PL) in these countries can be classified into three different types: (1) “vernacularization” (as cited in Riney, Cobarrubias, 1983), where the indigenous language replaces the colonial language as a PL, (2) “internationalization,” where the colonial language is retained as PL, and (3) “concurrent vernacularization and internationalization,” where both the indigenous and colonial languages are used as PL. Language of publication (PL) was defined as “the principal or co-principal language used, on a national scale, for the written functions of government, education, and business” (Riney, 1998, pg.65).

The study indicated that the developments of vernacularization and concurrent vernacularization and internationalization are observed in countries where there existed significant pre-colonial use of writing systems. The development of internationalization occurred in countries where there were not existed any pre-colonial writing systems. These findings, when taken in consideration together with the degree of linguistic homogeneity and the linguistic distribution of the population, can provide a more comprehensive understanding of the examination of the linguistic developments in countries which have experienced colonialism (Riney, 1998).

Examining the various regions separately, Riney (1998) found that in Southeast Asia (Brunei, Cambodia, Indonesia, Laos, West Malaysia, Myanmar/Burma, Philippines, Singapore, Vietnam, and Thailand), where 9 out of 10 countries or parts of them were European and American Colonies, the colonial languages were used prior to World War II as official languages; with the exception of Thailand which was not colonized. Today, in all of these countries the indigenous language(s) have become primary PLs or in some cases

primary with some presence of the colonial language as PL, with the exception of Singapore which uses English alone as PL and the Philippines which use English together with their indigenous language (as cited in Riney, Gopinathan, et.al, and Sibayan, 1994).

However, in higher education, technology, business, and the use of the internet, English has been dominating almost everywhere. Riney (1998) argues that some of the contributing factors of the “vernacularization” of the PL in these countries are that: after independence, in most of these nations, there was left one linguistic group clearly dominant, this linguistic dominant group was large enough to support a separate writing system, and the dominant population returned (after independence) to an already existed writing system which was functioning as a PL in the pre-colonization period.

In South Asia (Bangladesh, India, Pakistan, Sri Lanka, and Nepal which was never colonized), India, because of its size sets the norm for the region, which is “concurrent vernacularization and internationalization.” The factors which Riney (1998) considers to be contributing to this language development are: writing systems of the indigenous languages existed in South Asia in the pre-colonial era, there have been large populations using these writing systems prior to colonization, and the lack of post-colonial political boundaries to define the different linguistic majorities within the same nation. If the Indian States had become independent nations for example, several of them may have made their native language as the PL. However, still a number of native tongues have become dominant in certain regions of India and as a result, the retention of English as a co-PL has been of crucial importance (Riney, 1998).

In North Africa (Algeria, Egypt, Libya, Mauritania, Morocco, Sudan, Tunisia, and Western Sahara,) the regional norm is “vernacularization” and the PL is Arabic with the exceptions of Morocco, Mauritania, and Tunisia, which have maintained both languages Arabic and French as PLs. Prior to World War II, English and French were the dominant colonial languages. Some of the factors which have contributed to vernacularization, include the fact the majority of the population in this region were Arabic speaking, Arabic had a widely used pre-colonial writing system, and the majority of the population in many of the North African countries supported the use of Arabic (Riney, 1998).

In West and Central Africa (Benin, Burkina Faso, Burundi, Cameroon, Central African Republic, Chad, Congo-Brazzaville, Congo-RDC(Zaire), Ivory Coast, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea Bissau, Liberia, Malawi, Mali, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, and Togo) and in South Africa (Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Zambia, Zimbabwe, and South Africa) the regional norm is internationalization with the colonial language (English, French, Spanish, or Portuguese or two colonial languages: English and French, in the case of Cameroon) being the PL (with the small exception of South Africa and Namibia, which have established concurrent vernacularization and internationalization (English and Afrikaans).

Some common characteristics which can be identified in the countries of West, Central, and South Africa are: there were not large enough linguistic majorities to make a strong case for using their mother tongue as the PL and none of the indigenous languages had any written usage prior to colonization so there was not a formerly used written language to return to after independence. It is worth noting that in many countries, although in-

digenous languages are preferred in oral communications, in writing the colonial languages prevail (Riney, 1998).

In East Africa (Kenya, Somalia, Tanzania, Uganda, and Ethiopia which was never colonized), there is no regional norm observed with respect to PL. In Ethiopia as PLs are used both English and Amharic, in Kenya and Tanzania both the indigenous Kiswahili and English, in Uganda only the colonial English, and in Somalia only the indigenous Somali. From these countries, some and especially Ethiopia used writing systems prior to the colonization of Africa. In addition, although Kiswahili is a language that is not spoken as a mother tongue by the majority of the population in the East Africa region, it was wide spread and was used extensively as a medium for communication in that region prior to colonization. Noticeably, the situation in the East Africa region resembles more the Southeast Asia, the South Asia, and the North African regions with respect to the vernacularization or concurrent vernacularization and internationalization than its neighboring regions of West, Central, and South Africa. It is believed that the fact that this region hosted significant writing systems prior to colonization as well as other political factors have contributed to the dominance of Kiswahili in countries where it was not the indigenous language of the majority (Riney, 1998).

What is interesting to point out is that Riney (1998) makes no mention of the case of Madagascar. Therefore, his study cannot provide any insights about the PL situation in this country. However, taking in consideration the main three factors that the above study identified as contributing to the development of PL across all the regions in the colonized world: (1) the existence of a writing system of the indigenous language prior to colonization, (2) the existence of a linguistic majority prior to independence, and (3) the existence of a dominant linguistic majority after the independence, the case of Madagascar attracts special attention. It calls for further research to investigate the factors which have contributed to the maintenance of the colonial language as the PL in Madagascar despite the fact that the Malagasy language is spoken throughout the country by the vast majority of the inhabitants and despite that Malagasy had a script in the pre-colonial times. The Malagasy script was developed in the early 19th century by missionaries. When the country became a French colony in 1896, Malagasy was a written language but with a relatively short history of its writing form.

The Asian Experience

Vietnam

Vietnam is a country with 73.3 million inhabitants of which about 24 million belong to 53 ethnic minority communities. The minority groups occupy important economic, political, and strategic geographical areas and have contributed greatly to the Vietnamese culture. The majority group is the Kinh people. The languages spoken in Vietnam are classified in three linguistic categories (Austro Asiatic, Austronesian, and Sino-Tibetan) and belong to eight different groups (Thea, 2003). Vietnam was a French colony and French was the official language of the country until 1945. Bilingual education in Vietnam has been implemented in some form since the 1920s (Archibald, 1988). After the Declaration of Independence in 1945, the Vietnamese language became the official language of the nation and the language of instruction in all schools from primary to tertiary education.

Since 1946, the country's language constitutional policy calls for the mutual supplementation of the Vietnamese and the minority languages of Vietnam and clearly states that "ethnic minorities have the right to receive compulsory and free primary and lower-secondary education in their languages" (article 15 of the Constitution, 1946) and expands with article 5 of the amended Constitution (1981) that "ethnic minorities have the right to use their own languages and scripts, maintain and develop their good traditions, practices, custom, and culture" (Thea, 2003; Archibald, 1988).

The national policy supports the revitalization of the minority languages and emphasizes the strengthening and expansion of bilingualism and multilingualism. Today in the country, four minority communities, the Cham, Thai, Tay, and Khmer, use traditional scripts while about 21 communities have been using Latinized scripts and other communities have been working of developing written language (Thea, 2003). The emphasis which has been given on multilingualism in Vietnam has lead to the development of bilingual educational programs, bilingual textbooks and instructional materials to teach the minority languages; to teacher training on bilingual education; and to the development of bilingual literature, poetry, journalism, and broadcast programs at a regional, national, and international level (Thea, 2003). Thea (2003) stresses the importance of competence (fluency and academic language development) in two languages the native and the national, especially for minority children if they are to have access in all aspects of social, political, educational, and professional life.

Vietnamese bilingual education programs today use about 10 of the minority languages which are spoken by about 1 million inhabitants. Emphasis is given on the development of bilingual textbooks and instructional materials and on teacher training (Thea, 2003). Bilingual education in Vietnam begins at the primary school level. The goals of the bilingual programs are to develop: bilingual communicative ability; bilingual oral and written fluency; bilingual social language skills; and academic language in the content areas. There are several private schools in Vietnam which offer English language as a subject and others which offer French.

Four policies of bilingual education have been tried out in Vietnam: (1) students in grades one through three receive vernacular instruction, Vietnamese was introduced in grade three and instruction switched to Vietnamese in grades four and five; (2) students attended transitional bilingual programs where instruction in grade one begins with both languages transitioning to more Vietnamese in the upper primary grades; (3) a policy which is the one that is used most widely and is activated per the request of the community and allows students to be instructed in all primary grades in the mother tongue for up to 15% of the curriculum in the mother tongue; (4) a policy which applies to the minority languages which have Latinized orthography and allows students the 15% of the overall curriculum to be dedicated in mother tongue instruction (as above). In grades one and two, however, mother tongue instruction is only oral and literacy teaching is delayed in the minority language until grade three when it is assumed that children have already mastered literacy skills in Vietnamese. The rationale behind this approach is that teaching at the same time in the lower grades literacy in two languages with similar scripts would confuse the children (Archibald, 1988).

The advantage which many of the minority children have upon entering primary school is that to some degree, they have developed some abilities in both languages the native and

the national since they have been exposed in various ways in both. Bilingual education in Vietnam also faces challenges including lack of bilingual teachers in some areas, organization of the curriculum with respect to subject areas and the time allocated for each subject, uniformity on teacher training, negative parent attitudes in some cases towards teaching the mother tongue, and lack of materials and instructional resources(Thea, 2003). Thea (2003) concludes that despite the challenges, overall the bilingual education programs in Vietnam have good and positive returns and continue expanding to other languages and geographical areas.

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Many ethnic minority communities. Children must master at least two languages (Vietnamese and one other indigenous languages).	Bilingual education aims to offer equal opportunities to language minority children and maintain their native language while they master the Vietnamese language.	Four policies in bilingual education: the policy followed depends on the needs of the ethnic community and nature of indigenous language.	Vietnam can serve as an example for Madagascar with respect to making the national language the language of the schools while eliminating the colonial language as the medium of instruction. In addition, the successful bilingual programs, the bilingual materials, and teacher training methods can also be used as good examples to consider.

Table 10: The Vietnam experience

India

India is a federation with 28 States & 7 Union Territories. The key principle for organizing States is language. The majority language of a State is the official language of the State. However, many States have several linguistic minorities of large size within their State boundaries. According to the 1991 Census, in India there are a total of 114 languages and 216 mother tongues, 18 scheduled languages in the Constitution (Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, and Urdu) and 96 not specified in the schedule. Each language, listed above may also include some other languages, or dialects that are not explicitly presented. Hindi for example includes around 48 languages, dialects, or mother tongues like Awadhi, Bhojpuri, Garhwali, and others. (Malikarjun, 2001).

Movements for the official establishment of India's so many languages have been political and have had significant impact on the lives of the people of India including their empowerment or disempowerment (Brass, 2004). The Official Language Act of 1963 (and as amended in 1967) constitutes the continuation of the use of the English language as the language for official purposes for the Union and use in the Parliament in addition to Hindi in Devanagari script and gives the option to the States to use for official purposes English in addition to Hindi and to the official language of the State (Thirumalai & Malikarjun, 2002).

Education in grades 1 through 12 is free in most States and Union Territories (UTs) while primary and middle school education is compulsory. Although all the States/UTs in India

have adopted the 10+2 system (10 years of primary and middle school education and 2 years of upper secondary education), there is still some variation regarding the number of classes constituting primary, upper primary, high, and higher secondary education, the age for admission (minimum for admission in first grade is usually 5+ to 6+ years), the medium of instruction, public examinations, teaching of English and Hindi, structure, schedule, and other (Ministry of Education, India, 2003).

Primary education in most States/UTs is grades one through five, Middle education grades six through eight, Secondary education grades nine through 10 and the Senior Secondary education grades 11 through 12. In most regions, the medium of instruction is the mother tongue in primary education (as mandated by the Constitution) and programs for studying in a medium other than the mother tongue vary significantly. Language policy in public schools calls for a three-language formula: the mother tongue, Hindi, and English. Except from the Hindi speaking States, teaching Hindi is compulsory in the non-Hindi speaking States. However, the programs differ in the various States. In Hindi speaking States, another Indian language is also taught. Teaching of English is compulsory in all States/UTs, with the exception of Bihar and programs differ significantly from State to State. (Ministry of Education, India, 2003).

The Indian experience is not of bilingualism, but of instruction in one language with other languages being taught as subjects. In examining the case of India, however, it is important to bear in mind that all the Indian languages are native to the country with a large community of speakers. Further, many people are exposed to Hindi through films, TV and national events. A challenge that States with many small linguistic minorities face, is the problem of transitioning to the official language of the state: after mother tongue instruction up to grades two or three, and then transition to official State language based on the three- language policy.

India serves as an example of a country with enormous linguistic diversity in educational provision provided for over 50 years through formal schools, non-formal education and through open school system for secondary schools. Despite this enormous diversity, education has been made possible by the creation of national institutions for developing curricula and materials (National Council of Education Research and Training) which are then adapted by state institutions in different languages.

In addition, many materials have been developed for non-formal education programs. States with linguistic minorities, for whom education is provided in their mother tongue, can often make use of materials of neighboring states which uses that language as the official language. An issue with the instructional materials is that they may not be adapted to the local context, especially for tribal communities and other disadvantaged communities. For that reason, programs funded by the Central government operate with the goal to improve and adapt the educational materials. During the last five years, many NGOs related to IT companies have been developing materials for computer aided instruction and self-learning by primary pupils in the vernacular languages.

Although English is an official language of the Union, it is not considered a mother tongue, and hence cannot be used as language of instruction in publicly funded schools. Private schools (not receiving public funds) are free to teach in any language, but usually it is English. One reason for the enormous growth of private schools is the perceived poor quality of English instruction in public schools and the demand for English in higher education (especially in technical institutions).

There is considerable inequality in education because public schools do not offer instruction in English, while rich private schools do. This has led to many private schools for the urban poor to provide instruction in English medium. Parents believe that their children will learn more English language skills and hence do better later either in higher education or in the labor market. The situation for these children is similar to that of Malagasy children. They receive instruction in a language which is not their mother tongue and they do not speak it at home or outside the school environment (Bashir, 1997).

Higher education is offered both in the official language and also in English. Technical subjects (i.e. engineering, medicine, science) especially in good colleges, are usually offered in English. This increases the demand for English language at the primary and secondary school levels, since entrance examinations (in English) are required by these higher education institutions.

Politicians now face pressure to introduce English in early primary grades (sometimes from grade one) in public schools in response to public pressure. Many states are struggling with how to create appropriate materials, and more important to recruit trained teachers. However, India has a large pool of English speakers and there are institutes for teachers where they can receive English language training.

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Multilingual nation. States within the Indian Union were formed on the basis of language. However, each State has linguistic minorities. There is a three language policy.	Education aims to help children achieve fluency in English and Hindi and the official language of their region.	Children may be instructed in their mother tongue in the first years of primary school and then learn Hindi (or another Indian language in the Hindi speaking States) and English. The educational programs in India vary significantly from region to region. Private schools also follow different approaches of bilingual programs.	The case of India can offer several lessons for Madagascar such as: the introduction of second and third language in school from the experiences of the different Indian States; the experience of linguistic minorities in transitioning from the mother tongue to the official language of the State; the creation of a national institution to develop curricula and materials that can be used in different languages; the processes and procedures followed in developing curricula and materials and adapting them to a large number of languages; the increasing use of low cost IT materials to aid learning in different languages; the experience of private schools; and the teaching of English as a foreign language and as subject of instruction in higher education.

Table 11: The India experience

The Latin American Experience

Bolivia

By the 1900s, schools existed in Bolivia primarily in urban areas and the majority of the indigenous populations were illiterate. In 1956, legislation established the public education system consisted of a six-year primary cycle, four years of intermediate education, and two years of secondary school ending with the baccalaureate degree which was a prerequisite for university entrance. Higher education consisted of the University of Bolivia and other public and private institutions (Library of Congress, 2003-2005). It is notable, that although Bolivia is a very poor country with a public school system with many problems such as low pay of teachers, inadequate amount of textbooks and other instructional materials, high repetition and drop-out rates, parent's interest in their children's education and their willingness to pay for private schooling is "remarkable" (Psacharopoulos, Areira, & Mattson, 1997).

More than half of the population in Bolivia speaks an indigenous language and Bolivia is one of the Latin American countries (the others are: Mexico, Peru, Brazil, Chile, Ecuador, and Guatemala) where the Intercultural Bilingual Education Policy (*Educacion Intercultural Bilingue*, in Spanish) has been applied. In Bolivia, bilingual education is provided by the ministry of education and has been enrolling about half of the target student population (Soares, Padron, Velasco, Ravenstein, Macarena, & Paredes, 2005). Most individuals who speak an indigenous language live in rural areas of the country. About 80% of the urban residents speak Spanish while only about 36 percent of the rural ones do and in reference to the primary student population the percentages are 93% for the urban and 44% for the rural areas. Additionally, there is an association between speaking an indigenous language and living in poverty (Soares, et.al., 2005).

Based on the great need for the education and development of the indigenous people of the rural areas, the Intercultural Bilingual Education (EIB) project which is in theory both bilingual and intercultural was developed for these areas. The EIB approach is based on the principles of appreciation and respect of other cultures and of multicultural education which reflects these principles in the entire educational system. Bilingual education in Bolivia, is not a new phenomenon. From the 1920s forward some form of transitional bilingual education was used in Catholic, Adventist, and some State schools, in order to transition children to the Spanish language. The need for transitional bilingual education was also recognized in the Educational Code of 1955 and by 1982, through the Summer Institute of Linguistics (an American missionary institution) 49 bilingual schools, 53 trained teachers, and over 600 publications were in existence (Soares, et.al., 2005).

In 1990, UNICEF, funded a pilot program in EIB (the Proyecto de Educacion Intercultural Bilingue, the PEIB) involving 114 schools, and 400 teachers. Children in grades one through three would be instructed in their mother tongue while Spanish would be taught only as a subject, transition gradually through Spanish instruction in grades four through six, and receive Spanish only instruction from grade seven and on while taught their mother tongue as a subject. One of the most important features of the program was that although from grade seven the children received Spanish only instruction, throughout all the primary and secondary grades, indigenous culture, cultural values, and language had a special place in the curriculum (Soares, et.al., 2005).

Since the Educational Reform Law of 1994 to the present day, EIB has been growing to reach more indigenous students. The Bolivian Ministry of Education introduced additional elements to the EIB program with the intent to make it a mainstream educational method in the country's schools including among others the provision that bilingual teachers should not only be fluent in both (Spanish and the indigenous) languages but also be trained in bilingual educational methods investing heavily on initial teacher training (Soares, et.al., 2005). Some of the limitations of the project were: educational materials production was delayed; transition models took longer than expected leaving children without textbooks for the critical transition time; and parents were very anxious about their children becoming competent in Spanish.

In their study, Soares et. al., (2005) found that EIB works and should be offered to all indigenous people in Bolivia. However, they emphasize two areas which should be considered in policy making such as: EIB should be an option for parents and students and not mandatory because when people are forced it doesn't work; and second, the EIB should be expanded in more rural and urban areas, it should first be attempted in pilots from grades one through six given that instructional materials and trained teachers would be already available.

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Bolivia has many indigenous people who speak a native language other than Spanish.	Bilingual education aims to assist the indigenous people to maintain their mother tongue and master Spanish.	Dual immersion and transitional bilingual programs operate in Bolivia.	The Malagasy educational system can benefit from the example of Bolivia regarding the bilingual instructional materials, the advanced bilingual teacher training and master education programs which operate in the country through the PROEIB Andes program. However, the difference is that in Bolivia Spanish is widely spoken by the majority of the population while in Madagascar, this is not the case with the French.

Table 12: The Bolivia experience

Guatemala

Guatemala is a country where the proportion of the indigenous population is great and reaches about 39% of the total population. The majority of the indigenous people speak a native language other than Spanish and their literacy levels are much lower than the ones of non-indigenous people while indigenous children have poor school attendance and greater drop-out rates (Hall & Patrinos, 2005). It is estimated that, in Guatemala, about 60% of the indigenous people and about three-fourths of indigenous females have no education (Psacharopoulos & Patrinos 1994).

In the late 1970s, the government of Guatemala established a national bilingual education program (PRONEBI) to meet the needs of indigenous children and in 1985, the Ministry of Education established a Bilingual Education Department (DIGEBI) to support the bilingual programs across the country (Patrinos and Velez, 1996). The bilingual programs in Guatemala offer instruction in both Spanish and the mother tongue providing culturally relevant education in both the Spanish and the Mayan languages, bilingual teachers in

grades one and two, and bilingual textbooks and instructional materials. Usually, bilingual education is provided from grades one through four and in grade five students attend Spanish-only schools (Patrinos and Velez, 1996).

Another initiative, the Access to Intercultural Bilingual Education (AIBE) has focused on, since 1999, is improving the quality of pre-school and primary education in the rural region of El Quiche, where the indigenous language is Mayan. The project emphasizes among others, parent participation, improvement of bilingual education methods, and instruction on the subject of Mayan culture (Ramirez de Arellano, 2003). According to Ramirez de Arellano (2003), there have been identified seven effective educational strategies which have contributed to the success of the project: (1) the education of children with respect and emphasis to the indigenous culture, worldview, history, family and community traditions; (2) parent involvement and participation in their children's schooling through in-school and out-of-school activities and via school management and political advocacy; (3) the use of the children's mother tongue not only as a medium of instruction but also as a subject and bilingual teacher training; (4) the training of teachers in participatory education strategies and the development of critical thinking; (5) the production and appropriate use of culturally and developmentally appropriate instructional materials; (6) the systematic teaching of Spanish as a second language; (7) and the instruction of mathematics in the Mayan language.

The bilingual programs in Guatemala experience successes and face challenges at the same time. Finding and training bilingual teachers has been a great challenge. In a study of six private bilingual schools in Guatemala, Ruano (2003) found that some of the characteristics of the educational programs were inadequate teacher and administrator training as well as lack of cooperation between school sectors. Although parent involvement and participation in schools was not strong initially, after the realization of the improvement of children's educational attainment and linguistic competence in Spanish parents in many communities became very supportive of and involved in the bilingual education of their children and the management of the schools. Educational materials developed for bilingual instruction have been proven effective and engaging for both teachers and students.

The bilingual programs in Guatemala, from an educational and an economic point of view, have been proven to be overall successful. In a study, Patrinos and Velez (1996) found that repetition rates in bilingual programs were 22% lower than in the ones in traditional programs, factors which contribute not only to the educational attainment and reduction of drop-out rates but also to great efficiency gains. Bilingual education has proven successful for both boys and girls and students complete the primary grades with high promotion rates, are less likely to drop-out of school, and receive higher scores on all subject matters including Spanish. The above factors and especially the low repetition and drop-out rates is believed that have contributed to cost savings of over \$5 million, amount that can pay for the schooling of approximately 100,000 primary school children (Patrinos and Velez, 1996).

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Guatemala has many indigenous people who speak a native language other than Spanish, mainly Mayan languages.	Bilingual education aims to assist the indigenous people to maintain their mother tongue and master Spanish.	Transitional bilingual programs. The challenges are that the variations of the indigenous languages are many and therefore it is difficult to find qualified teachers who speak all varieties and to develop instructional materials in all linguistic varieties.	The Malagasy educational system can benefit from the example of Guatemala looking into the incentives given for indigenous parent participation in the schools which has great impact in the improvement of the education of their children. However, in Guatemala, Spanish is the language which is spoken across the country while in Madagascar French is not the medium of communication. Instruction in the mother tongue has been proven cost effective due to the reduction in repetition and drop out rates and the increase of test scores.

Table 13: The Guatemala experience

The North-African Experience

Tunisia

Since its independence from France in 1956, the language situation in Tunisia the social and professional life of the people as well as the educational system, the government, and the media have been evolving. Tunisia has a population of 9.7 million people and it is considered among those middle-income countries which do better than other countries with comparable resources (Daoud, 2001, n.d.). Tunisia has been undertaken measures to increase the educational levels of its people and in 2001 enrollment in the primary school level was about 98%. Although Tunisia has been making amazing gains in its poverty reduction efforts, poverty is still an issue in Tunisia as well as illiteracy which reaches the rate of 19% for males and 39% for females (The World Bank, 2005).

The educational policy in Tunisia emphasizes literacy in Arabic which is the official national language, the improvement of competence in foreign languages and in particular in French and English, and computer literacy (Daoud, 2001, n.d.). The basic school consists of grades one through nine and it is compulsory and the secondary school of grades 10 through 13. According to Daoud (n.d.), French language ability has been considered very important not only for succeeding at office jobs but also for other occupations.

In basic education, the curriculum has been completely Arabized and in grades one through nine, all subjects (in Humanities, Math, and Science) are taught in Arabic. French is introduced as a subject in grade three and is taught very intensively (9 hrs/week in grade three, 9.5 hrs in grade four, 11.5 hrs in grade five, 11 hrs in grade six, 4.5 hrs in grades seven and eight, and 5 hrs in grade nine). English is introduced in grade seven and is taught 2 hours per week in grades seven, eight, and nine. The beginning of French and English instruction differs in the private and public schools. In the private schools teaching French and English may begin from grade one.

In secondary education, French is the medium of instruction for Math, Science, and Economics and Modern Standard Arabic (MSA), the medium of instruction for the Arts and the Humanities. French is also offered as a subject (2-4 times per week). English is also

offered as a subject (3-4 times per week). In addition, German, Italian, or Spanish are offered as electives for 2 hours per week (Daoud, 2001, n.d.).

What is interesting in the language situation in the schools is that the use of Arabic and French in the classrooms vary considerably in actuality. In basic education, all teaching materials and exams are provided in MSA but instruction may be conducted in Educated Arabic (EA) and/or Tunisian Arabic (TA). Another example is the Math and Science classes in basic education. Although they are offered in Arabic, the instruction may involve frequent code switching between Arabic and French because the teachers have been trained in French.

In the secondary school, the sciences are taught in French. As a result, students' competence levels in the classroom and in exams are lower. Since these subjects were taught in Arabic in primary education, only a few students can participate actively in the lesson and when they do, they prefer to use Tunisian Arabic (Daoud, 2001, n.d.). As Daoud argues, education policy makers will soon have to face making a decision whether to keep French in the secondary school as the medium of instruction in the sciences or switch to Arabic.

If instruction switches to Arabic in the sciences in secondary school, the question is how far the Arabization of the curriculum should go at the university level. This will have implications on adequate teacher training and instructional resources which at the present time are all in French. Language use in university classrooms has not been investigated, in vocational education, although the medium of instruction is French classes and workshops involve also the use of Tunisian Arabic. Despite the fact that students learn Modern Standard Arabic and French in school, the two languages of literacy in Tunisia, they do not develop native-like mastery in either language (Daoud, 2001, n.d.).

The push for English has been stronger from the business world (many businesses require competence in English as a requirement for hire). Parents, educators, students, and teachers are guaranteed some English language instruction within the public school system (three years for those who complete basic education, four extra for those who complete secondary education, two for those in vocational education, and two to six more for university graduates) while there are also private institutions which offer English classes as well. Making English the first foreign language, seems to find resistance from academic circles, the educated elite, politicians, and international and regional forces (Daoud, n.d.).

The situation in Tunisia regarding the language of instruction is difficult. Maintaining French may have serious implications in the cognitive growth and overall academic achievement of the students and may pose threat for academic failure. However, it seems that further Arabization of the curriculum is not likely to happen because there will be an issue of developing new resources in Arabic for the secondary, vocational, and tertiary education and it would create great costs and risks for drawbacks until the new system is strong enough to become successful. On the other hand, the thought to switch back (from Arabic to French) the instruction in the sciences in the last grades of basic education, it is not likely to happen either because it would contradict with the spirit of the Tunisian Constitution (Daoud, n.d.).

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Children need to master Arabic as well as French because French is considered the language which allows professional advancement.	Arabic and French literacy are emphasized as well as good knowledge of English and computers.	In basic education, Arabic is the only language of instruction. French is introduced as a subject in grade three. In the secondary school, French is the medium of instruction in math and science while Arabic is the medium of instruction for the arts and humanities. English is introduced as a subject in grade seven and continues throughout secondary school. Other foreign languages are offered as electives for 2 hours a week.	Malagasy policy makers can see in the example of Tunisia a lot of similarities with the Malagasy educational system with respect to the emphasis given in French. However, in Tunisia there is a lot of emphasis given to the national language (Arabic). In Madagascar, however, this is not the case with the Malagasy language which is not regarded highly. Although the Tunisian model is a Late-Exit model, because children are taught math and science in the primary school in Arabic and they do not practice French outside of the school, when they switch to French in the secondary school, they experience academic difficulties and score low in exams. Malagasy policy makers must consider this example and avoid switching instruction from Malagasy to French.

Table 14: The Tunisia experience

The Anglophone-Africa Experience

Kenya

Over 40 languages are spoken in Kenya the majority of which are of Bantou origin. The rest are considered Nilotic languages and a few others Indian sub-continent languages (as cited in Musau, Gorman, 1974; Mbaabu, 1996). Each one of the Kikuyu, Luyia, Kamba, and Luo languages are spoken by over a million people (as cited in Masau, Fasold, 1984). The two official languages of Kenya are English and Kiswahili. Kiswahili is an indigenous African language of Bantu origin and is spoken by the majority of the Kenyan population (over 65%). Kiswahili is the language of communication among the linguistic minorities in Kenya as well as in East and Central Africa. English is the colonial language and the language in which the government conducts official business, education at the primary, secondary, and tertiary level, international affairs, and the language of prestige and status (Masau, 1999).

The education system in Kenya is known as the 8-4-4 system meaning that students receive basic education for eight years, secondary for four, and tertiary for four. After the 2003 education reform, the government made basic education free for all Kenyans and provided educational materials for all children in the more than 17,000 primary schools in the country. Kiswahili, which is a language that is not associated with any particular ethnic minority, has been the language of instruction in the primary schools in grades one through three, since 1984.

Kiswahili is, often, the second language children are learning in school (Masau, 1999) and it is a compulsory and examinable subject in all grades of the primary and secondary school. Students are expected to be able to listen and read with understanding, to express themselves clearly orally and in writing, and to communicate appropriately in Kiswahili

(as cited in Masau, Kenya National Examinations Council, 1995). Because Kiswahili is not spoken as a native language by all the linguistic minorities in Kenya, during the first three years of primary school, children are also instructed in their mother tongue. Therefore, bilingual education in Kenya is basically the norm rather the exception.

However, according to Bunyi (n.d., pg.7-8), “introducing children to literacy in three languages simultaneously –in mother tongue, Kiswahili, and English (as is the case in Kenya) does not promote fast or effective language acquisition...” Masau (1999) argues that since Kiswahili is a compulsory second language for many Kenyans, an examination of the attitudes of students, teachers, parents, and communities towards the language of instruction in schools would be very informative in finding ways to improve bilingual education.

Masau (1999) discusses the findings of preliminary research which was conducted in primary and secondary schools in Kenya on identifying methods of language instruction. This research indicated that many teachers rely heavily on the Audiolingual method emphasizing listening, rote repetition, imitation, substitution, and on teaching language as a system focusing on language structures. It appears that teachers are not familiar with current approaches to second language teaching. In addition, there is a great need for the development and production of appropriate teaching materials of good quality and in sufficient numbers, since the textbook/student ratio appears to be one book for every three or four students Masau, 1999). Since, many Kiswahili teachers are second language learners themselves and many primary teachers become teachers of all subjects without a specialization on methods of language instruction, teacher training on language teaching and bilingual education instructional methods is of crucial importance.

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Children (those who do not speak Kiswahili or English at home) need to master two new languages in school: Kiswahili and English.	The goal of bilingual education is the mastery of both languages: Kiswahili and English	Mother tongue, Kiswahili, and English are all introduced to children at the same time. This issue together with the fact that teachers rely heavily on the Audiolingual approach and do not utilize current instructional methods inhibits the academic progress of children.	The example of Kenya shows that introduction to three languages simultaneously and the use of outdated instructional approaches has negative effects on students including among others high repetition and drop out rates.

Table 15: The Kenya experience

South Africa

According to the 1996 Constitution, South Africa has 11 official languages which are represented in all nine provinces: tshiVenda, xiTsonga, isiNdebele, isiXhosa, isiZulu, siSwati, seSotho, seTswana, and sePendi (which are African languages) and English and Afrikaans (which have been official languages prior to independence (Granville, Janks, Mphahlele, Reed, and Watson, 1998). Afrikaans is the only language in South Africa which was able to develop and become official language despite the “hegemony” of English (Granville, et.al., 1998, pg 260).

However, language policy has not always been so favorable to the indigenous African Languages in South Africa. In 1925, Afrikaans had a written system and after it became official language, extensive resources and instructional materials were developed for the use of the language in the public and education sectors. The Nationalist Party government, in 1948, required the mother tongue to be the medium of instruction in Black Primary Education and in Black Secondary Education both Afrikaans and English (Granville, et.al., 1998).

According to Granville et.al. (1998), this had two major political implications: one that it stopped the spreading of English as the language for teaching and learning in the Black Mission Schools and the second that it divided the African people “along apartheid lines of language and ethnicity” (pg. 260). In addition, since Black children were instructed only in mother tongue and had to wait until secondary school to learn two new languages, Afrikaans and English put Black children in a more disadvantaged position (Banda, 2000) and in actuality denied Black children the same access to higher education. This is similar to the situation in Madagascar where Malagasy children are also denied equal access to higher education because they are not all competent in French.

In 1976, Afrikaans started declining and Black students were given the option to choose either Afrikaans or English as a medium of instruction; Afrikaans was not a mandatory subject any more. It is interesting to point out that most Black students chose English. After 1976, however, Afrikaans continued to remain a compulsory subject in all 12 grades of schooling for White Education and students had to pass the exam in order to be able to graduate. Human resources and materials were developed to support this effort giving more emphasis on Afrikaans since materials in English were provided by colonial sources.

With respect to bilingual education, one can see how complicated and difficult the issue of educating children can be in South Africa when taking in consideration the 11 official languages, the great amount of other indigenous languages which do not have official status, and the different varieties of English. According to Banda (2000), “a comprehensive bilingual program in South Africa would have to give an indication of which variety of English and which African language(s) should be used in a particular region. Such a program may also have to indicate, at least in a general way, the possible classroom practice to be adopted to ensure and maintain the multilingual nature of South Africa” (pg. 58).

In describing the current situation in the South African schools, Banda (2000) argues that despite the additive bilingualism policy of the government, schools today still teach the same as before meaning that they teach though Afrikaans and English. Children are required to state their native language in the application form for enrollment and sometimes are “encouraged” to enroll in another school if this particular school does not offer the same medium of instruction.

In addition, former English-only or Afrikaans-only white schools now offer other African languages such as Zulu and Xhosa as optional subjects. In higher education, universities still do not offer content courses through an African language as the medium of instruction. According to Banda (2000), if a government wants to promote the use of one or more indigenous language(s) for official use, political leaders have to utilize this lan-

guage in public. In South Africa, political leaders seem to prefer using English when they appear in the media, a fact that contradicts their support for multilingualism.

Taking in consideration the government's language policy in education which supports additive bilingualism, Banda (2000, pg. 58) cites research done on bilingual education students' achievement with respect Cummins' Threshold Hypothesis and the distinction on language proficiency between the Basic Interpersonal Communication Skills (BICS) and the Cognitive Academic Language Proficiency (CALP). Researchers found that South African students who were instructed in the mother tongue in the primary grades and then switched to English as the medium of instruction, were unable to transfer knowledge and skills from the mother tongue to English and vice versa. It is believed that the main reason for that is that the students were not able to master CALP in their mother tongue and therefore they were not able to transfer concepts and skills to English. The main contributing factors to students' low academic skills in either language, is believed to be the inadequate teaching methodologies and ineffective classroom practices. These students were not given adequate time to develop strong cognitive and academic skills in their native language. They were instructed in their native tongue only in the primary grades and as research shows, it takes about five to seven years to develop cognitive academic proficiency in a language in order to perform well in school (Banda, 2000).

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Many ethnic minority communities. Eleven official language policy in all regions.	All students must master English and at least one more South African language.	Students are instructed first in their mother tongue and then switch to English. The teaching methodologies are thought to be ineffective and outdated.	This example also illustrates that when children do not master their native language first and then switch to another language, they do not have the opportunity to develop academic skills and therefore transfer them to the new language and it is similar with the current situation in Madagascar, where children switch to French too soon before they manage to grasp a strong command of Malagasy, their native language.

Table 16: The South Africa experience

The Francophone-Africa Experience

Mauritania

Mauritania is a multi-ethnic and multi-tribal country with four major ethnic groups: the Moors (subdivided into the White Moors or Bidans and the black Moors or Haratins) and the three Negro-Mauritanian groups: the Haalputaaren who speak Pulaar, the Soninke who speak Soninke, the Wolofs who speak Wolof (Barry, 1999). After several policy reforms and especially after a pluralistic democracy was established with the adoption of the constitution of 1991, Mauritania has been experiencing growth in the economic and educational arenas. Since 1991, Mauritania has made great efforts to improve the education and skills of all people especially that of women expanding educational opportunities in primary, secondary, vocational, and technical education. These efforts were proven fruitful since the total enrollment at the primary level increased significantly from 46.8% in 1990-91 to 86% in 1998-99, at the secondary level from 35.2% to 60% (of which 41%

was girls' enrollment) and the number of students enrolled in technical and higher education nearly doubled (The World Bank, 2001).

However, despite the amazing growth in educational enrollment, there have been many concerns about the quality and effectiveness of the educational system including the utilization of outdated curricula and instructional methods, the students' content area achievement especially in science at the secondary level, and little or no exposure of the majority of the students to foreign language curricula (especially the French language).

According to the World Bank (2001), French is widely used in the society and the mastery of the language is considered a prerequisite to societal, educational, and professional success. However, it is taught effectively to only 5.5 % of the primary student population and in particular only to the students who enroll in the bilingual education programs. In addition, although admission rates at the primary level are noticeably high (93%), retention rates are low (55% only) while repetition and drop-out rates remain high. Public resource allocation to education has been declining, the technical, vocational, and higher education systems are not as diversified, and the unemployment rate for higher education graduates reaches the 30% (The World Bank, 2001).

In order to respond to the needs and issues in the education sector, the Parliament approved an education reform law in 1999 aiming to improve the quality, restructure and expand the educational system, and make it relevant to the needs of the economy. Before the 1999 reform, the formal education system consisted of six years of primary school, three years of lower-general secondary schools, and three years of higher-general secondary school or technical education. Instruction was provided in three different streams: the Arabic, in which Arabic was the medium of instruction and the main language of studies; the French, in which the subject matters were taught mainly in French; and a very small stream which used local languages as the language of instruction (about 0.5% of primary enrollment). Educational quality though was low and many wealthy families preferred to send their children to private schools to ensure better quality education.

The 1999, educational reform suggested: (1) the combination of all three educational streams into one system using as main languages of instruction both Arabic and French; (2) supporting foreign language instruction by introducing French in grade two and English in grade one of the lower-secondary school; (3) teaching civic education as a separate subject apart from Islamic studies at the primary and secondary levels; (4) expanding the duration of lower-secondary education to meet the provision of 10 years basic education; and (5) focusing on science and information technology at the secondary level (The World Bank, 2001).

Based on the educational reform law, the government developed a 10-year Education Sector Development Program focusing mainly on three areas: (1) making education relevant by using Arabic and French as languages of instruction; (2) achieving equity by providing 10 years of quality education to the vast majority of young children; and (3) developing vocational, technical, and higher education so that they respond to the needs of the society and the labor market. The program would be implemented in two phases about four or five years each: the *foundation* phase and the *expansion* phase. During the foundation phase, the necessary structures, tools, and skills would be developed; in particular, more schools would be provided for primary education ensuring better quality of

education based on the plan of the reform and innovative programs would be piloted in vocational, technical, and higher education. During the expansion phase, the reform would be extended further to reach more schools and programs (The World Bank, 2001).

The implementation of the bilingual program started in 2002. However, up to this point, student outcomes are not positive. There are not many bilingual teachers and the educational system cannot afford two teachers (one for French and one for Arabic) in each grade. In addition, teachers are not trained in current teaching methodologies of bilingual education.

For this reason, Mauritania is now considering a reform which will change pre-service teacher training and will improve teacher education programs. The focus will be to train fully bilingual teachers and instruct them in bilingual education methods. Teacher education colleges are also looking in creating partnerships with teacher colleges and universities which specialize in bilingual education in other countries. In addition, they are thinking of providing very intensive in-service teacher training for a number of consecutive years and teachers who participate in the training will have to pass examinations at the end of the training. Another strategy thought to increase the number of teachers who speak French, is to allow university graduates (from other disciplines) to enroll to teacher education programs taking an entry examination.

It is believed that there are two main factors which have contributed to the decline in student learning: (1) the lack of bilingual and well-trained teachers and (2) the introduction of two new systems at the same time, the bilingual education reform and L' Approache par les Competences. Although the situation of bilingual education in Mauritania is not good at the present time, they are determined to invest heavily in teacher training and take all measures to make it work. What is important to consider, in Mauritania, is that due to the linguistic diversity and the politics of language (the Blacks speak mainly French and the Whites mainly Arabic) bilingual education seems to be the only option the educational system has in order to promote national unity.

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
Multi-ethnic and multi-tribal society. The Black population speaks mainly French and the White population speaks mainly Arabic.	Arabic and French are considered important to master.	Bilingual education reform calls for instruction in both Arabic and French.	The example of Mauritania is important with respect not only to the principles and structure of the educational reform but also to the way it was thought to be implemented in two phases: the foundation and the expansion phase. Mauritania can also serve as an example to Madagascar because it clearly illustrates that bilingual education is difficult to succeed when it not spoken by a significant share of the population. In addition, it requires heavy financial investment not only on instructional materials but mainly on teacher training in two languages and on bilingual education methods.

Table 17: The Mauritania experience

Benin

Benin is a country of 4.5 million people. More than half of the population speaks Fon. Other major languages spoken are Yoruba, Mina, Bariba, and Dendi while above 40 more languages are spoken by the people of Benin in the five departments of the country (Atlantic, Atakora, Borgu, Mono, and Oueme departments). French is the official language of the country. Benin gained its independence from France in 1960 and since then, it has been undergoing educational reforms to meet the socio-political and economic needs of its people. The 1990 Amendment to the Constitution, called for compulsory primary education.

In Benin, formal education is provided through public and private institutions and schools, some owned by religious groups. The regulatory agency of the education in Benin is the Ministry of National Education and Scientific Research. All schools have the same core curriculum and examination requirements. From grade one, the language of instruction is French. English is taught as a foreign language in secondary schools. The acquisition of both languages French and English is considered very important for the economic integration of the country in its geopolitical area (Fanou, n.d). In some private preschools French and English are used as languages of instruction. Primary education is divided into three (two-year) levels: preparatory (grades one and two), elementary (grades three and four), and middle classes (grades five and six). Secondary school is seven years and it is divided into two cycles: the first four years (first cycle) and the last three years (second cycle).

Despite the great efforts for teacher training and the development of instructional materials, only less than 10% of the students are fluent in oral and written French and many are the students who are at risk for school failure and drop out. Classroom observations revealed that teachers tend to neglect those students who do not speak French and they only concentrate on the brightest students. In addition, the class size is very large with a mean of 62 in the observed schools and it is very hard for a single teacher to give individual attention to students. In addition, inadequate allocation of funding in education, teachers' strikes for higher salaries and poor infrastructure also contribute to the problem.

An interesting research study was conducted (Chrysostome, 2000) in Benin to explore ways of teaching foreign language (French) by integrating Benin culture and French grammar in the same lesson. The results indicated that cultural conversations emerge when the teacher asks cognitive and comprehension questions to examine students understanding and critical thinking (Chrysostome, 2000). In this case, the implications for structuring foreign language teaching to children who study in a lingua franca different from their native language are worthwhile to examine. This approach, may present a very good way to teach both the foreign language and cultural heritage at the same time while places value on the native culture and traditions.

Since French is the only language of instruction, the implications for educating Benin's children hold very negative consequences: children are more likely to drop out of school or their parents to enroll them in private schools. Children who stay in public schools are being promoted to higher grades often without having mastered grade level knowledge and as a result, they are at a great risk for school failure. The educational system is poorly financed and therefore, it is hard to retain good teachers. Among other recommendations,

teacher re-training and support from the school administration as well as the development of a national network of school models/laboratories are considered to be of urgency and of crucial importance (Tesar, Lee, Lewis, Alimasi, & Van Antwerp, 2003).

Lessons Learned

Educational Issue	Goal of Bilingual Education	Language Teaching Approach	Relevance to Madagascar
More than 40 languages are spoken. French has been chosen as the common language of communication.	Children must master French. English is also considered important.	French is the language of instruction in schools and it is introduced from grade one.	Despite the efforts for teacher training and the development of instructional materials, the problems of high grade repetition and drop out rates as well as low competence in French by the majority of the student population still remain. One of the issues is that children who speak another mother tongue are instructed directly from grade one, in a foreign language (French). Other issues include big class sizes and difficulties retaining good teachers.

Table 18: The Benin experience

PART V: RECOMMENDATIONS FOR EDUCATIONAL POLICY IN MADAGASCAR

The examination of the various bilingual education programs in several world countries with diverse national histories indicates that these programs are very similar in many respects and yet each one of them is absolutely unique and different. Even in the same country, the same region or even more the same town, it is very difficult to find two exactly identical bilingual programs. Because of that, it makes it very difficult to evaluate bilingual education programs and that's one of the reasons that there is a discrepancy in research findings regarding the outcomes of bilingual education. Good examples of this discrepancy are the Rossel and Baker's (1996) and the Greene's (1998) studies which both examined some of the same programs and revealed different outcomes.

A very important consideration in planning bilingual programs is the national, historical, geographical, and socio-political context in which the programs will be implemented. A bilingual program should not be imported from other countries but be tailored to the needs of the each particular nation. The role of each language (the mother tongue and the lingua franca) should not be "displacive" but rather "facilitative" (Banda, 2000). A comprehensive bilingual program must consider not only the language educational policy but the attitudes and preferences of the students, parents, and community, as well as the educational and socio-economic factors of the country (Banda, 2000).

Malagasy policy makers and educational planners should take in consideration the above and plan an educational system tailored to the country's reality and to the needs of the population. It is imperative that if French continues to be the language of instruction in all or some educational subjects to the detriment of the Malagasy language, the educational system will continue to suffer. However, if the goal for teaching French is to master a second language, based on the principle of additive bilingualism, it can contribute to the advancement of the education of Malagasy children.

Description of the Current Educational System and Language Policy in Madagascar

The linguistic situation in Madagascar is very unique and deserves special attention. In accordance to the constitution there is only one national language (Malagasy) and it is the main language of all the 18 tribal communities. However, the language on instruction in the schools and in higher education remains the colonial language (French). The Malagasy language has several linguistic varieties deriving from the family of the Austronesian languages, however, these varieties have very similar characteristics including a common syntax. Therefore, communication among the peoples who speak these Malagasy language varieties is easily facilitated (Ministry of National Education and Scientific Research (MENRS), 2005; Marlow-Ferguson, 2001).

In the early 1900s, schools operated in Madagascar and in 1882 approximately 146,000 students were attending public schools with the exception of private schools which they operated in Malagasy and English. However, from the early 20th century, due to coloniza-

tion, French became the language of instruction in schools and it was maintained as such until 1972. In 1973, and for about 20 years, the public education system operated in the Malagasy language. As a result of the Malagachization of the public schools, many private schools which emphasized French instruction were founded and today, private schools account for about 20% of the total number of schools in Madagascar. In 1992, French was reintroduced in the public schools as the medium of instruction initially for science beginning from the first year of secondary school and then expanded to the primary education levels.

Although the linguistic reality is very essential to the growth and development of a country with respect to the economy, society, and education, Madagascar has not defined clearly so far its linguistic policy at a national level. The languages used in Madagascar are mainly Malagasy and French and to a small extent English. Specifically, only 0.57% of the population in Madagascar uses mainly French as a language of communication while 15.82% of the population uses French occasionally and Malagasy at all other times, and 83.61% of the population uses only Malagasy (Dahl, Andriamanantenasa, Rabenoro, Rafam'Andrianjafy, Rahanivoson, & Rajaonarivo, 2005)

Today, the Malagasy educational system is divided into elementary, secondary, adult, and higher education levels (Marlow-Ferguson, 2001). The educational institutions have "adopted French curricula, structures, standards, and philosophical operational outlook" (World Education Encyclopedia, 2001, pg. 840). In particular, in the year 2003, primary education in Madagascar was offered for five years, secondary education for seven years, and overall compulsory schooling for nine years (The World Bank Education Statistics, 2005). The ratio of students to teachers in both the primary and the secondary levels varies among cities and provinces and it is influenced by economic and cultural factors (such as the reinforcement or discouragement for school attendance especially for girls due to parental or cultural attitudes) within specific cities and provinces (Marlow-Ferguson, 2001). Although in Madagascar the primary enrollment rates have increased in the recent years to 82%, only 39% of the student population complete primary education and the country has one of the highest repetition rates in the world with about 30% of the children to repeat a class (UNICEF, n.d).

Most Malagasy students who complete primary school are occupied in the rural sector and secondary graduates mainly follow technical and vocational careers, very few are the ones who are fluent in French and can graduate from colleges and universities following careers in medicine, law, education, business, and other academic disciplines (Marlow-Ferguson, 2001). The fact that the education system still rewards those who are fluent in the French language in a country where the vast majority of the population speak only the national language which is Malagasy, places the country's youth in an extremely disadvantaged position for future growth and professional advancement. This is evident by the fact that approximately 90% of the first year university students are denied entry into the second year of higher education studies (US Library of Congress, 1994).

With respect to the issue of language of instruction, today in Madagascar, the first two years of primary education (CP) use as the medium of instruction Malagasy while French is introduced as a subject of training (oral in CP1, and oral examination and written in CP2). In the third year of primary school (CE) Malagasy becomes a subject taught 6 hours a week and remains the medium of instruction in Civic Education, History of

Madagascar, Hygiene, Esthetic Education, and Productive Activities, while French is the medium of instruction in Mathematics, Geography, and the Sciences and remains the medium of instruction at a university level with the exception of the “fundamental matters” in the foreign language university programs (MENRS, 2005).

(The table below has been adopted with English translation from the MENRS Terms of Reference, DRAFT, November 30, 2005 of the “REDEFINITION DE LA POLITIQUE LINGUISTIQUE DANS LE SYSTEME EDUCATIF A MADAGASCAR.”)

Level	Year	Classes		Malagasy	French	English
EF1	1	11 th	CP1	Language of Instruction: <i>Language Arts Reading, Writing Math, EPS</i>	Subject of Instruction: <i>Oral Language 5 hours per week</i>	
	2	10 th	CP2	Language of Instruction: <i>Language Arts Reading, Writing Math, EPS</i>	Subject of Instruction: <i>Oral Language and written 6 hours per week</i>	
	3	9 th	CE	Subject of Instruction: (6 hours per week)	Subject of Instruction (5 hours per week) and language of instruction <i>for all the scientific disciplines</i> (8 hours per week): <i>calculus, general knowledge geography</i>	Subject of Instruction: <i>(2 hours per week)</i>
	4	8 th	CM1	Language of Instruction: <i>Moral Education, Civic Education, Hygiene History of Madagascar Esthetic Education Productive Activities</i>		
	5	7 th	CM2			
EF2	6 7 8 9	6 th to 3 rd COB and COr		Subject of Instruction	Language of Instruction <i>for all the disciplines except for the Malagasy Language</i>	Subject of Instruction: <i>42 hours per week)</i>
Lycée	10 11 12	2 nd to Final		Subject of Instruction	Language of Instruction <i>for all the disciplines except for the Malagasy Language</i>	Subject of Instruction

Table 19: The Current Malagasy Educational System.

Evaluation of the Current Educational System and Language Policy in Madagascar

Among other issues emerging from such an educational formula, there is a serious concern regarding the competence of the teachers in French. According to the MENRS Terms of Reference- Draft (November 30, 2005), this outcome is evident through an examination of the results of the “Test of Competences in French (TCF),” which establishes four diagnostic criteria in written and oral comprehension and production in French with respect to the European Standards. In addition to that, the studies (PASEC) examining the students’ competency in oral and written French have revealed the same results indicating very low average scores in 2004.

The great majority of the student population in Madagascar is not able to practice their French skills in real life situations and in every day communication. In rural and remote areas especially, French is only utilized in schools and the methods of instruction are also questionable (Dahl, et. al., 2005). Often teachers use the Malagasy language to teach French due to their low competence in French and although the medium of instruction in the upper primary and secondary grades is French “on paper,” in reality, the medium of instruction remains oral Malagasy. This has tremendous negative implications on students’ learning because it creates a constant confusion between the two languages while it does not promote proficiency neither in French nor in Malagasy.

In collaboration with the Embassy of Norway, the Ministry for National Education and Scientific Research (MENRS) of Madagascar, brought together a group of experts called the Task Force (TF) with the goal to assist the Malagasy government in examining issues related to the educational system and in particular to the language of instruction in schools and ultimately redefine the linguistic policy in the Malagasy educational system. The TF worked from October 17 to October 28, 2005 in Antananarivo and visited primary schools in Antananarivo and other regions in Toamasina (Dahl, et. al. 2005).

Following, are the main observations of the TF with respect to the linguistic policy in Madagascar: (1) The MENRS bases all efforts and studies regarding the development of a linguistic policy in Madagascar on the belief that the educational system must offer not just education for all but also education quality for all. (2) A good mastery of the mother tongue (in this case the Malagasy language) facilitates successful learning of foreign languages. (3) Instruction in the mother tongue does not prevent children from learning other foreign languages and from teaching them intercultural understanding and communication skills. (4) It is important for the people of Madagascar to have proficiency in at least one foreign language in order to fully participate in a global economy. However, the low competency of teachers in French and the weak instructional methodologies makes French language proficiency very difficult for the Malagasy students, especially in a socio-cultural environment which does not lend itself to practicing a foreign language. (5) Malagasy and French as languages and cultures are not given equal value in schools. French language and culture is perceived to be superior to the detriment of the Malagasy language and cultural values. In addition, because Malagasy is usually acquired in informal ways, very few teachers have good command of the written Malagasy language. (6) In observing classrooms, it is evident that teachers mainly instruct in Malagasy using Malagasy language varieties (vernacular language) and not the standard Malagasy language and it appears that teachers do not have mastery of the standard Malagasy language in its oral and written form. (7) French and often English skills are required for employment purposes and being educated in Malagasy is considered to be a handicap. Therefore, there is a belief that mastering French and speaking English will be the solution to the issue of unemployment. (8) Although the English language is essential for international trade and cooperation, the knowledge of English is very limited among the Malagasy population. (9) The disciplines known as disciplines in scientific matter are taught in French whereas civics, health, and history are taught in Malagasy. This distinction appears to be discriminatory in the sense that the Malagasy disciplines are being denied as having a non-scientific character (Dahl, et. al. 2005).

If Malagasy policy makers and educational planners consider to maintain the “status quo” in the educational system as an option, they have to take into account several factors:

- all the findings (1 through 9) from the observations of the TF which are presented in the above paragraph because these findings are consistent with what we know so far from educational theory and research
- the existing system is not successful and denies opportunity to education and professional development to the vast majority of the Malagasy children and consequently denies progress and prosperity to the entire nation
- teachers are not fluent in French and they do not know how to teach in bilingual programs so, if it were for the system to work, heavy investment on pre-service and in-service teacher training should take place as well as a reform of the teacher education colleges and universities (however, considering the Malagasy reality, this will require many years, a lot of effort and money and still positive results will not be guaranteed)
- children do not have any opportunity to speak French outside of the classroom and therefore, the French language is taught out of context and is not used in any context in children’s lives
- French is taught in the classroom using outdated instructional methods and by teachers who do not speak French well themselves (so there is absolutely no reinforcement of second language learning in and/or out of the classroom for children to advance their French skills)
- the current instructional materials are not children friendly and if the current situation remains new instructional materials should be developed, which means investing more money on a system that is not working
- the current educational system is based on the principle of subtractive bilingualism (viewing the Malagasy language as inferior comparing to French) and as examples from all over the world illustrate, this lies the foundation for academic risk and school drop-out and furthermore, it puts an entire nation in an extremely disadvantaged position setting the stage for decline and failure

Options for Educational Planning in Madagascar: Suggested Models

In deciding about which bilingual education model would be appropriate for educating the Malagasy children, all of the above factors need to be taken in consideration and not only. Other very important factors to be considered are the desired outcomes of the educational system. The educational system planners ought to ask the following questions before proceeding in any type of educational reform:

- (1) What are the goals we want to achieve in the education of our children?
- (2) Do we want them to master oral and written proficiency in their mother tongue?
- (3) Do we want them to be competent in all academic areas and in particular in Language Arts, Mathematics, Social Studies, Science, Art, Music, Physical Education, Computers, and all other areas of the curriculum?

(4) Do we want them to be monolingual, bilingual, trilingual, or multilingual and if so, what levels of competency do we want them to have in each language?

(5) Do we want them to experience feelings of self-efficacy and self-confidence? (6) Do we want them to choose career paths in higher and/or technical and/or vocational education that are fulfilling, productive, and contribute to the community?

(7) Do we want them to enter the adult world being proud of their inheritance, their education, and their skills?

(8) Do we want them to be competent to contribute in an economically growing society at a national and international level?

In reference to the curriculum, instructional materials and resources, and teacher training the educational planners of Madagascar should, among others, consider: (1) the already existed materials and the degree to which they are appropriate and to which extent they can be adopted and/or modified to meet students' needs; (2) the financial resources they have to produce new materials; the (4) financial resources they have to invest in in-service and pre-service teacher training; and (4) the time constraints they have. The above and many more can be some guiding considerations, very crucial to the development of a good educational plan.

Below, three different educational models are presented. These models differ significantly with respect to: the level of bilingualism and/or trilingualism they promote; their effect on higher education programs; the educational resources and instructional materials they require; and their effect on educational and national language policy.

On the other hand, the suggested bilingual models are very much alike because all three recommended models are based on: second language acquisition theory; bilingual education research at an international level; the principle of additive bilingualism; the importance of the mother tongue in a child's educational attainment, psychological health, and social participation; the crucial importance of effective teacher training; the promotion of research- and theory-based educational practices and student assessment; and the invaluable contribution of the parents and the community in children's education.

The suggested models do not make reference to the educational needs of children with disabilities. For these children, additional programs must be developed as well as educational strategies in order to successfully educate them in the regular schools together with non-disable peers practicing the humanistic and pedagogical principles of inclusion. For children with disabilities, it is imperative to create additional support systems in schools in order to avoid the risks for grade repetition and school drop-out. Furthermore, additional studies must be conducted to suggest programs for children with special needs in Madagascar.

In addition, Preschool Education is not addressed in these models. Taking in consideration the findings from educational theory and research regarding the importance of education in the mother tongue in early childhood and the primary grades of schooling as well as the nature of Preschool Education which requires a very close relationship between home and school, it is strongly recommended that all Preschool Education in the public sector take place in Malagasy which is the home language of the children.

The models below present suggestions for all the current school subjects in the arts, the humanities, and the sciences. Computers education is a subject which is not addressed in this study. However, depending on resources and funds' availability, it is suggested that Computers instruction begins (as a first phase of implementation) in secondary school. The language of instruction for computers will be determined by the educational planners depending on the technology language they prefer to utilize in Madagascar (Malagasy, French, or English).

Option I: Two-Way Bilingual Education (Malagasy/French)

This option suggests two-way bilingual education beginning in the first grade of school and continuing through 12th grade. The goal of this approach is to develop full bilingualism (Malagasy/French) in children and to introduce a third language (English). The main characteristic of this approach is *language consistency* throughout the primary and secondary grades (students will not have to switch from Malagasy to French or vice versa). Therefore, there will be no drawbacks in teaching and learning. The children will be able to build new knowledge based on what they already know and extend their academic language further. In addition, this approach is clearly based on the principle of additive bilingualism since it does not emphasize one language (French) versus the other (Malagasy). The curriculum subjects are split into both languages. Higher education should reflect the same principle.

With respect to the issue of language of instruction, the first year of primary education (CP1) will use as the medium of instruction Malagasy while French will be introduced as a subject of training. Malagasy Language Arts (reading and writing) will be taught while French will be taught only as an oral subject. The reason it is suggested that French script should not be introduced in grade one (at the same time with Malagasy script) is because the two alphabets are very similar and may confuse the children (see the example of Vietnam). In addition, having already learned how to read and write in Malagasy, children will be able to transfer their literacy skills to the second language. This is based on research findings and Cummins' Interdependence Hypothesis that children are able to transfer skills from one language to the other. Mathematics will be taught in French.

In the second grade (CP2), French script will be introduced. Math will continue in French. Malagasy Language Arts (reading and writing) will also continue. In the third year of primary school (CE) Malagasy Language Arts will continue and will be the medium of instruction in Civic Education, History of Madagascar, Hygiene, Esthetic Education, and Productive Activities. French Language Arts will also continue and French will be the medium of instruction in Mathematics, Geography, and the Sciences. English will be introduced in grade six and will be taught for 3 hours per week.

In secondary education, Language Arts will continue both in Malagasy and French. The Arts and the Humanities will continue in Malagasy and Math and the Sciences in French. English will be taught as a subject throughout secondary school for 3 hours per week.

In higher education Malagasy will be the medium of instruction in the Arts and the Humanities and French will be the medium of instruction in the Sciences with the exception of the "fundamental matters" in the foreign language university programs. The suggested option is presented in Table 20. The tables used for the presentation of the suggested op-

tions, have been adopted from the MENRS Terms of Reference, DRAFT, November 30, 2005 of the “Redéfinition de la Politique Linguistique dans le Système Éducatif à Madagascar”).

Level	Year	Classes		Malagasy	French	English
EF1	1	11th	CP1	Language of Instruction: <i>Language Arts, Reading, Writing, EPS</i>	Subject of Instruction: <i>Oral Language 5 hours per week, Math</i>	
	2	10th	CP2	Language of Instruction: <i>Language Arts, Reading, Writing, EPS</i>	Subject of Instruction: <i>Language Arts, Reading Writing, Math</i>	
	3	9th	CE	Language of Instruction: <i>Language Arts, Moral Education Civic Education, Hygiene History of Madagascar Esthetic Education Productive Activities</i>	Language of instruction for <i>Language Arts and all the scientific disciplines: calculus general knowledge geography</i>	
	4	8th	CM1			
	5	7th	CM2			
EF2	6 7 8 9	6 th to 3 rd COb and COr		Language of Instruction: <i>Language Arts And all the disciplines in the Arts and Humanities</i>	Language of Instruction: <i>Language Arts Math and all the disciplines in the Sciences</i>	Subject of Instruction: (3 hours per week)
Lycée	10 11 12	2 nd to Final		Language of Instruction: <i>Language Arts And all the disciplines in the Arts and Humanities.</i>	Language of Instruction: <i>Language Arts, Math and all the disciplines in the Sciences</i>	Subject of Instruction: (3 hours per week)

Table 20: Option I, Two-Way Bilingual Education

If Option I is chosen and French is kept as one of the languages of instruction in primary and secondary schools and in higher education, some of the already existed materials and resources will still be applicable for use. However, additional materials will still need to be developed.

Regarding the Teacher Education University programs, there need to be two different streams. The first stream (the Malagasy Teacher Education Program) would focus its attention on Malagasy Language Arts, the Arts and the Humanities while French will be taught as a mandatory subject and English as an elective. The second one (the French Teacher Education Program) will focus on French Language Arts, Math, and Science, while Malagasy will be a mandatory and English an elective subject. Both Teacher Education streams must offer courses on modern instructional methodologies and on the principles and practices of bilingual education. Teachers who teach English as a third language should have a degree in English language and also have taken courses on principles and practices of bilingual education and on modern instructional methodologies, and pedagogy.

In addition to the pre-service teacher education, very intense and long-term in-service teacher education will be necessary. Both, the pre-service and in-service teacher training will require a heavy financial investment, a very long period of time, and a lot of dedication from all stakeholders (teachers, students, parents, political forces, and the government) to be successful. However, strong dedication without great motivation is very difficult to occur. And in the case of Madagascar, teachers and students have very few reasons to be motivated to teach and learn in a language (French) that they do not understand

and they do not use in their every day life and which has long been associated with the denial of opportunity to the people of Madagascar.

Option II: Late-Exit Transitional Bilingual Education (Malagasy/French)

This option suggests a Late-Exit transitional bilingual education model beginning in the second grade of primary school and continuing through grade seven. The goal of this approach is to develop in children bilingualism (Malagasy/French), to introduce a third language (English), and to prepare students for University entrance when in higher education the medium of instruction is the French language. The main characteristic of this approach is: the *gradual introduction to French while Malagasy language is taught throughout all school grades*. This approach is aligned with the principle of additive bilingualism because it gives a special emphasis on the Malagasy language and culture which are highly regarded in the school curriculum.

In grades one and two (CP1 and CP2) Language Arts (reading and writing) and Math will be taught in Malagasy. In grade two, French will be introduced as an oral subject 5 hours per week. In grades three and four, French reading and writing will be taught (5 hours per week). All other subjects will be in Malagasy. In grade five, Math will switch to French while all the other subjects will still be in Malagasy. In grade six, in addition to Math and French Language, the medium of instruction in Civic Education, Hygiene, Esthetic Education, and Productive Activities will switch to French. And in grade seven, all sciences will switch to French as well. At this point Malagasy will be taught only as a subject. English will be introduced as a subject in grade six and will continue through grade 12 for 3 hours per week. In all grades of secondary and upper secondary school, Malagasy Language Arts will continue. However, all curriculum subjects will be offered in French. Higher education will be offered in French.

This gradual transition from the first to the second language aims to support students and promote their cognitive development and academic achievement in the content areas of the curriculum in all school grades while they are trying to master two languages. The model is student-centered and regards highly their native language and culture (Malagasy). The model is consistent with Cummins' findings about the BICS and CALP, which states that BICS takes 1-2 years to develop while CALP 5-7 years.

With respect to educational materials, if Option II is chosen, and since French will be kept as one of the languages of instruction in primary and secondary schools and in higher education, some of the already existed materials and resources will be applicable for use. However, additional materials need to be developed.

Regarding the Teacher Education University programs, all teachers will have to study in French and take Malagasy as a mandatory subject. In addition, primary school teachers must receive special training to be able to teach primary school subjects in the sciences and the humanities in Malagasy (during the transitional period from Malagasy to French). Teachers must be trained on the principles and practices of bilingual education and on modern instructional methodologies, and pedagogy. All higher education programs will use as medium of instruction the French language while they will offer Malagasy as a mandatory subject and English as an elective. Some university programs may require English as a mandatory subject as well.

Level	Year	Classes		Malagasy	French	English
EF1	1	11 th	CP1	Language of Instruction: <i>Language Arts Reading, Writing, Math, EPS</i>	<i>Not offered</i>	
	2	10 th	CP2	Language of Instruction: <i>Language Arts, Reading, Writing, Math, EPS</i>	Subject of Instruction: <i>Oral Language 5 hours per week</i>	
	3,4,5	9 th , 8 th , and 7 th	CE, CM1, and CM2	Language of Instruction: <i>Language Arts, Moral Education, Civic Education, Hygiene, History of Madagascar, Esthetic Education, Productive Activities, Math, General Knowledge, Geography</i>	Language of instruction for <i>Language Arts (reading and writing)</i>	
EF2	6	6 th to 3 rd COB and COr		Language of Instruction: <i>Language Arts, General Knowledge, Geography</i>	Language of Instruction: <i>Language Arts, Math, Moral Education, Civic Education, Hygiene, History of Madagascar, Esthetic Education, Productive Activities</i>	Subject of Instruction: <i>(3 hours per week)</i>
	7			Language of Instruction: <i>Language Arts</i>	Language of Instruction: <i>Language Arts, Math, Moral Education, Civic Education, Hygiene, History of Madagascar, Esthetic Education, Productive Activities, General Knowledge, Geography</i>	
	8 9			Language of Instruction: <i>Language Arts</i>	Language of Instruction: <i>Language Arts and all the subjects of the curriculum</i>	Subject of Instruction <i>(3 hours per week)</i>
Lycée	10 11 12	2 nd to Final				

Table 21: Option II, Late-Exit Transitional Bilingual Education

This approach, like Option I, also requires heavy investment on teacher training. It maintains the status quo in reference to higher education. However, it is very difficult to justify the rationale for choosing such an option since only a minimal percentage of the population (0.57%) use only French in Madagascar. It would seem that the educational system of the country adheres to the needs of the 0.57% and forgets about the needs of the 99.43% of the population. Options like the above are usually chosen by countries which have many linguistic minorities and because of the too many languages spoken, they need to adopt a lingua franca for the school and this is not the situation in Madagascar.

Option III: Instruction in Malagasy with French and English as Subjects

This option suggests that Malagasy will be the medium of instruction in all grades and in all subjects in primary and secondary education. Students will be taught French as a second language and English as a third. French will be introduced as an oral subject in grade one and will continue as an oral subject in grade two (5 hours per week, in grades one and two). From grade three and up to grade 12, oral and written French will be taught as a subject for 5 hours per week. English will be introduced as a subject (oral and written) in grade eight and will be taught in all secondary grades for 3 hours per week. Below a description of this option is presented in Table 22 below.

If Options III is selected, only few of the current instructional materials will be applicable to be utilized and new materials will need to be developed for the primary, secondary, and tertiary education levels. The investment in teaching materials will be heavy. However, regardless of the option selected (and unless the educational system remains unchangeable), a great investment in instructional materials will be made anyway. The advantages of this option are:

- these materials will be more likely to lead to a successful educational system because they will be developed in the native language of the students and teachers and
- if later the Malagasy policy makers decide to switch the order and intensity in which they offer foreign languages and go from French to English, all of educational materials for all the subjects of the curriculum will be good to utilize. Therefore, another investment will not be necessary.

Teacher education programs will prepare teachers to teach all subjects in Malagasy and will offer courses in teaching methodologies and foreign languages. The teachers who will be teaching French and English language will be graduates of university programs in French and English and will also have training on instructional methodology, educational theory, bilingual education theory, and pedagogy. The implications of this option for in-service and pre-service teacher training are very positive. Teachers already speak Malagasy and all they will need is to be trained in good instructional practices and current pedagogical approaches. The effectiveness of the teachers will rise because they will teach in a language they speak and understand and it will be easier to recruit and retain good teachers.

All university programs will be taught in Malagasy while English and French will be offered as foreign languages. This has tremendous positive implications for the entire nation: all Malagasy youth will have access to university education and it will no longer be the privilege of a small elite. In addition, university graduates will be prepared to better serve their community in a language that all people understand (ie. medical doctors will be able to serve their communities using Malagasy medical terms which will be better understood by all people).

Level	Year	Classes		Malagasy	French	English	
EF1	1	11th	CP1	Language of Instruction: <i>Language Arts, Reading, Writing, Math, EPS</i>	Subject of Instruction: <i>Oral Language 5 hours per week</i>		
	2	10th	CP2	Language of Instruction: <i>Language Arts, Reading, Writing, Math, EPS</i>	Subject of Instruction: <i>Oral Language 5 hours per week</i>		
	3	9th	CE	Language of Instruction: <i>For all the subjects of the curriculum</i>	Subject of Instruction: <i>Oral and Written Language 5 hours per week</i>		
	4	8th	CM1				
	5	7th	CM2				
EF2	6	6 th to		Language of Instruction: <i>For all the subjects of the curriculum</i>	Subject of Instruction: <i>Oral and Written Language 5 hours per week</i>		
	7	3rd COb		Language of Instruction: <i>For all the subjects of the curriculum</i>	Subject of Instruction: <i>Oral and Written Language 5 hours per week</i>		
	8 9	and COr			Subject of Instruction <i>(3 hours per week)</i>		
Lycée	10 11 12	2 nd to Final		Language of Instruction: <i>For all the subjects of the curriculum</i>	Subject of Instruction: <i>Oral and Written Language 5 hours per week</i>	Subject of Instruction <i>(3 hours per week)</i>	

Table 22: Option III, Instruction in Malagasy with French and English as Subjects

The benefits of this option for education of Malagasy children are countless. It is not only aligned with educational theory and research but also with the principles of democracy, equity, access to education, and human rights.

Summary Table: Educational Options

Implications	Option I	Option II	Option III	Current System
Language of Instruction	Two-Way Bilingual Education (Malagasy/French) in all elementary and secondary grades	Transitional Bilingual Education (Late-Exit Bilingual Program) start with all Malagasy, end with all French	Instruction in Malagasy with Foreign Languages as Subjects (French/English)	Transitional Bilingual Program (Early-Exit) start with all Malagasy and with all French
Instructional Materials	Some of the already existed materials and resources may be used. Additional materials need to be developed. New materials will be developed for many programs in higher education.	Some of the already existed materials and resources may be used. Additional materials need to be developed. No materials need to be developed for higher education.	Few of the already existed materials and resources may be used. Additional materials need to be developed. New materials will be developed in higher education for all programs.	Most of the already existed materials and resources may be used in primary, secondary, and higher education. Additional materials must be developed.
Teacher Training	Two streams of teacher education university programs: Malagasy and French. Very heavy investment for in-service and pre-service teacher training in French with few possibilities for program success.	One type of teacher education university program: French with Malagasy as a subject. Very heavy investment for in-service and pre-service teacher training in French with few possibilities for program success.	One type of teacher education university program: All in Malagasy. Separate programs for foreign language teachers (French/English). Teacher colleges will undergo total reform: teach Malagasy and train in current teaching practices. Worthwhile investment because the possibilities of this option for success are great.	Maintain the status quo in teacher education programs to some extent but invest heavily for in-service and pre-service teacher training in French. This option has not been working and the possibilities of future success are minimal because it is and Early-Exit model based on subtractive bilingualism.
Higher Education	In the Humanities will use Malagasy and in the sciences will use French as their medium of instruction. English will be an elective.	University programs will use as medium of instruction the French language. Malagasy will be a mandatory and English an elective subject.	Total higher education reform: All university programs will be taught in Malagasy and English and French will be offered as foreign languages. It is a worthwhile investment because it invests in the educational and professional success of all Malagasy youth. This investment will have great returns for the country.	Maintain the status quo for all higher education programs and use French as a medium of instruction. This system has been consistently failing, it puts the future of the country at great risk, and it is not recommended.

Table 23: Comparison of suggested options

Options Presented: Evaluation

Every educational reform and adaptation of new educational programs results in changes in the curriculum, instructional materials and educational resources, pre-service and in-service teachers' training, student learning, assessment and evaluation, and parent involvement. It is imperative to mention that choosing the appropriate educational materials is of great importance but without good teacher training even the best educational materials can become ineffective and useless.

(1) The above options for educational reform, do not aim to provide an easy solution to a very complex issue. They serve as examples and provide a rationale based on what we know to date about how children learn and about bilingual education theory and practice. All presented options (except for the current system) suggest instruction in the mother tongue (Malagasy) based on the principle of additive bilingualism and the implementation of research- and theory-based education practices. It has been proven that when children are educated in their mother tongue in good bilingual programs, the grade repetition and the drop-out rates decrease while the achievement rates increase.

(2) The current educational system is not recommended for several reasons. It has been proven unsuccessful for years because it teaches in a language that neither the teachers nor the students speak and understand and it denies Malagasy children equity and access to education especially in higher education. Even with a heavy investment on teacher training, this system will not be successful because it is an Early-Exit Bilingual Model and in addition, the French language is not spoken in the homes and the community of children. According to research findings and language learning theory Early-Exit Bilingual programs are not recommended because children cannot acquire academic language in two or three years.

(3) Options I and II (two-Way and Late-Exit Bilingual Programs) are based on educational theory and research and are aligned with the principle of additive bilingualism. However, they both require heavy investment on educational materials and especially on teacher training in French. To train all teachers adequately in French, it will require a long period of time. In addition, both options are difficult to justify because French is not spoken by the Malagasy people, so a simple question is raised: For whom is the educational system designed? Is it for the 99.43% of the Malagasy people or for the 0.57% of the population who mainly speak French?

(4) Of all options discussed, including the current educational system, the option which is strongly recommended is Option III: Instruction in Malagasy with French and English as Subjects. This option suggests all subjects to be taught in Malagasy and the teaching of two foreign languages in school; French and English. The French foreign language program is recommended to be more intensive because of the history of the country with the French language. However, if at a later stage Malagasy policy makers believe that an intensive English language program can be more beneficial, the switch from French to English can be easily done without significant extra costs.

It is very important to keep in mind that educational reform and change from the lingua franca to the mother tongue in the primary and secondary school (as Option III suggests)

will have significant impact on higher education, especially with respect to the language of instruction and instructional resources, materials, and faculty training. It may also face strong opponents among some higher education cycles who may prefer that lingua franca remain the colonial language. However, if choosing Malagasy as the language of instruction in all educational levels is the desirable choice for the Malagasy people, despite the obstacles, it is a feasible option and can be done successfully with careful planning.

It is suggested that educational reform in Madagascar with respect to planning and implementation should take place within a period of 10 years. The first two to three years should be the *Planning and Preparation Phase*. Prior to program implementation, educational planners should first engage in careful analysis and planning of all program components. The second phase, the *Implementation Phase* should begin the third or fourth year and should start small involving the early grades of primary school. A program should not be implemented if all of the components are not in place. This is the reason it is suggested that educational reform should begin with the primary grades and slowly build up throughout all grades while in the meantime ensuring availability of the necessary resources and program components. It is of crucial importance that during the Preparation and Implementation Phases data is religiously collected and constantly evaluated to ensure progress tracking and program success.

General Guidelines for Effective Pre-service and In-service Teacher Training

Regardless of the educational option chosen, effective teacher training involves the same theoretical and pedagogical principles. It is highly important that effective instructional practices which can be directly applicable in the classroom environment be taught explicitly to teachers. Certified teachers must be responsible and must be held accountable for their educational actions and practices. They must be trained not only to effectively teach diverse children but also to effectively collaborate with other teachers, administrators, and especially parents, and the community. The education of children cannot be anything else but a collaborative effort of the entire community if it is to be successful.

There have to be developed specific guidelines, criteria, requirements, standards, and professional dispositions which will be described explicitly and to which all teachers must adhere. An example of a set of principles to which US teachers must adhere is the Interstate New Teachers Assessment and Support Consortium (INTASC) Principles. These principles include knowledge and skills on the following: making content meaningful; child development and learning theory; learning styles/diversity; instructional strategies/problem solving; motivation and behavior; communication/knowledge; planning for instruction; assessment; professional growth/reflection; and interpersonal relationships (INTASC, 1992).

Teacher training programs must prepare teachers to include research-based and theory grounded effective instructional practices when educating children. Teachers must receive training in implementing various learning strategies in the classroom which allow students to be engaged in discovery learning, take ownership of their own learning and learn accordingly to their personal learning style. Authoritarian and traditional teaching methods in which the teacher is the information giver and the student is a passive learner/listener should be abandoned. Teachers must view students as active thinkers, explainers, interpreters, inquirers, individuals who take responsibility for their own learning and in general are active participants in the learning process. This way, the students process the information and turn it into knowledge.

Teachers must encourage group work, collaborative learning and allow multiple interpretations and expressions of learning; consider students' previous knowledge and cultural background; correct students misconceptions in time and provide time for reflection; and present authentic learning tasks. Teachers must incorporate cognitive, metacognitive, and socio-affective learning strategies in the classroom such as: *summarizing, classifying, sequencing, listing, grouping, resourcing, note-taking, elaboration on prior knowledge, deduction, induction, imagery, auditory representation, the use of graphic organizers, making inferences, questioning for clarification, cooperation, and self-talk* (Chamot & O'Malley, 1994).

Based on Vygotsky's ideas, in order for learning to occur, teachers must teach within the child's Zone of Proximal Development. Teaching should neither be too easy nor too difficult for the child. If the new information is too easy, the child does not maximize his/her learning potential and learning becomes uninteresting and boring. If the new knowledge is way above the child's ability to understand it and make connections with what he/she

already knows, then, learning becomes frustrating. It is imperative that the new knowledge presented by the teacher is challenging but not frustrating. With the support of the teacher and through appropriate teaching interventions, the child will be able to make associations and connections with what he/she already knows (which means that background knowledge related to the topic of instruction will be activated). This way, he/she will be able to “stretch” his/her mind to acquire new information in a meaningful and rewarding way.

Scaffolding, a teaching strategy widely used by second language teachers provides step by step support for learning and problem solving. *Scaffolding* eventually affords learners with the ability to solve problems on their own. Teaching must involve *scaffolding* while it provides support and *comprehensible input* to the student. Children must start from what they already know (background knowledge), learn through genuine and authentic experiences, and be given the opportunity to engage in inquiry based learning activities. Often, students who learn a second language are presented with drills and grammar exercises and are expected to memorize vocabulary and learn language out of context. These strategies are ineffective and should be replaced with authentic learning experiences where students are learning the second language within a meaningful context. Students can then transfer language skills learned in the classroom to the real world.

In Madagascar, teacher education should be strengthened to respond to the immediate need for the use of good effective educational practices. At a later stage, and if the resources are in place, educational planners may decide to expand the length of the teacher education programs and offer graduate and post graduate education degrees. However, at this point, this it is not a priority.

Professional development and training opportunities should be given to in-service teachers on a regular basis. It is very important that teacher training is conducted by skillful instructors in a meaningful way presenting not just theory but also suggestions for practical application in the classroom. Finally, teacher evaluation procedures which ensure respect, support, and fair treatment to teachers are crucial to the development of a good and positive morale of the education professionals which influences student learning. Financial incentives and professional development and support are also very important in educational program success. If Option III is chosen (Malagasy as the medium of instruction), with the above educational principles incorporated to pre-service and in-service teacher training in Malagasy, in a short period of time many teachers will be well-prepared to effectively teach Malagasy children.

Student assessment and evaluation

With respect to student assessment and evaluation, depending on the bilingual model selected, the language of assessment and the types and times of the various examinations may vary. However, what are proven by educational research to be standard good assessment practices must be followed at all times and regardless of the educational model chosen. Good assessment practices call for non-discriminatory student assessment and evaluation which follow a holistic approach to assessment: such as portfolio and authentic assessment and formative and summative assessments which consider and incorporate Multiple Intelligences and diverse learning styles. Assessment should be used as a tool to inform instruction and always be sensitive to students’ individual needs, linguistic barriers,

ers, abilities, and disabilities, and provide the necessary special accommodations when needed.

Parent involvement

Parent involvement and participation on children's educational attainment has been proven very beneficial. Lessons learned from other countries which have experienced the phenomenon of bilingualism indicate that often parents may be skeptical about bilingual education, they may insist that their child is instructed in the lingua franca and not in the mother tongue, and they may be very difficult to convince that their child can succeed educationally and professionally if he/she studies in the mother tongue.

However, the same findings indicate that when parents are involved in the school programs and management and see evidence that their children do better in school when instructed in the mother tongue, they eventually favor instruction in the mother tongue (i.e. the example of Guatemala). If Option III is selected (Malagasy only), parents will very soon experience the improvement in their children's education in all content areas and in foreign languages and will eventually embrace the new system.

Some ways to achieve active parent involvement in the schools may be through: the development of Parent-Teacher Associations (PTA) with regularly planned meetings and clearly stated goals and objectives; a small budget that the PTA will manage to take-care some needs of the school; parent training sessions; and after-school family activities.

Social and Political Implications

By examining the examples of the 14 countries presented in this report, the options of selecting a bilingual education model can be many and vary significantly. The difficulty does not lie in planning an educational program. The difficulty lies in planning an educational program based on strong theoretical foundations, on lessons learned from educational research, on a clear understanding of the educational needs of the target student population, and the socio-political needs of the people of the country.

Political decisions on education which are not based on educational theory and research may be convenient in short-term satisfying particular political and/or social groups but can be proven disastrous in the long run resulting in illiteracy, broken confidence, high numbers of individuals with no professional or technical skills, unemployment, poverty, poor health, and evidently weak economy.

Akkaki (1998) argues that that the debate on language of instruction and bilingualism is not a "strictly" linguistic issue but it is an issue with political and societal causes and that the implications and outcomes of this debate with respect to the implementation of language policy in schools can have enormous influence on student learning, achievement, and development. Bilingual education policy can either empower or disable students and societies. As Akkaki continues, some bilingual programs "may demonstrate meaningful sociocultural productivity" because "language is a political instrument in that it provides a means and proof of power...it is the most salient and crucial key to identity" (pgs. 11-12). He, therefore, distinguishes between "instrumental bilingualism" and "liberatory bilingualism" describing the first as "the continuance of the foreign language learning tradition without challenging the power relations in society" and the second as the type of bi-

lingualism which “includes using power of mastering several languages and/or dialects to seek cultural, social, economic, and political equality with the dominant group” (Akkaki, 1998, pg.12).

Based on an examination of the forces and variables contributing to the empowerment or disempowerment of the students and eventually the society as a whole, Akkaki (1998) suggests that the way to go in order to produce successful educational, societal, economical, and political outcomes is the way “towards critical bilingual education” (pg.15). He recommends that in order to renew our thinking about bilingual education, we need to move our focus away from the schools. Instead, we need to focus in four main “spheres”: “before school,” “in schools,” “out of school and “after school” (pg. 15). Communities and families are critical contributors and players in the three out of the four spheres listed above. Therefore, it is crucial to look “beyond school boundaries” if we want to develop successful bilingual programs. As Akkaki argues “the theoretical frameworks grounded in socio-cultural theory and critical pedagogy are useful strategies to think about new paradigms in bilingual education” (pg 15). When designing the educational program, Malagasy planners must consider Akkaki’s suggestion and include the families and communities’ in this effort. In order for school programs to be successful, they must reflect and be connected with the community they are designed for.

The socio-cultural theory stresses the interdependence between the individual and the society and how one is responsible for the development of the other while critical pedagogy is based on the belief that the ethical responsibility of the schools is to first empower the student as an individual and social being and second to ensure that he/she masters content knowledge and technical skills which are directly related to the job market (Akkaki, 1998). When Malagasy children do not have the opportunity to receive good education and develop educationally and professionally, the entire nation falls behind.

Akkaki concludes that in order to create successful bilingual programs which empower the students and the greater society, a deconstruction of “the hegemonic relationship among languages” needs to take place. Malagasy policy makers must realize that the “hegemonic” status of the French language disempowers Malagasy children and families and subsequently the entire nation.

He suggests a horizontal perspective on developing successful bilingual programs which takes in consideration the students, parents, teachers, community members, school leaders, and the society in general instead of the “vertical” perspective which aims the “refined production of elite” (pg.18). In Madagascar, so far, a “vertical” approach to bilingualism has been followed aiming the “refined production of Malagasy elite.”

Instead, a “horizontal” approach to bilingualism must be followed in Madagascar and the goals of quality of education for all, equity, equal access and opportunity, child development, educational attainment, elimination of illiteracy and poverty, investment on human capital, economic growth, and the common good should be guiding every effort for educational policy and reform.

Concluding Comments

The arguments about the great importance of the mother tongue in the development of children can be endless. What it is really important in a child’s life together with the edu-

cational attainment is the sense of safety, belonging, and self-worth. When children come to school at the age of 6, all they are and all they know are their *mother tongue* and their *family practices and traditions*. When they are told that what they know and who they are is of no worth and value, that it is inappropriate for school, that school uses a language and ways that are more worthy and superior than their home language and practices, and that the ways of the school are the ones which should be observed, followed, and respected, the children's entire world starts falling apart. The results of this phenomenon have been proven detrimental to children's cognitive and academic development and place children at high risk for school failure and drop out.

Taking in mind the above, Malagasy policy and decision makers need to think very carefully when planning and implementing educational reform. Educational programs must adhere to the theoretical foundations of bilingual education and the findings and lessons learned from the international bilingual research and other countries. They must consider the economic, social, and development needs of the country, the individual rights and the principles of equity, and access to quality of education for all.

In addition, successful educational reform should ensure the wise and proper allocation of funds; the adaptation and modification of existing instructional materials and the development of new materials and effective curriculum. It must ensure the development and delivery of effective teacher education programs for in-service and pre-service teachers focusing on current educational practices. It must allow opportunities for parent involvement and participation and the provision of incentives to all involved in the programs to ensure program support and enthusiastic implementation.

The administration and delivery of the programs should be implemented in a collaborative and respectful spirit among the community (parents, children, teachers, school administration, and the government). Finally, effective methods of data collection should be designed carefully in order to fully and accurately evaluate the outcomes. Educational policy and reform implementation with all the efforts and costs involved can go wasted without carefully planned procedures for data collection and program evaluation.

"Ny taranaka no vanona dia tao ireo mpanabe nitaiza sy nanolokolo,
tsy nitandro hasasarena"

(A better and intelligent generation would be the result of a good education
and an efficient management." Malagasy Proverb)

ANNEX 1

Glossary

Additive bilingualism	Bilingual education which values the native language and culture
First Language	Mother Tongue, native language
Foreign Language	A foreign language which is not the language of the school, it is not used widely in the community and it is learned for enrichment
Immersion Bilingual Education	The second language is the medium of instruction
Lingua Franca	Language used by people with different mother tongues for communication
Maintenance Bilingual Education	Instruction continues in the native language together with the second language
Second Language	Language learned after the first/native language. It is the language of the school and the language of the community and its acquisition is a necessity for full participation in professional and social life
Subtractive Bilingualism	Bilingual education where the student's native language and culture are viewed as inferior or of less value and importance
Transitional Bilingual Education	Offers native language instruction as a subject and/or as a medium of instruction and can be Early or Late Exit Transitional

ANNEX 2

Consultations

In preparing this report, the following professionals from the World Bank were consulted (names are presented in an alphabetical order):

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ANNEX 4

BILINGUAL EDUCATION: THEORETICAL PERSPECTIVES AND PRACTICAL APPLICATIONS

The theoretical perspectives and considerations underlying first and second language acquisition as well as the approaches and models of bilingual education and second language instruction are described in detail below. A brief summary of these theoretical perspectives is presented in the first section of this report.

Language and Language Structures

The word language is derived from the Latin word ‘lingua’ which means tongue. Language can be defined in many different ways depending on how it is being viewed. A general definition of language is that language is used for communication and is “an orderly combination of conventional symbols” (Lessow-Hurley, 2005, pg 28). According to Steven Pinker who chose to use the term “instinct” to describe language (1994, pg. 4),

“language is a complex, specialized skill, which develops in the child spontaneously, without conscious effort or formal instruction, is deployed without awareness of its underlying logic, is qualitatively the same in every individual, and is distinct from more general abilities to process information or behave intelligently” (pgs. 4-5).

Languages have been classified in different categories or varieties. The term *standard language* assumes that this particular form of the spoken and written language is the correct form of the language. However, as Lessow-Hurley (2005) states, “the term standard is elusive precisely because it has its roots in politics rather than in any basic truth about language” (pg. 35). *Dialects* are “variations of a language” (Lessow-Hurley, 2005, pg. 36), and are usually spoken by a particular group of people who reside in the same region. When individuals who speak different native languages do not know each other’s language but have to communicate in their everyday life, they create a mixture of language called a *pidgin*.

“Pidgins are choppy strings of words borrowed from the language of the colonizers or plantation owners, highly variable in order and with little in the way of grammar...[they sometimes]...can become a lingua franca and gradually increase in complexity over the decades, as in the ‘Pidgin English’ of the modern South Pacific” (Pinker, 1994, pg.20-21).

According to Pinker (2005), when children learn a pidgin from their caregivers, they add some form of grammar to it and create a new version of this language which is rich and complex and is called a *creole*. Different types of creole are spoken by millions of people around the world.

The study of language is examined from different perspectives in the field of linguistics and it requires an understanding of the various structures of language. Furthermore, dual language instruction and its implications for educating children can be better understood through the fields of: *linguistics* which is concerned with the structural aspects of lan-

guage; *comparative linguistics* which examines the variations in language with respect to geographical location; *historical linguistics* which examines the elements of languages across time; *psycholinguistics* which examines the ways language is acquired and processes in the mind; *sociolinguistics* which describes the role of language within a social and cultural context; *developmental linguistics*, which examines the stages of language acquisition and development in children; and *neurolinguistics*, which is the study of the functions of the brain in language acquisition (Lessow-Hurley, 2005; McLaughlin, 1998). Language has *linguistic* (such as phonology) and *paralinguistic* (such as movement, proximity, and gestures) features.

The five major language structures are: phonology, morphology, syntax, semantics, and pragmatics. *Phonology* is the sound system of the language and phonemes are the smallest possible units of sound (for example, the sound /d/). What makes phonemes important is the fact that they allow the speaker to manipulate them in ways that new words can be created. For example, a simple change in the last phoneme (/d/) of the word 'bed' to the phoneme (/g/) changes the meaning of the word from 'bed' to 'beg' (McLaughlin, 1998).

Morphology is concerned with the ways the words are built and morphemes are the smallest meaningful units of language such as whole words or parts of words (for example, the word 'bed' cannot be broken to smaller meaningful units, since the isolated sound /b/ has no meaning by itself) (McLaughlin, 1998).

Syntax is concerned with the way sentences are structured in order to make sense and have a meaning and it provides specific rules for putting words in a certain sequence within a sentence. It dictates different word sequencing depending on the sentence type we want to construct. A declarative sentence, for example, 'The boy is playing with his toy' has different sequence from an interrogative sentence which forms a question 'Is the boy playing with his toy?' and different from a negative sentence, and so on and so forth. Syntax is different from the *grammar* of the language which refers to the conventional rules of the language (McLaughlin, 1998).

Semantics deals with the meaning of words, which help us organize our perceptions and categorize objects, ideas, and experiences. So, for example, the word 'desk' means this particular piece of furniture which we use to write and study on whereas 'table' refers to the piece of furniture that has more uses (to study, write, eat, work, etc).

Pragmatics deals with the use of the language in social contexts, and it is culturally and socially derived and evaluated (Lessow-Hurley, 2005; McLaughlin, 1998). Therefore, a particular way of expression and communication may be perfectly appropriate in one culture or society and totally inappropriate in another. A good example is the one of Asian immigrant children who live in the United States and visit their home countries. Often, when they try to communicate with their grandparents just by simply translating what they want to say from English to their native language, the grandparents get very offended because their grandchildren do not use the appropriate language and expressions which are necessary to address them as elders and as grandparents paying the respect that is required. According to McLaughlin (1998), pragmatics can be viewed from three different perspectives:

- “(1) The functions language serves in communicating speakers’ intentions, (2) the alternation in language forms observed in different social contexts, and (3) the or-

ganization of language in conversational discourse...[Pragmatics]...analyzes speakers' use of language to achieve their intended goals" (pg.37-38).

First Language Acquisition Theories and Second Language Learning

The study of the "magic" (Bloom, 1983) way that children acquire their native language has concerned researchers for centuries. Regardless of the native language, children who develop in a typical way, pass from about the same stages of language development. During the first year of life, the child is in the pre-verbal stage which starts with the ability of the infant to cry and then coo (2-4 months), and babble (4-12 months). Between the ages of 12 to 18 months, the child is in the single-word stage and usually uses one-word utterances. From the age of 18 to 24 months, the child starts using two-word utterances and during the first half of the third year the sentence expands to three-word utterances and continues expanding in more complex forms of language including the use of modals, articles, and refining the meaning of words while developing pragmatic abilities from the age of 36 months and beyond.

Language acquisition theory started flourishing in the second half of the twentieth century. According to Richards and Rodgers (2001), language learning theory underlying a language teaching approach or method is concerned with two issues: one is the "psycholinguistic and cognitive processes" which take place in second language learning and the other is "the conditions" which need to be met so that the learning processes can take place (pg. 22). Based on this notion, we have "process oriented theories" which "build on learning processes, such as habit formation, induction, inferencing, hypothesis testing and generalization" and "condition oriented theories" which "emphasize the nature of the human and physical context in which language learning takes place" (Richards and Rodgers, 2001, pg. 22). The various theories of language acquisition which have been developed view from different perspectives language behavior and language development.

Schools of thought in language acquisition differ greatly and may range between the notion that the child is born 'tabula rasa' which in Latin means 'clean slate' and implies that all learning occurs by forming associations to the notion that children are pre-wired by nature to learn language and language acquisition takes place during specific critical periods in a child's life. According to Berko Gleason (2005), distinction between the theories can be done with respect to: "(1) structuralism versus functionalism, (2) competence versus performance, and (3) nativism versus empiricism." (pg. 232). Major theoretical perspectives which have influenced language research are the behaviorist, the nativist, the cognitive, and the constructivist approaches.

Behaviorism

Behaviorism originated with the work of John B. Watson (1879-1959) who based his work on Ivan Pavlov's (1849-1936) experiments on classical conditioning and focuses on the prediction and control of behavior. According to Pavlov's findings, classical conditioning occurs when a natural reflex responds to a stimulus. Behaviorist theorists define learning as the acquisition of new behaviors. The behaviorist theory on language acquisition is associated with B.F. Skinner (Skinner, 1957) who tested and ultimately rejected Watson's emphasis on reflexes and classical conditioning. Instead, Skinner (1904-1990) developed his theory of 'operant conditioning' which supports the notion that people be-

have the way they do because of the response which a certain behavior has elicited in the past from the environment.

According to Skinner, behavior is shaped or changed by consequences and depends on the ways the environment is being manipulated. These responses can either act as positive or negative reinforcements and will eventually determine the frequency of a particular behavior. Positive reinforcements are events or actions which strengthen a particular behavior and are likely to increase its repetition whereas negative reinforcements are events or actions which are likely to decrease the repetition of a particular behavior. According to Skinner, depending on whether the consequences of the verbal behavior are rewarding or not the child will either increase or decrease the behavior and therefore, operant conditioning alone can explain the development of language. So, language can be acquired as a habit.

Implications of Behaviorism for Second Language Learning

With respect to second language acquisition, according to the behavioral approach, the *organism* is the student and the *stimulus* is the teacher's behavior as well as the content which is taught in the second language. The *response* is the student's reaction to the teacher's actions, which are the stimulus. So, for example, when the teacher approves the student's behavior the reinforcement is positive. Although the behaviorist approach is very methodical and empirical and has been proven successful with certain types of learners and learning environments, it is very restrictive and suggests that the students act the way they do only based on the environment.

In using behavioral approaches to teach a language there is a tendency to manipulate language without giving special emphasis on the content that is being taught and whether or not the content is taught within a certain context in order to make learning meaningful for the students. Therefore, students find it difficult to use phrases learned in the classroom and to interact in meaningful ways in real life situations. Learning is prescribed and does not allow a lot of opportunity for interaction and interpersonal communication. Imitation, memorization, and repetition are emphasized and language forms and vocabulary are introduced in highly structured format.

However, through the appropriate use of positive and negative reinforcement and the development of individualized instructional materials, behaviorism can be effective if used selectively and in conjunction with other methods of instruction especially for classroom management. Positive reinforcement, for example, is preferred from punishment. In order to create a positive climate in the classroom the teacher chooses to respond to student's successes rather than to student's failures (Skinner, 1973). A second language approach which draws from behaviorism and came about in the 1960s is the *Audiolingual Method*. In addition, several classroom technologies such as teaching machines and teaching software base their instructional approaches on behavioral theory.

Nativism

In 1959, Noam Chomsky published his work 'A Review of B.F. Skinner's Verbal Behavior.' According to Chomsky, the behaviorist theory of verbal behavior was not adequate to explain language development and acquisition. He argued that: language is a complex problem and cannot be solved if no innate mental structures are in place; and that lan-

guage develops regardless of the existence of reinforcement. He concluded that humans have innate dispositions based on rules which allow language acquisition to take place (Chomsky, 1959).

The *Nativist* theory moved the exploration of language acquisition from the behaviorist view “the observable” to the notion that there is an innate, systematic way which allows children to learn language. According to Chomsky, children are born with the ability to learn any grammar of any language. Therefore, there is an innate plan, a Universal Grammar which enables children to decode the grammatical and syntactical rules of the language from their caregivers and learn any language as an integrated system. Chomsky (1965) argued that humans are born with a “Little Black Box” or “Language Acquisition Device” (LAD) which predisposes them to learn language and provides them with the ability to distinguish speech sounds and organize linguistic elements.

According to Chomsky, when children utter their first words, they are imitating their parents using their innate ability for expression. This innate linguistic ability allows them to distinguish between the different sounds of the language and then reproduce them.

Implications of Nativism for Second Language Learning

A very important contribution of the Nativist theory is the *Critical Period Hypothesis* for the acquisition of a first and second language in children. According to this hypothesis this “Critical Period” is between 2 and 7 years of age. During this period, a child can master any language “perfectly” especially with respect to the pronunciation and phonological system of the language and therefore be able to speak the desirable language with native like accent.

The Critical Period hypothesis argues that after the age of 7, it is very difficult for the individual to perfectly master the pronunciation of the language. Language learning approaches originating from the Nativist theory are the *Natural Approach* to language learning suggested by Stephen Krashen and Tracy Terrell (1977), the *Total Physical Response*, the *Direct Method*, and the *Communicative Language Teaching Approach*.

Cognitivism and Constructivism

The *Functional* language approaches stress the importance of cognition and language development, the development of language functions, the social interaction between the child and his/her environment, the discourse, and the constructivist approach in learning. In particular, the *cognitive* theory analyzes the ways the mind processes information and acquires knowledge. Furthermore, the concept of *constructivism* is rooted in ancient antiquity to the Socratic Seminar and the Socratic Dialogues which emphasized the importance of the role of the teacher as the facilitator of learning and not as of the information giver. John Dewey, Jean Piaget, and Lev Vygotsky developed ideas which led to the evolution of constructivism.

The work of the Swiss psychologist, Jean Piaget (1896-1980), who conceptualized the four stages of cognitive development, is notable in the field of education. Piaget argued that adults and children have different modes of thinking and that the development of the child is the result of the interaction of the child with his/her environment as well as the interaction between his/her cognitive abilities and linguistic experiences (Piaget & In-

helder, 1969). Children process meaningful information through the construction of one logical structure after another.

During the *Sensorimotor Stage* (birth to 2 years of age), the child experiences and learns about the world through senses and motor responses. When the child is ready to produce meaningful language, is ready to transition to the second stage of cognitive development which is the *Preoperational Stage* (*Early Preoperational Stage* 2 to 4 years of age and *Late Preoperational Stage* 4 to 7 years of age).

During the *Early Preoperational Stage*, the child uses a symbolic system such as *pretend play* and develops language which is bound to the *here and now*. At this point the child does not understand the concept of *cause and effect*. During the *Late Preoperational Stage*, the child starts using language to form generalizations and develops inferential thinking. The child begins to understand that things can be connected. The child is able to form complete sentences having mastered the major sentence structures and grammar rules.

During the third stage, the *Concrete Operational Stage* (7 to 11 years of age), the child uses language for concrete logical thinking, has the ability to manipulate language in order to classify, reverse, summarize, and to take another person's point of view. Finally, during the *Formal Operational Stage* (12 years of age to adulthood), the child uses language to a very high level and is able to express abstract thoughts, hypothesize, perform operations of symbolic logic, and evaluate the consequences of his/her actions. Piaget believed that students must be engaged in active participation in the classroom and to be allowed to go through the *trial and error* process having ample time to do so and suggested various methods and strategies to teach children effectively in all four stages of cognitive development. However, Piaget's model of development has been criticized because often children think in ways that are inconsistent with his four stages of cognitive development and because his theory has overlooked the importance of cultural factors.

Lev Vygotsky (1896-1934) believed that learners actively process meaning and emphasized the importance of culture and social interaction on the development of the mind. He rejected predetermined stages of cognitive development and believed that the social environment transmits its culture to children. Therefore, it is the responsibility of the adults to help the child organize the information received from the environment and to learn how to communicate effectively. Vygotsky believed that there is a *Zone of Proximal Development* in children's learning. The *Zone of Proximal Development* is the distance between the child's present level of cognitive ability and the potential level of cognitive ability. The child can move from the present level to the next with adult intervention and assistance (Ivic, 1994).

John Dewey (1859-1952) believed that inquiry plays a key part in learning and education must be grounded in real experience. Children learn when they have the opportunity to explore their environment and discover knowledge through authentic learning experiences. He argued that teachers must provide students with the appropriate environment, tools, and supplies for learning and create real life situations which allow personal participation (Dewey, 1916).

Implications of Cognitivism and Constructivism for Second Language Learning

The *Cognitive* theory of learning views the mind as an input/output model of information processing and examines the mental processes which are activated during learning such as the processing, storing, and retrieving information. Some of the cognitive learning strategies which have been found very effective with second language learners are: *summarizing, classifying, sequencing, listing, grouping, resourcing, note-taking, elaboration on prior knowledge, deduction, induction, imagery, auditory representation, and making inferences* (Chamot & O'Malley, 1994).

Based on *Constructivism*, the learner's role in building understanding and making sense of information is crucial. The learner is active thinker, explainer, interpreter, inquirer, takes responsibility for his/her own learning and in general is an active participant in the learning process. The learner processes the information and turns it into knowledge. The role of the teacher is to encourage group work, collaborative learning and allow multiple interpretations and expressions of learning; to consider students' previous knowledge and cultural background; to correct students misconceptions in time and provide time for reflection; and to present authentic learning tasks. Some constructivist strategies which can be used effectively in the classroom with second languages learners are the socio-affective strategies such as *questioning for clarification, cooperation, and self-talk* (Chamot & O'Malley, 1994).

According to Vygotsky's ideas, in order for learning to occur, the new knowledge that is about to be acquired under adult guidance and support, must be within the child's Zone of Proximal Development, however, it should neither be too easy nor too difficult for the child. If the new information is too easy, the child does not maximize his/her learning potential and learning becomes uninteresting and boring. If the new knowledge is way above the child's ability to understand it and make connections with what he/she already knows, then, learning becomes frustrating. It is imperative that the new knowledge presented by the teacher should be challenging but not frustrating. So, that with the support of the teacher and through appropriate teaching interventions, the child will be able to make associations and connections with what he/she already knows (which means that background knowledge related to the topic of instruction will be activated). This way, he/she will be able to "stretch" his/her mind to acquire new information in a meaningful and rewarding way.

Scaffolding, a teaching strategy widely used by second language teachers, is based on Vygotsky's idea of the importance of adult intervention and assistance in a child's learning. It is a teaching strategy which provides step by step support for learning and problem solving. *Scaffolding* eventually affords learners with the ability to solve problems on their own. Vygotsky's idea of the *Zone of Proximal Development* has also tremendous implications for second language teaching. It suggests that language should allow the activation of background knowledge in the students' brain and that instructional practices must be taught in a context familiar to the child. Teaching must involve *scaffolding* while it provides support and *comprehensible input* to the student.

John Dewey's beliefs that children must start from what they already know (background knowledge), learn through genuine and authentic experiences, and be given the opportunity to engage in inquiry based learning activities have contributed significantly to second language learning methodology. Often, students who learn a second language are presented with drills and grammar exercises and are expected to memorize vocabulary and

learn language out of context. These strategies are ineffective and should be replaced with authentic learning experiences where students are learning the second language within a meaningful context. Students then can transfer language skills learned in the classroom to the real world. Examples of constructivist learning approaches are *Cooperative Learning*, *Discovery-Based Learning*, and *Content-Based Instruction*.

Multiple Intelligences Theory

Howard Gardner (1993) developed the theory of *Multiple Intelligences* (MI) suggesting that intelligence cannot be defined only one way or by using the traditional Intelligence Quotient (IQ) tests. Gardner's theory is still somewhat ambiguous. It has, however, influenced significantly the teaching methodologies and approaches for Culturally Linguistically Diverse and Exceptional Students (CLDE). Although the theory is not directly related to first or second language learning because it has tremendous implications in educating second language learners as well as students with disabilities, it is presented in this study as one of the theoretical perspectives to be considered in second language teaching.

Gardner argues that humans have special abilities and capabilities in different areas of intelligence. Therefore, if educational practices are to be effective and non-discriminatory, they must consider the special talents and abilities of the students. Gardner (1993) suggests eight different types of intelligence, in different areas of talent and expertise. His theory does not agree with the notion that individuals possess only one type of intelligence but instead that individuals have strong areas of aptitude and may have exceptional intelligence in one or more areas of human ability. He presented the following intelligences:

- *Linguistic intelligence* is the ability to learn and use language in exceptional ways; authors or lawyers may possess this type of intelligence.
- *Logical/mathematical intelligence* is the ability to reason and solve problems and may be the intelligence of scientists or engineers.
- *Spatial intelligence* is the ability to understand and use space creatively necessary for sculptors and architects.
- *Musical intelligence* is the musical ability and the one that conductors and composers possess. *Bodily/kinesthetic intelligence* is the ability to coordinate body movement and can be found in athletes and dancers.
- *Interpersonal intelligence* is the ability to communicate and work well with others and is important intelligence for politicians and salespersons.
- *Intrapersonal intelligence* is the ability to have self-awareness and reflect on one's experiences and it is necessary for all people but more so for spiritual leaders and philosophers.
- Lastly, *Naturalist intelligence* is the ability to understand nature, work with nature, and use nature in ways to protect the environment and at the same time benefit humanity.

Implications of the Multiple Intelligences Theory for Second Language Learning

The main contribution of the theory of Multiple Intelligences in second language learning is the appreciation for individual differences and special abilities which leaves a lot of room in the classroom for creativity and meaningful teaching and learning. The teacher follows various instructional methods including auditory, visual, tactile, and kinesthetic approaches to respond to each and every student's learning style maximizing learning, and making the educational exchange a happy and rewarding experience for all children.

Second Language Acquisition Theories

Krashen's five hypotheses of second language acquisition are still considered current in language acquisition theory. They are applicable to both children and adults and have not only been successful in second language teaching and learning but have also been found applicable in other areas of language instruction and in general in student learning. The comprehensible input hypothesis, for example, has been very effective for first and second language reading comprehension (Krashen, 2003). Another example is Krashen's Monitor hypothesis which has been proven correct considering the fact that formal grammar instruction alone does not lead successfully to second language competence (Krashen, 2003). Krashen's five hypotheses for second language acquisition are: the *Acquisition-Learning Hypothesis*, the *Natural Order Hypothesis*, the *Monitor Hypothesis*, the *Input (Comprehension) Hypothesis*, and the *Affective Filter Hypothesis*. All five hypotheses are explained in more detail below.

The *Acquisition-Learning Hypothesis* supports the notion that people acquire language in two independent ways: one through acquisition and the other through learning. *Language acquisition* takes place subconsciously and without the individual being aware that it is happening. Once something is learned through the process of acquisition, the knowledge is stored in the brain and the individual is not aware of the possession of this new knowledge. This process is similar in children and adults and applies to both oral and written language. When we pick up expressions from our environment and we then use them without giving it conscious thought, then we use knowledge that we acquired through the process of language acquisition (Krashen, 2003).

On the other hand, *language learning* is the conscious process and deliberate effort to acquire language and it usually takes place in schools. This type of learned knowledge is stored consciously in the brain. When we, for example, talk about sentence structure or grammatical rules we use conscious knowledge we acquired through language learning (Krashen, 2003). Error correction in oral or written language intends to help towards language learning. So, for example, when the student makes a grammatical mistake and the teacher makes a correction, the teacher intends to help the student learn this particular grammatical rule of the language. However, according to Krashen (2003) error correction may have limited impact on successful language learning.

The *Natural Order Hypothesis* suggests that individuals acquire the different parts of the language in a predictable order. There is a sequence, for example, in the order in which the various grammatical rules are acquired. Krashen (2003) supports that although the natural order of first and second language acquisition are similar, they are not identical. For example, "the *-ing* marker in English, the progressive, is acquired fairly early in first language acquisition, while the third person singular *-s* is acquired later. The third person singular may arrive six months later to a year after *-ing*. In adult second language acqui-

sition, the progressive is also acquired early, but the third person singular may never come. It is common to hear people who speak English as a second language very well, and yet have not acquired the third person singular. Not every acquirer proceeds in exactly the same order, but the variation among acquirers is not extreme. There is clearly an ‘average’ order of acquisition” (Krashen, 2003, pg. 2).

According to Krashen (2003) there are “three amazing facts” about the *natural order* of language acquisition:

- (1) The natural order in which grammatical rules are acquired is irrelevant to the simplicity or complexity of the rules; it does not imply, for example, that the simpler and easier rules are acquired first. Therefore, this fact, is in contradiction with the order grammatical rules are presented in school, where the sequence is from simple to more complex.
- (2) The natural order of language acquisition cannot be altered through teaching interventions.
- (3) Although studying the first two facts of the natural order hypothesis one would think that we have to study the natural order through which individuals acquire language and teach language accordingly, this is not the answer to effective language teaching because according to Krashen (2003), the “natural order is not the teaching order.” (pg.2).

The *Monitor Hypothesis* is concerned with the ways language acquisition and language learning are used. In particular, the Monitor hypothesis states that the language individuals produce, is the language they have *acquired* and that the language they have *learned* functions only in one way: as a “Monitor or “Editor.” (Krashen, 2003, pg.2). An example of that would be when we are making a sentence in a foreign language using subconsciously the language we have acquired and just before we express the sentence orally or right after we have done so, we immediately make corrections to errors we have made: this correction is based on language learning, is a conscious process, and it is called “self-correction.” (Krashen, 2003, pg. 2).

Therefore, conscious *language learning* functions only as a language editor; it contributes somewhat to language accuracy but not to language fluency. According to Krashen (2003) what contributes the most to both language fluency and accuracy is *language acquisition*. In order to use the Monitor successfully, three conditions need to be present: The language learner: (1) must know the language rule, (2) must be thinking about correcting the produced language, and (3) must have time to make the corrections (Krashen, 2003). Krashen asserts that these three conditions rarely co-exist in real life and can only occur simultaneously in certain situations such as when the students take a grammar test. Language learning is still useful because there are certain forms of the language that are difficult to acquire without explicit instruction of the language rule. However, if we focus too much on the “correctedness” of our language output, the process of language production slows down significantly to the expense of the conversation or rich in thought writing. Krashen (2003) suggests that the best way to use the Monitor is when “it does not interfere with communication, when we have time, as in the editing phase of writing” (pg. 3).

The *Input Hypothesis* aims to explain the way that language acquisition occurs. The input hypothesis suggests that the only way we acquire language is through “comprehensible input” which means through language that we understand and we can make sense of. Therefore, if the messages we are getting are comprehensible, we understand, and acquire language. Taking in consideration the natural order through which individuals acquire language, the input comprehension hypothesis suggests that after the student has mastered rule ‘A’ and then he/she is about to master rule ‘B’ (according to the natural order hypothesis) the teacher must intervene in between by providing *comprehensible input* which is a message that can be understood, so that the student masters easier and faster rule ‘B.’

Therefore, the input of the teacher should be not too easy and not too difficult; and as Lev Vygotsky would agree, within the *Zone of Proximal Development* of the student in order for the input to be comprehensible and meaningful (not boring or frustrating) and help move the student to a higher level of knowledge and understanding. So, if for example, the student already has mastered rule *i*, the teacher must provide input *i+1* (not less not more). Krashen (2003) beautifully describes the importance of providing comprehensible input to language learners stating the following:

“Now that we have some idea of the input/comprehension hypothesis, I can share two mystical amazing facts about language acquisition. First, language acquisition is effortless. It involves no energy, no work. All an acquirer has to do is understand messages. Second, language acquisition is involuntary. Given comprehensible input and a lack of affective barriers,... [here, he refers to his ‘Affective Filter Hypothesis’ which will be presented below]... language acquisition will take place. The acquirer has no choice. In a theoretical sense, language teaching is easy: All we have to do is give students comprehensible messages that they will pay attention to, and they will pay attention if the messages are interesting” (pg. 4).

The *Affective Filter Hypothesis* suggests the idea that affective variables in language acquisition are very important. It is almost like that an invisible affective filter exists which may prevent the comprehensible input to reach the “part of the brain responsible for language acquisition.” (Krashen, 2003, pg. 6). So, if the acquirer is stressed or experiences feelings of low self-efficacy and has low self-esteem, the comprehensible input will be blocked by the affective filter and will never reach the brain. When the individual feels relaxed and content and has high self-esteem is more likely to learn comprehensible input as well as to produce better language output.

In his book ‘Explorations in Language Acquisition and Use,’ Stephen Krashen (2003) discusses three other hypotheses related to language acquisition: the *Comprehensible Output hypothesis*, originated by Merrill Swain in 1985, the *Interaction hypothesis*, and the *Need hypothesis*. According to the *Comprehensible Output hypothesis*, when a language learner is trying to communicate a message to a listener but the linguistic output is not comprehensible by the listener, then, the language learner self-corrects and tries again, and again, and again, until the linguistic output is understood by the listener. At this point, the language learner acquires the form of the language that was finally produced and understood by the listener.

The *Interaction hypothesis* suggests that we acquire language through interaction with others and the *Need hypothesis* states that we acquire language only “when we have the ‘need’ to communicate.” (Krashen, 2003, pg. 64). However, Krashen asserts (2003) that although some language is acquired through the production of comprehensible output, through interaction with others, as well as because we have the “need” to communicate, none of these three hypotheses provides strong evidence that can make a significant contribution to language acquisition.

Cummins (1979) suggested the *Developmental Interdependence Hypothesis* which states that when children have mastered their native language through native language instruction they can transfer those skills to the second language (Wolfe, 1992). Therefore, one of the objectives of bilingual education is to provide students, who speak a native language other than the language of the school, with native language instruction so that they do not fall behind in academics. Native language instruction is crucial because according to the *Threshold Hypothesis*, when children do not develop their native language well, learning a second language may be detrimental to their cognitive development (Cummins, 1976).

According to Richards and Rodgers (2001), language learning theory underlying a language teaching approach or method is concerned with two issues: one is the “psycholinguistic and cognitive processes” which take place in second language learning and the other is “the conditions” which need to be met so that the learning processes can take place (pg. 22). Based on this notion, we have “process oriented theories” which “build on learning processes, such as habit formation, induction, inferencing, hypothesis testing and generalization” and “condition oriented theories” which “emphasize the nature of the human and physical context in which language learning takes place” (Richards and Rodgers, 2001, pg. 22).

Approaches to Second Language Teaching

Language acquisition can be studied from a: structural, functional, and interactional perspective (Richards and Rodgers, 2001): (1) The *Structural view* examines language as a system of structurally related components and the goal in language learning is to master the subsystems of language which are the phonological (phonemes), the grammatical units (phrases, clauses, etc.) and operations (adding or transforming language parts), and the lexical terms (the function and structure of words). The *Audiolingual Method*, the *Total Physical Response*, and the *Silent Way* are second language teaching methods which are based on the structural perspective (Richards and Rodgers, 2001).

(2) The *Functional view* examines language as a means for expression and communication. It does not emphasize the grammatical rules of the language but the functions of language for communication. The goal of language learning is to master the functional aspects of the language rather than the structural and grammatical aspects. The *Communicative movement*, *Wilkins Notional Syllabuses*, and the *English for Specific Purposes (ESP)* movement are based on the functional view (Richards and Rodgers, 2001).

(3) The *Interactional view* perceives language as the means for interpersonal communication and expression in social situations. It focuses on the patterns of expression, the ways individuals negotiate meaning, and the ways of interaction and exchange of ideas. The goal of language learning is to master patterns of exchange and interaction which repre-

sent the individual learners' communication and interaction styles. The *Task-Based Language Teaching*, *Whole Language Approach*, *Neurolinguistic Programming*, *Cooperative Language Learning*, and *Content-Based Instruction* are based on the interactional perspective (Richards and Rodgers, 2001). The second language learning approaches stemming from the above theoretical views are discussed in more detail below.

Grammar Translation Method

The *Grammar Translation Method* (1840-1940) which is also known as the "Prussian Method" was used extensively to teach foreign languages in Europe and particularly in Germany. Known leaders of this method are Johann Seidenstucker, Karl Plotz, H.S. Ollendorf, and Johann Meidinger. According to this method, the goal of foreign language study is to learn a language in order to read its literature and to benefit from the mental discipline and intellectual development that result from foreign language study. Reading and writing are the major focus of the method and the sentence is the basic unit of teaching and language practice. Accuracy is emphasized and students are expected to attain high standards in translation ability. Grammar is taught deductively by presentation of grammar rules. Rule memorization and facts are considered very important. There is minimal attention to speaking and listening and the student's native language is the medium of instruction (Crawford, 1989; Lessow-Hurley, 2005; Richards and Rodgers, 2001).

Direct Method

Although the Grammar-Translation approach had many advocates in Europe, educators began to realize the need for other foreign language methods which focus in more natural ways. The *Natural approach* emphasizes the importance of great exposure to language input and not the grammar-translation of the language. According to its principles, children must be exposed to and receive a lot of comprehensible input before they are emotionally and mentally ready to speak and produce language output. The primary focus of the approach is to use language for communication. As a result, a more natural approach to language teaching, the *Direct Method*, was introduced in Europe at the turn of the 20th century. Known leaders of this approach are F. Gouin, F. Franke, M. Berlitz, and L. Sauer. Based on this method, language can be taught without translation or the use of the learner's native language if meaning is conveyed directly through demonstration and action. The method employs techniques which have been used in the teaching and learning of first language. It focuses mainly on oral language development and its major principles are: to instruct exclusively in the foreign language following a question and answer exchange model; to conduct lessons in small groups; to develop communication skills and use demonstration as an instructional tool; and to develop everyday vocabulary. Grammar is taught inductively without the explicit instruction of grammar rules. The method focuses on expressive and receptive language development. Correct pronunciation and grammar are also emphasized (Crawford, 1989; Lessow-Hurley, 2005; Richards and Rodgers, 2001).

Audiolingual Method

World War II raised the need for more extensive and effective foreign language instruction in the United States. At that time, the *Audiolingual Method* was developed by the

U.S. Army with the support of the Modern Language Association. The method drew on behaviorism. It was mainly influenced by B. F. Skinner's belief on the importance of the use of reinforcement in the learning process emphasizing habit formation as the main process of language learning. The Audiolingual method is a teacher-controlled method which relies on structured drills and exercises of rote memorization and dialogue repetition and stresses initial learning through the spoken word followed by the teaching of the written word. This method is used widely in military and corporate environments and it is also called the 'Army Method' (Crawford, 1989; Lessow-Hurley, 2005; Richards and Rodgers, 2001).

Total Physical Response

James Asher's *Total Physical Response* method is a natural method which addresses both the process and the condition aspects of learning. It suggests that child language learning is based on motor activity and the coordination of language with action is crucial to the learning process not only in teaching a foreign language to children but also to adults. The method views first and second language learning as parallel processes (Lessow-Hurley, 2005; Richards and Rodgers, 2001). It draws on three learning hypotheses: "there exists a specific innate bio-program for language learning which defines an optimal path for first and second language development; brain lateralization defines different learning functions in the left and right brain hemispheres; stress (an affective filter) intervenes between the act of learning and what is to be learned; the lower the stress the greater the learning" (Richards & Rodgers, 2001, pg.74).

Silent Way

Caleb Gattegno's *Silent Way* assumes that the learning process of second language learning is very different from the process of learning the first language and addresses the learners' needs to feel secure about learning and to assume conscious control of learning. The techniques of the approach are designed to train learners to consciously use their intelligence to meet their learning potential. The teacher should be silent as much as possible in the classroom but the learners should be encouraged to produce as much language as possible. The approach is based on three underlying learning hypotheses which state that learning is facilitated: when the learner discovers or creates the knowledge instead of memorizing it; when instructional materials are utilized as mediating objects to the learning process; and when students are involved in problem solving situations relevant to the material to be learned. According to this method, a successful second language approach should be strictly controlled and involve the commitment on behalf of the learner to acquire a second language through the use of silent awareness and active trial. The goal of the method is to assist the learner in developing awareness which is very important for learning and to move from attention to production to self-correction and finally to absorption (Richards & Rodgers, 2001).

Community Language Learning Approach

The *Community Language Learning Approach* or *Counseling Learning Approach* was developed by Charles Curran. It is based on the idea of creating a community of learners who know and trust each other and can communicate in the same native language. It borrows from the person-centered counseling theory of Carl Rogers which emphasizes the

importance of the individual's worth and the contribution to the group and employs the teacher as a helper and facilitator rather than as an authoritative figure. It focuses mainly on communication and not on teaching language forms. Emphasis is given on the contribution of the students' group discussions and activities and their involvement in cooperative learning. The students sit in a circle and make statements in their native language taking turns. The teacher sits outside the circle and translates each statement into the second language while asking the student to repeat the statement to the group. This process of continual translation and repetition occurs while the conversation among the group members continues. The conversation is taped to be listened and critiqued at a later time (Lessow-Hurley, 2005; Richards and Rodgers, 2001).

Suggestopedia

Suggestopedia is a method developed by the Bulgarian psychiatrist Georgi Lozanov in the 1970's and derives its principles for "Suggestology" a study of non-conscious influences. It is influenced by yoga and psychology. Suggestopedia can be applicable to all types of learning including learning a second or third language. Central to Suggestopedia are music and musical rhythm which are used for relaxation purposes in order for the teaching material to be learned. According to Lozanov, when students are not anxious are more receptive and therefore, language learning occurs much faster than with the traditional language learning methods. The teacher must be authoritative and have great poise and a positive, uplifting attitude. The environment of the classroom is considered essential to the learning process and must be brightly painted with comfortable chairs and other furniture and be arranged in such a way that promotes a relaxing atmosphere. During the lessons, tapes of selected music are used and the students are encouraged to read texts before going to bed and immediately after they first arise (Lessow-Hurley, 2005; Richards and Rodgers, 2001).

Notional-Functional Approach

The *Notional-Functional Approach* is not concerned with the affective aspect of learning rather it focuses on the pragmatics aspect of the language. It gives emphasis on communication and the ability to manipulate language in a variety of contexts: social, academic, and other. It is mainly concerned with the functions of the language and teaches students how to use language in order to be able to question, inform, describe, explain, argue, agree, debate, or compliment. (Lessow-Hurley, 2005).

Whole Language Approach

The *Whole Language Approach* was developed in the 1980s by a group of US. educators. It views language as a "whole" and therefore, it focuses on teaching Language Arts as a whole. It opposes to teaching separately as subjects: reading, writing, grammar, vocabulary, phonics, and word recognition. It emphasizes the importance of the use of the literature, process writing, cooperative learning activities, writing for a purpose, and the use of authentic texts (Richards and Rodgers, 2001).

Content-Based Instruction

Content-Based Instruction is an approach to second language learning in which language is taught through content area instruction. It is a very effective and successful approach

because it teaches language in a meaningful context and by providing authentic learning situations. The students learn language concepts and new vocabulary while at the same time they study content area concepts and academic language in other areas of the curriculum such as social studies, science, mathematics, art, and other subjects. The approach suggests an instructional model which promotes demonstrations, use of instructional materials, visuals, pictures, objects, and audiovisual presentations.

Content-based instruction is the underlying principle for several other very successful language teaching approaches for native and non-native language speakers such as the: *Language across the Curriculum Approach* which was developed in Great Britain and suggests reading and writing lessons in all areas of the curriculum; *Immersion Education*, a Canadian approach to foreign language teaching in which all areas of the curriculum are taught in the foreign language and the foreign language is not the subject of instruction but the means for instruction; *Immigrant-on-Arrival Programs*, an Australian approach which focuses on developing thematic units addressing immediate needs of everyday life with respect to content and vocabulary and are very helpful especially to newly arrived immigrants; Programs for Students with Limited English Proficiency (SLEP) which focus on providing limited English proficient students with language support and content area instruction in the second language and can take place either in the classroom (plug-in model, when a teacher specialist comes in the general education classroom to provide extra support to second language learners) or outside of the general education classroom (pull-out model); *Language for Specific Purposes* is a model of second language instruction which uses the second language as the medium of instruction and through specific content aims to help second language learners acquire vocabulary and language skills in order to be able to function in the real world in a particular (ie. professional) role (Richards and Rodgers, 2001).

Sheltered Instruction

The *Sheltered Instruction* method was developed to meet the needs of students who are culturally and linguistically diverse (CLD) taking in consideration their need for academic language development and well as their need for content area instruction. The method utilizes hands-on activities, cooperative learning strategies, guarded vocabulary, and visuals as the means for instruction. This means that the teacher uses manipulatives and interactive ways of teaching; the students work cooperatively in heterogeneous groups; the teacher selects vocabulary carefully and is conscious of his/her speech (such as tone of voice, rate of speech, avoidance of the use of idioms, etc.); and the teacher uses pictures, technology, graphic organizers and tables as visual. The benefits of the approach are multiple especially for second language learners because this method targets multiple intelligences and learning styles, reduces language barriers and promotes the development of a community of learners, makes teaching comprehensible while it increases listening comprehension, reduces student anxiety, and offers various instructional modalities including the use of technology (Herrera & Murry, 2005)

Cognitive Academic Language Learning Approach (CALLA)

The *Cognitive Academic Language Learning Approach (CALLA)* was developed based on the cognitive theory and educational research findings. The method emphasizes the importance of conducting a needs assessment first to determine the students' needs with

respect to three different areas: language functions, content area knowledge, and learning strategies knowledge. The approach suggests that second language learners can be successful in school if they: master the language functions they need in order to perform in school (such as the ability to describe, explain, debate, inform, suggest, etc.); master the content knowledge in the different areas of the curriculum which is expected at their grade level; and use learning strategies (cognitive, metacognitive, and socio-affective strategies) as the means for comprehension and knowledge of facts and processes. The CALLA method suggests lesson planning in five phases: preparation, presentation, practice, evaluation, and expansion (Chamot & O'Malley, 1994).

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