

Improving the Quality of Literacy Learning in the Content Areas

Situational Analysis of
Secondary Level Education
in Botswana

PRESENTED BY
International Reading Association

FOR
UNESCO Section for General Secondary Education
Division of Secondary, Technical and Vocational Education



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The **International Reading Association** (IRA) is a professional membership organization dedicated to promoting high levels of literacy for all. With more than 300,000 affiliated members in more than 80 countries worldwide, IRA is the largest network of reform-minded educators in the world. IRA implements high-quality professional development, publications, advocacy and research activities supporting schools, universities, government agencies, community-based programs, and local professional associations in world regions, including special projects in economically developing countries. For more information on IRA, please see the website: www.reading.org.

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Introduction

Literacy and reading skills are thought of as the foundation for learning. However, it is estimated that many students enter secondary school without having mastered literacy/language competencies. Literacy instruction does not seem to have a significant place in the secondary education curricula on the premise that such skills have been acquired at the primary level.

In this context, this research study titled “*Improving the Quality of Literacy Learning in the Content Areas-Situational Analysis of Secondary Level Education in Botswana*” reviewed and analyzed current policy and practices regarding the quality of the literacy curriculum and assessment of secondary education in Botswana. Through a survey and interviews with various stakeholders in the country, the researchers shed light on issues including transitional challenges between the primary and secondary levels of education as well as the need for solid competencies in literacy required by a truly participatory and student-centered approach to learning.

This study was prepared under the framework of the Cooperation Agreement between the International Reading Association (IRA) and UNESCO. Signed in 2003, the overall objective of the above-mentioned agreement is to jointly assist countries in ensuring that children attain a level of reading competency that enables them to benefit from learning opportunities throughout their lives.

While enrolment ratios of secondary education are increasing in many parts of the world, it is our conviction that literacy skills play a central role in improving the quality of learning in secondary school. We hope that the findings and recommendations of the study will serve as a useful tool to formulate literacy-related policy on education for youth and adolescents both in Botswana and other countries.

We wish to extend our gratitude to the Botswana National Commission for UNESCO for providing invaluable support and advice during this study. We also appreciate the commitment and expertise of the IRA staff members as well as the tireless efforts of the researchers to promote high levels of literacy for all.

We are pleased to convey the findings of the research which underscores the importance of continuous literacy development for secondary school students to maximize their learning opportunities.

Sonia Bahri,

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Section I: Overview of Botswana's Education System

Botswana has always had a healthy concern for the education of her citizens. The government's main objective has been to fashion an education system that meets the needs of the Botswana (increasing access to educational opportunities and providing infrastructure to match enrollment growth, among others). Accordingly, His Excellency, Sir Seretse Khama, the first President of Botswana directed, during his presidency, that a National Commission on Education be appointed. The Commission, together with a later one, was mandated to provide newer educational policy frameworks to suit the demands of the last phase of the twentieth century and to take Botswana into the new millennium. The two Commissions produced the *National Policy on Education (NPE)* (1977) and the *Revised National Policy on Education (RNPE)* (1994), two documents that have successfully guided Botswana's educational developments till date. Thus, a strong political commitment drove developments in the education sector of Botswana.

This strong political commitment has ensured sufficient funding for Botswana's educational development. For example, the government now consistently allocates around 20% of the total national budget to education, following a review of cost trends after the production of the 1977 *NPE* framework. The document stipulated that the development budget of the Ministry of Education should be 15.9% of all planned development expenditure in the country, with a substantial portion of this expenditure being devoted to the expansion of the junior secondary level of education. Moreover, during *National Development Plan 7 (National Development Plan (NDP) 7)* period (1991–1997) expenditures on education, particularly at the secondary level, rose beyond the ceiling that was set primarily because of the implementation of the *RNPE (National Development Plan (NDP) 8*, p.343). This budget allocation trend was sustained in the next two development plans. The Ministry of Education has continued to receive the highest proportion of the government's development and recurrent expenditure, which stood at 24.14% and 21.95% during the financial years 1997/98 and 2002/03, respectively.

Since 1977, emphasis in Botswana has been on the provision of universal education — an initial seven years of free primary education, later extended to nine years to include junior secondary education. In order to achieve this objective, government worked towards the removal of age and financial barriers to learning. School fees were abolished in primary schools in 1980 and secondary schools in 1986. Other fees had to be justified and, if necessary, bursaries and loans were provided for the needy (*Education for Kagisano*, p.102). By 1977, thirteen years before the Jomtien Declaration, Botswana had committed herself to the process of universalizing primary and junior secondary education. Hence, when the Jomtien declaration was made in 1990, Botswana had already recorded 83% basic education enrollment. To further improve access to secondary schools on an equitable basis, charges for the same category of items between all Government and Aided schools were standardized so that there were no wide differences.

Botswana's political and financial investments in education have led to the development of a network of public secondary schools of relatively even quality. Construction and provision of facilities and resources have been guided by set blueprints that define the standards for infrastructure and other basic resources needed for supporting teaching and learning. A low-cost strategy for the junior secondary level has been adopted whereby qualified candidates who

live within reach of a day school should attend it, thus avoiding unnecessary construction of boarding schools. For the most part, the set targets for the two national policies on education were met and even exceeded expectations during some of the plan periods.

This overview shows that Botswana's educational system is one of the best organized in sub-Saharan Africa. It is, therefore, fitting that this study on improving the quality of literacy learning in the secondary school should be conducted in this context.

Section 2: Background to the study

Junior secondary education and literacy teaching

In line with UNESCO's Education for All (EFA) goal, the Government of Botswana provides ten-year universal access to basic education, which consists of seven years of primary education and three years of junior secondary education. As *NDP 9* (Government of Botswana, 2003, p.272) indicates, "a 100% transition rate from primary education to junior secondary education has been achieved." The aim of providing EFA, as enunciated in Botswana's *Vision 2016*, is to build an educated and informed nation. Education is thus seen "...as investment that will lead to a higher quality of human capacity and productivity in the future, and to a better quality of life for everyone" (Government of Botswana, 1997, p.28).

The Secondary school enrollment projection for 2003-2009 (Government of Botswana, 2003, p.288) shows that only half of the students graduating from the Junior Secondary school, during the plan period, would gain access to Senior Secondary education, although there are a variety of vocational training institutions that are available to some. For many of the graduates, however, Junior Secondary education is terminal. These people, who include messengers, drivers, cleaners, copy typists, some office assistants, and some small scale business men and women, constitute Botswana's low-level workforce. They would need adequate literacy and numeric skills in English, such as reading and understanding instructions, labels, signs, procedures; filling out forms and writing receipts; and calculating change, in order to succeed in the labor market.

At the end of Junior Secondary School, all students should have acquired literacy skills that would enable them to do well either in higher education or the work place. One of the main goals of the junior certificate curriculum, clearly stated in REC. 31 [para. 5.5.7] of the *RNPE* (Government of Botswana, 1994, p.21), is to develop in all children "proficiency in the use of Setswana and English language as tools for effective communication, study and work." A related entry recommends that the Ministry of Labour and Home Affairs pursue a National Book Policy that would promote a culture of reading in Botswana (see REC. 49 [para. 5.10.47], Government of Botswana, 1994, p.27). These recommendations show that the Government of Botswana is aware of the need for quality literacy learning in Secondary education, even if the policy statements are not as explicit as that of the Primary school, which emphasizes "the acquisition of communication, numeracy and literacy skills" (Republic of Botswana, Ministry of Education, 2005a).

The recommendations above highlight the fact that literacy for learning across the curriculum is available primarily through English. In fact, recommendation #18 in the *RNPE* specifies that "Teachers should increase the use of English from Standard 1 onwards in the teaching of mathematics and science" (Government of Botswana, 1994, p.60). Similarly, other subjects in the school curriculum are to be taught in English from Standard 2. Thus, there is an overwhelming emphasis on the use of English in acquiring other subjects in the curriculum. This overwhelming emphasis is transferred to Secondary education where the medium of instruction for all subjects except Setswana is English. Some Secondary school English textbooks, such as the *English in Action* series, contain extracts that appear to be from different content areas. These extracts are then used to teach students reading and writing skills in all subjects. This procedure speaks not only to the adequacy and relevance of using English for cross-curricular literacy teaching, but

also to the role that English and content area teachers play in literacy acquisition. Do English teachers have the requisite knowledge to teach literacy in 21 subjects, the total number of subjects offered in the junior secondary school (although a student can only choose a maximum of 11)? Indeed, are the literacy skills that the English teachers impart relevant to the academic needs of the students? What role do the content area teachers play in literacy acquisition at this level and why is literacy not explicitly indicated in the secondary school content area curriculum? Certainly, the relegation of the teaching and acquisition of cross-curricular language and literacy skills to the English classroom has serious pedagogical implications.

One of the implications is that students entering Junior Secondary education would initially rely, almost exclusively, on the literacy skills they acquired in the Primary school. Such skills should include, according to the Primary Education Curriculum Blueprint (Republic of Botswana, 2002, p.6), the ability of students “to express themselves appropriately in English and Setswana as tools for communication and also for learning.” In addition, the Blueprint further explicitly states (p.6) that on completion of seven years of primary education, pupils should have developed numeracy, literacy, communication, adaptability, and problem-solving skills. All these skills should adequately prepare students for further learning and vocational preparation.

But are the literacy skills taught and/or acquired in the primary school sufficient for the Junior Secondary education entrant to access high school knowledge and apply such knowledge for their educational advancement in their first year of schooling? Accessibility of knowledge, identified as an important EFA goal (UNESCO, 2002), is what a school curriculum should strive to achieve. How are students, in subsequent years in the secondary school, and in the face of serious communication difficulties in English, to be helped to attain relevant and sufficient literacy skills when the curriculum is silent on how these goals should be accomplished?

The role of assessment in promoting quality literacy learning in Secondary education is also a major concern. The assessment, according to the Ministry of Education (Republic of Botswana, Ministry of Education, 2004), measures the achievement levels of candidates using a norm-referenced examining procedure. However, the Ministry is moving towards a criterion-referenced examination, already in use in primary schools, mainly because it evaluates students’ learning and performance on a clearly defined set of curriculum objectives and because it allows the performance of the education system to be compared over time (Wiggett, Chilambampani and Mwandila, 2001, p. 257). It is pertinent to ask whether the assessment instruments, which consist mainly of written papers, encourage the students to be independent readers and confident writers — skills they will need not only for higher or further education but for lifelong learning, especially those for whom junior secondary education is terminal. There is need to examine the testing procedure to see how well it encourages the use of literacy skills. This would, in turn, determine the extent to which content area teachers prepare their students for lifelong success.

To sum up, the project investigates three related questions: What types of literacy skills and strategies in English do students have upon being admitted into junior secondary education in Botswana? What kind of literacy instruction is provided at the junior secondary level to support learning across content areas in school and to provide adequate skills for further study, training, or work life? How do literacy assessment practices support teaching and learning in the junior secondary schools? It is necessary to investigate these weighty questions in order to improve the quality of literacy learning in English, and in other content areas in the secondary school in Botswana.

In this work we define language and literacy skills as:

A rich set of strategies that include reading and writing across a range of texts and media for communicating, understanding, problem-solving, and productively participating in society, including academic, home, work, and community contexts.

Language and literacy teaching in the junior secondary schools: A focus on English, Science, and Social Studies curricula

English. Members of the Molepolole and Tonota Colleges of Education and the heads of Senior and Junior Secondary schools, in consultation with teachers in their English departments, jointly created the Botswana Ministry of Education Junior Secondary English Syllabus in 1995. Additionally, English teachers throughout the country participated in consultations and workshops to help shape the syllabus (Republic of Botswana, Ministry of Education, 2005b).

It is important to note that during the lifespan of the *National Policy on Education (NPE)*, from 1977 to 1994, English was taught only as a subject from Standards 1–4 and then introduced as a medium of instruction in Standard 5 (Government of Botswana, 1994). In the *RNPE*, English is used as a medium of instruction from Standard 1 onwards. As already indicated, it is used in the teaching of Mathematics and Science in Standard 1 and in the teaching of other subjects in the curriculum from Standard 2. In Secondary education the medium of instruction, for both the *NPE* and *RNPE*, and for all subjects except Setswana, has been English.

There are two major components of the English program: Language and Literature. Literature is selected from the Ministry of Education prescribed list, however students are encouraged and expected to read more widely from literature school libraries must make available. One of the goals of the Library Skills section of the syllabus is to help students develop reading proficiency in fiction and nonfiction texts. A second goal relates to positioning the school library as a major cross-curricular learning resource for all subjects.

Subject aims for the three-year junior secondary English program

The program should seek to develop the ability of the students to:

1. Communicate accurately, appropriately, and effectively in speech and writing, both in and outside school;
2. Understand and respond to what they hear, read, and experience in a range of situations, settings and media;
3. Enjoy reading a range of literature, not only fiction but also general interest works and materials;
4. Convey information and logically order and present facts and ideas based on other subjects of the curriculum; and recognize and use different registers, implicit meaning, and nonverbal communication appropriate to the situation.

(Republic of Botswana, Ministry of Education, 2005b, *English Syllabus*, p.5)

English instruction is allocated five separate 35 minute periods each week. The policy is to use a communicative approach “where the students learn the language by using it in meaningful interactions, communicative activities and problem solving tasks thereby encouraging more spontaneous and natural discourse” (Republic of Botswana, Ministry of Education, 2005b, *English Syllabus*, p.2). Teachers are instructed to provide a Language to Literature ratio of 3:1, in recognition of the need to develop communicative skills. That is, out of 10 lessons, two or three

would be dedicated to studying literature from the Ministry of Education prescribed texts (Republic of Botswana, Ministry of Education, 2005b, *English Syllabus*, p.3).

Study skills are viewed as a “functional extension of the language syllabus” (Republic of Botswana, Ministry of Education, 2005b, *English Syllabus*, p.2). The rationale for this is the importance of equipping students with “appropriate reference skills to assist them in organising their lives and daily work both in school and beyond” (Republic of Botswana Ministry of Education, 2005b, *English Syllabus*, p.2).

Literature is viewed as “particularly important as an aid to the study of the language” and “is also intended to make a significant contribution to the moral and intellectual development of the students in that they have exposure to universal truths embodied in literature” (Republic of Botswana, Ministry of Education, 2005b, *English Syllabus*, p.3). Work related to using literature in the Junior Secondary is meant to “enable pupils to gain further practice in the key areas of listening, speaking, reading and writing, consolidating these skills in interesting and communicative ways that enrich their day to day language.” The use of literature is also seen as promoting “a culture of reading” that will enable students to access information on a wide variety of topics, and “promote confidence in self-expression leading to improved communication” (Republic of Botswana Ministry of Education, 2005b, *English Syllabus*, p.3).

The curriculum document is divided into three Forms corresponding to the three years of junior secondary school. Each form is divided into three terms, and within each term the curriculum is divided into the following categories: Listening, Speaking, Reading, Writing, Study Skills, and Literature. A variety of skills and strategies are outlined for each of these areas for each of Forms 1, 2, and 3 and for each term (Republic of Botswana, Ministry of Education, 2005b, *English Syllabus*, pp.6-25).

It is clearly stated in the Botswana Curriculum documents that students in junior secondary schools need to attain skills necessary to go on to more schooling or vocational training, or into the work world. English as a medium of instruction is seen as a direct link to achieving the aims of the Basic Education Programme. Additionally, English across the curriculum is viewed as functioning to “stimulate concepts in other subjects [by] bringing different insights into their content material” (Republic of Botswana, Ministry of Education, 2005b, *English Syllabus*, p.3). In particular, the literacy skills needed to learn across content areas are alluded to in the English curricula. For example, “The programme should seek to develop the ability of the students to convey information, and logically order and present facts and ideas based on other subjects of the curriculum.”

A key goal of this project will be to examine the kinds of language and literacy instruction provided in English classrooms at the junior secondary level to support learning across content areas in school, and to provide adequate skills for further study, training, or work life. And specifically, how might this instruction be extended or complemented in other content areas?

Science. “The science syllabus is designed to cater to students who will proceed to senior secondary education or vocational training, and for those who will leave at the end of form three to the work world. In teaching the syllabus, it should be realised that when children come to school, they come not with blank minds, but with some knowledge, skills, attitudes, and beliefs. Some of these experiences may become useful or inhibitive during the teaching/learning process, and so teachers have to be aware of these earlier experiences to more effectively communicate understanding through recognizing individual abilities, interests, and needs” (Republic of Botswana, Ministry of Education, 2005b, *Science Syllabus*, p.2).

Subject aims of three-year junior secondary science program:

At the end of three years of Junior Secondary Science Program, students are expected to have developed:

1. An understanding of basic principles and concepts of science as they are experienced in everyday life;
2. Positive attitudes towards scientific skills such as curiosity, open-mindedness, creativity, objectivity, integrity, and initiative;
3. An ability to use process skills associated with the practice of science for understanding and exploring natural phenomena, problem solving and decision-making;
4. An awareness and appreciation of the interrelationships among science, technology, and society in the context of science and everyday life;
5. An awareness, literacy, and understanding of the significance of computers in science related careers;
6. The ability and responsibility to protect the environment and use natural resources on a sustainable basis; and
7. The ability to make informed decisions about further studies and science-based careers and vocations.

(Republic of Botswana, Ministry of Education, 2005b, *Science Syllabus*, p.4)

Science instruction is allocated five separate 35 minute periods each week, and the topics range from general knowledge observed in Science classrooms worldwide to knowledge that is specifically related to Botswana (e.g. Water in Botswana, Conserving Energy, Metals and Nonmetals, and Managing Natural Resources (Republic of Botswana, Ministry of Education, 2005b, *Science Syllabus*, pp.6-22).

While there is clear acknowledgement of the background knowledge and experiences of students, and the important connection of these to the curriculum, as well as an implication of the need for literacy skills, there is no specific mention in the Science syllabus of associated reading and writing skills, and approaches to ongoing assessment that might support students' learning in this content area.

Social Studies. The following background to the Social Studies curriculum is provided in the Botswana Ministry of Education document: "For Botswana, Social Studies dates back to 1968 when it took part in the Mombasa Conference (Kenya), which was to pioneer the subject in Africa. From this conference, the African Social Studies Programme (the current African Social and Environmental Studies Programme) was born. Then, the overwhelming concern was to make learning as relevant to learners' lives, circumstances and opportunities as possible. The methodology espoused was that of inquiry, thus teaching strategy had to be learner centered. Inquiry by definition, demanded process, intellectual and behavioral skills, all had to form a significant part of a Social Studies program if it were to accomplish what it proclaimed to be its purpose. Developing in phases of cohorts and policies, Social Studies in Botswana has been maturing with such vision in mind since 1982 at the primary school level." (Republic of Botswana, Ministry of Education, 2005b, *Social Studies Syllabus*, p.2)

At the Junior Secondary level, Social Studies was introduced in 1986 as part of the existing two-year junior certificate program. In the *RNPE* of 1994, changes meant to “mature the subject to attain skills and diversity” were adopted (Republic of Botswana, Ministry of Education, 2005b, *Social Studies Syllabus*, pp. i–ii). These changes include “projects, the use of continuous assessment, internationalised scope of content, individual research skills and greater attention to varied local conditions in Botswana.” In addition, attempts have been made to include contemporary topics of concern, such as environmental education, population and family life education, HIV/AIDS awareness, and gender sensitivity (Republic of Botswana, Ministry of Education, 2005b, *Social Studies Syllabus*, pp. i - ii).

Subject aims of the three-year junior secondary social studies program:

On completion of the three years of Junior Secondary Social Studies, students will be able to:

1. Understand and appreciate Botswana’s environment, society, development, and their interrelationships;
2. Recognize the importance of culture within Botswana and the problems that accompany cultural or societal change;
3. Understand the main development issues facing Botswana and the most serious social problems facing humanity;
4. Appreciate Botswana’s position within the African continent in terms of regional, political, and economic groupings and its bilateral and multilateral relations with other countries;
5. Understand the concept of governance and structure of their government;
6. Practice concepts of justice and good citizenship and choose to participate in the growth and development of society;
7. Analyze and use simple statistical information and maps;
8. Collect, organize, evaluate, and use data;
9. Carry out investigations into social phenomena, report findings, and take appropriate action;
10. Understand the underlying principles that guide Botswana’s foreign policy; and
11. Understand their relative strengths and weaknesses for future learning and work opportunities.

(Republic of Botswana, Ministry of Education, 2005b, *Social Studies Syllabus*, p.4)

Social Studies instruction is allocated four separate 35 minute periods per week. Additionally, it is mandated that “about 20% (approximately six hours per term) of instructional time will be spent on projects and applied Social Studies (educational visits/study tours)” (p.2). The social studies curriculum has exciting and important goals that speak to the social and political world of the Botswana student. However, while it is acknowledged that students need skills, such as the ability to “collect, organise, evaluate and use data,” and “analyse and use simple statistical information and maps,” there is no mention of specific literacy-related instruction, or approaches to ongoing assessment, which might support teaching and learning of such underlying skills and strategies.

How do language and literacy assessment practices support teaching and learning in the junior secondary schools?

Assessment in Botswana basic education. Both the *National Policy on Education* (1977) and the *Revised National Policy on Education* (Government of Botswana, 1994) mandate assessment of learning achievement with the rationale that it be used to facilitate the improvement of basic education. Thus, three separate nationally mandated assessments are carried out: the Standard 4 Attainment Test, the Primary School Leaving Examination (PSLE), and the Junior Certificate Examination (JCE). The Examination Research Testing Division (ERTD) develops these assessments.

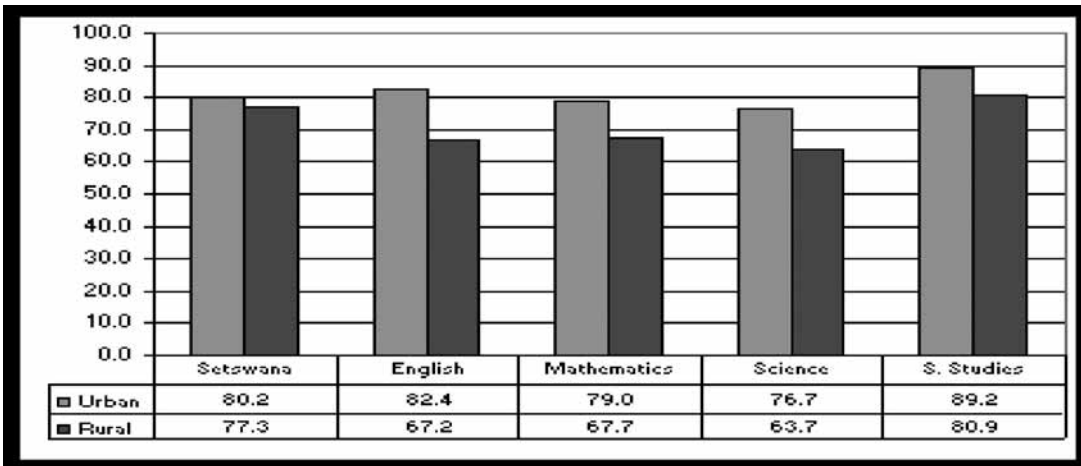
The Standard 4 Attainment Test is a test battery developed by ERTD and administered at the local level by the classroom teacher. The stated purpose of this assessment is to diagnose and monitor student progress at the midpoint of Primary School education. The tests are used to retain students who “show a serious deficit in attainment of basic literacy and numeracy skills at Standard 4” (World Education Forum, 2000, section 2.3). While records do not appear to have been collected nationally regarding the pass rate for this assessment (students must attain a grade of at least 50% to pass), statistics on “survival rate” to the Standard 5 level for 1996 indicate a rate of 85.7%, though some of the 14.3% that did not survive to Standard 5 may have dropped out (see World Education Forum, 2000, section 8.2.2 and 9.2). With the RNPE recommendation that the policy of automatic promotion be revised, and a policy of assessed promotion be adopted, these types of assessments are now more frequently being used in all standards at the primary school level with an allowable retention rate of 12.5% of each class (World Education Forum, 2000; UNESCO, 2002, section 8.2.2).

The Primary School Leaving Examination (PSLE) was originally developed as an entrance examination for Junior Secondary School. Subsequently, the PSLE was developed as a criterion-referenced achievement test. It consists of five subjects: Setswana, English, Mathematics, Science, and Social Studies. There are notable differences in pass rates across subjects as well as differences across rural and urban contexts (see table below).

The criterion-referenced PSLE consists of five subjects, Setswana, English, Mathematics, Science, and Social Studies. Criteria for mastery for each subject were set during the test development process. For reporting purposes, letter grades are attached to criteria of mastery. The percentage of pupils that attained a C criteria or higher in each of the five PSLE subjects was between 65% and 85%. These percentages are presented in Figure 19 by subjects and locality.

The data shows that for all PSLE subjects, a higher percentage of students in the urban areas than those in the rural areas attain the criteria of C or better. The order of differences from highest to lowest is English (15.2%), Science (12.7%), Mathematics (11.3%), Social Studies (8.9%), and Setswana (2.9%).

Table 1
Percentage of pupils who master basic learning competencies (1998 PSLE)



Source: Primary School Leaving Examination Results, ERTD, Government of Botswana, 1998

“Urban and rural differences in the percentage of children that attain the criteria of C or better can be explained by a number of factors. The highest difference is in English, while the lowest is Setswana, both language subjects. The most plausible explanation for the differences is the fact that a higher percentage of children in the urban areas hear and/or use English everyday. Some are fluent in English either because they use it as their first language, or because they attend English medium schools. Furthermore, English language is the medium of instruction and the language of the examination for the other three subjects. This means that mastery of English affects all subjects except Setswana... An explanation for the difference in other subjects may include the exposure to facilities and resources that stimulate learning (e.g. TV, computers) and allocation of instructional and support material in the urban schools as compared to rural schools, and the higher percentage of untrained teachers in rural areas.” (World Education Forum, 2000, section 9.2)

A particularly relevant finding for this study is that “performance in English influences performance in Mathematics, Science, and Social Studies more than it does performance in Setswana. Conversely, performance in Setswana does not have as great an influence on performance in Mathematics, Science, and Social Studies as it does English.” (World Education Forum, 2000, section 9.2)

Table 2
Intersubject correlations on percentages of children attaining C criteria mastery

	Setswana	English	Math	Science	S. Studies
Setswana	1				
English	0.80	1			
Math	0.71	0.94	1		
Science	0.72	0.97	0.95	1	
S. Studies	0.72	0.96	0.95	0.95	1

Source: Primary School Leaving Examination Results

Junior secondary school terminal examinations. In Junior Secondary Schools, achievement tests in each of the subject areas are administered at the end of Form 3. The primary purpose of these exams is the selection of students for Senior Secondary School. The Botswana Ministry of Education states that the final Junior Certificate English Examination should be comprised of the following:

- Paper 1 – Objective Paper (broadly based on a range of syllabus objectives),
- Paper 2 – Continuous Writing (featuring Composition and Letter), and
- Paper 3 – Open-ended questions seeking short answer and paragraph responses (focusing mainly on Literature, to include Extensive Reading, but also featuring sections on Listening Comprehension and application of language).

(Republic of Botswana, Ministry of Education, 2005b, *English Syllabus*, p.5)

This curriculum document also states that the Terminal Assessment for the Junior Certificate should reflect a balance between the grades on the language and literature assessment and the Continuous Assessment record (comprised of teacher observations of classroom performance and testing of language skills throughout the course) (Republic of Botswana, Ministry of Education, 2005b, *English Syllabus*, p.5).

The Junior Certificate Social Studies Examination is comprised of three papers:

- Paper 1 – Objective test items covering knowledge, comprehension, and “high order (application, analysis, synthesis, and evaluation);”
- Paper 2 – “Short essays, questions of inference, deduction and logical reasoning. It will have stimulus attributes and relevant questions as well as some subjective ones. The student would be expected to use references and/or tools to answer questions;” and
- Paper 3 – A continuous assessment score derived from project work, mostly related to the syllabus.

(Republic of Botswana, Ministry of Education, 2005b, *Social Studies Syllabus*, p.4)

Finally, the Junior Certificate Science Examination also consists of three papers:

- Paper 1 – Objective type questions; testing knowledge and understanding of scientific concepts, application of scientific knowledge, and understanding of new situations;
- Paper 2 – Two sections:
 - Section A, Short-answer questions, knowledge, and recall of Scientific concepts; understanding of scientific knowledge and relationships; translation of information from one form to another; reading information from graphs, tables, and charts; representing information in the form of graphs, tables, and charts.
 - Section B, Description/essay and problem-solving questions; translation of information from one form to another: reading information from graphs, tables, and charts; representing information in the form of graphs, tables, and charts; application of scientific knowledge and understanding to new situations: explanation, interpretation, and application of information; analysis, synthesis, and evaluation of scientific information; planning of investigations; and

Paper 3 – “A series of questions to test past experience of practical work, planning of investigations, designing and planning an experimental procedure, use of apparatus and materials, record observations and measurements, and interpret and draw conclusions from observations and experimental data.”

(Republic of Botswana, Ministry of Education, 2005b, *Science Syllabus*, p.5)

The syllabus also states that continuous assessment is to be undertaken by teachers over the course of the three years of Junior Secondary School; however, no reference is made to how much weight the continuous assessment is given in the final Science grade. The continuous assessment may consist of written tests administered during the three years, laboratory work, and project work based on student-selected topics.

The transition rate from Junior Secondary school to Senior Secondary school is close to 50% and access is determined by passing the junior certificate. The number of spaces available at the Senior Secondary school level is limited. Since Junior Secondary schools far outnumber Senior Secondary schools, students must compete for spots based on merit. However, exceptions are allowed for students with special needs (UNESCO, 2002, p.13). As noted earlier, other students take advantage of a variety of vocational training institutions. For many of the graduates, however, Junior Secondary education is terminal, and they then enter the work force.

Several key issues emerge related to assessment and Junior Secondary school language and literacy teaching and learning. First, findings from the criterion referenced tests given at the end of Primary school indicate that, based on correlations between English and subject areas, “performance in English influences performance in Mathematics, Science, and Social Studies” (World Education Forum, 2000) clearly illustrating the important role of English skills in learning across the curriculum. This is not surprising as Wiggett et al. (2001:262) reports, 78% of the primary school teachers they used in their study believe that criterion referenced testing has led to an improvement in their examination results. Secondly, there is a balance of summative (i.e. norm-referenced) testing and ongoing, formative or “continuous assessment,” in determining scores for the Terminal Assessment for the Junior Certificate.

Section 3: Review of Literature

Research on literacy across the curriculum in Botswana

There is a paucity of descriptive research on in-school literacy, especially literacy across the curriculum in Botswana. Focus has largely been on the National Literacy Programme, which targets adults and out-of-school youth. The National Literacy Programme has been very successful although it has been mildly criticized. Maruatona, (2002), for example, considers its administration too centralized.

There is, of course, acute awareness by the government and other stakeholders of the need for research on literacy in the Secondary school. For example, Kedikilwe (1998) in his official opening address to the third biennial conference on Teacher Education in 1997 asks:

Does the education offered in Government schools produce people with critical thinking, problem solving ability, individual initiative, interpersonal skills, and readiness for the world of work? If not, why? (p. 8).

This question, which mirrors the various aspects of the definition of literacy we have provided, indicates that the government is uncertain about the quality of the graduates from its school system, and desires to ensure that research is done to ascertain the skills students acquire. In other words, there is need to discuss various aspects of literacy in the secondary school. This need has been reiterated in a couple of recommendations. The first, Recommendation #8, in Yandila et al. (1998, p.379), states that “Teacher educators should ensure that reflective teaching characterized by constructivism, creativity, problem solving and enquiry methods is used in classrooms.” And the second, in Letsholo et al. (2001, p.424) makes a similar point: “The Ministry of Education should commission more research on the impact of language across the curriculum.”

It is then clear that the need for research on literacy in the Secondary school has never been more urgent than it is now. This is especially true because there has been little research in this field in Botswana. A notable example of research in this area is Maruatona (1998) who discusses the quest for effective learning across the curriculum in Botswana. She indicates that the teaching arrangement is “basically anti-dialogic and designed to stifle the potential of the learners to develop a critical perspective towards the programme they are taught” (p.88). This promotion of silence in the classroom happens across the curriculum because the learning situation is teacher-centered rather than learner-centered (p.88) (see also Barr and Jagg, 1995). The present study, therefore, seeks to examine systematically literacy teaching across the curriculum in the secondary school in Botswana.

Reports in North America: Key points made about adolescent literacy

A review of four major North American reports on adolescent literacy (Alvermann, 2001; Moore, D.W., Bean, T.W., Birdyshaw, D. and Rycik, J.A., 1999; National Institute of Child Health and Human Development, 2000; and *Reading Next: A Vision for Action and Research in Middle and High School*

Literacy, 2004) reveals a multifaceted picture of what is needed to support adolescents as they read, write, and learn across the academic content areas, and express their learning through print and other media.

However, several key points are consistent across the reports. All the documents stress that the needs of adolescent literacy learners has had too little attention. As children progress through school, they need an increasingly complex set of skills and strategies for learning and problem solving across curricular areas with print texts and media, whether they are going to continue in academic settings or join the work world. This should not be surprising given that reading texts strategically is particularly important in a time when the ability to garner, negotiate, synthesize and critique information across a range of print and nonprint genres is acknowledged as a key component of participating in global information or knowledge economies (c.f. Luke & Elkins, 1998).

For instance, while there is some variation in terminology, the following types of reading comprehension strategies are considered central to helping students read a variety of texts across the curriculum: making connections, engaging with the text, active meaning construction, monitoring understanding, Analysis and synthesis, and critical reading (c.f. Rogers et al, 2005). These comprehension strategies are compatible, for instance, with the best practice comprehension methods recommended by the National Reading Panel (2000). In addition to these reading strategies, adolescents need to acquire a range of related writing and study skill strategies to succeed in content area learning.

At the same time, these documents note that literacy strategy instruction needs to be sensitive to the identities, knowledge, backgrounds, language proficiency, and social futures of the students being taught, and should be engaging for students as they learn to solve problems in a variety of subject areas.

A second key point is that ongoing, informal (i.e. formative) assessment is crucial to bridging from what students know to what they need to learn. While summative assessments can assist with accountability and provide important research data, formative assessments help teachers make instructional decisions that support student learning. The *Reading Next* (2004) report calls this element foundational: “if instruction is not closely informed by ongoing formative assessment, it is too likely that teachers will overlook important gaps and improvements in skills and knowledge, undermining the efficacy of instructional innovations” (p. 29).

A final key point in these reports is that teachers need training and professional development that supports their understanding of teaching literacy across the content areas to adolescents, and that students deserve teachers who have this training.

The relevance of North American research and reports to the Botswana context

The research from North America may have some important, if limited, contributions to the Botswana context. In particular, the emphasis on teaching a wide variety of literacy strategies across the curriculum is relevant. Currently, the complex tasks of teaching both English language skills, reading, and writing strategies across a variety of subjects and texts is placed largely with English teachers in Botswana Junior Secondary Schools. These North American reports, however, emphasize that these tasks should also be shared by teachers of content area subjects: “When instructional principles are embedded in content, subject-area teachers provide or reinforce instruction in the skills and strategies that are particularly effective in their subject areas” (*Reading Next, 2004, p. 15*). Another document points out that students who struggle to read in content

area classrooms deserve instruction that is developmentally, culturally, and linguistically responsive to their needs and “to be effective, such instruction must be embedded in the regular curriculum” (Alvermann, p. 2.)

Embedding reading and other language and literacy skills in the various content areas is a useful principle across these two contexts. However, it should be noted that Botswana Junior Secondary School goals and policies are also keenly sensitive to the particular kinds of knowledge and skills that are relevant to a developing nation with specific goals and challenges. For instance, what kinds of literacy skills are needed to understand, evaluate, and develop potential in students to address context-specific topics of concern in work, vocational, and academic settings—topics such as environmental education, population, and family life education, HIV/AIDS awareness, and gender sensitivity?

Current research in literacy in England, for instance, argues for the importance of “local” (e.g. Barton, Hamilton and Ivanic, 2000) or situated literacies that are connected to the life of communities beyond schooling, noting that only more “autonomous” literacy skills (Street, 1995) are valued in many school settings. In this vein, it might be useful to look at the relationships among in-school and out-of-school literacies and practices in the Botswana context to reflect a richer set of curricular goals and approaches that will serve students in a variety of contexts.

It may also be essential to look not only at print literacy practices, but also the multiple literacy practices (or multiliteracies) across a variety of contexts, media, and genres (e.g. New London Group, 2000) that are increasingly becoming part of academic and work lives. As mentioned before, developing knowledge economies increasingly require people to flexibly negotiate and evaluate information from a variety of sources, genres, and media.

Section 4: Research Questions and Methodology

As stated earlier, this project investigated three related questions about Secondary literacy practices in Botswana schools: What types of literacy skills and strategies in English do students have upon being admitted into Junior Secondary education in Botswana? What kind of literacy instruction is provided at the Junior Secondary level to support learning across content areas in school, and to provide adequate skills for further study, training, or work life? How do literacy assessment practices support teaching and learning in the Junior Secondary schools?

The project had several objectives, to: 1) Review and analyze current policy and practices regarding quality of literacy curriculum and assessment in Junior Secondary education in Botswana; 2) Identify and document current promising practices in these areas in Junior Secondary education in Botswana; and 3) Identify main issues for reform of curriculum and assessment.

It is important to restate our definition of literacy, which is the backdrop to our investigation: In this work, we define language and literacy skills as a rich set of strategies that includes reading and writing across a range of texts and media for communication, understanding, problem-solving, and productively participating in society, including academic, home, work, and community contexts.

Our methodology included document review, teacher questionnaires, and interviews with school administrators, government officials, and faculty at a teacher training college. The questionnaire for teachers explores seven areas related to literacy teaching in Junior Secondary schools: perceptions of literacy skills of students entering Junior Secondary school; the nature of literacy instruction in Junior Secondary schools; the literacy demands of textbooks; the role of assessment in supporting literacy instruction; in and out of school literacy activities; assignments and library use; and computer use (see Appendix 1 for Questionnaire). These questionnaires were completed by teachers in six schools: two across urban, two peri-urban and two remote schools, all in the South Central region of Botswana (see Appendix 2 for list of schools). A total of 59 questionnaires were completed by teachers (ranging in each school from 5-16 core teachers, which included English, Social Studies, Math, Agriculture, Science, Moral Education, and Setswana. We received a total of 20 questionnaires from the remote schools, 23 from the peri-urban schools, and 16 from the urban schools).

The team worked together in Botswana during two weeks in late June 2005. The questionnaires were sent to the schools in advance of the team visits to each school. The research team collected the questionnaires during their visits to the six schools at which time we interviewed either the head teacher or the deputy head teacher of the school. In some cases we were able to speak with the teachers and answer questions they had about the questionnaire and explain the larger purpose of the study. The team was also able to visit an urban primary school (see Appendix 2), observe literacy instruction, and speak with the head teacher.

The administrator interviews were built around the same seven areas that were covered in the teacher questionnaire (students' needs and abilities related to literacy; teacher resources and needs; materials used; assessment practices; library and computer facilities; teacher

preparation and development; and student futures). One team member took notes of the interviews that were later transcribed according to the seven areas.

When all the questionnaires and school administrator interviews were completed (at the end of week one), the team did a preliminary analysis of the data on site to ascertain eight key issues that were raised by teachers and administrators. These eight issues were then used as the basis for interviewing government officials and teacher educators (during week two). The issues are:

1. Literacy instruction across the curriculum and school versus mainly in English classrooms.
2. Teacher-centered and student-centered (differentiated) instruction.
3. Resources needs.
4. Student futures.
5. Role of assessment in learning.
6. The use of English in classrooms, particularly in relation to spoken English.
7. Teacher education and professional development.
8. Communication between primary and secondary schools.

Organizing our questions around these eight issues, we then interviewed key core area representatives from the Department of Curriculum and Evaluation, key Secondary Education Officers for core subjects in the South Central Region of Botswana, and Teacher training instructors in a Secondary College of Education.

We then further refined our eight key issues by examining each issue in relation to all of the questionnaire and interview data. During this process, we sometimes refer to new documents (not previously reviewed) that helped us to provide a perspective on the issues. Finally, we offer recommendations for further study and for policy making in relation to literacy in junior secondary schools in Botswana.

Section 5: Discussion of Findings

Transition from Primary to Secondary School

The nature of the transition. Botswana has made noteworthy progress providing universal education to all children through Grade 10, in line with UNESCO's goal of Education for All. A reported 100% transition from primary to junior education has been achieved (Government of Botswana, 2003; p. 272). Most students make the passage from primary schools to high schools with a relatively small number of dropouts. For some students, the progression to junior secondary school involves a shift from one physical location to another. In the remote rural areas, almost all of the students shift to a residential school with visits to home only during extended vacations. The construction, wiring, and staffing of these sites with libraries (some computer access and staffing with trained personnel) is occurring in significant numbers throughout the country.

Drawing on the strengths of primary schooling. The junior secondary schools seem well positioned to begin to consider how they might build from what many of the Botswana educators recognized as the strength of the primary school experiences—especially the solid literacy learning that has occurred in the primary schools and opportunity to pursue a broader program of studies to meet the needs of the students they serve, who have a range of future goals and trajectories in terms of work and schooling. In an effort to explore these issues, an attempt was made to look at the transition from primary to secondary school in conjunction with a review of the questionnaires; interviews with school administrators; and discussions with school inspectors, curriculum, and evaluation personnel as well as teacher education. In addition, a posthoc decision was made to visit to a primary school to observe literacy practices and discuss issues of transition with the head teacher.

In terms of approaches to teaching, including the development of literacy, the transition from primary to junior secondary is significant and includes a shift in expectations in terms of student learning and what the teachers deem to be their responsibilities. The questionnaire responses suggest that most of the junior secondary teachers see their responsibility as tied to teaching their specific subject area content versus pursuing, for instance, an inquiry driven approach across subject areas, which would include supporting the development of their students' ongoing literacy strategies. As we have discussed elsewhere, junior secondary teachers assume that they have some responsibilities in terms of literacy development, but most subject areas teachers seemed to assume that it was not their responsibility and indeed, they had the expectation that primary teachers should have done it.

Integrating across subject areas in secondary schools. Albeit our observations were limited, we saw some strong evidence that the junior secondary curriculum is set up in a fashion that does not support integration in the same ways as the primary schools. We observed primary teachers who were integrating subject areas learning and literacy development across subject areas. And we found evidence that junior secondary teachers kept subject area learning quite separated. Mathematics was taught separate from science or agriculture or social studies,

etc. Even library and computer studies were taught apart from other classes, rather than as a means of supporting research or inquiry. And, consistent with this approach to teaching and learning in the junior secondary school, literacy tends to occur in some subject areas and not others with little apparent crossover, whereas in the primary schools literacy did cross over and was used as a tool for inquiry, problem-solving, exploration, and communication. Whereas the junior secondary curriculum appeared to be text-based and test-driven, the projects and curriculum within the primary grades was more rooted in the everyday experiences of the students.

Communication between primary and secondary schools. The disconnection between primary schools and secondary schools has other dimensions as well. In particular, there seems to be lack of a working relationship across junior secondary and primary contexts, including a failure to share information. As the primary school head teacher we interviewed noted, the understandings that primary teachers have acquired are not relayed to the junior secondary teachers either formally or informally. As she stated: “The student reports are supposed to follow them to junior secondary school but they are not requested. ... Secondary schools work from Government tests only—but don’t get information about individual students’ strengths and weaknesses.” The secondary school inspectors noted when asked about the break between primary and secondary level and how they liaise with primary inspectors: “We don’t come together to share information...” They recognized a gap that needed to be addressed.

Addressing the gaps between primary and secondary schools. There are a number of ways the gaps between primary and secondary school might be reconciled. Botswana has excellent curriculum development support and other resources that might work together in a way that better integrates primary and secondary efforts. Teacher education programs could commit to ways by which more consideration is given to working across the grades and subject areas. Preservice teachers could be provided experiences—practicum and learning experiences—to ensure an orientation to teaching and learning across the grades, as well as learning across subject areas and social domains (see the discussion on teacher education and professional development).

Secondary teachers and primary teachers might pursue activities whereby exchanges and joint engagements occur. At a minimum, secondary teachers should have the opportunity to engage with the primary teachers for purposes of learning about the background of the students who have or are progressing to the secondary schools. In addition, primary teachers might facilitate engagements with the secondary teachers and the students in ways that might ease the transition of students. Secondary teachers might build upon the experiences of the students in the primary schools and primary teachers might be informed by what the students will experience in the secondary schools. For example, the secondary schools might look for ways to capitalize upon the reading and writing experiences as well as projects pursued in the primary school. The primary teachers might pursue research and other projects as precursors to what the secondary teachers might be planning.

Finally, the government and schools need to develop a better data management system that works across primary and secondary schools, as well as subject areas in a fashion that contributes to more informed teaching and support for students.

Language and literacy across subject areas in junior secondary schools

Secondary schools in the information age. Botswana's success in providing universal education from primary to the junior secondary level brings new challenges. As more students move from primary to secondary schools, they are expected to learn new information across the curriculum through reading, writing, speaking, and listening (and, increasingly, through viewing a range of media). However, English teachers currently have much of the responsibility for promoting literacy skills among students in all curricular areas. We suggest that literacy could be redefined as "using a rich set of strategies to access and use information across a range of texts and media for communication, understanding, problem-solving and productively participating in a range of contexts" (see background to study) to support a culture of literacy in schools across disciplinary areas, and engage all core teachers in literacy teaching.

Teachers' perceptions of students' language and literacy skills. Although there was some variation across schools, most teachers (86%) rated the development of conceptual understanding in their content areas as their most important responsibility, and the development of language, literacy, and study skills were seen as less important. Yet, many responded that year one students' reading, writing, speaking, and listening skills were only fairly adequate, somewhat adequate or not adequate at all. For instance, 28 or 47% of teachers felt that only 30% or fewer of their students had adequate reading or speaking skills. For writing, it was 20 or 34% of teachers who felt that 30% or fewer students had adequate skills. And for listening, 19 or 32% of teachers felt that fewer than 30% or fewer of the students had adequate skills. Clearly there is a need to support students' language and literacy skills as they embark on a more rigorous content curriculum in the secondary school.

Reasons provided for students' language and literacy skills being less than adequate. Many teachers suggested that students' English language skills interfered (see section on the role of English and other languages in the secondary classroom) with content learning, that textbooks were too difficult, there was a lack of background knowledge, that students lacked learning strategies, there were shortages of supplementary materials, and that students lacked motivation. School administrators added that there was rarely a "culture of reading" in the schools, among teachers or students (see Arua and Lederer, 2003), further hampered by a lack of materials and resources and a lack of teacher training to support language and literacy across the curriculum (see also sections on resources, teacher education, and professional development).

The challenge of involving all teachers in language and literacy learning. Curriculum officers agreed that all subject area teachers should be involved in language and literacy instruction. The Science officer noted that otherwise "it negated the whole process of learning science, which is getting information and probing." A teacher educator concurred that "teachers are only interested in looking at content; they are not interested in language. We tend to compartmentalize."

As in many other countries, the challenge of encouraging secondary content teachers to be literacy teachers is formidable for all the reasons stated above. In particular, teachers would need professional training and development to encourage and support their efforts to engage in teaching their students not only what to learn, but how to learn; that is, how to access information, and use it in productive and critical ways. The data from the teachers on independent

reading and critical thinking skills was particularly noteworthy. Only two (3%) teachers ranked their students' independent reading and critical thinking skills as adequate. 25 (42%) and 15 (25%) of teachers, respectively, felt these skills were fairly adequate, and as many as 12 (20%) and 21 (36%) of teachers, respectively, felt that these higher level skills were not adequately developed among their students.

To address this problem, teachers need to understand that literacy instruction is still essential at the secondary school. It is interesting and heartening to note that 50 of the teachers we surveyed, or 85%, agreed that literacy training for all teachers is important. Yet less than half felt as though they had any kind of training at all in this area (see section on teacher education and professional development). Reading across content areas, for instance, is "a complex, purposeful, social, and cognitive process in which readers simultaneously use their knowledge of spoken and written text and their knowledge of their culture to construct meaning" (NCTE, 2005). This process is developmental and is intricately tied to learning across subject areas as students proceed through schooling.

To support this process, teachers need new teaching strategies and approaches. For teachers to be able to effectively integrate literacy instruction into their classrooms, it is likely they will need to move toward more student-centered approaches to content area literacy and learning in junior secondary schools (see section on student-centered vs. teacher-centered learning below). In addition, it would be beneficial for schools to consider further developing the library and computer resources so that students can access a wide range of resources and materials to learn about their subject areas, their culture, and the world (see section on resources for literacy instruction).

Student-centered vs. teacher-centered approaches to teaching and learning in junior secondary schools

The need for student-centered approaches. School administrators and teachers mostly agreed that moving toward student-centered, interactive approaches benefits students' learning. This includes differentiated learning approaches and addressing learning styles, providing remediation as needed. We note that this approach would be consistent with students being given an opportunity to use a range of literacy and meaning-making strategies to access, use, and critically evaluate information across the curriculum (using background knowledge, questioning, predicting, and evaluating information, etc).

Currently, classrooms appear to be run in teacher-centered fashion with lecturing as a key approach to teaching. The exception to this was in some subjects, such as the arts, design and technology, and agriculture where students were given opportunities to learn by doing. This is related to systemic constraints in the schools, which includes classrooms with as many as 50 or more students in many of the core subject areas.

Approaches to student-centered and differentiated learning. In the questionnaires, teachers provided a wealth of suggestions for improving language and literacy skills, including classroom debates and role-playing, small group work, more informal discussions, extended reading assignments, learning to conduct and present research (using information gathering on the internet and from other resources), using audio-visual aids, involving students in problem-solving, and writing critical essays on issues such as HIV/AIDS and corporal punishment.

We concur with these ideas and suggest more differentiated approaches to learning that include whole class, group, and individual instruction. In some cases, teachers would then become

“coaches” or “mentors” to students as they explore ideas and understandings through different kinds of instructional activities.

Cross-curricular approaches to student centered learning. Curriculum officers noted that there was a need for more cross-curricular approaches that deal with critical societal issues (such as agriculture, HIV/AIDS, etc). They also observed that learner-centered approaches were demanding and difficult given the pressures of class size and content coverage. Inspection officers noted that there was quite a variety of approaches in the schools, with some teachers using a range of methodologies and others who were “stuck.” They agreed that interactive teaching and learning should be promoted so that information is shared, for instance, in individual, paired, and group presentations.

Teacher trainers pointed out that because many teachers use teacher-centered approaches, the students rely on teachers for information. They were self-critical in admitting that they often emphasize student-centered approaches, yet they lecture to the teacher training students themselves. Finally, they noted there is not adequate time in their program to model inquiry approaches and they themselves need more training in working with heterogeneous/mixed ability groups.

In sum, moving toward infusing the classroom with learner-centered approaches across the curriculum that support the use of rich literacy strategies among students appears to be a promising, if challenging, goal to pursue in the junior secondary schools.

Resource needs for literacy instruction in junior secondary schools

Preamble. Botswana has also made a commendable effort to provide resources for its junior secondary schools. Although some schools are grappling with how to use them effectively, computers and library facilities are two resources that need special mention.

Computers in junior secondary schools.

Availability of computers. Each of the six secondary schools we visited has 20-50 computers for a staff complement of about 20 and a student population of about 550. This is remarkable, in that remote, peri-urban, and urban schools are all treated equally regarding the provision of computers. One of the noteworthy features of how Botswana schools are run relates to the effort that the government makes to provide similar facilities in number and quality to all schools regardless of where they are located, thus providing equal opportunities for all students in the country.

General use of computers. Junior secondary schools in the urban and peri-urban areas have fared better in the use of the computers than schools in the remote and rural areas. The computers that remote and rural schools received could not be used immediately because of lack of electricity. However, the situation has improved as electricity has reached many of the places hitherto affected. The major problem that urban and peri-urban schools now have, as questionnaire responses show (48 or 81% of teachers), is lack of internet connection. This is a

serious problem which affects the remote schools as well. Without internet connection, the use of computers in cross-curricular instruction for information search and retrieval for staff and students is impossible. One solution to this problem is to advocate special internet tariffs for junior secondary schools. The adoption of this solution which is already being applied to some South African schools would greatly enhance the general use of computers in the junior secondary schools in Botswana.

Use of computers in teaching and learning. In spite of the enormous benefits to be derived from doing so, some teachers say that students should not be allowed to search the Internet because it could be used for pornographic viewing. For this and other reasons, only 34 teachers (58%), as the questionnaire responses show, make the effort to give their students computer-related assignments and projects. Some other teachers (14-24%) do not bother to do so because they do not have access to computers. The lack of internet connection mentioned previously is also a discouraging factor. Computer use has, thus far, been a desired but ineffectively implemented strategy for teaching learning across the curriculum.

An additional factor making for the ineffective use of the computers is the view that only a few teachers, especially those in the sciences, can supervise computer laboratories and teach computers skills. This is so in spite of the fact that 44 or 76% of our respondents know how to use computers. We are of the view that all teachers who can use the computer should be involved in teaching its use. This would remove the division of teachers into the science group that can teach computer skills and the humanities group that can teach literacy skills, as these sets of skills are too closely related to be separated.

There are several issues that need to be addressed in relation to the use of computers in teaching and learning in junior secondary schools. The government should make funds available for internet connection. Each school should legislate how their computers should be used and monitor teachers and students' use of the facility. Software for blocking pornographic viewing should be used. And, to reiterate a point made earlier in this report, the teacher training curriculum in the secondary colleges of education should include computer training.

Junior secondary school libraries.

There are libraries in all the schools we observed, but there is need to make them more effective as places of learning and teaching and thus more attractive to students and teachers.

Availability of library materials. There is an acute shortage of new/recent and relevant books in the libraries. Junior secondary schools do not have modern equipment such as computers, CD-ROMs and DVDs in their libraries. Daily News, the free government daily newspaper, reaches remote area schools sporadically or not at all. These are the reasons why teachers and head teachers insist that they need libraries that are well-stocked and that contain up-to-date materials and equipment. It would be necessary to improve the delivery of newspapers to remote schools, to stock the libraries with recent and relevant books, and to house some of the computers available in the schools in the libraries, so that it would be clear to students and teachers that a close relationship exists between computers and libraries in literacy instruction. Alternatively, libraries and the computer laboratories should become extensions of one another. This would show that information search and independent study take place in all kinds of places, a notion that graduating students can take with them as they proceed to further studies or start their work life.

Junior secondary school librarians. During our discussion with faculty at Molepolole College of Education, the library lecturer noted that junior secondary school librarians are teachers who studied Library Studies as a minor subject in the secondary colleges of education. According to the lecturer, Libraries Studies is not available as a major subject for all teacher trainees. As secondary colleges of education graduates are posted to junior secondary schools on the basis of their majors, this implies that no teacher has primary responsibility for the teaching of library studies in the schools. It also implies that teachers can only attend to library matters after they have fulfilled their primary obligation of teaching their major subjects.

There is much that is good in making sure that some teachers, inevitably English language teachers, have some library training and can thus employ this for the benefit of their students in junior secondary schools. Nevertheless, it is necessary to rethink the relegation of library studies to the status of a minor subject in the secondary college curriculum. This implication of unimportance seems to indicate that it is not a priority at the junior secondary school. Such a rethinking should include a specification of the job profile of those to be employed as librarians in the schools. The profile should include the promotion of a reading culture that teachers, as noted elsewhere in this report, have shown to be absent in the schools. The proper specification of the job profile of librarians may persuade Ministry of Education officials to view employing some teachers as full time librarians in junior secondary schools as worthwhile.

Making junior secondary school libraries user-friendly. The libraries we observed were underused. There were no students in them because access to the library was (still is) limited to once a week (for a 35 minute period) for students in each class. Other than at the time specified on the time table, very few teachers take their students there. Only 25 or 42% of the teachers sampled indicated that they are involved in teaching their students how to use the library. A greater number of teachers (37 or 63%), however, indicated that they give their students assignments that should make them use the library. It is obvious that students cannot use the library for their assignments because of the lack of relevant materials in it. In addition, the fact that computers are not available in the library and that there is no Internet connection for information search and retrieval makes it impossible for students to use the library as their teachers desire.

In view of the above, it is clear that the library, as currently organized, is a space where SILENCE, a sign we found in almost all the libraries we visited, reigns. There is need to make the library a vibrant center of learning where students can continually interact with up-to-date diverse learning materials and thus be able to conduct independent inquiry. Such a center would need the school to reconfigure the time table to allow teachers and students time to access and use it. Teachers and students should be made to understand that the library, the community, and the classroom are extensions of one another. This is especially necessary in the remote schools where there is a big disconnect between these three concepts. In any case, the current practice where teachers and students rely almost entirely on prescribed texts (which are generally available) is unhealthy for teaching literacy across the curriculum and for fostering the spirit of independent inquiry and problem solving in the students.

The role of English and local languages in literacy instruction in junior secondary schools

The languages in the junior secondary school classroom. A majority of the respondents are of the view that Botswana's language in education policy, a subject that has

captured and sustained the attention of educators (see, for example Chebanne, Tsosope and Nyati-Ramahobo, 1993; Tsosope, 1995; Nyati-Ramahobo, 1996), should be revisited and possibly reformulated to reflect the language realities in the classroom. The current reality is that English is used as a medium of instruction alongside other languages of which Setswana, also used as a medium of instruction in the early stages of primary education, and Ikalanga are the most prominent. So pervasive is the practice of using all these languages that in the view of the teachers sampled, the use of English as the sole medium of communication and literacy instruction as the national language policy demands is unenforceable in Botswana's junior secondary school classrooms. In supporting the teachers' view, one language inspector in the Ministry of Education put it this way: "Since the early 90s the language policy is (sic) English, but teachers don't follow the policy."

Implementing the English only policy. The implementation of the English only medium of instruction policy had worked quite well in the past. Some Ministry of Education officials believe that one of the reasons for this was that an expatriate teaching population that did not understand the local languages had no choice but to teach in English. As it took a long time to train a sufficient number of local teachers, this gave the impression of an effective implementation of the language policy, because English was maintained as the sole medium of instruction in junior secondary schools for a considerable period of time.

The situation has now changed, as a predominantly expatriate teaching population has given way to a local one. The local teaching population does not feel obliged to use English as the only language of instruction. Rather, and as indicated earlier, they use Setswana and/or any other local language to support English in the classroom (see Nyati-Ramahobo 1999: 110 for a similar characterization). Using this apparently pragmatic approach, a typical high school teacher, depending on the linguistic environments in which they operate, and the number of languages they speak, may employ as many as three languages while teaching.

There are other reasons why languages other than English are now used in the classroom. One of them, as our questionnaire and interview data reveal, is to ensure that students are learning (again, see Nyati-Ramahobo, 1999, p. 112). This implies that teachers think that the use of Setswana and the local languages is vital to the learning process and therefore that they should be deployed as support media of instruction. Another reason is that students' spoken English and listening skills are not adequate (see section on language and literacy across subject areas). This shows that junior secondary school teachers encounter enormous difficulties in getting their students to understand the concepts they try to explain in class. The inevitable consequence of this difficulty is recourse to the local languages. Similarly, students are allowed to use the local languages in group discussions or when they encounter speaking problems in class. The teachers allow this to happen because they are of the view that learning should take place whatever the medium of instruction used. This is especially true of remote area schools where students have very low English language proficiency levels.

A related point made by head teachers and Ministry of Education officials is that the use of local languages may be due to the low English language competence of poorly qualified primary school teachers. Although such teachers are being retrained, they are currently not able to teach English well. Some pupils carry their language problems to the junior secondary school where they continue to experience language problems that teachers try to address by using local languages.

Finally, Umunnakwe and Anderson (2005) have shown that the local languages are used alongside Setswana, the official second language, even in the teacher training colleges. Lecturers and trainee teachers switch between English and Setswana freely in their classrooms. This suggests that the use of more than one language in a bilingual or multilingual classroom is a natural

phenomenon that has little to do with the language competence of those who code switch. Umunnakwe and Anderson also suggest that code switching by junior secondary school teachers and their students mirrors the practice in the secondary teacher training colleges.

Acknowledging the language problem. While junior secondary school teachers have acknowledged, and are proposing solutions to, the language problem, the government has not. Many of the core subject teachers, for example, suggest that the primary means of getting students to use English is to provide them with more opportunities to practice and use the language. This could be done if a student-centered approach, in which students are encouraged to use English in group discussions, class presentations, debates, role plays etc., is adopted (see section on student-centered vs. teacher-centered approaches). An additional, but more contentious, approach would be to group students into different language ability classes. Some of the teachers believe that students who have low English language proficiency levels would find it difficult to express themselves adequately in mixed language proficiency classes.

The teachers' final suggestion is that they should model speaking behavior better in and out of class. This point is related to what many junior secondary schools in Botswana have proposed — the school environment as an English speaking zone. The photograph below illustrates this point:



Theresa Rogers, 2005

In other words, the schools (similar pictures and/or phrases were found in all the schools we visited) acknowledge the difficulty in implementing an English speaking policy in and out of school and are making an effort to do something about it. However, as the policy is not monitored and sanctions imposed on those who violate it, the policy has not been effective. In fact, head teachers and their staff (academic and administrative) use English and the local languages freely within the school premises, thus effectively killing the policy.

The government should also acknowledge the complex language situation in junior secondary schools. It needs to study the roles of Setswana and other local languages of Botswana in the classroom. The main question to answer is whether the local languages are being used to support learning in ways that are meaningful. If they are, the language in education policy should become officially bilingual or even multilingual at the junior secondary school level. The contexts in which each of them can be gainfully employed should be specified. The management of languages in the classroom would then become a major area of discussion in educational circles, and teachers would need to be trained to understand the ways in which all the languages available in the classroom can be used to enhance learning and gain access to information and knowledge.

Assessment issues in junior secondary schools

Historical overview. Historically, assessment has been used on one level as a tool by which government agencies achieve accountability, monitor school progress, ensure the alignment of school teaching practices with government curriculum, and as a basis for determining which students are afforded certain educational opportunities. On another level, assessment is integrated in school-life in various ways, which are dynamically serving both formative and summative purposes. On a third level, assessment is used to engage students in self-assessment—reflecting on their progress, including goal settings and developing an understanding of strengths and areas of improvement, as well as ways to achieve ongoing and emerging goals.

The effects of high stakes testing. In high stakes assessment situations—that is, when assessments are used as a basis for determining educational opportunities—assessment has an impact that is monolithic, overriding its use in a dynamic and student-centered or even teacher-centered fashion. The effect is heightened when the stakes and accountability are tied to performance on preset standardized tests rather than a range of indicators, including classroom-based or teacher observations and other alternatives. Botswana has a history of high stakes assessment tied to an academic orientation, which is coupled with an emphasis on the use of preset standardized tests to judge the quality of schools. The end result, confirmed by teachers and government personnel, is that “testing drives instruction;” the government tests shape the nature of the curriculum delivery and what counts as learning, narrowing the indicators of school success. As the head teachers, curriculum developers, and teacher educators stated, assessment oftentimes has “too much” of an impact on teaching and limits student-centered learning.

The science curriculum specialist feared that student-centered learning would be a mirage as long as current forms of assessment continued. The English curriculum specialist was adamant that there was too much emphasis on tests. The moral education specialist believed the present situation perpetuated an emphasis on “passing the exams over learning.” Most agreed that the high stakes nature of testing and the measures themselves appear to be overriding other goals of schooling, such as student centeredness, inquiry-oriented approaches, a more robust and a fuller range of uses of literacy within a changing world and to meet community development needs while preparing students for a range of future opportunities. As a result, there appeared to be limited use of more student-centered and project driven assessment practices that might support a shift in the aforementioned orientation to literacy that we have been discussing. At the same time, the teachers completing the questionnaires do use the tests as motivational tools and are engaged in a range of classroom assessments as a means of judging student progress toward curriculum goals.

Other uses and forms of assessment. Amongst the teachers who completed the questionnaires, approximately 90% in all schools indicate that they are engaged in continuous assessment to assess student needs and use monthly quizzes and terminal assessment to determine student learning in terms of curriculum goals as a means of motivating students. We suspect that these assessments may provide teachers a vehicle for motivating students to behave and pay attention, but that they also likely perpetuate learning for the test rather than more participation in open-ended approach to problem-solving. Assessments seemed more teacher-driven and textbook based than project-based or student-centered. If a fuller range of learning is the goal, we would expect to see more stress on the use of portfolios, displays of student work and other forms of performance based assessments along with conversations among students and others about efforts, progress, achievement, and future goals. We could see a lot of emphasis on teacher assessment and quizzes of student work, but little evidence of student self-assessment or peer feedback. In other words, we did not see evidence that the students were learning to set goals, self-initiate strategies and activities to achieve these goals, or were able to judge their efforts, progress, and accomplishments. We saw little evidence of conversations among students about their work, conversations between teachers and students about their efforts, or discussions between students and the teacher. Rather we saw an emphasis on the teacher correcting student work, which was then returned with a grade or a score.

In all classes, we saw evidence of teachers routinely “marking/grading/scoring” students work in their schoolbooks and on quizzes. Further, we saw strong evidence in less academic areas (e.g. design and technology classes, agriculture) of performance assessment practices other than the paper and pencil practices and factual recall emphasized in mathematics and science.

Rethinking assessment practices. The government sponsored testing regimen should be examined more closely in terms of its impact on students, teachers, and administrators, as well as communities and other institutions committed to the development of Botswana. It is our opinion that the current system of tests appears to fail on a number of fronts. It discourages educational innovation when changes in the literacies of Botswana society are rapidly occurring. Cutoff scores to be selected for continued education are arbitrary, based on available seats rather than likelihood of success. The tests are not used as a means of refocusing teaching or the provision of support services. Rather, they are primarily used as a way of measuring and recording the achievements of some and the failure of others. Very few of the assessments are performance-based or facilitate links between schools and communities. Schools tout and display student scores on the government tests—the schools overall scores and how they rank—rather than providing an array of student work that might portray the efforts, creativity, and project work across an array of students.

This assessment concept represents approaches to teaching and learning that may not value or build on local knowledge. Standardization of assessment may afford ease of comparison and give the illusion of fairness and objectivity, but such measures should not totally displace other measures that afford fuller, richer, and more diverse accounts of student achievement that inform instructional decisions.

Teacher education, professional development, and cross curricular literacy instruction

Preamble. The need for professional training and development to encourage and support teachers’ efforts in teaching their students what to learn and how to learn has been briefly

discussed in the section on language and literacy across subject areas. In continuing the discussion here, we note again that teachers do not have the requisite professional training to teach across content areas. We now examine (issues related to) preservice and in-service literacy training and propose ways in which observed shortcomings can be addressed.

Preservice training in literacy instruction. Lecturers at Molepolole College of Education informed us during our discussion that cross-curricular literacy instruction was not part of the preservice teacher training curriculum. Junior secondary school teachers who indicate that they have been trained in cross-curricular literacy instruction cite Communication and Study Skills, an English for Academic Purposes course, that first year students take both in the colleges of education and at the University of Botswana to do well in their studies, as an example. This is certainly not a professional course in which teacher trainees are taught how to impart literacy skills to junior secondary school students.

The two departments of English are the only departments in the secondary colleges of education that list literacy skills in the professional component of their curriculum. They use the same syllabus. Instruction is given in how to teach the skills of reading and writing, among others. However, this instruction is either too general or relates only to the teaching of literature in English. Thus, the absence of literacy skills in the curricula of the other departments in the colleges reinforce the view that literacy instruction is confined to the language programs and that other subject teachers do not need to bother with it. This may be the reason why English teachers have been tacitly assigned the role of cross-curricular literacy instructors in Botswana's junior secondary schools. It is necessary then to revise the curricula of the colleges to include the literacy instruction component so that all teacher trainees will be equipped to teach across the curriculum when they graduate from college.

In-service training in literacy instruction. At this moment, there is no in-service training in literacy instruction for teachers. However, as already mentioned, many teachers (50 or 85%) think that such training is necessary. The reason they cite for its necessity is that teachers need to be effective and efficient—training in literacy instruction would enable them teach not only learners with different learning abilities, but even those students who have very low English language proficiency levels, including those who are not able to write their names. Surprisingly, many teachers (48 or 81%) indicated that they had taught literacy skills by encouraging study groups, giving students topics to research, teaching them library skills and interpretation of graphs, skimming, and scanning. However, the efficacy of the teaching is suspect, as less than half of teachers (as reported in the section on language and literacy across subject areas) had neither pre-service nor in-service training in literacy instruction.

Some teachers have not been held accountable for not teaching literacy skills because of the thinking that “only the language teachers must learn the skill.” Some respondents also indicate that “only new teachers who have just graduated should be trained because they are not familiar with teaching practice.” Because of these views — that literacy instruction is a language phenomenon and that inability to teach it is the result of lack of teaching experience, many content area teachers have abandoned its teaching while some have developed a negative attitude to it. In addition, the fact that some teachers know little English, and that the testing and examining regimen does not require the use of literacy skills, reinforce teachers' negative attitudes to teaching the skills.

There is need, obviously, for in-service training in literacy instruction. One suggested model is a school based, self-help training in which teachers work together to form a professional community to help one another to understand what literacy (the community could tackle other issues) means and how it can be integrated into the teaching of the core subjects. Another suggestion is the use of the 12 education centers whose role is specifically to support in-service teachers. The center manager in one of them indicated that they dealt with the needs of the teachers as pointed out by them. Teachers could use the centers to remedy their inability to teach the skills. Such training would hopefully bring about a positive change in the attitude of some of the teachers towards literacy instruction in the content areas.

Opportunities for the junior secondary school graduate

The success that Botswana has made in responding to the call for universal access to ten years of basic education raises new issues related to the social and educational futures of students who graduate from the junior secondary schools. Only 50% of the junior secondary graduates progress to the senior secondary level while the rest pursue other alternatives. The Government of Botswana is very alert to the prevailing situation and the teachers surveyed specifically cited the technical colleges and brigades as those options more often available for the junior secondary graduates, even in very rural areas. Such efforts to address access to and quality in postsecondary education is evident in the current National Development Plan 9 period.

Programs are being developed to meet the learning and vocational needs of the out-of-school youth, many of whom will be junior secondary graduates. Vision 2016 states that vocational and technical training must be available to all as an alternative to academic study. The Department of Technical and Vocational Education and Training is therefore working towards ensuring improved access to high quality technical and vocational education and training, which provides the youth with the skills they need to make a living. For students with Junior Certificate (JC) only, the options of technical colleges and brigades will remain until there are enough places to take all students through to senior secondary school.

Other programs for “out of school education” are offered by the Department of Non Formal Education (DNFE) and the Botswana College of Distance and Open Learning (BOCODOL). The emphasis here is on distance learning, with program delivery taking advantage of all available technologies including ICT to ensure the best possible means of reaching out of school learners in all parts of the country. The targets for BOCODOL indicate an increase in enrolment from 6,731 learners in the year 2000, to 26,547 learners in 2009 (NDP 9, p. 301). The aim is to increase opportunities for learners who wish to attain secondary education. Through the Guidance and Counseling program in schools, the students are informed of the options available to them should they not make it into the senior secondary schools. However, as the education system continues to graduate more and more candidates even at higher levels of learning, the junior secondary school leaver may find that they have to compete for the same opportunities with the senior secondary school leaver.

It is clear that Botswana will have to address the futures of its students and provide more opportunities for work and further learning.

Section 6: Recommendations/Promising Practices

Botswana has shown significant leadership in their educational endeavors and there appears to be significant national support for advancing the education of its students. However, Botswana is now poised for a new era of educational leadership that engages national groups with local groups to work toward improvement in education and related opportunities for youth.

A few general observations frame our recommendations below. Some of these observations are beyond the scope of our study per se, yet they may provide a broader context for our specific recommendations.

Our observations suggest that teachers approach teaching and learning in a fashion that is critical and informed. Their practice is informed by curriculum development, an understanding of their subject area, and an earnest commitment to their students. While we found the teachers to be curious and responsive to student needs, they also seemed to focus on a preset curriculum rather than to engage in self-initiated curricular innovations. Related to this, an emphasis on defining school performance in terms of success on national tests and alignment with the national curriculum seems to detract from a full range of local initiatives.

Throughout the nation there are ways to engage teachers in professional development on a regular and sustained basis, particularly in relation to AIDS/HIV education. Similar initiatives could be pursued with areas related to literacy, including learning technologies, project based learning, performance-based assessment, and community–school linkages.

The curriculum development staff we met with were highly qualified and knowledgeable, and displayed astute understandings of what is occurring and what might occur in schools. They were not prone to seeking “silver bullets” or a drastic overhauling of schools, yet they were keen to navigate a course of refinement and development. For instance, they did not simply give lip service to the value of student-centered approaches, and they were not uncritical of certain practices, such as the emphasis on testing.

The schools we visited were vibrant spaces for learning—students seemed motivated and engaged. At the same time, their enthusiasm seemed somewhat diminished by the schools’ failure to more fully embrace a school model of learning that might include projects, teamwork, and more access and opportunities for students to collaborate in the school libraries and computer rooms. Perhaps the library and technology should be more disbursed throughout the school. If the libraries and computer laboratories stay intact, access could be provided outside of school hours to students—especially those boarding—and to parents and community members. Thought might be given to portability via laptops and wireless networking of internet access.

The schools might consider how they could more fully engage with their communities in a way that creates new synergies, such that educational development and community development occur simultaneously. This could include institutions of higher education as well as other groups.

Nationally, Botswana needs to examine the extent to which they are engaged in a support for life-long learning, including educational opportunities for parents or for students leaving schools and returning to rural sites. Schools could be access points for a range of educational and

community development. The schools should build on the trust that they have among communities and consider the staffing of community development personnel to assist with the advancement of local literacies, as well as access to new literacies.

Finally, policymakers may want to rethink the language policy of schools so that the use of English and students' and teachers' first language can be used together with English in productive ways to support conceptual learning.

While we offer several recommendations for education improvement below, we would like to caution that our findings are based on a somewhat limited situational analysis conducted over nine months. Therefore, we present these recommendations as tentative and open for discussion and debate among the various stakeholders.

- The junior secondary curriculum could be aligned to the primary curriculum for a smooth transition, and information about students could be shared to inform instructional decisions in the secondary schools. Teacher training and professional development might include opportunities for teachers to observe and participate in both primary and secondary settings.
- A culture of literacy could be developed in the secondary schools in which all teachers share in the important role of supporting students' reading, writing, listening, and speaking skills across subject areas. This could be facilitated if more teachers were engaged in learning about content area literacies in their teacher training programs or in professional development contexts.
- A culture of literacy might include access to information through computers and libraries, which could become centers of information literacy. More teachers would benefit from having a background in these areas.
- More resources are needed in libraries and better access to the Internet is essential to promoting information literacy practices.
- The secondary curriculum could be more student-centred, inquiry-based and integrated so that students are engaged in literacy-based problem solving and critical thinking across subject areas to address issues important in the development of Botswana and beyond.
- Educational policymakers need to reconsider the language policies based on the realities of classroom contexts and the complexities of language use in learning.
- Policymakers should also consider placing less emphasis on high stakes standardized testing and more emphasis on rich, formative assessments that can inform teachers' instructional decision making.
- The literacy skills students obtain should equip them to fit the variety of opportunities available to them. A literacy skills profile for students leaving junior secondary school should be constructed.

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Appendix I

QUESTIONNAIRE ON LITERACY INSTRUCTION IN SECONDARY SCHOOL

This questionnaire seeks to elicit information on language and literacy skills in the secondary school in Botswana. More specifically, it seeks to elicit information on the language and literacy skills that students bring to the secondary school, literacy instruction by the teachers and assessment practices that enhance literacy instruction. The main purpose of the questionnaire is to help identify areas for improving literacy instruction in the high school.

Names are not required. Even then, all responses will be held in very strict confidence.

SECTION A: DEMOGRAPHIC INFORMATION

1. Name of school: _____
2. Class taught (Please choose only one class and respond only in relation to the class chosen):

3. Gender: Male _____ Female _____
4. Highest qualification: _____
5. Teaching experience (years taught/ forms:) _____

SECTION B: LEARNING SKILLS OF YEAR I STUDENTS (STUDENTS FROM PRIMARY SCHOOL)

6. Approximately what percent of your Year I students' language and literacy skills are:

	Adequate	Fairly Adequate	Somewhat Adequate	Not Adequate	
Reading	_____	_____	_____	_____	(total=100%)
Writing	_____	_____	_____	_____	(total=100%)
Speaking	_____	_____	_____	_____	(total=100%)
Listening	_____	_____	_____	_____	(total=100%)

(Note: Figures in each row should total 100%)

7. How do you think each of these skills can be improved upon in the classroom (when you teach the students)?

Reading: _____

Writing: _____

Speaking: _____

Listening: _____

8. How else do you think each of these skills can be improved upon? Please do not repeat what you have already mentioned in 7 above.

Reading: _____

Writing: _____

Speaking: _____

Listening: _____

9. Please indicate with a check mark (x) whether the following skills among your Year 1 students are adequate, fairly adequate, somewhat adequate, or not adequate:

	Adequate	Fairly Adequate	Somewhat Adequate	Not Adequate
Independent Reading	_____	_____	_____	_____
Critical Thinking (i.e. logical/reflective thinking and problem solving)	_____	_____	_____	_____
Study Skills	_____	_____	_____	_____

10. Again, how do you think each of these skills can be improved upon?

Independent Reading: _____

Critical Thinking: _____

Study Skills: _____

SECTION C: LITERACY INSTRUCTION IN THE HIGH SCHOOL

11. What is your primary teaching responsibility? (subject and grade level – please check one (with an x) in each group)

Subject		Form
a. English	_____	1. _____
b. Mathematics	_____	2. _____
c. Science	_____	3. _____
d. Social studies	_____	4. _____
e. Moral education	_____	5. _____

12. What factors do you think enable your students to learn the subject you teach them?
(Please be specific)

13. What factors do you consider to be stumbling blocks to your students' effective acquisition of the subject you teach? (Please be specific, e.g. English language skills, background knowledge, strategies for learning, motivation, difficulty of textbooks, other?)

14. How have you tried to remedy the problem(s) mentioned in 13?

15. Please rate your responsibilities as a teacher (a – e below) in terms of: Most important (1), Very important (2), Somewhat Important (3) and Not important (4).

- a. To develop your students' understanding of the content of your subject _____
- b. To develop students' language skills (reading, writing, listening and speaking) _____
- c. To develop students' literacy skills
(reading and writing in the subjects you teach them) _____
- d. To develop students' study skills
(research, information search and independent thinking) _____
- e. Other(s) _____

16. Which of the responsibilities in 15 do you actually engage in (or perform) in class?

17. a. Have you ever taught your students skills and strategies that would enable them to understand and learn the content of subject you teach them?

Yes _____ No _____

b. If yes, list the specific skills and strategies you taught them.

18. a. Have you had any kind of training in the teaching of literacy and study skills?

Yes _____ No _____

b. If yes, mention the kind of training involved:

19. a. Do you think literacy training for all teachers is important? Yes _____ No _____

b. If yes, explain why. If no, then who should be trained for it? Why?

SECTION D: LITERACY FEATURES OF PRESCRIBED TEXTS

20. Do you consider the language and concepts in the textbook(s) prescribed for your students to be:

Too difficult _____ Somewhat difficult _____ Appropriate _____ Too simple _____

21. a. Do the textbooks instruct students on how they can use them independently?

Yes _____ No _____

b. If yes, what do you consider to be the most important skills and strategies the textbooks provide (or specify) for the purpose?

22. What other features of the textbooks do you consider important (e.g. the use of crossword puzzles, questions, study suggestions, etc.). Please list them:

SECTION E: THE ROLE OF ASSESSMENT IN SUPPORTING LITERACY INSTRUCTION

23. a. Is continuous assessment part of your testing strategy? Yes _____ No _____

b. If yes, describe what you do and how it is helpful in your teaching?

24. a. Do you think that the terminal exams that you administer help your students acquire knowledge effectively?

Yes _____ No _____

b. If yes, state how it does so. If no, recommend a better examining strategy.

SECTION F: IN-CLASS/OUT OF CLASS LITERACY ACTIVITIES

25. Please list the activities that enable your students to be independent, to think critically and to read and write well while you are teaching in class

26. Similarly, list the literacy activities you ask your students to engage in while they are outside the class (even at home)

27. What other kinds of language and literacy activities or practices do your students participate in outside of school? Please specify them.

SECTION G: ASSIGNMENTS/LIBRARY USE

28. Which of the statements in a, b and c. is true? If none of the options is correct, then write a sentence that describes exactly what you do in each situation.

a. I teach students how to use the library

A school librarian teaches them how to use the library

b. I give assignments that make students to use the library

I use the prescribed text because it contains everything the students need

c. I give my students notes

I photocopy relevant materials for them

I let them make their own notes

SECTION H: COMPUTER USE

29. Which of the following options best describes the way you, your students, and school relate to or use the computer? If none of the options is correct, then write an appropriate one.

a. My school has computers staff can use for teaching their subjects
 My school does not allow staff to use computers to teach their subjects

b. I know how to use a computer
 I do not know how to use a computer

c. Students are allowed to use computers to develop projects
 Students are not allowed to use computers to develop projects

d. My school has an Internet connection which students can use to search for information
 My school does not have an Internet connection which students can use to search for information

SECTION I: LIFE-LONG LITERACY INSTRUCTION

30. What general suggestions do you have for better preparing students for work and other activities beyond schooling?

Thank you for your help.

Arua E.Arua
Penny Moanakwena
Theresa Rogers
Rob Tierney
Kim Lenters

Appendix 2

Junior secondary schools

1. Remote Rural

- ✓ Mahupu Community Junior Secondary School, Takatokwane
- ✓ Matsheng Community Junior Secondary School, Sojwe

2. Rural – Major Villages

- ✓ Boitshoko Community Junior Secondary School, Molepolole
- ✓ Baitlotli Community Junior Secondary School, Ramotswa

3. Town/City

- ✓ Bokamoso Community Junior Secondary School, Gaborone
- ✓ Marang Community Junior Secondary School, Gaborone

Primary school

- ✓ Ben Thema Primary School, Gaborone

About the Research Team

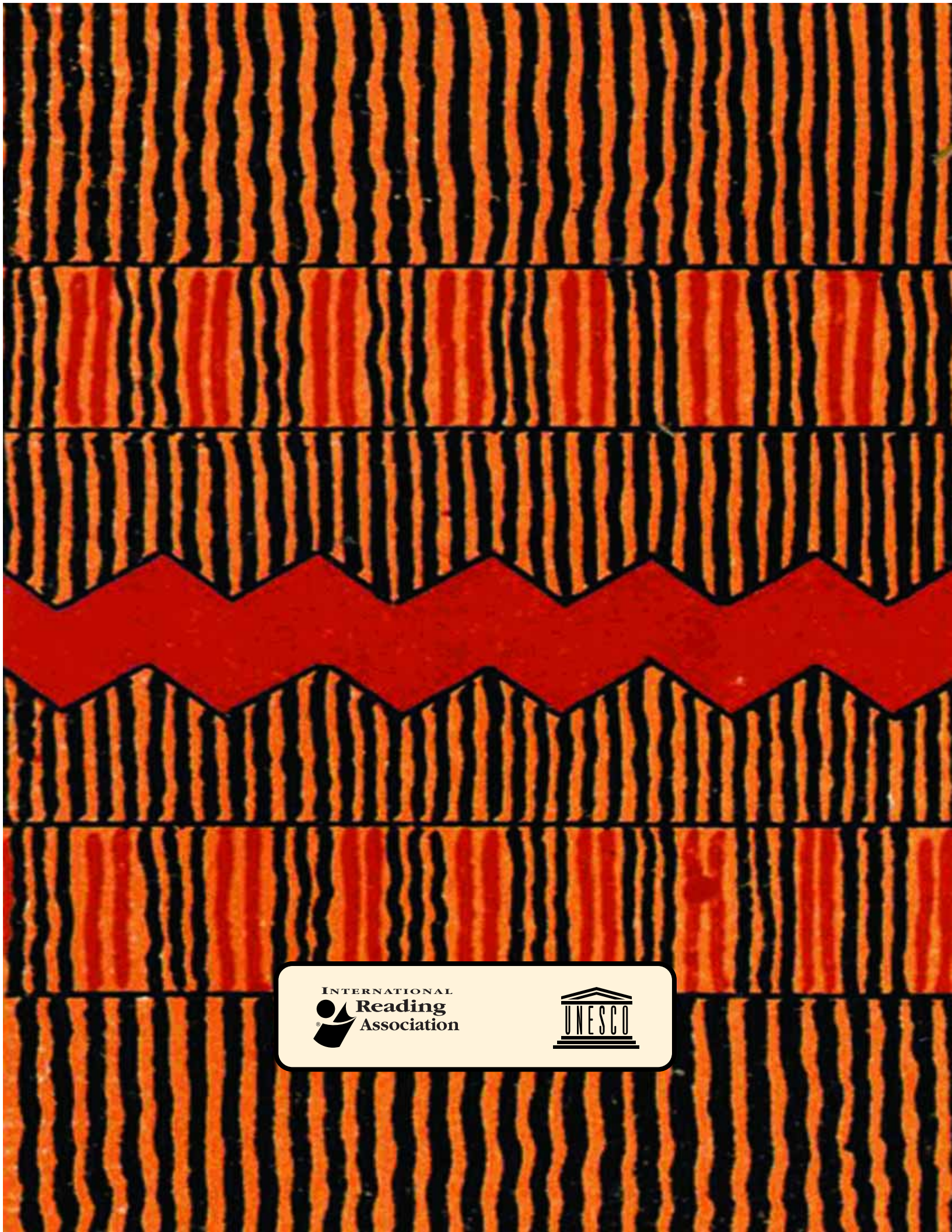
Arua Eke Arua is a Senior Lecturer in English at the University of Botswana, Gaborone, Botswana. Formerly a high school teacher of English language and literature, he now teaches Applied Linguistics courses at both the undergraduate and post-graduate levels. His qualifications include a Masters degree in English as a Second Language and a PhD in English obtained from Obafemi Awolowo University (formerly University of Ife) in Nigeria. His research interests include the language of education and reading in the primary and secondary school, and he is currently researching the roles that Setswana and two varieties of English play in teaching and learning in both the junior and senior secondary schools in Botswana.

Kimberly Lenters is a doctoral student in the department of Language and Literacy Education at the University of British Columbia, Canada. She brings ten years of teaching experience to her graduate studies: included in this is a three year term in Windhoek, Namibia teaching English as a second language and working with learners struggling with literacy acquisition. Her research interest is in working with adolescents from diverse backgrounds, supporting their reading skills and strategies.

Penny G. Moanakwena is a Lecturer in Communication and Study Skills at the University of Botswana, Gaborone, Botswana. She has previously taught at junior secondary school and teacher training (pre-service and in-service) levels in Botswana. Penny has also been a curriculum development officer for primary and secondary school English. Her research interests are mainly in the area of 'bi-literacy', looking at learning programs that include the use of two languages. Penny is actively involved with AIDS education programs. She has a Bachelor of Education from the University of Botswana, a Master of Arts in TESOL from the University of London, and a Hubert Humphery Fellowship with Boston University.

Theresa Rogers is an Associate Professor of Language and Literacy Education at the University of British Columbia, Canada. She is a former secondary school English teacher and received her masters of Education degree at Harvard University and her Ph.D. in Education from the University of Illinois. She has research and teaching interests in the areas of secondary/adolescent literacy (particularly among youth who struggle with literacy skills) and literature teaching. Current research projects include a three-year collaborative study of the multiple literacies of youth in an alternative secondary school, and a large-scale collaborative reform effort to improve the literacy skills of students in grades 4 to 8 in one large district.

Rob Tierney is Dean of the Faculty of Education at the University of British Columbia. Rob came to the United States from Australia in the early 70's where he grew up, attended universities, and worked as a classroom teacher in a demonstration school setting for Sydney University. For the past 25 years, he has held faculty positions at several major educational research centers and has served on several international advisory boards—especially in the area of literacy education. He has been the Past President of the National Reading Conference, past Chair of the Research Assembly for the National Council for Teachers of English and past editor of the Reading Research Quarterly. He has served on several panels for the United States Office of Education, international agencies, and a number of corporations including publishing and media groups. Internationally, he has been involved in pursuing cooperative endeavors with universities and governments in Europe, Asia, Latin America, Africa, the Middle East, and the Pacific.



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