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## Minority Language Use and Early Educational Hurdles in Botswana

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### Introduction

In an almost monolingual country such as Botswanas it is easy for people to take minority language users for granted. Their linguistic problems, especially in education, can become easily overlooked. Although Setswana is the national language and although some 90% of the population speaks Setswana, either as a first or second language, there are many people who do not speak Setswana at home. As such, they have to learn Setswana at school and use it as a medium of instruction for the first four years before switching to English, a third language. English and Setswana determine the educational achievement of minority language users for the rest of their lives. It is important, therefore, to systematically evaluate the educational performance of children who speak languages other than Setswana at home and compare their performance with that of children who speak Setswana at home. This will indicate disparities in the acquisition of literacy skills by minority language users if any.

### Methodology

Eighteen primary schools distributed throughout the country were selected for the study. Nine schools were selected from villages which are predominantly Setswana speaking. These schools were classified as category A. The other nine schools were selected from villages representing nine minority languages in Botswana. These schools were classified as category B. In all of the eighteen schools, questionnaires were distributed to teachers of standards five, six and seven classess.

The questionnaire solicited information such as teacher rating of students' English proficiency, availability of teaching materials in their schools and whether they felt that children who come to school with little or no-competence in Setswana have any special problems.

Individual teachers and students were also interviewed. They were asked about the language they speak, read, write and comprehend better, and which language they preferred as a medium of instruction. They were also ased how they felt about the language of instruction. Responses from each interviewee were written down (in short form) on an interview form.

Primary School Leaving Examination (PSLE) results from 1980 - 1985 were examined to see if there is a pattern in performance between minority language users and Setswana speaking students. Special attention was given to their English and Setswana results.

### **Data Analysis**

The data were analysed in two ways:

- A) The teachers' responses on both the questionnaire and the interview were scrutinized to see how each category rated their chilldren.
- B) The data were then analysed according to standards in each category, to see how children in the same standard but in different categories perform as seen by their teachers.

#### Results

### Students in Setswana Speaking Villages

At standard five students' ability in comprehension, speaking, reading and writing in Setswana is satisfactory. When they get to standard six, reading and writing in English begins to improve. They begin to write as good compositions in English as they do in Setswana (See table 1).

### **Students From Minority Language Villages**

Comprehension (when the teacher speaks in class) in Setswana as well as writing skills in Setswana are comparatively low at Standard Five. At Standard Six, their 'comprehension and writing' ability gets better. Reading and speaking howeverr remains a problem. At Standard Seven, performance in English begins' to improve in the first three skills.

At standard five, ability in English is much lower than it is in Setswana. This situation continues to standard six but at standard seven, more students are able to do better

in the first three skills in English and they begin to write as good compositions in English as they do in Setswana.

### **Common Features**

Speaking ability in English remains low for both categories throughout their primary school lives. The motivation to learn English for both groups is very high. They see English as a very important subject for getting a job and speaking to foreigners. Other important subjects are maths and science.

Both groups preferred to use English as a medium of instruction for the same reason as above. Students from minority language villages preferred to use their mother tongue as a medium of instruction in the classroom.

Table 1: How Category A Teachers Compared their Students' Ability in Comprehension, Speaking, Reading and Writing in Setswana and English

	Std. 5		Std. 6		Std. 7	
Skills	Eng.	Sets.	Eng.	Sets.	Eng.	Sets.
Comprehension	12.5%	87.5%	11.1%	66.7%	66.7%	22.2%
Reading	28.6%	57.1%	44.4%	11.1%	55.6%	33.3%
Writing	11.2%	85.7%	44.4%	44.4%	33.3%	55.6%
Speaking	9.5%	60.2%	11.6%	87.0%	6.2%	71.0%

Table 2: How Category B Teachers Compared their Students' Ability in Comprehension, Speaking, Reading and Writing in Setswana and English

	Std. 5		Std. 6		Std.7	
Skills	Sets.	Eng.	Sets.	Eng.	Sets.	Eng.
Comprehension	25.0%	62.5%	12.5%	75.0%	65.5%	23.4%
Reading	37.5%	50.0%	37.5%	51.2%	62.5%	37.5%
Writing	37.5%	64.4%	12.5%	75.0%	37.5%	37.5%
Speaking	9.1%	39.5%	13.6%	41.0%	6.2%	53.0%

### Primary School Leaving Examinations (PSLE)

The PSLE results - for the past six years indicate that Setswana speakers perform better it Setswana than other speakers.

Table 3: Average Percentage Performance of Category A Schools

Subject/Year	1980	1981	1982	1963	1984	1985
English	41.1	37.3	39.2	41.2	41.5	37.7
Setswana	45.0	51.6	40.3	48.0	46.5	43.0

Table 4: Average Percentage Performance of Category B Schools

Subject/Year	1980	1981	1982	1983	1984	1985
English	37.2	37.4	33.9	38.2	35.1	37.7
Setswana	27.3	20.3	24.1	18.6	29.5	23.5

### **Table 5: Percentage Difference**

Subject/Year	1980	1981	1982	1983	1984	1985
English	3.9	0.1*	5.3	2.9	. 6.4	0.0
Setswana	17.7	31.3	16.2	29.4	17.0	19.5

<sup>\* =</sup> in favour of other speakers.

#### Discussion

### Educational Implications

Comprehension and speaking ability that the Setswana speakers bring to the classroom from home serve as an advantage for them and the lack of these two skills by the other speakers serve as a disadvantage for them throughout their primary school lives

While other speakers are still working on acquiring comprehension and speaking in Setswana Setswana speakers are already working on reading and writing in Setswana

When other speakers are working on reading and writing in Setswana Setswana

speakers are already working on reading and writing in English. This is the central problem - Other speakers are a step behind the skill acquisition process. The ability to write in both languages (the grey area) for Setswana speakers comes at standard six and at standard seven for other speakers (Tables 1 and 2).

This clearly indicates the disadvantage the other speakers face with the PSLE.

The PSLE results (tables 3 and 4) clearly indicate that minority students have problems in Setswana. The percentage differences are greater (table 5), which might suggest that they could have better results if the Setswana mark were excluded from the PSLE aggregate. The problem of lack of comprehension at lower standards as described above is a contributing factor to lower performance by other speaking children.

The attitude toward Setswana is not very positive. First of all Setswana is competing with English which is seen as very important. Secondly Setswana is not a language for upward mobility and, therefore, there is no motivation to learn it. The best they want to do is acquire it and use it as a national language, outside the classroom.

Teachers disclosed that they use Setswana in the classroom most of the time because of their students' lack of comprehension in English. This implies that other speakers might not understand both languages in certain instances, therefore, hampering learning. On the other hand, this might help them acquire comprehension in Setswana.

### When does learning in a third language make a difference?

1. When both the teacher and students are other speakers but with different first languages, (Ll's) then the teacher tends to use English most of the time since he

is not fluent in Setswana. English then becomes the lingua franca in this classroom facilitating the acquisition of English - an example of this situation was found in Sepopa where a teacher was Subiya and his students were Bayei and Bambukushu. This situation works against the acquisition of Setswana and, hence the low performance in Setswana by other speaking students.

2. When both the teacher and the students are other speakers and are sharing the same LI, this will serve as the interpreting language when students fail to comprehend in English. This situation is true of only one ethnic group, the Bakalaka. Bakalaka teachers use Sekalaka in class (when theirs class is predominantly Sekalaka speaking) for interpreting when students do not understand English or Setswana.

This situation works against the acquisiton of Setswana but promotes the acquisition of English. Sekalaka in the classroom serves the purpose of providing comprehensible input (Krashen, 82.p9) for the acquisition of English.

3. When both the teacher and students are Setswana speakers, and the teacher is not very competent in English, then the classroom language is almost always Setswana working against the acquisition of English. When the teacher is competent in English, Setswana serves as an interpreting language, therefore, facilitating the acquisition of English. PSLE results indicate that for four years, (1980, 82,83, and 84) Setswana speakers have done better in both subjects than other speakers. It is important to note that the English percentage pass marks do not indicate wider margins between the two categories as does Setswana percentage marks which consistently indicate low performace by other speakers with wider margins between the two categories (See tables3 and 4).

It is evident then that it is easier for a learner to deal with two languages when one

is their LI than with two languages when neither is their LI. It seems only logical then that other speakers should acquire ground competence (speaking and comprehension) in Setswana before they can be expected to learn in it and embark on English. Research indicates that when children master literacy skills in their first language, it is easy to transfer such skills in to the second language - UNESCO (1983). Minority students could therefore, do better in Setswana if they are taught their first language. However, some students (Butcher, 1982) indicate that the learning situation determines whether mother tongue is necessary or not.

Otherwise it would seem logical to call for their LI or eliminate Setswana and remain with English as it is the case in Zambia (Banda, 1986). Two factors seem to matter when learning in a third language: 1) when the learner does not use the first language in the learning process and 2) has little competency in the second language.

### Sociolinquistic Implications: The Question of Nation Building

Botswana is caught up in a dilemma. On the one hand there is Setswana a unifying language, a language of cultural heritage, a language of wider communication within Botswana. But at the same time it is a language working against the faster acquisition of English, a language greatly needed for technological development and upward mobilitys the language of businesss and wider communication within and beyond the borders of Botswana and Africa. These two languages are both important.

Botswana, Lesotho and Swaziland are fortunate nations within Southern Africa in that they have resolved the question of which native language to use as a national language because of their almost monolingual nature. The remaining question is how can they promote and preserve the culture and tradition in the midst of western influence. Perhaps recommendation number four above could be the answer, hence the greatest need is to continue to work for true unity seems that the government has

been relucctant to implement suggestions made by the National Commission on Education (1977) in matters of language in education and society. The study by Keatimilwe and Komarek, (1985) reiterates these suggetions that attention be paid to the teaching of Setswana, and especially to monitor language groups.

### Recommendations

One factor that is clear from the findings is that, Botswana has to review her language policy both at policy and implementation levels. One of the following could be done:

1) Intensify the teaching of Setswana at pre-schools and lower levels in other speaking schools to facilitate comprehension and speaking ability in Setswana before beginning to teach in it. Implementing Breakthrough to Setswana in other speaking schools could be helpful.

OR

Remove the Setswana mark for other speakers from their PSLE aggregate since it is a clear disadvantage for them.

AND

2) Introduce English as a medium of instruction at standard three, not at standard five, to allow its acquisition more time before they sit for the PSLE in English. The three years (standard five six and seven) are not enough for one to acquire the necessary learning skills for a foreign language and write an important examination in it. This, however, would be useful to everyone and not just other speakers.

- 3) Concentrate on teacher education. The teacher education department should train the kind of teacher who is competent in spoken and written English, in both theory and practice of language learning and teaching in different cultural settings. Language teaching in Botswana needs attention especially in the areas of language across the curriculum and bilingual education.
- 4) Our educational system needs to be carefully looked into and be the kind of system which removes negative attitudes between different ethnic groups, a kind of system which will help every citizen know and appreciate the differences in cultures and languages which exist in this country and endorse them as important facets of the total culture of Botswana. How can this be achieved?. Perhaps not by teaching all the languages in the country but by teaching the cultures and traditions which exist in the country, making them part of the curriculum. The nine year curriculum has this task to perform; to include the findings of sociologists and anthropologists who have conducted research into the cultures of various ethnic groups.

#### Conclusion

There seems to be a need for the government to:

- make a clearly documented language policy which will recognize all ethnic groups as existing in their own right (see how they are presently classified, in Nyati-Ramahobo (1991).
- 2) Clearly define the role of Setswana as a national language as it is used in governmental spheres such as education, parliaments the court of law and so on to suit the needs of Batswana in such spheres.

In this paper I have argued that the unifying language, Setswana poses a problem for other speaking children in the primary school system. I have also linked this reality with the idea of nation building and ethnic equality. The areas of language teaching and learning and anthropology need greater attention now than ever.

#### **Notes**

- 1. The nine minority Language groups in Botswana are:
- A. <u>Bakalaka</u>. They occupy the North-eastern part of the country along the Zimbambwe Botswana border. Their languages Sekalaka is closely related to Shona (a Zimbabwean language).
- B. <u>Bayei, Bambukushu and Basubiya.</u> These three groups originate in Central Africa. They occupy the Northern part of the country.
- C. <u>Bakgalagadi</u> occupy most of the Kgalagadi desert in the South-western part of the country. Some are found in the North.
- D. <u>Bakgothu and Afrikaans</u> occupy the Southern part of the country, along the South African border.
- E. <u>Basarwa</u> (the Bushmen). They occupy the South-western part and the North central.
- F. <u>Baherero</u> originate from Namibia. They occupy the North and parts of the Central.

For full descriptions refer to Obondo, Okoyo (1986).

Tswana speaking groups include Bangwato, Batawana, Bangwaketse, Bakwena, Balete, Batlokwa, Barolong and Bakgatla.

2. The research project, of which this paper is a result, was initially titled: <u>Learning in a third Language: Does it matter?</u>

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teacher background factors. The teacher background factors that are of interest in the present discussion are the following: socio-cultural, educational, attitudinal and professional experience. The Botswana science and mathematics teaching force is made up of both Batswana and expatriate personnel. It is therefore immediately evident that there exists a diversity of socio-cultural, educational and professional backgrounds among the science and mathematics teaching force in Botswana schools. Even considering the Batswana teachers alone, the aforementioned diversity exists, albeit to a limited extent.

Let us focus initially on the background factors as they relate to the expatriate teaching force. This component of the teaching force, which presently outnumber the local component, is sourced from different countries, notable examples being the United Kingdom, the United States, India and the various African countries. There is ample reason to believe teacher preparation programmes are, to a real extent, unique to the learning environments existing in each of these countries. Thus, teachers are trained bearing in mind a more or less specific environment in which they will later function. It is unlikely, for example, that teachers trained in India or the United States are prepared with Botswana pupils in mind. While this latter point may be of little significance at the tertiary level of education, it is crucial in the context of secondary and lower levels. Knowledge or expertise of how to teach science to an American pupil does not readily translate into knowledge or expertise of how to teach science to a Motswana child due to the complexity of the factors that impinge on the teaching-learning process. Clearly, this has serious implications for the learning of science in Botswana schools.

First, the newly appointed expatriate teacher usually has no real feel for the background or initial state of his pupils, except perhaps for the prejudices he may have unwittingly acquired from those "who have been there". In terms of exposure to science and technology, the Motswana pupil from rural areas (the majority come from

rural areas) may very well have a "deficit" at the start of his secondary schooling. Confronted with a situation where the pressure is intense to "get on with the syllabus", the expatriate teacher will limp along as best as he or she can under the circumstances. Teacher-pupil communication may thus be rendered partially ineffective, resulting in learning of dubious quality or efficiency. If the expatriate teacher has a low threshold of frustration, he may be tempted to conclude that the scientific or mathematical concepts he is trying to impart to the pupils are beyond them. This is especially easy for the expatriate teacher to believe if he or she has been subjected to similar views from 'experienced' expatriates. Under these conditions not enough effort is expended in examining conflicts between teacher and pupil backgrounds. Science and mathematics learning therefore will proceed under suboptimal conditions.

Second, a Motswana pupil is, more often than not, taught by more than one expatriate teacher during his secondary education due to the turnover of contract staff. Chances are that the pupil is exposed to science teaching from teachers with different backgrounds, attitudes and professional experience. The process of adjusting to changing teacher may lead to learning difficulties, the intractability of which increases with nearness to final examinations. Closely allied to changing teacher background is the real possibility of changing "types of English", the medium of instruction. To the student an American speaks different English from a Briton or an Indian or a Ghanaian. Adaptation to this new change occurs in real time, during which period science and mathematics learning may be hampered, particularly for the weak or average pupils.

Last, concerning expatriate teacher background, there are indeed some expatriate teachers in the country who have overcome conflicts in pupil-teacher background and are rendering very good pupil performance in science and mathematics examinations. The background of local teachers will be discussed under teacher preparation.

### **Preparation on Supply of Science Teachers**

This category will primarily focus on the training of Batswana teachers. The accelerated expansion of secondary education has resulted in a large demand for teachers, particularly science and mathematics teachers. Until a few years ago, in-country preparation of secondary science teachers was carried out mainly at the University of Botswana. In order to cope with increased demand for teachers, particularly at the junior secondary level, two new institutions have been recently established: the Molepolole and Tonota Colleges of Education.

A vexing problem in the area of teacher preparation concerns the type of candidate attracted to the profession. It is common knowledge that a good science student would not consider teaching as a first career option. The reasons for this are numerous. The teaching profession is perceived to have little prestige except perhaps in the rural areas where the teacher may be an intellectual beacon on a generally unschooled flatland. Thus mostly average to slightly below average science students will go into science teaching. If educational programmes are to justify their existence, a majority of these average candidates must emerge from university or college with a qualification of some sort. These teachers of average quality then go into secondary schools to teach science to students with deficits in science experiences. situation then is one where teachers are expected to teach the same material that they found difficult in their early schooling. The present arrangement between the Ministry of Education and the University of Botswana where the top one third of secondary science graduates are channelled into science and technologically-oriented careers ensures that relatively less able candidates go into the education programmes. By some deviousness there have been years when even more than one third of good science graduates have been lured away by the faculty of science. Several factors are therefore at work to ensure good science students do not easily end up in the teaching profession. Similar observations were made by the National Commission on

Education (1977). Commenting on the quality of entrants to the teaching profession, the Commission observed:

"Here one is confronted with a vicious circle, because so long as the quality of the teaching profession is low, good new recruits will not be attracted to it. Yet the standing of the profession can only be raised by recruiting better candidates and providing them with better training". (page 129).

Attempts have been made to turn weak candidates into good teachers. Kahn (1983) observes that the Diploma in Secondary Education (DSE) offered at the University of Botswana takes weak candidates who would not normally be considered able to do advanced level work and educates them beyond A-level standard. Kahn further states that these DSE graduates leave the university with a broader view of science than their degreed counterparts and are highly regarded in schools. Assuming Kahn's observation to be correct, the DSE output is numerically insufficient to staff the schools with good science teachers. All these factors impact negatively on science teaching-learning process. Consequently, pupils are not always exposed to the best of teaching during their secondary schooling, resulting in possible inefficiency in the learning process.

### **Science Content Delivery Hurdles**

According to Anderson (1976), the body of scientific knowledge has grown to massive proportions and few people are certain as to the appropriate content to be included in pre-college curricula. Anderson further observes that:

"It is more clear now than ever before that we must select carefully what kinds of information will be presented and with what kinds of orientation." (p vii).

In the Botswana context science content should be selected on the basis of relevance

to life in Botswana. This entails an intimate knowledge of a pupil's background and the concepts of science and mathematics he brings to a learning situation. Armed with this knowledge, the teacher can then build on such concepts, thereby facilitating the learning process. Indeed, educational researchers in the learner pre-conception or misconceptions field have high-lighted the desirability of incorporating the ideas pupils bring to a learning situation into teaching strategies. In Botswana, very little research has been done in this area. However, a study by Prophet and Rowell, is the imposition of teacher view-points on the students leading to the inhibition of development of connections between students' existing ideas and those presented in class. The impact of this on learning is obvious; the learning process becomes less efficient. The reader is encouraged to consult the Prophet and Rowell study for an excellent "snapshot" of classroom interaction.

Another hurdle that limits the efficiency of the learning process is that science laboratories are inadequately equipped. The problem is particularly chronic in junior secondary schools. Here one find groups of up to six students sharing equipment. Observations during teaching practice reveal that under these conditions not all group members participate equally in the practical work, resulting in different degrees of learning. The use of highly structured worksheets in integrated science tends to discourage free-format thinking on the part of the student. On the teacher's part, there may be a tendency to focus on the completion of the worksheets to the detriment of everything else. The lack of skilled technicians in these schools means that if equipment breaks down it may remain out of commission for a long time, thereby restricting the range of activities students carry out during practical sessions. Concepts that could be better illustrated using the practical method are therefore rendered that much more difficult for the student

#### **Possible Solutions**

The prescription of solutions to complex educational problems is a hazardous task. This is compounded by the existence of divergent perceptions of what constitutes a solution. To the bureaucrat, it may be more important for large numbers of students to be exposed to a learning situation without due regard to the quality or efficiency of the learning process. More students mean more teachers, therefore, recruit more teachers from wherever they are available. Should there be a donor country willing to supply teachers, all the better. The bureaucraft feels safe to assume that the donor will supply experienced teachers. To him, it is all largely a numbers game. To the professor of education the solution lies in his area of specialisation. If he is a psychologist, the difficulties pupils encounter in learning may be partly alleviated by application of an appropriate psychological model. If she is a "methods" person the solution may lie in the use of an appropriate teaching method. To the educational philosopher, the answer may be found in the unambiguous specification of relevant educational philosophies.

A "content" specialist will focus on selecting relevant content and matching it to the learning group in question. The educational technologist will advocate the use of various teaching aids and media, for example, computers, overhead projectors, etc. The solution field goes on and on. Despite all this apparent divergence, it should be possible to find common ground and improve the learning of science and mathematics in our schools.

The impact of learner background on learning may be reduced if beginning junior high school science students are taught by good and experienced Batswana teachers whose background experiences are similar to those of the students. Such teachers may be better placed to put the students' problem into context and not be quick to dismiss students' "wrong answers" as ridiculous. In this regard, the current practice

of using less qualified diploma graduates to teach junior pupils need to be re-examined. This is important given that a student's early encounter with science may shape his future attitude toward the subject. If the early experiences are negative, the nation loses potential scientists, thereby slowing the pace of localisation in scientific and technical fields.

A good teacher is partly the product of good training. While justification exists for current drives to produce large numbers of science teachers, teacher trainers and others concerned should ensure that the teaching profession does not become the depository for the less able. Care should be taken to ensure that those successfully going through teacher preparation programmes do so based on their ability and not because they are needed to boost the numbers in the profession. Once in the profession the teacher should be kept abreast of developments in his field through meaningful in-service courses or workshops. A meaningful workshop is more than a get-together session. Proper assessment procedures should be devised to determine the usefulness of such workshops (i.e., is there a change in the teacher's in-class competency as a result of attending these workshops?). This would be more useful than simply asking the teachers whether they considered a given workshop useful. Workshops could also be used to help expatriate teachers acquire a correct perspective of the Motswana pupil's background and culture in order to minimise expatriate teacher-local pupil background conflicts.

Within the constraints of donor strings, educational officials should press for an active role in selecting the kind of expatriate science teacher that is recruited. In this regard, and financial resources permitting, teacher recruiting expeditions should be made not just of ministry officials, but representatives from other institutions concerned with secondary science such as the university and teacher training colleges. Together these representatives will be better placed to advise the government and the donor on the suitability of prospective candidates.

#### Conclusion

This paper has discussed a few important factors that affect the teaching and learning in Botswana's secondary schools. These are learner and teacher of science backgrounds, quality of teacher preparation programmes, the equipping of junior secondary schools and the kind of candidate that enters the teaching profession. A desirable situation is where academically able students enter into well thought-out and good quality teacher preparation programmes that enable them to teach competently, taking into account the belief system that students bring to a learning situation. Institutions concerned with teacher preparation should not hasten to yield to political pressure to focus on quantitative rather than qualitative production of science teachers. To maintain continuing teacher competency in their fields, meaningful workshops should be organised. Proper assessment of such workshops is desirable to ensure observable improvement of teacher classroom behaviours. Broadly-based recruiting teams are needed to assist in the selection of expatriate science teachers. The combined efforts of government officials, academics and the community are needed to ensure that a good atmosphere exists in the schools for students to learn science effectively. This will enhance the production of good science students, thus facilitating active citizen participation in the various scientific and technical fields.

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