COMMUNICATING LOCAL KNOWLEDGE IN A FOREIGN LANGUAGE

A comparative study of ideational and interpersonal aspects of primary school pupils' L1 and L2 texts in the Seychelles

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Abstract

Drawing on evidence from second language medium of instruction (L2 MoI) context (the Seychelles), the objective of the study was to investigate to what extent the choice of language is a factor that influences pupils' writing and their opportunities to incorporate their own knowledge, person, experiences and world views in their school knowledge production. The evidence is based on findings from a corpus of 308 written texts, produced by 154 primary six pupils in the Seychelles in the subject of Social Studies, where each pupil answered the same task under controlled conditions in their native tongue (Kreol Seselwa) and in English (L2 MoI) in a counterbalanced design. Apart from text length, aspects of two metafunctions from Halliday's Systemic Functional Linguistics (SFL) were investigated in the analyses, namely 1) the cognitive ideational dimension and 2) the social and interpersonal dimension. With relevance to the ideational dimension, we also looked at how students resorted to code switching to express their ideas. The results of the study show that pupils produced longer texts when writing in Kreol Seselwa and that they code switched more in the English texts. Further, the Kreol Seselwa texts contained far richer vocabulary to describe the semantic domain of the locally contextualised topic of the exercise. It was also evident that pupils used far more first-person pronouns when writing in their mother tongue, indicating a closer engagement with the text than when they wrote in English. The study has implications for policy-makers, teachers and most importantly learners in other multilingual settings, particularly in post-colonial countries like the Seychelles, where the mother tongue is undervalued in the classroom.

Keywords: Code switching, Kreol Seselwa, L2 medium of instruction.

1. INTRODUCTION

As early as the 19th century, Dewey (1899) discussed the importance of connecting school knowledge with real life knowledge, and the risk that not doing so leads to an "isolation of the school":

> From the standpoint of the child, the great waste of the school comes from his inability to utilize the experiences he gets outside the school in any complete and free way within the school itself; while, on the other hand, he is unable to apply in daily life what he is learning in school. That is the isolation of the school—its isolation from life (Dewey, 1899/1998: 76–77).

Schools in many parts of the post-colonial world face an additional challenge in this respect, namely language barriers. In most countries in Africa, for example, children are taught in a language which they rarely use outside school, and the marriage of real-world experiences with school knowledge thus involves not only the bridging of cognitive barriers, but also the bridging of language barriers.

In the 2016 UNESCO report on the impact of language policy and practice on children's learning in Eastern and Southern Africa (2016, p. 3), the authors list three major areas where second language medium of instruction (hereafter L2 MoI) policies have negative impacts on education systems: student engagement, cognitive processes, and learner-centred pedagogy. In all of these cases, the central issue arguably boils down to the MoI constituting a barrier between the outside world and the classroom world, creating an isolated school context. For example, the report points out that current L2 MoI practices mean that many students cannot understand what is being taught, and that parental understanding of the curriculum and the ability to help the child with his or her homework are impaired (See also Brock-Utne, 2007; Chimbutane & Benson, 2012). Further, the report argues that the construction of schemata for learning and the availability of prior knowledge in learning new content is hindered when pursued in a language the student does not fully master (see also Cummins, 2000 & 2015; Clegg & Simpson, 2016). The authors also maintain that learner-centred pedagogy, where students are able to critically discuss concepts and relate them to their own experiences, may not be possible if such activities are conducted in a language they do not master (see also Brock-Utne 2007, p. 512). In sum, the use of a foreign MoI risks acting as a fence between the school and the outside world, isolating and de-contextualising school knowledge.

The present study about the L2 MoI context in the Seychelles draws on two of Halliday's Systemic Functional Linguistics (SFL) metafunctions to compare and analyse specific aspects of texts written by pupils in English (L2 MoI) and their mother tongue (Kreol Seselwa), namely 1) the cognitive *ideational dimension* in written knowledge communication (see Halliday, 1994; Matthiessen & Halliday, 2014), and 2) the *social and interpersonal dimension* of the texts. The evidence is based on findings from a corpus of 308 written texts, produced by 154 primary six pupils in the Seychelles in the subject of Social Studies, where each pupil answered the same task

under controlled conditions in their native tongue (Kreol Seselwa) and in English (L2 MoI) in a counterbalanced design.

The subject chosen for the experiment was Social Studies, arguably the most locally contextualised subject in the primary curriculum. According to Ngonyani, (1997, p. 412), "[...] English affects education in all subject areas and perhaps especially in the social studies, normally considered the vehicle for forming a new multicultural national identity in postcolonial states". In primary school, almost all of the content in Social Studies in the Seychelles is based on local topics that are all very familiar to the pupils, such as the learners' village, community, local way of life, local industries etc. However, in primary six, the subject is exclusively taught and examined in English, and learning materials (often produced elsewhere) are not adapted for an L2-audience with varying levels of English proficiency. In this study, the overall ambition is to explore how the language of production (English or Kreol Seselwa) of a written task dealing with a local topic (fisheries) influences aspects of the ideational and interpersonal "richness" in the pupils' writing. Put more generally, the study explores how the choice of language influences pupils' opportunities to incorporate their own knowledge, person, experiences and world views in their school knowledge production.

It should be noted that the current article is part of a greater project context exploring various aspects of L2 MoI teaching and learning in the Seychelles, including curriculum and policy issues (Zelime & Deutschmann, 2016), teacher attitudes and classroom practices (Zelime & Deutschmann, 2018), and pupil performance (Zelime, Deutschmann & Rijlaarsdam, 2018). In the latest of these studies (Zelime, Deutschmann & Rijlaarsdam, 2018), where the data was drawn from the same student texts as in this study, we could conclude that pupils received better grades when writing in their mother tongue (Kreol Seselwa). Whereas that study was largely based on the pupils' ability to communicate their factual knowledge as defined by the task, the present study aims at investigating other more qualitative aspects of their writing.

2.   BACKGROUND AND CONTEXT

2.1 The Seychelles and its education system

The Seychelles, a former British and French colony, has a multilingual education system which is partly inherited from the two former colonial powers. Currently, the country has an "abrupt transitory" system of education, where children are taught in their mother tongue, Kreol Seselwa, during the first two years of primary school (ages 6-8), and then, from primary three onwards (ages 9-16), the MoI changes to English (Ministry of Education, 2000, 2004). Kreol Seselwa remains as a subject in school until primary six, after which it disappears entirely from the curriculum. In the first two years of primary school, English is taught as a foreign language, which it essentially is for many young learners. Seven forty-minute lessons a week are dedicated to the teaching of English during these years, but all other teaching is done

through Kreol Seselwa. Although the importance of English is recognised in the curriculum during these early primary years (as illustrated by the relatively high number of lessons per week assigned to English studies, for example), there is little specific recognition of the challenges involved with its future role as medium of instruction. There is for example no attempts at   content-based approaches, where other subjects such as Social Studies are taught through English at this stage. Neither is there any focus on the specific vocabulary that pupils need to be taught other subjects through English. The overall result of these policies is that many students have not reached a proficiency in English that matches their needs after the transition from L1 to L2 MoI in primary 3. French, although part of the trilingual framework in the National Curriculum Framework, basically holds the position of a foreign language, and is taught as such from primary one onwards.

Most of the examinations in the Seychelles, in all subjects, from primary three onwards, are written exams, a fact that places great demands on English writing skills. There is, however, little recognition of the potential learning barriers that limited L2 abilities constitute. Just like in many other African contexts, lack of resources means that learning materials are designed for, or build on, material designed for native English speakers (cf. Clegg & Simpson, 2016). It is simply too expensive to develop local learning materials. Further, a more or less monolingual approach to teaching and examination is the norm (see Zelime & Deutschmann, 2018). Kreol Seselwa is formally recognised as a support language in the overarching curriculum framework. Yet, the practice of code switching systematically in the classroom is rarely implemented in practice. Instead it is actively discouraged (see Zelime & Deutschmann, 2016). Neither are teachers specifically trained to teach in a L2 MoI context; this aspect of teaching is simply not addressed in the teacher training programs. An added challenge is the fact that there is an acute lack of primary teachers in the Seychelles. Approximately 30 % of primary school teachers have no teaching qualifications at all (see Zelime & Deutschmann, 2018), and a mere eight percent have reached Bachelor's level. In summary, a large proportion of teachers are ill-equipped to deal with the language challenges that arise in the classroom. Many find teaching through English challenging, especially given the fact that they lack the education of how to do so.

The English curriculum in the Seychelles places great emphasis on formal structural aspects of language (grammar, spelling, punctuation etc.), arguably reflecting what Ivanič (2004, p. 227) refers to as "a fundamental belief that writing consists of applying knowledge of a set of linguistic patterns and rules for sound-symbol relationships and sentence construction". According to Ivanič (2004), focus in such systems is how to write "correct English", rather than the language knowledge that the pupils need to learn *through* English. Further, just as is the case in many other parts of Africa (c.f. Clegg, 2015), learners in the Seychelles are expected to transfer writing skills from English lessons to other subjects such as sciences and social studies with little specific support. Significantly, there is little recognition in the other subject curricula that these subjects are in fact being taught through an L2 medium that may be

more or less familiar to the learners. This normative "skilled based" approach to L2 literacy and learning may lead to the marginalisation of a large group of primary school learners in the Seychelles (see Zelime et al., 2018). L1 writing skills are rarely fully developed when L2 MoI starts (teaching in the mother tongue, Kreol Seselwa, stops after primary two), and the opportunities to transfer the general literacy skills to the L2 MoI are thereby limited. Moreover, as discussed above, there is little recognition of the language situation in the classroom. The learning materials, for example, are not adapted to the L2 context, and the level of the learners' proficiency (vocabulary, for example) is often insufficient to meet the L2 language demands of specific subjects such as Social Studies. This compartmentalised monolingual approach to literacy arguably limits many learners' opportunities to apply and relate their world knowledge to school knowledge.

2.2 The Seychelles National Curriculum Framework (NCF) and teaching practices

Formally, the Seychelles educational system recognises a more ideological approach to literacy and learning that includes social aspects such as inclusiveness and democratic values. As is the case in many other African countries, the National Curriculum Framework (2013) of the Seychelles advocates strong values for multilingualism through various statements of principles promoting inclusive, integrated, holistic education for all, language diversity, equality and equity (see Moumou, 2004; Zelime & Deutschmann, 2016). One such principle, for example, is the desire to connect the education system with the local community: "Successful learning has to connect with the wider contexts of students' lives, engaging the support of their families and the community they live in" (Ministry of Education, 2013, p. 10). Inclusiveness is a central point of focus in the NCF. In the NCF, inclusion in education is defined as "education that recognises the diversity of learners and responds effectively to their diverse needs, so that barriers to participation, learning and achievement are removed" (Ministry of Education, 2013, p. 6). With specific reference to the *language factors* that may hinder the learning process, the NCF stipulates that any of "the three national languages can […] be used as support languages in the teaching of particular subjects, depending on the context and circumstances of students, teachers and schools, to ensure a maximum level of understanding by all learners" (p. 16).

Little evidence exists, however, that the ideologies expressed in the NFC are translated into concrete action in classrooms. Instead there is substantial evidence that current language-in-education practices are likely to be key components leading to inequity. Many studies have shown how the multilingual language teaching principles expressed in the Seychelles NCF seem to be offset by attitudes and explicit and implicit limitations imposed on practice (see Fleischmann, 2008; Moumou 2004; Simeon, 2014; Deutschmann & Zelime, 2014, 2015; Deutschmann, Enever & Ivanov, 2015; Zelime & Deutschmann, 2016, 2018). For example, Kreol Seselwa's role as a support language seems to be heavily questioned by teachers (see Fleischmann, 2008; Zelime & Deutschmann, 2016) and even actively discouraged in government

practice directives (see Zelime & Deutschmann, 2015). Examples of this include inspectorate reports which complain about "a high degree of code-mixing during the delivery of lessons", and which strongly recommend that "[…] the prescribed medium of instruction has to be respected by teachers and greater emphasis has to be placed on more effective curriculum implementation" (Ministry of Education, 2014, p. 47). In fact the 2010 SAQMEC study of English reading achievements in 14 African nations, Hungi & Thuki, (p. 63) found that the Seychelles had the highest rates of within-school inequity among all the investigated countries, with a large discrepancy in reading between the rich and poor pupils. The study also showed that this result was directly related to language issues: Seychellois learners who spoke and read in English more frequently at home performed better than those who mainly communicated in their native language outside school.

3.   OVERALL THEORETICAL FRAMEWORKS AND PREVIOUS STUDIES

The present study adopts a broad sociocultural approach to writing, where meaning of texts, and literacy in general, are seen as bounded with social purpose. Canagarajah (2006, p.602) argues that people do not write to construct rule-governed texts, but rather to ''perform important social acts", and "for achieving social meanings and functions''. In an L2 MoI school context, this approach to writing means that we need to acknowledge the importance of the choice of medium/s to perform these "social acts". Excluding the mother tongue as an option for writing in school will, for example, directly affect the social aspects of writing. Arguably, current monolingual approaches to literacy implemented in many post-colonial classrooms do not recognise how children's literacy practices in such contexts are in fact "bound to the surrounding multilingual context in complex and multilayered ways" (Pietikäinen & Pitkänen-Huhta 2013, p. 244). As Kobayashi and Rinnert (2013, p. 7) argue, "[w]riters choose from among the possibilities in their own repertoire of knowledge", depending on factors such as language proficiency, and restricting language options thereby means restricting repertoires of knowledge which learners can draw on in their literacy practice. The present study operates within these discourses and aims to investigate the extent to which the choice of language can be a factor that influences multilingual learners' opportunities to incorporate their own person, experiences and world views in their school knowledge production.

Several studies from L2 contexts have shown that a good command of writing is a key factor in cognitive and knowledge development. In extension, good writing skills are a prerequisite for academic success (see Cummins, 2005; Outakoski, 2015; Prophet & Badede, 2006). For example, in their study from Botswana, Prophet and Badede (2006, p. 238) were able to illustrate that students who were not proficient in the language of instruction were hindered in their cognitive exploratory and explanatory skills. Other studies by Diarra, (2003) in Angola, Harris, (2011) in Namibia, Motala, (2013) in South Africa, Trudell & Piper, (2014) in Kenya, provide empirical evidence that learning in general is significantly impeded when an unfamiliar L2 is

used as MoI. A monolingual approach to L2 MoI learning may also have large adverse effects on the teachers' opportunities to provide scaffolding for understanding school knowledge. This may be particularly problematic in locally contextualised subject areas such as Social Studies, but also in subjects such as Mathematics and Science, where drawing on examples from real life is often necessary to illustrate complex concepts. As Kirkpatrick (2013, p. 14) puts it: "[i]f children are to master cognitively complex concepts, they can do this most easily by learning them in languages with which they are familiar". This claim is supported by several studies which have shown that teaching and learning in the L1 enhances the learners' cognitive learning process (Bloch, 2014; Benson, 2000; Collier & Thomas, 2004).

4.   ANALYTICAL FRAMEWORK—SYSTEMIC FUNCTIONAL LINGUISTICS (SFL)

The study draws on Halliday's SFL framework (1994; 2014) in the choice of specific items of study in the texts and their subsequent analysis. Halliday's SFL describes three so-called metafunctions of language (see Halliday, 1994; Matthiessen & Halliday, 2014): the *ideational*, the *interpersonal* and the *lexicogrammatical* metafunctions. In this study, we limit our investigation to aspects of the text that relate to the *ideational* function (or even more specifically, the *experiential* function) and the *interpersonal* function of language.

According to Halliday (2003, the *ideational* function of language provides "the framework of day-to-day existency" (p. 16). Put in a different way, it is about making sense of the experiences that surround us. One important sub-function of this sense-making is the *experiential function* of language, defined as the ability to make sense of the context where we operate by classifying, or grouping the objects and events that surround us into categories (Halliday, 1999, p. 355). Important to note, especially in an L2 MoI educational context, is the fact that the categories, objects and events are not given, but rather constructed through language. Put differently, this means that SFL regards relevant specific language knowledge as a prerequisite for understanding, interpreting and communicating the specific complexities that surround us. With reference to this study, we investigate how access, or lack of access to relevant vocabulary (in Kreol Seselwa or English) related to a specific writing topic (fisheries) is evident in the pupils' texts, and what strategies pupils resort to (code switching for example) in order to overcome potential barriers to express themselves.

The *interpersonal function* of language, according to SFL, refers to the grammatical choices that allow speakers to enact their interpersonal relations. The basic assumption is that language is not only about a speaker talking/writing *about something*, but also *to someone*. In other words, language functions also include signals that indicate the relationship of the speaker/text to the audience and the social context. With this in mind, as Halliday (1976, p. 17) claims "[t]he system of natural language can best be explained in the light of the social functions which language has evolved to serve". According to Herbel-Eisenmann (2007), an examination of the

"*Voice*" of texts in the interpersonal meta-function can shed light on the relationship between writer and audience as well as the writer and the text. The identification of the writer's uses of pronouns is particularly rewarding in the analysis of how he/she positions him/herself to the text and the reader. The present study, analyses the use of the first-person pronouns such as *I, my, mine, we, us, our,* (*mon* and *nou* in Kreol Seselwa).

In summary, we concur with Matthiessen and Halliday's (2014) view that the basic functions of language in relation to our ecological and social environment are twofold: 1) making sense of our experience, and 2) acting out our social relationships (p. 30). The investigation of specific linguistic items that serve these functions in the texts will help to gain some insight into how the choice of language may affect the cognitive and social aspects of learning in an L2 MoI-context.

5.   AIMS AND RESEARCH QUESTIONS

The overall aim of the study is to investigate to what extent the choice of language (Kreol Seselwa or English) influences the Seychellois pupils' writing and their opportunities to incorporate their own person, experiences and world views in their school knowledge production. In order to do so, a comparison of the illustrative specific aspects of these pupils' text productions in Kreol Seselwa and English with reference to the *interpersonal* and *ideational* metafunctional dimensions is undertaken. The study adopts a mixed methods approach with a limited number of specific quantitative queries, which will be explained through the use of a qualitative approach. Here we have deliberately limited the queries to a small number of characteristic illustrative items, chosen after close readings of the texts. These items are:

I.   Ideational dimension: quantitative and qualitative investigations of code switching in the English and Kreol Seselwa texts, coupled with further analysis of the most frequent semantic domain found in regard to code switching, namely, fish names.

II.   Interpersonal dimension: quantitative and qualitative investigations of the use of first-person pronouns, a feature which gave a good indication of how the pupils socially positioned themselves to what they were writing and how they interacted with the reader.

More specifically, the study tries to answer the following specific questions:

1)   a) To what extent is code switching used in the sub-corpora and how can this be accounted for qualitatively? Specific attention is paid to fish names given the dominance of code switching in this semantic domain in the corpus.

b) How do patterns of code switching differ between high (A-stream) and low (B-stream) performance pupils?

2)   a) What are the differences in the use of first-person pronouns (I, my, mine, we, our, us/ mon, nou) in the two sub-corpora, and how can these differences be accounted for qualitatively.

b) What differences are there in relation to the above between high (A-stream) and low (B-stream) performance pupils and how can they be explained?

6.   METHOD AND MATERIALS

6.1 Overall framework

The texts gathered consist of responses to a short informative task about the fishing industry of the Seychelles. The task was contextualised as a test task in the subject of Social Studies aimed at assessing the pupils' knowledge of the particular topic 'fisheries', which is included in the subject curriculum. A within-groups experimental design was applied for the study, whereby the writing took place in two sessions, one week apart. The participants were first instructed to write the text in either English or in Kreol Seselwa. Without prior knowledge by the pupils, they were then asked to repeat the same task in Kreol Seselwa or English a week later. The sequence (English first, then Kreol Seselwa, or Kreol Seselwa then English) was counterbalanced across the six classes. The sequence of the texts (English first or Kreol Seselwa first) had no significant impact on the produced texts (see Zelime et al., 2018). At the end of the data gathering, each pupil had thus produced two texts based on the same task—one written in Kreol Seselwa and one in English. The data gathering was carried out on the main island of Mahe, Seychelles in November 2016, over a period of three weeks.

6.2 Participants

A group of 154 primary six pupils (91 girls and 63 boys) aged between 11 and 12 years, participated in the study. They came from six classes in three schools, representing all primary six classes in these schools. The three schools were chosen out of 24 based on convenience, and for the purpose of anonymity, the schools' names have been changed to the following pseudonyms: Providence, Assumption and Aldabra Schools. Providence school is located in an urban area, whereas Assumption and Aldabra schools are situated in more rural areas. However, all three of them are located on the coastline and in fishing communities, and due to the local zoning policy (Section 56 of the Seychelles Education Act, 2004), the majority of the participants came from the same district their schools are based in.

Unofficially, each school implements a streaming policy splitting pupils in high achiever groups (A: Upper stream, n= 90) and low achiever groups (B: Lower Stream, n= 64). Streaming is a traditional practice in the Seychelles education system, whereby primary school pupils are assigned to different classes within a school based on their general academic ability. In spite of the 2009 de-streaming policy (Ministry of Education, 2013), which attempted to eradicate this practice, it is continuing cov-

ertly to date. In practice, streaming simply means that pupils are assigned membership to an A or B-stream class based on their performance in national tests. As illustrated in Zelime et al., 2018, (p. 10) there was a highly significant correlation between respondent pupils' national examination scores in the subjects English, Kreol Seselwa and Social Studies and the class they were part of (Upper stream-A or Lower stream-B). All participants had been learning English, Kreol Seselwa and Social Studies as academic subjects for five-six years prior to the experiment. They had also been using English as a MoI from the time they were in primary three. The majority of them (> 95 %) had Kreol Seselwa as their L1 and English as an L2. The participants had the same teacher for English, Social Studies and Kreol Seselwa in each school.

6.3 The writing task

The material handed out for the task consisted of a picture of four local fishermen cleaning their catch in a small boat, followed by writing instructions. The picture represented "artisanal" or traditional fishing methods, a subject included in the Social studies curriculum. The picture contained specific prompts, such as the size of the boat, the fish, the fishermen's clothes and the sea, to guide the participants' writing process. The participants were asked to produce a short paragraph answering four questions in writing based on the picture. First, they had to state the economic activity shown in the picture. Second, they had to list the types of methods used to carry out the activity. Third, they were asked to provide names of different types of fish caught through these fishing methods. Finally, they had to list the benefits the fishing industry brings to the Seychelles economy. They had ten minutes for the task. The questions were low order and factual in nature, requiring retrieval of basic content knowledge. Also, the task, with a picture as the main cue, corresponded to a narrative genre that the participants are familiar with from the English lessons. For a more detailed description of the task, see Zelime et al., 2018.

Important to note here is that fishing is one of the topics covered in the primary six Social Studies curriculum, and it is also an integral part of the Seychelles culture. Fish is by far the most important source of protein in the islands, and it is the main constituent of local culinary traditions. Most people buy their fish directly from local fishermen who land their catch on the beach and sell it directly to the customer without any processing. Consequently, anyone travelling along coastal roads in the Seychelles will encounter various displays of fish for sale at regular intervals. The majority of local fishermen fish from small boats close to the coast using traditional methods such as simple hand lines, bamboo fish traps or small nets. Many Seychellois also fish themselves and catch their own fish in their leisure time. Industrial fishing for deep sea species such as tuna, marlin and sailfish is also an important source of national income for the Seychelles. This type of activity is, however, conducted from large factory ships owned by foreign fishing fleets, and here fishing and processing takes place on the high seas out of sight. The processed products are available in up-

market shops, but few Seychellois have any personal connection with these activities. One exception are those who work on tourist game fishing boats, which venture far out and catch commercial species such as tuna, marlin and sailfish. The average Seychellois rarely encounter these fish on an everyday basis.

Finally, it is important to note that the nature of the task (a test task) will have affected the outcome. The rather factual type of information that the pupils were asked to communicate did not actively encourage the interpersonal dimension of their writing. The reason for this is that we also wanted to use the data for a more quantitative study comparing the grades pupils received when writing in the two languages (see Zelime et al., 2018), and thus the format followed a typical test task. In spite of this, it is clear that the interpersonal dimension is relevant, even in this type of task (see results and discussions below).

6.4 The corpus

A transcribed electronic corpus was compiled from the 308 handwritten texts. Care was taken to ensure that the transcriptions matched the original texts as far as possible. This meant that aspects such as the original spelling, layout, punctuation and so on were retained. All names and other personal information of the participants were replaced by codes in order to safeguard the respondents' anonymity. The metadata in the codes included school, sex of the respondent and which stream he/she belonged to. The resultant plain text files were then applied in a freeware concordancer program, namely *AntConc.* version 3.5.7 (Anthony, 2014). Note that only pure text was transcribed as this was the focus of the analysis. A small number of drawings and doodles were thus not included in the text corpus.

The word counts for the texts in Kreol Seselwa and English, and more specifically for the two streams (A and B) in each sub-corpora were compiled for comparative purposes. The make-up of the corpus resulting from the students' texts is summarised in Table 1 below.

Table 1. Corpus makeup—number of texts and text-sizes in the English and Kreol Seselwa sub-corpora (including T-tests of differences)

RESULTS Words	English		Kreol Seselwa		Difference English vs. Kreol Seselwa
	Total words	Mean words per text (st.dev)	Total words	Mean words per text (st.dev)	T-test (* = sign.)
A-stream total (n = 90)	7579	84.21 (25.81)	8396	93.29 (28.61)	0.000*
B-stream Total (n = 64)	3358	52.47 (31.95)	3923	61.30 (36.48)	0.003*
Female Total (n = 91)	7295	80.16 (29.37)	8351	91.77 (31.85)	0.000*
Male Total (n = 63)	3642	57,81 (32.38)	3968	62.98 (34.27)	0.099
Total all (n = 154)	10937	71,02 (32.47)	12319	79.99 (35.70)	0.000*

The corpus contained a number of 'empty texts', where the only written information constituted the name of the participant. All of these came from the B-stream group (three English texts and five texts written in Kreol Seselwa), and these 'zero-texts' were removed from subsequent analysis resulting in a total of 149 texts written in Kreol Seselwa and 151 texts written in English. Further, as we can see from Table 1, texts written in Kreol Seselwa were significantly longer, averaging approximately 80 words, than those written in English, averaging approximately 71 words. A-stream pupils also produced longer texts than B-stream pupils in both languages. Finally, the texts produced by the female respondents were on average longer than those produced by boys in both languages. However, since streaming is based on documented academic performance, we will only include 'Stream' in subsequent analyses. What is of interest is thus the respondent's academic/language skills rather than gender per se. Having said this, it is noteworthy that girls are overrepresented in the A-stream classes (65 girls and 25 boys), while boys are overrepresented in the B-stream classes, (38 boys and 26 girls) but this is not the focus of this study.

After close readings of the corpus, specific language phenomena of particular interest were tagged manually so that they could be searched for and analysed later in the concordance software. Such phenomena included instances of code switching

in the corpus, i.e. when English words were used in the Kreol Seselwa texts and vice versa. Note that each word written in a different language was tagged as one instance of code switching. After further analysis of the code-switching data, we decided to look more carefully at the vocabulary which was found to be of particular relevance to the task, namely, names and descriptions of fish. All such instances were thus also tagged manually in both sub-corpora. In addition, first person pronouns, in both languages, were tagged.

7. RESULTS

7.1 Code switching

Based on the methodological definition of code switching (see section 6.4 above) all instances in the Kreol Seselwa texts and vice versa were coded as examples of code switching. There were no examples of other languages than English and Kreol Seselwa being used in the texts. The overall frequencies of code switching per 100 words in the two languages in the different groupings (A- and B-streams) are summarised in Table 2 below.

Table 2. Frequencies of code switching in the two text corpora

RESULTS Code switching	English Texts			Kreol Seselwa (KS) texts			Difference English vs. Kreol Seselwa
Groups	Total instances	Mean occurrences per text (st.dev)	Normalised frequency per 100 words	Total instances	Mean occurrences per text (st.dev)	Normalised frequency per 100 words	T-test (* = signif.)
A-stream total†	231	2.57 (2.88)	3.04	86	0.96 (1.8)	1.0	0.000*
B-stream Total ††	270	4.42 (8.77)	8.04	36	0.61 (2.89)	0.9	0.002*
Total ‡	501	3.31 (6.10)		122	0.80 (2.32)		0.000*

The comparison of the amount of code switching in the English and Kreol Seselwa texts shows that it is evident that pupils resorted to code switching significantly more often when they wrote in English (*p* = .001 using a two-tailed t-test). Overall there are 501 instances of code switching in the 151 English texts (i.e. pupils insert Kreol

Seselwa words in the English texts), but only 122 instances of code switching in the 149 Kreol Seselwa texts. It is also interesting to note that code switching in the English texts was much more frequent among B-stream pupils (4.42 instances per text) than among A-stream pupils (2.57 instances per text). A more detailed distribution of code switching per hundred words is provided in Figures 1 and 2 below.

Figure 1. Instances of code switching per 100 words among A-stream students
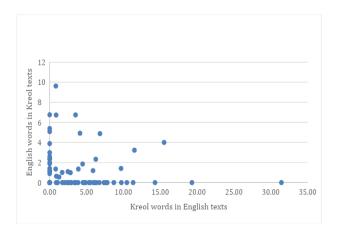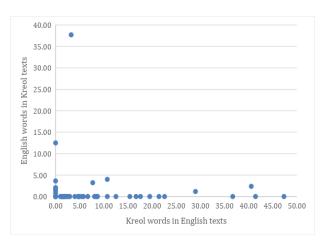

Figure 2. Instances of code switching per 100 words among B stream students

Based on the two figures above, it is evident that all the B stream students (apart from one outlier who wrote both of his texts almost entirely in English) code switched a lot more in the English texts than in their Kreol Seselwa texts. A more

detailed comparison of the variation in the amount of code switching in the A-stream and B-stream texts revealed further interesting patterns (see Table 3 below).

Table 3. Variation of code switching

	A-stream pupils			B-stream pupils		
Code switching per text	0 instances	1-4 instances	5+ instances	0 instances	1-4 instances	5+ instances
Kreol words in English texts	36.6%	36.6%	26.6%	35.5%	40.6%	23.7%
English words in Kreol texts	62%	32%	6%	81%	17%	2%

In the English texts, 36.6 % of the A-stream pupils did not code switch at all, 36.6 % pupils used Kreol words 1-4 times in the text, while 26.6 % of the pupils used Kreol words 5 times or more. The two A-stream pupils who resorted to code switching most frequently used eleven Kreol words in their texts. Typically, A-stream pupils resorted to Kreol words to describe fish and fishing equipment (see Example 1 below).

> Example 1—English (Text ALD-A-E-R2-F: A-stream, female):
> There is many kind of method we can used to catch the fish. Like lanmson [hook], kazye [fish traps] and a piece of meat, that would make the fish atracted. Like we can see the fisher man caught diffrent kind of fish. Like kakatwa [parrot fish], bourzwa [red snapper], reken [shark] and karang [Jack fish].

Among the B-stream pupils, 35.5 % of the pupils writing English texts did not code switch at all. Worth noting here, however, is the fact that all but four of these produced very short texts (5-20 words), giving little opportunity for code switching. 40.6 % of the pupils used Kreol words 1-4 times in the texts, while 23.7 % of the pupils used Kreol words 5 times or more. Here, there was a large group of pupils whose texts consisted of entire sentences in Kreol Seselwa. One pupil used 53 Kreol words in her text of 112 words, and the languages were mixed, even within the same sentence (see Example 2 below):

> Example 2—English (Text PR-B-E-R21-F, B-stream, female):
> This economic activity is represents bann Peser sorti lapes Pou vann Pwason lo bazar [fishermen who come from fishing to sell fish on the market].

The use of English words in the Kreol Seselwa texts was relatively rare on the whole, but A-stream pupils code switched more frequently that the B-stream pupils. 62 % of the A group pupils did not code switch at all, 32 % pupils used English words 1-4

times in the text, while 6 % of the pupils used English words 5 times or more. The A-stream pupils who resorted to code switching most frequently used ten English words in her Kreol text. Typically, A-stream pupils resorted to English words to describe fishing terminology and fish names associated with commercial fishing, which they had learnt about in school (see Example 3 below).

> Example 3—Kreol (Text PR-A-KS-R10-F, A-stream, female):
> I annan [there is] industrial-fishing, semi-industrial fishing, artisanal and traditional fishing. E osi i anmenn [and also it brings] foreign exchange dan nou pei [to our country] .

Among B-stream pupils, the use of English words in the Kreol texts was quite rare. 81 % of the pupils did not code switch at all, and 17 % used English words once or twice. One pupil code switched five times or more. The code switching typically consisted of fish names of commercial species (tuna, sailfish etc.), as well as commercial fishing equipment ("long liners", for example—a type of boat).

7.1.1   Categories of code switching

When looking at the material in more detail, clear semantic domains emerge in the examples of code switching found in the two text corpora. In the English texts, the most common category of code switching are the names of fish. Of the 501 instances of code switching found in the English text corpus, 296 instances were examples of the use of Kreol fish names. Another important category was fishing methods/fishing equipment, which were referred to in Kreol Seselwa 83 times in the English text corpus. The remaining 122 instances of Kreol Seselwa words in the English texts consisted mainly of local cultural references such as food dishes or places. *Bazar,* which means *market,* for example appears on a number of occasions as does "bouyon bred" (fish stew) and "satini reken" (minced shark). This category also consists of examples of entire main clauses written in Kreol Seselwa (cf. Example 2 above).

In the Kreol Seselwa texts, the most common usage of English words represented pupils referring to commercial fishing methods and equipment (38 out of 112 instances). These examples thereby referred mainly to industrial fishing practice, which pupils have little everyday contact with, but which they have learnt about in school. Examples include: "long liners", "nets", "fish factory", "cannery", "purse seiners". Another important category is fish names (18 out of 112). Here it was mainly fish names of commercial fish that were referred to in English in the Kreol texts: *tuna*, *swordfish*, *kingfish*, *blue marlin* and *shark* are some examples. In addition to these categories, there were several examples of English words used in Kreol texts to refer to concepts/activities that are international, such as "foreign exchange" and "tourism".

7.1.2   A more detailed look at the use of fish names in the corpus

Since fish names constituted such an important semantic category, this specific domain is analysed further. Overall distributions are summarised in Table 4 below.

Table 4. Total number of fish names in the corpus and code-switching distributions

RESULTS Code switching	Fish names in English texts		Fish names Kreol Seselwa (KS) texts		Difference English vs. Kreol Seselwa
Groups	Total instances	Mean occurrences per text (st.dev)	Total instances	Mean occurrences per text (st.dev)	t-test total (code switching) * = significant
A-stream Total †	268	2.98 (2.06)	351	3.90 (2.07)	0.000*
A-stream Code switching ‡	174	1.93 (2.11)	8	0.08 (0.34)	0.000*
B-stream Total†	181	2.83 (4.36)	208	3.25 (3.39)	0.337
B-stream code switching ‡	122	2 (3.44)	10	0.16 (1.01)	0.000*
Total fish names	449	2.92 (3.21)	559	3.63 (2.71)	0.001*
Total code switching	296	1.9 (2.73)	18	0.11 (0.7)	0.000*

† Total fish names including when these are in another language (i.e. fish names in English and KS)
‡ Number of fish names referred to in another language (Kreol or English)

Table 4 reveals that there were overall significantly more specific references to fish in the Kreol texts (559) than in the English texts (449). More interesting, though, is the fact that 66 % (296/449) of the fish names in the English texts were examples of code switching. These fish names were thus written in Kreol Seselwa. By contrast, only 3 % of the fish names in the Kreol corpus were written in English. Disregarding which language was used, there were no great overall differences in the number of references to fish names made by A- and B-stream pupils. Since fishing arguably is a

male domain, we also checked for gender differences in the use of fish names in the two sub-corpora. Gender differences were marginal and insignificant with mean values of 2.89 instances per text for girls and 2.87 for males in the English texts, and 3.7 for girls and 3.24 for males in the Kreol texts. We did, thus, not include the gender variable further in our analysis.

After looking at the overall frequencies, we turned our focus on more specific analyses of the different words used to describe fish in the corpus. The 1118 fish references (tokens) in the corpus were distributed among 101 unique names/descriptors (types), giving an overall type/token ratio of 0.09. Of the 101 types, twelve constituted adjectives of fish constructions. For example, there were eight examples of "red fish", three instances of "long fish", two examples of "grey fish" etc. Eight of the twelve examples in this category were found in the English corpus. There were 27 unique species names (types) distributed among 177 tokens in the English sub-corpus, and 62 unique species names (types) distributed among 908 tokens in the Kreol sub-corpus. Interestingly, the B-stream pupils used a richer vocabulary than the A-stream pupils with regards to fish names. This was particularly true for Kreol names. The 59 texts produced by the B-stream pupils include 48 unique fish names in Kreol Seselwa compared to the 39 unique names found in the 90 Kreol texts produced by the A-stream pupils. The B-stream pupils also had a slightly richer vocabulary for fish in English. Based on these results, it is evident that pupils have a much richer vocabulary at their disposal to describe this domain in Kreol Seselwa than in English. This seems to be particularly true for B-stream pupils. The results are summarised below in Table 5.

Table 5. Types and tokens – fish names A- and B-stream

	Types			Tokens		
	A-stream	B-stream	Total	A-stream	B-stream	Total
Names of species (English)	15*	21*	27	112	65	177
Names of Species (Kreol)	39	48	62	561	347	908
Adjective + fish (English)	4	7	8	6	14	20
Adjective + fish (Kreol)	4	2	4	5	8	13
Total	62	78	101	684	434	1118

Furthermore, the English and Kreol Seselwa vocabulary for fishes in the corpus did not match. One would have expected the most common species described in Kreol Seselwa to be matched by the most common species described in English, but this was not the case. Table 6 below summarises the ten most common fish names that appeared in the two languages in the corpus.

Table 6. Ten most common species in Kreol and English

Ten most common species in Kreol	Number of occurrences	Ten most common species in English	Number of occurrences
1. Bourzwa *(Red Snapper)*	161	1. Tuna	32
2. Kakatwa *(Parrot fish)*	108	2. Red Snapper	28
3. Karang *(Jack fish)*	106	3. Shark	28
4. Makro *(Mackerel)*	72	4. King Fish	18
5. Kordonnyen *(Squirrel fish)*	71	5. Mackerel	13
6. Ton *(Tuna)*	56	6. Sword fish	10
7. Reken *(Shark)*	54	7. Parrot fish	8
8. Vyey *(Grouper)*	38	8. Octopus*	6
9. Bekin *(Barracuda)*	37	9. Blue Marlin	3
10. Bonit *(Bonito)*	25	10. Hammer shark**	3

* Strictly speaking not a fish, but relevant in the context; ** Incorrect term

In the top-ten list above, five species are unrepresented in the other language. The very common *Karang* (Jack fish), for example, is only named once in English, in spite of the fact that it constitutes the most common fish in the daily diet. Similarly, *Kordonnyen* (Squirrel fish) is never referred to by its English name, although it is a very common fish that all Seychellois are familiar with. *Bekin* (Barracuda), *Vyey* (Grouper) and *Bonit* (Bonito) are three more examples. What these species all have in common is that they are coastal species, which are sold by local fishermen on the beach, at local markets and by the roadside. It is obvious from the Kreol texts that the writers had a very personal connection with some of these fish:

Example 4—Kreol (Text ALD-A-KS-R25-F, A-stream, female):
Sa bann bourzwar i rouz e i bon fer bouyon bred avek!
[Those red snappers are red and they are very good to make fish stew with!]

Example 5—Kreol (Text ASS-A-KS-R12-F, A-stream, female):
Ou kapab fer sa bon pwason griye pou nou manze. E ou pwason ki ou'n gannyen i osi
kapab met lo labrez.
[You can make that delicious grilled fish for us to eat. And the fish that you get you can
even barbecue over an open fire]

In contrast, the English list of fish names is primarily made up of important commercial fish, which are not normally caught by local fishermen and which most Seychellois rarely eat. Tuna, Swordfish, Kingfish and Blue Marlin are some typical examples here. Moreover, further down the English list (not shown here) there are several non-native aquarium species! Some examples include Piranha, Goldfish and Tiger fish. These had little relevance to the task at hand and may be examples of pupils struggling to find words to fill out their lists—the instruction asked them to provide at least five names of fish caught by the fishing methods illustrated in the picture.

A final interesting observation regarding the fish names in the corpus is that the Kreol names often include several under-categories. Tuna, for example, is not only referred to as *Ton*, but the specific species of tuna are also mentioned: *Ton gro ledan* (Dogtooth tuna), *Ton zonn* (Yellowfin tuna), *Ton gro lizye* (Bigeye tuna), *Ton gro lagel* (Skipjack tuna) and *Bonit* (Bonito). The same is true for *Karang* – two subspecies of Jack fish are included in the Kreol corpus, and *Kong* (Moray eel), which is also represented by two subspecies. This again illustrates how the use of Kreol give the pupils access to a much more detailed cognitive framework, and how they thereby can describe their local knowledge more accurately.

7.2 First-person pronouns

Another specific area of interest that emerged after close readings of the texts was the use of first-person pronouns (singular and plural). Here the plural forms *we, us, our* (English) and *nou* (Kreol Seselwa), in particular, were used to signal the writers' social positioning to the text and to the reader. These pronouns are thus highly relevant to the interpersonal dimension of Halliday's SFL framework (See section 4 above), and were deemed meriting further investigation. The analysis checked for quantitative differences in the use of the first-person pronouns in the two sub-corpora (singular and plural forms in English and Kreol Seselwa) and also looked for qualitative differences in the texts that could explain these differences. For the initial quantitative analysis, all seven forms of first-person pronouns in English (*I, me, my, mine, we, us, our*) and the two forms constituting their equivalents in Kreol Seselwa (*mon, nou*) were combined into one category (first person pronouns). Important to note, however, is that the vast majority of these were examples of the plural forms. There were only 20 instances of the singular forms being used in the English texts (less than 10%) and 22 instances in the Kreol Seselwa texts (about 4%). The overall frequencies of the first-person pronouns in the two languages in the different groupings (A- and B-streams) are summarised in Table 7 below.

Table 7. Frequency of use of first-person pronouns in the two sub-corpora

RESULTS	English		Kreol Seselwa		Difference English vs. Kreol Seselwa
First person Personal Pronouns	*(I, me, my, we, us, our)*		*(mon, nou)*		
Groups (n = number of texts)	Total instances	Mean occurrences per text (st.dev)	Total instances	Mean occurrences per text (st.dev)	T-test (* = sign.)
A-stream total†	227	2.52 (3.50)	386	4.28 (4.31)	0.000*
B-stream Total ††	39	0.63 (0.95)	123	2.08 (2.68)	0.000*
Total all ‡	266	1.76 (2.96)	509	3.42 (3.92)	0.000*

† n = 90 texts †† n = 61 English and 59 K.S texts ‡ n = 151 English texts and 149 KS texts

It is evident that the pupils have used the first-person pronouns significantly more frequently in their Kreol Seselwa texts. Overall there are 509 occurrences of first-person pronouns in the 149 Kreol Seselwa texts and only 266 instances in the 151 English texts. The B-stream pupils used far fewer instances of the first-person pronouns than the A-stream pupils, and this was particularly evident in the English texts.

Based on these data, a deeper analysis of how these first-person pronouns were used in the two sub-corpora was undertaken. The 20 usages of first-person singular pronouns found the English corpus were all either examples of the writer describing what they see in the picture (Example 6) or examples of pupils stating their names (Example 7):

> Example 6—English: (Text ALD-A-E-R30, A-stream, male)
> wild watching I saw one of the man [in the picture] fishing got a big kakatwa [Parrotfish]

> Example 7—English: (Text PR-B-E-R23-F, B-stream, female)
> Hello My name is xxxxx

Although such examples also occurred in the 22 occurrences of first-person singular pronouns found in the Kreol Seselwa texts, there were also nine examples of pupils relating personal experiences to the topic of the text (Examples 8 and 9).

> Example 8—Kreol: (Text PR-B-KS-R4-F, B-stream, female)
> mon'n dezar aste en pwason lo bazar "English River" en karang 200 roupi e fer li desan
> en pe dir sa bann peser fer desann zot pri.
> [I once bought a fish on the market in English River (place) a Jack fish for 200 rupees and
> I got a bit of a discount as the fishermen lowered their price].
>
> Example 9—Kreol: (Text ALD-B-KS-R7-M, B-stream Male)
> Mon servi nilon pou lapes avek la bouwet .
> [I use a line to fish and bait]

Examples 10 and 11 below are interesting. In both these examples the writers personally thank the fishermen, and thereby show how closely they are connected to, and engaged with, the topic on an interpersonal level:

> Example 10—Kreol: (Text ALD-A-KS-R2-F, A-stream, Female)
> Alor bann peser ki lo bato tou le sis er bomaten mon dir zot en gran mersi .
> [So to the fishermen who are out in their boats every six am in the morning I say thank
> you]
>
> Example 11—Kreol: (Text ALD-B-KS-R1-F, B-stream, Female)
> Sa metye i en bon metye pou nou pei bann zenn ki pe travay lapes mon dir zot mersi.
> [This job is good for our country and to the young people who work as fishermen I say
> thank you.]

The vast majority of the examples of the plural first-person pronouns were examples of generic reference rather than specific or personal reference (see Reilly and Zamora, 2005). One important category in both the English and Kreol Seselwa texts were instances of 'we' that referred to the nation (see Examples 12 and 13 written by the same pupil below).

> Example 12—English (Text ASS-A-E-R7-F, A-stream, female).
> They have caught the red snapper's, Tuna's, and our Country gets money. Like the tuna's
> we sell it to other Countries so we get more money at the Industies. Our Country depends on the money so we can buy things from other country to bring in Seychelles. We
> also depend on the fish for survival.
>
> Example 13—Kreol (Text ASS-A-KS-R7-F, A-stream, female).—same pupil as above
> Nou an zeneral nou servi kazye bann net e parler nou osi servi nilon ek lanmson. An
> zeneral nou kontan antrap Karang, bourzwa, Kordonyen, ton, e osi nou kontan antrap
> Zourit. Nou lendistri pwason i ed nou pour ganny larzan, pou nou kapab siviv. Ton I en
> pwason ki nou servi pou nou kapab ganny plis larzan, akoz nou vann ton avek lezot pei.
> Dan nou kominote nou al lapes e nou vann pour kapab ganny larzan. Nou Seselwa nou
> depan lo lendistri pwason.
> [We, in general, we use fish trap and nets and sometimes we also use fishing line and
> hook. In general we love to catch Jackfish, Red Snapper, Squirrel fish, Tuna and also we
> love to catch octopus. Our fishing industry helps us to get money for us to be able to
> survive. Tuna is a fish which we use to get more money, because we sell Tuna to other
> countries. In our community we go fishing and we sell to get money. We Seychellois we
> depend on the fishing industry.]

The examples above are interesting for several reasons. Firstly, both text examples contain several instances of first-person pronouns, but these are much more frequent in the Kreol example (six in the English text and 16 in the Kreol Seselwa text). Secondly, in both texts there are several examples of generic usage that refer to 'nation': *our country, our fishing industry, our economy etc*. Interestingly, however, in the English text, the writer distances herself from specific activities involved: it is the fishermen (they) who have caught the fish, while the benefits involve the nation (us). In contrast, in the Kreol Seselwa text, the writer also includes herself in the activity by using the collective 'we': *we use fish traps, we catch Jackfish* etc. Below is another example that illustrates the same phenomenon. Again, the writer uses inclusive 'we' when describing activities in Kreol:

> Example 14—Kreol. (Text PR-A-KS-R15-F, A-stream, female)
> I annan bokou dimoun ki kontan lapes. I annan bokou fason ki nou kapab lapes ek bokou metod ki nou servi pour lapes sa bann pwason. Sa bann metod ki nou kapab servi i (net , kazye, lasenn .)
> [There are many people who like to fish. There are many ways in which we can fish and many methods that we can use to catch those fish. The methods we can use are net (code switching), fish trap, net.]

On the whole, the results strongly suggest that the writers connect the topic (fishing) to national, local and personal identity in the Kreol Seselwa texts, something which seems to be less evident in the English texts. First person pronouns play an important part in signalling this interpersonal relationship. A final illustration is provided in examples 15 and 16 below. Note how the writer did not produce any first-person pronouns in her English text, but several instances in her Kreol Seselwa text.

> Example 15—English (Text PR-B-E-R6-F, B-stream female)
> They go fish evriday. they get a lote of fish. [....] They give shopes to bay and to sell. They are very inPortann in there layf. And then Seychelles people benefits to eat They eat fish all teme they benefis In ant liyfe And the fish erman day get There money.

> Example 16—Kreol (Text PR-B-KS-R6-F, B-stream female)—same pupil
> Bann pese, i anmenn en ta kalite pwason lo Barzar so non sesel nou benefisy akoz nou pe ganny sa lenezi dan sa bann pwarson. e i anpes nou malad. Pwason i en ketsoz. Ki ed nou plis dan nou pei natal. E akoz nou benefisye akoz nou annan bon'n bon peser e i annan bokou zot esa i pa en travay fasil i tre difisit si ou pa kon'n sevi li e fer sa louvraz. fodre ou konn ou direksyon.
> [These fishermen bring many types of fish to the market so in Seychelles we benefit because we are getting strength from these fish and it prevents us from falling ill. Fish is something that helps us more in our native country. And because we benefit is because we have very good fishermen and there are lots of them and this job is not an easy job, it is very difficult if you don't know how to do it. You need to know your bearings.]

8.   SUMMARY, DISCUSSION AND CONCLUSION

The aim of this study was to compare aspects of the ideational and interpersonal dimensions in pupils' texts written in L2 (English) and L1 (Kreol Seselwa). More specifically, the study investigated the degree of code switching (with special focus on

fish names) and the use of first-person pronouns in the two sub-corpora, and how differences can be accounted for qualitatively. We also compared texts of high performance and low performance pupils with respect to the above.

Firstly, the texts written in Kreol Seselwa were longer than those written in English. Further, there were far more examples of code switching in the English texts, and this was particularly the case for texts written by the 'weaker' B-stream pupils. We would argue that this is a direct indication that high/low performance may be closely related to language proficiency in English. To try to deal with language shortcomings, weaker students thus resort to explaining what they mean in their native language. The Kreol words that appeared in the English texts typically described local objects and phenomena (fish names, local fishing methods, places and food). Fish names were particularly common, and it is evident from the results that children in the Seychelles possess a very rich vocabulary to describe this semantic domain in their mother tongue. Further, the type-token analysis of the fish names used clearly shows that this knowledge is not available in English. Interestingly, the B-stream pupils actually possessed a more varied vocabulary in Kreol Seselwa than the A-stream pupils in this semantic domain. The use of English words in the Kreol Seselwa texts was relatively rare, and restricted to the phenomena that children learn about in school (commercial fish species and fishing methods, for example).

The results from the code-switching section, specifically the fish name data, have serious implications as regards the ideational aspects of the pupils' writing. It is evident that many pupils are not linguistically equipped for writing about this local topic in English. They resort, instead, to the use of words from their native language to describe what they want to say. This is especially true for pupils in the B-stream. Important to note in this context is that code switching of this kind is not seen as acceptable, in official national tests, for example. Code switching (in teaching and examination) is not allowed and actively discouraged in the current system (see Zelime & Deutschmann, 2018) and in concrete terms, this means that good knowledge in English is a prerequisite to communicate your knowledge in Social Studies in the current system.

Overall, the use of the first-person pronouns in the Kreol Seselwa texts was almost twice as frequent as in the English texts. Although the A-stream pupils used more first-person pronouns than B-stream pupils in both texts (averaging 2.52 vs. 0.63 per text in English and 4.28 vs. 2.08 per text in Kreol Seselwa text), the difference in frequency of usage of these pronouns in English texts and Kreol Seselwa texts was greatest among B-stream pupils. First person plural pronouns were by far the most common in both languages, and primarily referred to aspects related to local and national identity: *our country, our economy* etc. In addition, and especially in the Kreol texts, personal pronouns were also often used to signal inclusiveness with the activities described: *we use fish traps to catch fish, we catch fish* etc. These pronouns were often replaced by *they* in the English texts (the fishermen) signalling a greater distance and less identification with the topic.

If we adhere to the systemic functional linguistic view that specific language knowledge is a prerequisite for understanding and interpreting the specific complexities that surround us, it makes little sense to teach and examine local topics such as fisheries in English without at least equipping pupils with the vocabulary they need to deal with these topics. The type-token data from the semantic domain of fish names clearly illustrate that pupils have access to much more complex cognitive frameworks related to the topic when writing in Kreol Seselwa. This, in turn, directly affects the 'richness' of the texts. Most obviously, Kreol Seselwa allows pupils to accurately describe the complex and rich local fish fauna, but there is also evidence from the texts that access to this 'world' also triggers pupils to integrate their personal outside-school experiences in the texts: A *karang* [Jack fish] is not just an item on a list, but also carries with it associations to personal experiences, such bartering at the market, experiences which serve an important complement to school knowledge (see Example 8 above).

Based on the code-switching data, it is evident that the use of English or Kreol Seselwa gives pupils access to 'different worlds'. On the one hand, there is the more abstract 'English' world of *commercial fishing, foreign exchange* and *industry*, and on the other, there is the local 'Kreol Seselwa' world of the *bazar* (market), *pwason griye* (grilled fish) and local fishermen. Arguably, a monolingual L2 MoI approach in postcolonial educational systems such as the Seychelles thereby furthers the isolation of school knowledge from life (cf. Dewey, 1899/1998, p. 76–77 above). An English-only approach to social studies teaching and learning that does not specifically prepare students to master the English vocabulary needed to describe local phenomena relevant to topics being taught, thus prevents teachers from building schemata for learning which make use on the pupils' prior knowledge and experiences.

As regards the interpersonal dimension in the texts, the distribution of the first-person pronouns clearly illustrates that pupils identify themselves with the topic to a much greater extent when they write in their mother tongue. The use of 'nou' (first person plural pronoun) in the Kreol Seselwa texts mainly appears in sentences where belonging, pride and identification with the topic are being communicated: *we as a nation, we as Seychellois, our fishermen, our seas and our way of life*. This is rarely the case in the English texts. It seems that the choice of language affects the pupils' engagement in the topic and their writing. In extension, the choice of language thus has serious implications on aspects of "inclusiveness", a key focus in the Seychelles NCF (see Section 2 above). The evidence from this study (even if it is rather limited), clearly speaks in favour for the elevation of the role of Kreol Seselwa in the learning and teaching of locally contextualised subjects such as Social Studies, something which would lead to greater student engagement, and by extension open up for parents and others to involve themselves in what is being taught in school. It would arguably shift focus from school knowledge merely being *about something*, to the interpersonal dimension where this knowledge is also related to personal and communal identity. An alternative, which is not happening now, would be to put greater focus on language issues in subjects being taught in the L2 (English). If pupils are to

be taught and examined in English, they need to master the relevant vocabulary needed to talk about their everyday environment. Further, teachers need to be better equipped to teach in an L2 MoI context.

Despite the limitations of the study—only one topic, in one subject, in one small national context was investigated—the findings have some universal implications for the education system in the Seychelles, and for education in post-colonial L2 MoI contexts in general. Firstly, the study illustrates the importance of the ideational function of language in learning and writing. Without the appropriate words, it is difficult to communicate and build complex ideas. Further, when this ideational world is based on a local context, education systems should accept the basic Hallidayan premise that worldviews are construed through language, and that languages in turn are adapted for the contexts they operate within. This implies that local languages should be given a more prominent role in locally contextualised subjects such as Social Studies, or at least that pupils should be equipped with the linguistic knowledge in English needed to describe their local contexts. A less strict monolingual approach to teaching and learning would be a way forward here. Secondly, it seems to be the case that the choice of language (L2 MoI or mother tongue) affects the interpersonal dimension of communication. Learners clearly show more engagement in the topic when writing in their mother tongue, and position themselves as 'part of' rather than 'apart from' the writing task at hand. In extension, this type of engagement may well have a positive effect on attitudes towards school knowledge among pupils. Acknowledging the role of local languages in education would also make it easier for the surrounding community (parents and relatives, for example) to engage themselves in what is being taught at school. This would especially benefit learners who have a limited command of the L2 MoI. In sum, a more inclusive approach to the role of local languages in L2 MoI contexts, would probably lead to a more inclusive learning situation.

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