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STUDENT LEARNING, CHILDHOOD & VOICES | RESEARCH ARTICLE

The influence of mother tongue and gender on the acquisition of English (L2). The case of Afrikaans in Windhoek schools, Namibia

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Abstract: This study investigated the effect of mother tongue instruction and gender on second language acquisition using a causal-comparative quantitative research design. The two distinguishing groups compared were (i) learners that were taught in their mother tongue (Afrikaans) and (ii) learners that were not taught in their mother tongue but in English, from grades 1 to 3. The dependent variable was the second language acquisition that was accounted for by the learners' performance in grade 5 in three tests: a vocabulary, a syntax and an oral communication test. The sample included 2 schools in Windhoek and a total of 70 learners, with 35 learners that had Afrikaans as medium of instruction, and 35 learners that had English as medium of instruction from grades 1 to 3. The study aimed to shed some light on the ongoing debate as to whether mother tongue instruction or immersion in L2 is more beneficial for the child's second language acquisition and competence. Although clear differences between the two language groups were found with regard to their English proficiency in grade 5, these differences were not statistically significant. With regard to gender, clear differences were also found and most of these differences were statistically significant.

Subjects: Bilingualism/ESL; Early Childhood; Education

Keywords: mother tongue instruction; ESL acquisition; Afrikaans; Namibia; gender

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PUBLIC INTEREST STATEMENT

Multi-lingual countries usually have a variety of languages that are recognised as educational languages. This leads to a situation where the selection of the medium of instruction, specifically during the early grades, becomes very complex. Yet, it remains important for parents and educators to take informed decisions about the benefits and consequences of their choices, regarding this matter. This study aimed to shed some light on the ongoing debate, as to whether mother tongue instruction, or instruction in the second- or official language, is more beneficial for the child's second language acquisition and competence. The study was conducted in Namibia, focusing on Afrikaans as the mother tongue and English as the second, or official language. Although differences were found between the comparison groups, these were not statistically significant and further research into this matter is recommended. However, differences in language acquisition between boys and girls did yield statistically significant differences.



Maria Louise Mostert

1. Introduction

1.1. Contextual background

Several countries in Africa adopted English as their official language for reasons such as that it is a global language and it has advantages in terms of business, commerce and general communication. Many of these countries also have a multilingual environment, where more than one language is prevalent in the country. Yet, typically the majority of these countries' citizens do not have English as their home language and a variety of home languages are often actively used. For such countries, the dilemma of English vs. mother tongue (MT) education and the timing of implementing each language are very pertinent. Namibia is one of those countries. Even though the Namibian Language policy clearly states that during the first three years of primary education, learners should be taught via the MT as medium of instruction (Republic of Namibia. Ministry of Education & Culture, 1993), it remains challenging to implement this policy equally across the whole country (Republic of Namibia. Ministry of Basic Education Sport & Culture, 2003). Some schools lack the necessary material and human resources to implement MT medium of instruction (Wolfaardt, 2005) and for others the issue is that learners with diverse MTs are found in one classroom and it becomes difficult in selecting one MT as the medium of instruction. Often a language that is considered "neutral" in the country is selected as the medium of instruction to ensure that no language group will be considered superior. This is done to protect national unity (Makalela, 2005). Because of these reasons, some schools have English as medium of instruction from grade 1 even though less than 1% of the population has English as their MT. The multilingual nature of Namibian schools thus results in the ineffective implementation of the language policy (Republic of Namibia. Ministry of Basic Education Sport & Culture, 2003), whereby many learners do not have the opportunity to learn through their MT. This leads to the neglect of the MT during the first years of formal education.

This neglect of MT instruction could partly be the reason for poor reading results in Namibian schools. The Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) reports show that the reading ability of grade-6 learners in Namibia is very low (Makuwa, 2004; Miranda, Shikongo, Dengeinge, & Shikongo, 2011) and these results are a reason for concern. Similarly an investigation by Wolfaardt (2005), that was conducted in Namibia on the literacy and numeracy levels of grade-8 learners, found that learners that did not achieve the required literacy or numeracy levels in grade 8, came from schools where English, and not the MT, was chosen as the medium of instruction from grade 1.

1.2. The debate on MT instruction

The role of MT medium of instruction has been extensively researched in recent years and generally it is accepted that the MT of the child is of utmost importance (Cummins, 2006; Makalela, 2005; Prinsloo, 2007). It is also argued that children should normally start with reading in the MT (Cummins, 2009). The Developmental Interdependence Hypothesis of Cummins (Cummins, 1979, 1998, 2006) proposes that competence in a second language is partially a function of the type of competence already developed in the first language. This implies that the first language should not be neglected in order for second language learners to reach sufficient levels of proficiency. Cummins also concluded that transfer of literacy-related language tasks was not restricted to languages that are similar orthographically and typologically; even distant language pairs such as English and Japanese and English and Vietnamese showed high inter-language correlations. The importance of MT instruction, to promote performance in the second language, is also supported by several other researchers (Klein, 2003; Makalela, 2005; Prinsloo, 2007) who indicate that many skills acquired in the first language can be transferred to the second language. These researchers support the idea that time invested in developing first language literacy, works to the advantage of second language literacy achievement. Akinbote and Iroegbu (2001) suggest that the use of English (L2) in the early primary grades may even prevent the average primary school child to be sufficiently literate in either the MT or English. They therefore argue that, if permanent literacy is to be accomplished in the primary schools, the use of the MT as the medium of instruction in schools ought to be encouraged.

Language development is also closely related to cognitive development. Studies on mother tongue education (Makalela, 2005) show that children can best learn subject matter when the content is conveyed through their MT. Children should be able to learn through a language which they understand well. Since the MT forms an integral part of the child's environment, it is the natural basis on which verbal skills can be built (Chisunum & Ejie, 2014; Oluwole, 2008). MT instruction leads to concept formation in learners because they are able to comprehend knowledge in a language that they are familiar with; therefore they are able to perform, not only in languages but in other school and content-based subjects. A lack of competence in the home language can seriously impact the academic progress of a child because the child would fail to develop the prerequisite cognitive skills in his or her first language. Researchers noted that neglect of the MT leads to poor results, high dropout rates and general under achievement of second language learners (Cummins, 1998; Heugh, 2006; Heugh, Diedericks, Prinsloo, Herbst, & Winnaar, 2007). If the medium of instruction is the second language, which is not yet well developed, learners tend to struggle in other content-based subjects like Science and History, resulting in the general under achievement of the second language learners. Cummins (2005) reiterates that conceptual knowledge in L1 and L2 is interdependent; thus concepts, academic content and learning strategies transfer across languages. The main point of argument for MT instruction and bilingual education is that the first language should be sufficiently developed before the second language is introduced. Furthermore, the first language should not be excluded from the curriculum, even when the second language becomes the medium of instruction.

Despite the strong arguments in favour of MT medium of instruction during the early years of education, various reasons have motivated people to go against this notion and rather opt for the dominant language or the Language of Wider Communication (often English) to be implemented in schools as soon as possible. According to Porter (1999), the "maximum exposure hypothesis" or "time-on-task hypothesis" states that the more time spent on learning a language, the better a person will do in it. She further believed that students should receive more direct instruction in English, as this will result in them being able to do schoolwork in English earlier and more effectively. According to Kolawole and Dele (2002) a firm foundation in English language is very important for better academic performance. They are thus in favour that pupils should have exposure to English quite early in primary school, irrespective of the advantages of MT. They further suggested that the number of years of study and teaching periods in English should be increased. However, based on their longitudinal study, including 2,10,054 student records from selected schools in the USA, Thomas and Collier (2002) concluded that L2 learners, immersed in the English mainstream, showed large decreases in reading and maths achievement by grade 5, when compared to students who received bilingual services. The largest number of dropouts also came from the English mainstream immersion group (Thomas & Collier, 2002).

The status of languages also influences the choice to opt for MT medium of instruction or not (Murray, 2007). Bamgbose (1991) states that "language is like a currency: the more it can buy, the greater value it has. Consequently, a Language of Wider Communication, which is of wider currency, can give the child access to modern education and technology and ensure for rapid economic development" (p. 74). In an African context, many African languages compete with the Language of Wider Communication within the country, whether it is English, French or any other European language. An example would be the case of Botswana, a country where the national language, SeTswana, is spoken by the majority of the population. SeTswana is a language that is well developed and with teachers that can provide instruction in it, but it is still only offered as a subject in school, while English is the medium of instruction (Molosiwa, 2005).

Parents are important key players in selecting a particular medium of instruction for their children. Several parents of minority groups devalue the development of home language and refuse to put their children in bilingual programmes (Cummins, 2006). Research in Africa, as well as Namibia, also revealed a belief among parents (Mostert et al., 2012; Banda, 2000; Heugh, 2006; Murray, 2007) that there are greater benefits for children being taught through the medium of English (L2). They believe that if learners start with English (L2) as soon as possible, they will perform better in English, which

will result in better academic achievement and opportunities in the future job market. It thus seems that there is an escalating demand for English medium of education based on perceptions of parents and policy-makers that English is the key to economic and social advancement.

It should be noted that most of the research, both in favour and against MT instruction, was conducted outside the African context. Opportunities for MT instruction for minority groups, in countries such as the USA and Canada, are also quite limited (Maxwell-Jolly, 2011). Furthermore Horst, White, and Bell (2010) points out that despite the general principle that effective teaching depends on learners' ability to link new information to previous knowledge, this view has been strongly discouraged for language teaching. Teachers have become convinced that referring to the first language in the second language classroom is detrimental or sometimes not even possible. The teacher may simply not know the learners' L1 well enough to make cross-linguistic connections and if the students speak various L1s, he or she is unlikely to be able to refer to them all. Within the African context, factors such as teacher qualifications, as well as lack of human and material resources in the MT may affect learners' MT instruction, even though this instruction might be offered. It is therefore very important that more research be done into this phenomenon within the African context. It is for this reasons that the present study set out to determine the influence that the neglect of the MT, Afrikaans, from grades 1 to 3, would have on learners' acquisition of English as a Second Language in grade 5. In addition to this, the study investigated differences in ESL performance of boys and girls in grade 5, regardless of their medium of instruction during the first three years of formal education. A brief discussion of the influence of gender on language performance thus follows before the findings of the present study are presented.

1.3. Gender

The gender difference in language development, showing a clear female advantage in verbal ability, is already well established in the literature (Browne, 2005; Eckert & McConnell-Ginet, 2003; Heugh et al., 2007; Lovas, 2011; Swann, 1992). The reasons for these gender differences is still a matter of some controversy although research literature focus on three major areas to explain differences: biological gender differences in infancy, gender socialization and fathers' influence on language development (Lovas, 2011).

Several studies focussed on biological factors to account for gender differences (Cho & Holditch-Davis, 2014; Halpern, 2002; Northwestern University, 2008). For example, researchers from Northwestern University (2008) found that brain areas associated with language, work harder in girls during language tasks, and that boys and girls rely on very different parts of the brain when performing these tasks. Furthermore, they found that language processing is more abstract in girls and more sensory in boys. Cho and Holditch-Davis (2014) argue that prenatal exposure to high levels of testosterone, may account for some of these differences.

Social factors or gender socialization (Browne, 2005; Eckert & McConnell-Ginet, 2003; Lovas, 2011; Swann, 1992) also constitute for language differences between males and females. According to Lovas (2011), research findings show that mothers engage in more conversational, supportive and interpretive communication with daughters than with sons, from infancy through elementary school. She further argues that this differential verbal behaviour reflect parents' conscious or unconscious conformity with their society's stereotypical gender roles (Lovas, 2011).

Much of the early research on language development was conducted with mothers and their children since mothers were generally more available to researchers and were expected to have more influence on their children's language development than fathers. Recent studies increasingly also looked at fathers' influence on language development (Lovas, 2011). Lovas' study (2011) demonstrates that daughters are being given ample opportunity to practice verbal exchange with both parents, while sons are learning less about verbal exchange with both mothers and fathers, but especially with fathers.

Although the gender difference in early language development is already well established, differences with regard to later language achievement have shown some inconclusive results. These differences relate, for example, to aspects such as writing quality and performance (Babayigit, 2015; Jones & Myhill, 2007; Williams & Larkin, 2013) as well as reading comprehension and performance (Oakhill & Petrides, 2007). Research in reading comprehension and performance has led to contrasting results specifically when the topic of tests or reading passages was taken into consideration (Abdolahimzadeh, 2014). For instance, some studies found no significant gender differences in writing quality between boys and girls (Jones & Myhill, 2007; Williams & Larkin, 2013). On the other hand, a study by Babayigit (2015) suggests that L2 boys were more at risk of underperformance on written expression. Other research also showed a female advantage in writing (Halpern, 2002; Preiss, Castillo, Flotts, & Martín, 2013).

The issue of how gender differences in topic interest affects reading comprehension is almost established in L1 reading research (Doolittle & Welch, 1989; Oakhill & Petrides, 2007). However, research in L2 reading has been characterized with inconsistent results in this regard (Brantmeier, 2003). Oakhill and Petrides (2007) conducted a UK-based study of boys' and girls' reading performance, allowing for topic preferences by each gender group. For boys, reading comprehension was significantly affected by the content of reading passages, and they performed significantly better on texts for which they had reported high interest. On the contrary, girls' test performance did not differ across texts, no matter what their interest was. Research (Doolittle & Welch, 1989) including tertiary students, found that females outperformed males with humanities-oriented texts, while males did better with science-oriented ones. Similarly a study by Bügel and Buunk (1996) found male learners significantly outperforming females on male-oriented tests while females significantly outscored males on female-oriented tests.

In order to address the inconclusive research results as indicated above and to contribute to the knowledge base in this area, some have suggested that the study of gender differences in literacy levels should take place within specific contexts (Babayigit, 2015; Hansen & Jones, 2011). For this reason, the present study also investigated gender-based differences in ESL performance of grade-5 Namibian learners with Afrikaans as their MT.

2. Materials and methods

This quantitative research investigated the effect of MT instruction and gender on second language acquisition. The population for the study was grade-5 learners in Windhoek, Namibia, whose MT was Afrikaans. Since Namibia is a multilingual country, several MTs can be used for instruction from grades 1 to 3, but English is the compulsory medium of instruction as from grade 4. The researchers chose to investigate learners having Afrikaans as MT, since they are familiar with this language, and not with any of the other indigenous Namibian languages. A causal-comparative design was employed, which typically involves two (or more) groups and one independent variable. The groups are already formed and already different on the independent variable. One group possesses a characteristic that the other does not. In this case, one group was taught in the MT during the initial grades and the other group not. The population was thus studied based on the following two comparison groupings: learners that had Afrikaans (MT) as the medium of instruction from grades 1 to 3 and learners that did not have MT medium of instruction from grades 1 to 3 and started with English as the medium of instruction from grade 1. The sample included grade-5 learners from two government schools in Windhoek that offered a two-language curriculum. Grade-5 learners were chosen to give a one-year gap between the time of MT instruction and the shift to English as medium of instruction. The schools as well as the individual learners were selected through purposive sampling and in total there were 35 Afrikaans MT learners that had Afrikaans as medium of instruction from grades 1 to 3 and 35 Afrikaans MT learners that had English as medium of instruction from grades 1 to 3.

Three researcher-designed tests adapted from language textbooks, were used to collect data from the participants: a vocabulary test, a syntax test and an oral communication test. For the vocabulary test, there were three exercises that the participants had to complete. One vocabulary

exercise required the participants to identify from a list of words the word that was not fitting with the rest (mismatch). For example “clouds, trees, stars and rainbow”, where “trees” would be the mismatch. Secondly, the participants had to match verbs with corresponding nouns, for example “solving ... problems”. In the last exercise, they had to match words and facial expressions, shown as pictures, including expressions such as worried, angry and sad. The first two exercises for the syntax test required the participants to correct the word order in different sentences, for example “said They did they like not name her” to be corrected to “They said they did not like her name”. The last exercise required them to match the beginning of the sentence with the correct ending, for example “If there are more cars”/“we will need more roads”. The third test was an oral communication test where the researcher conducted an interview on a particular topic with each participant. Topics included “pollution” and “music”. The interview was evaluated by means of rating criteria adapted from Aspinall and Bethell (2001). The participants were evaluated on communication skills as well as content and aspects such as grammar, vocabulary and pronunciation were considered. At the end of every interview, the researcher completed a rating sheet for each participant, based on the set criteria.

All tests were graded by the same person and marks were recorded. Data were analysed as follows: For each participant an individual score on each of the three tests were obtained and converted to percentages. Secondly mean scores for each of the three class tests were calculated for each of the comparison groups. Lastly, a t-test was conducted to determine if the differences in mean scores on the three class tests were statistically significant or not. This procedure was followed with regard to both the language groups and gender.

Several steps were taken to increase the validity and reliability of the study. A pilot study was conducted in a school not included in the sample, to evaluate the suitability of the three tests for the study. This resulted in making some adjustments to the vocabulary test since it did not discriminate well enough between high and low performers. Furthermore, for the oral communication test the researcher allowed flexibility with regard to the topic so that actual oral communication ability was tested and not knowledge on the specific topic. The two groups were as similar as possible with regard to age, grade, gender and school setting or neighbourhood. All data were collected and graded by one researcher to minimize the influence of subjectivity and all participants were tested within a three-week timeframe.

Normal ethical guidelines were followed to protect participants of this study. All participant information was kept anonymous and treated with confidentiality. Since a normal class test was conducted, no harm to any participant was expected to occur, and participants were free to withdraw from the study at any time.

3. Research results

The results are presented to firstly address the differences in English second language performance of the Afrikaans medium of instruction and English medium of instruction participants, highlighting the difference for the two groups in vocabulary, syntax and oral communication. Secondly, the difference in the performance of girls and boys is reported.

3.1. Performance of the two language groups in the three tests

The Afrikaans medium of instruction and English medium of instruction participants' scores for all three tests are presented in Table 1. The vocabulary scores of the Afrikaans group ranged from 45 to 100%, while the scores for the English group ranged from 30 to 100%. The mean scores for the vocabulary test indicate that both groups achieved high scores in this test. The Afrikaans group achieved a mean score of 78.1% while the English group achieved a mean score of 78.3%. As there was a mean difference of only 0.15 percentage points, the difference between the scores of the two groups can be considered negligible.

Table 1. The performance of Afrikaans (L1) and English (L2) medium of instruction participants in the three tests

Score category	Vocabulary test		Syntax test		Oral communication test	
	Afrikaans (%)	English (%)	Afrikaans (%)	English (%)	Afrikaans (%)	English (%)
00-09	0.0	0.0	0.0	5.8	0.0	0.0
10-19	0.0	0.0	5.7	0.0	0.0	0.0
20-29	0.0	0.0	20.0	2.9	2.9	0.0
30-39	0.0	2.9	2.9	8.6	2.9	0.0
40-49	8.6	8.6	23.8	14.3	11.4	5.7
50-59	8.6	2.9	2.9	2.9	8.6	11.4
60-69	14.3	14.3	5.8	14.3	34.3	42.9
70-79	5.8	11.5	8.6	14.3	11.4	17.1
80-89	22.9	20.0	20.0	25.7	25.7	14.3
90-100	40.0	39.9	11.4	11.4	2.9	8.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
Mean	78.1	78.3	54.5	63.8	62.0	65.1

Note: N = 70.

For the syntax test, both language groups achieved an overall low performance. In the English group, the scores ranged from 0 to 100%, while in the Afrikaans group, the scores ranged from 13 to 93%. The scores obtained by both groups are spread out but, from Table 1 it is clear that a high number of participants that achieved scores below 50% were from the Afrikaans group. The mean scores achieved by the Afrikaans and the English groups for the syntax test were lower than the mean scores achieved in vocabulary test. The Afrikaans group achieved a mean score of 54.5 while, the English group achieved a mean score of 63.8. The English group thus achieved a substantively higher mean score than the Afrikaans group, with a mean difference of 9.37 percentage points between the two groups.

For the oral communication test, scores ranged from 20 to 90% for the Afrikaans group and 40-100% for the English group. The mean scores indicated that although both groups had an average score above 60%, the English group on average outperformed the Afrikaans group with 3.1 percentage points. The English group achieved a mean score of 65.1, while the Afrikaans group achieved a mean score of 62.0.

In order to compare the mean scores of the two language groups in each of the three test statistically, Levene's test for equality of variance was administered. Since it was concluded that the variances were equal, a normal *t* test was used to test for the equality of means between the two groups. In all three cases, it was concluded that there was no statistically significant difference between the two language groups with regard to the mean scores for each of the three tests ($p > 0.05$ in all cases).

3.2. Performance of girls and boys in the three tests

The scores for boys and girls on all three tests are presented in Table 2. For the vocabulary test a high percentage of the girls, 92.7%, achieved 60% and above while only 76.6% of the boys were in the same range of scores. The mean scores in the vocabulary test were high for both groups. For boys it was 74.1% and for girls it was 82.1%. The difference between the mean scores was thus 8.0% points.

Although the girls achieved the two lowest scores (0 and 7%) for the syntax test, there were only 33.5% of the girls that achieved scores below 60%, while 55.9 of the boys had scores within this

Table 2. The performance of boys and girls in the three tests

Score category	Vocabulary test		Syntax test		Oral communication test	
	Girls (%)	Boys (%)	Girls (%)	Boys (%)	Girls (%)	Boys (%)
00-09	0.0	0.0	5.6	0.0	0.0	0.0
10-19	0.0	0.0	0	5.9	0.0	0.0
20-29	0.0	0.0	2.8	20.6	0.0	2.9
30-39	0.0	2.9	2.8	8.8	0.0	2.9
40-49	2.8	14.7	19.5	17.7	2.8	14.7
50-59	5.6	5.9	2.8	2.9	13.9	5.9
60-69	16.7	11.8	11.2	8.8	30.6	47.1
70-79	8.4	8.8	8.3	14.7	16.7	11.8
80-89	19.5	23.6	30.5	20.6	25.0	14.7
90-100	47.2	32.4	16.7	5.8	11.1	0.0
Total	100	100	100	100	100	100
Mean	82.1	74.1	66.1	51.7	68.3	58.5

Note: N = 70.

Table 3. t-test for equality of means for the three tests by gender

Test	t	df	Sig. (2-tailed)	Mean difference	Std. error
Vocabulary	1.871	62.36	0.066	8.0	4.26
Syntax	2.289	67.88	0.025	14.4	6.29
Oral communication	2.861	67.37	0.006	9.8	3.43

range. There was a substantial difference of 14.4 percentage points between the mean scores of girls (66.1%) and boys (51.7%) in the syntax test.

The boys achieved the two lowest scores (20 and 30%) for the oral communication test, while the highest score of 100% was achieved by a girl. There were 83.4% of the girls that obtained scores from 60 to 100%, while there were 73.6% of the boys that obtained scores in this range. The girls achieved a mean score of 68.3% which was almost 10 percentage points higher than the mean score of 58.5% that was achieved by the boys.

In order to compare the mean scores of boys and girls in the vocabulary, syntax and oral communication test statistically, Levene’s test for equality of variance was administered. For all tests the variances were equal and a normal t test could be performed. For the vocabulary test, the t-test revealed that the difference in mean score between the girls and boys was statistically not significant. For both the syntax and the oral communication tests, a statistically significant difference in means between the two genders was confirmed, see Table 3.

4. Discussion of results

4.1. The two language groups

The majority of both the Afrikaans and English medium of instruction participants obtained high scores in the vocabulary test. The difference in mean scores between the two groups was negligible and thus neither of the groups seems to have either been advantaged or disadvantaged due to their medium of instruction. Based on the time on task hypothesis one would have expected the English medium of instruction group to have obtained higher scores since they were exposed to three years more instruction in an English medium than the Afrikaans group. To some extent, these findings are

consistent with those reached by other investigators (Cummins, 2006; Makalela, 2005; Prinsloo, 2007) that emphasize the importance of the first language in order to achieve success in the second language. This would mean if learners have acquired language skills in their first language, then they will be capable to use the skills in the second language. In the Afrikaans medium of instruction, participants' good vocabulary in English can be an indication of a well-developed first language (Afrikaans) which aided their second language (English). However, in Namibia, factors outside the school can also be seen as helpful in the building of English vocabulary, as the majority of television programs, including children's entertainment, on the Namibian national broadcaster is in English. English is the national language of Namibia and in most regions of the country, opportunities to hear the language is ample.

The results for the syntax test were poor for both groups but more so for the Afrikaans medium of instruction participants. The mean score difference was 9.37%. The English medium of instruction participants had the advantage of being exposed to the English sentence construction for a longer period of time regardless of the fact that they were Afrikaans MT speakers. Yet, the Afrikaans group should not really have had such a big backlog with regard to sentence construction, as the two languages (Afrikaans and English) have similarities, particularly in this area. From these results, it seems as if learners in the English medium of instruction group were advantaged due to their immersion into English during the first 3 school grades. Furthermore, one can conclude that these results are contrary to research by Cummins (1979, 1998, 2006), Makalela (2005), and Prinsloo (2007), as these research studies indicate the need and importance for MT instruction in order for achievement in the second language. Therefore, it seems as if the "Time-on-task hypothesis" (Porter, 1999) might be relevant for syntax development.

The last area tested was oral communication. Communication is influenced by the confidence that a person has, as well as the awareness and understanding of vocabulary and syntax. The performance of the Afrikaans medium of instruction group in the oral communication test was much better than their performance in the syntax test (62.0 and 54.5% respectively). The positive results in the oral communication test for the Afrikaans medium of instruction participants in this study might be due to the participants having sufficient oral communication skills in their first language. However, the English medium of instruction participants performed even better in the oral communication test (mean score 65.1%) and obtained a mean score that was slightly higher (3.1%) than the Afrikaans medium of instruction participants. Once again it seems as if they were advantaged with regard to English communications skills due to their longer exposure to the language. This can be seen as consistent and in line with the time-on-task hypothesis (Porter, 1999) that states that the longer one is exposed to a language, the better one will become in it. As the English medium of instruction participants were provided with opportunities to communicate in English in a classroom setting from grade 1, this could place them at a more favourable position than the Afrikaans medium of instruction participants. The English medium of instruction participants could have built confidence during the first three years of instruction as they might have been encouraged to communicate in English with the teacher and their peers.

In the Afrikaans medium of instruction, participants performed well in the vocabulary and oral communication tests. This can be an indication that they received sufficient instruction in their MT in these areas; therefore they were able to transfer their first language knowledge, regarding these particular areas, to their second language (Cummins, 1979, 2005; Klein, 2003). Their poor performance in the syntax test can be due to various reasons, but a possible explanation could be that they have not been given direct support or scaffolding, in order for them to transfer learning from their first language to their second language. Skill transfer from the first language to the second language does not happen instinctively. Therefore, direct support or scaffolding from a teacher is required in order for the learner to identify the skills from their first language that could also be applied in their second language (Mady & Garbati, 2014). The English medium of instruction participants might have been able to perform well in the syntax test because they had been exposed and

consciously made aware of the English sentence construction in an educational setting for already five years, at the time they completed the syntax test.

Based on the results, it is clear that the English medium of instruction participants in this particular study performed better than the Afrikaans medium of instruction participants in all the areas that were tested. Although the mean scores were very close, almost equal in the vocabulary test, the English medium of instruction participants remained a step ahead of the Afrikaans medium of instruction participants.

The researchers wish to stress, that since the differences found in all three test were statistically not significant ($p > 0.05$), no firm conclusions can be drawn from the data. The results of the two language groups in the three tests demonstrated possible trends but differences were statistically not significant and further research is needed before any solid conclusions can be made about the influence of the neglect of MT instruction. The findings cannot be generalized to the population. It may be that other important factors play a role in the Namibian and African context that may leave MT learners at a disadvantage and that may skew results to favour the time on task hypothesis. These could, for example, be the lack of qualified teachers and teaching materials in the MT. We thus need to reiterate that no firm conclusions can be made to confirm or reject the existing hypotheses on second language acquisition. However, the present study leans towards support for the maximum exposure hypothesis.

4.2. Gender

Although the gender difference in language development is already well established, differences with regard to later language achievement have shown some inconclusive results (Brantmeier, 2003; Bügel & Buunk, 1996; Doolittle & Welch, 1989; Oakhill & Petrides, 2007). The researchers therefore also analysed the data in this study to investigate gender differences. Girls obtained higher mean scores in all three tests. The mean percentage differences on all the tests were quite big: for vocabulary 8.0%; for syntax 14.4%; and for oral communication 9.8%. The greater verbal ability of the girls were observed during the oral communication test as they engaged in longer and more detailed discussions and their high level of confidence was also observed. *t*-tests indicated the results for the syntax and oral communication test were statistically significant ($p < 0.05$). These results once again confirm other studies that have established a clear female advantage in verbal ability.

5. Recommendations

Based on the findings from this study, the researchers would like to recommend as follows: future studies of a similar nature may include other local languages and also bigger samples so that the findings could be generalized. Furthermore, it may be valuable to test learners, not only in English, but also in their MT, to see to what extent their MT might aid the second language acquisition. Learners obtained the lowest marks for the syntax test which shows there is a need for improved syntax instruction. It is also suggested that teachers should give direct support for learners to be aware of learning transfer from the first to the second language. The learners' first language should be used as a resource tool in the language classroom to enhance second language learning. Learners should be given opportunities to contribute orally in class discussions, as well as to communicate with their peers in group discussions. These activities encourage oral communication and give learners a chance to build confidence in their second language. Language teachers should make a conscious effort to make language instruction more appealing to boys, as they tend to struggle with language activities. Specifically, text topics for discussion should ensure that boys' interest is also met.

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