

Abstract

The aim of this study was to investigate comprehension and production of *wh*-question markers in preschool Setswana-speaking children and to document changes in comprehension and production of these questions as the children mature. The study further aimed to investigate production and comprehension of subject and object *mang* (who) and *eng* (what) questions.

The development of questions is an important aspect of preschool language ability. Questions play a key role in promoting conversation and participation in discussions. The ability to ask questions assists the child to obtain new information and to organise his/her knowledge. Comprehension and formulation of questions are thus vital communication skills for learning and deficits in questioning skills impact all areas of language learning and scholastic achievement.

There is extensive literature describing the development of questions in English and other Indo-European languages. In Southern Africa however, there has only been one longitudinal study that reported the development of questions in Sesotho. Information questions in Setswana are marked by the following words: *Mang?* (who), *-fe?* (which), *eng?*(what), *-kae?* (where), *leng?* (when), *goreng?* (why) and *jang ?* (how). The interrogative conjunction *naa*, *kana*, and *ntla* are sometimes used to introduce questions. This is however, used with sentences that are already questions (Cole, 1955) and is normally attached at the beginning or end of the sentence.

Research indicates that there are structural differences in the syntax of *wh*- questions. English and other European languages derive *wh*- questions by moving the *wh*- word to the front of the clause (Owens, 2001), while, in African languages the question word remains in situ (Demuth, 1995). Also, unlike English, there is no syntactic movement nor use of additional auxiliaries when asking yes/no and *wh*-questions in African languages. *Wh*-questions in Setswana involve re-ordering of the elements in the sentence and positioning of the question-word at the end of the sentence, except when asking *goreng* (why) questions, where the question-word is always at the beginning of a sentence.

Preschool children growing up in Pankop and Ga-Rankuwa, peri-urban areas of Mpumalanga and Gauteng Provinces participated in this study. 231 normally developing boys and girls

who spoke Setswana at home and are in the age ranges of 3.0-3.11, 4.0-4.11 and 5.0-5.11 years were tested for the main production and comprehension part of the study and additional 116 three to five-year-old children were tested for the study on comprehension and production of subject and object *eng* (what) and *mang* (who) questions. While the children were identified by their teachers as Setswana speakers, 39% of the participants came from monolingual home backgrounds. In most instances the mother and the father did not speak the same language and the children were further exposed to other languages spoken in the area.

Test materials included pictures from the Diagnostic Evaluation of Language Variation (DELV) Screening and Criterion Referenced tests (Seymour, Roeper & de Villiers, 2003), What Are They Asking cards from Super Duper publications (2006) and computer generated pictures. Sixteen pictures from the DELV Screening and 40 pictures from the DELV Criterion Referenced tests were used to develop 56 questions for the comprehension task, eight questions for each question-word. The production task consisted of two tasks to maximise data collection (Cohen & Manion, 1991). 12 pictures of the Question Asking subtest of the DELV Criterion Referenced test and 44 cards from *What Are They Asking* were used to elicit questions. Eighteen computer generated pictures were used to assess comprehension and production of object and subject *eng* (what) and *mang* (who) questions.

The children were tested individually in the quietest room available at the school. All interactions were audio-taped and later transcribed by the researcher and the research assistant. Descriptive research method utilising a mixed cross-sectional developmental design was used to compare the three age groups (3.00-3.11 years; 4.00-4.11 years; 5.00-5.11 years), gender (boys and girls) with the three independent variable, types of *wh*- questions, comprehension and production. The small study investigating comprehension and production of subject and object *mang* (who) and *eng* (what) questions was analysed separately. Data analysis using SAS 9.2 computer system was used to calculate (means, standard deviations and score ranges) and to compare results. One way Analysis of variance (ANOVA) was employed to compare the groups and procedures used.

DELV comprehension findings revealed that *eng* (what), *kae* (where) and *mang* (who) questions were easier for all children. Their mean scores ranged from 4.16 to 7.38 for *eng* (what); 4.16 to 6.26 for *kae* (where) question and 3.48 to 5.68 for *mang* (who) question. The children understood *goreng* (why) better than *jang* (how) and *e/e* (which) questions and

had the lowest mean score for *leng*(when) questions. Paired sample t-test revealed significant differences in mean scores for all questions for three- and four -year-olds and three- and five- year- olds and less so when comparing mean scores for four and five -year- old children. Gender comparisons of the mean scores revealed that male participants obtained higher mean scores than females for some of the questions.

Production task using DELV pictures revealed similar trends to the comprehension task. The most productive question-form for this production task was *eng* (what), followed by *kae* (where), *mang* (who) and *goring* (why). The children were not able to ask *leng* (when), *jang* (how) and *efe/ofe* (which) questions. Male participants obtained higher mean score though the differences were not statistically significant. The children responded much better to What Are They Asking production task. They produced all questions including *jang*, (how), *leng* (when) and *efe/ofe* (which). Three and four -year-old female participants produced more questions than males, while the differences between the genders were minimal for five-year olds.

ANOVA between group comparison of comprehension and DELV production tasks revealed significant findings at 1% for all question except *eng* (what), and comprehension and What are they asking tasks findings were not significant for *kae* (where) and *goreng* (why) questions, while the findings of the two production tasks were not significant for *mang* (who) and *leng* (when) questions. The findings of the three procedures indicate that Setswana speaking three to five year old children understand Setswana *wh*-questions and that depending on the type of production materials used these children are able to ask these questions, though *leng* (when), *jang* (how) and *efe/ofe* (which) questions were fewer in the speech samples. Their failure to ask these questions can be explained by the complexity of the concepts encoded by these words.

Syntactic asymmetry between object and subject *wh*-questions in African languages have been described in the literature. African languages do not permit *wh*-words in subject position but rather use passives, relatives or cleft constructions to form subject questions (Demuth & Kline, 2006). Subject and object *mang* (who) and *eng* (what) question were difficult for three-year-old children, yet they asked more object *mang* (who) and few object *eng* (what) questions. Four and five- year- olds answered most questions correctly and were able to produce object and subject *mang* (who) question, and object *eng* (what) questions. This is in agreement with the literature which showed that subject questions were easier for

who but object questions are easier for *what* questions. The children were not able to produce subject *eng* (what) questions.

The results of this study are interpreted and discussed within the RRG (Van Valin, 2005, 2007, 2011) theory as it allows for direct mapping of syntax and semantics and takes into account the discourse and pragmatic rules specific to the language under investigation. The theory acknowledges the role of the person asking or answering questions and the processes that must be performed consciously or unconsciously, in order to obtain an answer or pose a question.

Development of culturally appropriate assessment procedures for children who speak languages other than English and Afrikaans continues to be challenge for professionals in this country. This study is an attempt to build a body of data that addresses the need for developing linguistically appropriate materials for children who speak African languages. Nelson Mandela once said “there is no better investment than to help children to develop”. The findings of this study also point to the need for collaboration between preschool teachers and Speech-Language Therapists as well as information sharing with parents/guardians/caregivers regarding language stimulation.