Factors affecting how children hear words and their relation to reading ability.

Keith J. Majoos

B.Sc (UWC, South Africa), **Diploma Datametrics** (UNISA, South Africa), **Master of Business Administration** (RMIT, Australia), **Grad Dip Psychology** (UNE, Australia)

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Certification

I certify that the substance of this thesis has not already been submitted for any degree and is not currently being submitted for any other degree or qualification.

I certify that any help received in preparing this thesis, and all sources used, have been acknowledged in this thesis.

Keith J. Majoos

Student no. 099085383

This work is dedicated to

my parents:

Peter Joseph Majoos and Clyris Manda Majoos

& to my family:

My wife Jennifer, and children Candice, Michelle and James

for their love,

perseverance, encouragement and support.

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Motivation

When I was in primary school, I was taught phonics - how to sound out the letters. I had great difficulty distinguishing certain letters and numbers. The number '9' was particularly difficult as I used to confuse it with the letter 'P', so too the letters 'b' and 'd'; and I still can't see 'S's. Apart from the inverted letters that I struggled with until grade 4, my greatest challenge as a young reader, was to read correct lexical stress in words. In addition, without the correct diacritics or stress indications I used to read sentences in a very monotonic voice; still do today. Some researchers argue that we use the same spoken intonation when we sub-vocalise during silent reading; perhaps good readers do, but I do not.

Poor readers have difficulty putting the right stress on words and schools do not explicitly teach lexical stress! To overcome my problem as a beginning reader, I learned about suprasegmental features and intonation from comic books. As a poor reader, I loved Superheroes because they never use long sentences and they put emphasis on some words in **bold** or CAPITAL LETTERS. Moreover, the word "ka**POW**!" in its graphic form was always written with a large P indicating lexical stress or as a hyphenated word (e.g. "ka-**POW**!") to indicate the start of the next syllable.

This is partly the reason that I chose to do research in how poor readers hear words, especially how they processes lexical stress and its relationship to reading.

Abstract

Sensitivity to lexical stress has received attention recently as a predictor of reading skill. Six experiments explored the relationship between the reader's ability to process stress in spoken disyllabic nouns and verbs. In Experiments 1 and 2, adults and children identified disyllabic nouns and verbs, each involving trochaic and iambic instances, in "yes/no" and "go/nogo" auditory lexical decision tasks. The results showed that they processed lexical stress in the same manner, across both tasks, except children were slower. In Experiment 3, when children were presented with only iambic verbs and trochaic nouns in a verb/noun categorization task, poor readers were faster than good readers. Whereas Experiments 1 to 3 involved the presentation of a single spoken word on each trial, Experiments 4 to 6 all involved the presentation of spoken word pairs differing only in terms of stress (iambic verbs and trochaic nouns; e.g., reWARD and REward). Experiment 4 required children to decide whether the noun (or verb on 50% of trials) was first or last in the pair. Good and poor readers both showed no difference in response latencies, but did better at categorising iambic items. However, in Experiment 5, only good readers showed differences between identity (same) and contrastive (different) items in a same/different task. In Experiment 6, poor readers attended more to suprasegmentals, whereas good readers appeared to process the items at the segmental level in auditory priming lexical decision. Overall, the results showed that poor readers appear to attend more to acoustic/phonetic information in spoken word recognition, whereas the good readers attend to segmental information at the lexical level in spoken word recognition.

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