

**The use of word prediction
as a tool
to accelerate the typing speed
and increase the spelling accuracy
of primary school children
with spelling difficulties.**

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Abstract

The use of word prediction as a tool to accelerate the typing speed and increase the spelling accuracy of primary school children with spelling difficulties.

Word prediction has been offered as support for children with spelling difficulties. The literature however has shown wide-ranging results, as the use of word prediction is at the cost of time and fatigue due to increased visual-cognitive demands. Spelling support with word prediction is through word completion, keystroke reduction and the interactive process between spelling and reading.

The research project was a cross-over within-subject design using 80 Grade 4 – 6 children with spelling difficulties in a school for special needs. The research task took the form of entering 30 words through an on-screen keyboard, with and without the use of word prediction software. The subjects were divided into four groups, who completed the research task in combinations of one of two equivalent wordlists and the presentation order of the typing method used. The Graded Word Spelling Test, administered before the study began, served to investigate whether there was a relationship between the children's current spelling knowledge and word prediction efficacy.

The results indicated an increase in spelling accuracy with the use of word prediction, but at the cost of time and the tendency to use word approximations, which decreased as grade and age increased. Children's current spelling knowledge could not serve as an indicator of who would be most likely to benefit from word prediction use. The cross-over design counter-balanced the effects of the inequalities in the two wordlists and the effects of practice and fatigue noted in the presentation order.

Further research into the impact that more extensive training and practice would have on word prediction efficacy and the usefulness of word prediction in more functional writing is necessary.

Key words : functional writing; Graded Word Spelling Test; keystroke reduction; on-screen keyboard; spelling accuracy; spelling difficulties; word approximations; word completion; word prediction; writing support

Opsomming

Die gebruik van woord voorspelling as ‘n werktuig om tikspoed te verhoog en spel akkuraatheid van laerskool kinders met spelprobleme te verbeter.

Woordvoorspelling is al voorgestel as ondersteuning vir kinders met spelprobleme. Die literatuur het egter op ‘n wye reeks resultate gedui, aangesien die gebruik van woordvoorspelling ten koste van tyd en moegheid is, as gevolg van verhoogde visueel-kognitiewe eise. Spelling ondersteuning met woordvoorspelling is deur woordvoltooiing, die vermindering van sleutelslae en die interaktiewe proses tussen spelling en lees.

Die navorsingsprojek was ‘n oorkruis tussen-proefpersoon ontwerp wat 80 Graad 4 - 6 kinders met spelprobleme in ‘n skool vir spesiale behoeftes, gebruik het. Die navorsingstaak het die form aangeneem van die insleutel van 30 woorde deur ‘n sleutelbord op die rekenaarskerm, met en sonder woordvoorspelling sagteware. Die proefpersone is in 4 verskillende groepe verdeel, wat die navorsingstaak in kombinasies van een van twee ekwivalente woordelyste en die volgorde van aanbieding van die tikmetode, voltooi het. Die “Graded Word Spelling Test” wat uitgevoer is voordat die studie ‘n aanvang geneem het, het ten doel gehad om te ondersoek of daar ‘n verband was tussen die kinders se huidige spelkennis en die effektiwiteit van die woordvoorspelling.

Resultate het aangetoon dat daar ‘n verbetering in die akkuraatheid van spelling met die gebruik van woordvoorspelling was, maar ten koste van tyd en die tendens om woordbenaderings te gebruik, wat minder geword het soos wat die graad en ouderdom verhoog het. Kinders se huidige spel kennis kon nie dien as ‘n indikator van wie mees waarskynlik by die gebruik van woordvoorspelling sou baat nie. Die oorkruis ontwerp het die effek van die ongelykhede in die

twee woordelyste uitgebalanseer asook die effek van oefening en moegheid van in die volgorde van aanbieding gesien is.

Verdere navorsing met betrekking tot die impak wat meer omvattende opleiding en oefening op die effektiwiteit van woordvoorspelling sal hê, en die bruikbaarheid van woordvoorspelling in meer funksionele skryf, is nodig.

Sleutelwoorde: funksionele skrif; “Graded Word Spelling Test”; sleutelbord op die rekenaarskerm; spelakkuraatheid; spelprobleme; skryf ondersteuning; vermindering van sleutelslae; woordvoltooing; woordbenaderings; woordvoorspelling;