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Letter and Number Reversals – Identifying the problem

Janet Richmond
Edith Cowan University

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Dr Janet Richmond, Edith Cowan University

Letter and Number Reversals – Identifying the problem

METHOD

- A descriptive correlation study to compare recognised and hand written letter and number reversals
- Ethical approval through Edith Cowan University
- Victorian Modern Cursive Font
- 74 boys (59%) and 52 (41%) girls, Year 1-4
- Completed letter and number recognition scale
- Children wrote the alphabet and numbers from memory
- Dictated words were given to Year 1 and older students

INTRODUCTION

Writing quality = teacher perception of ability
 Letter and number orientation affects legibility
 Traditional theorists present the development of visual perception and fine motor skills as an integrated yet linear process
 This linear development should enable children to integrate the skills equally well in tasks such as reading and writing
 Recognition and written direction of letters and numbers should develop along a similar linear process
 Reversals in academic tasks can occur in manual encoding (writing) or visual receptive functioning
 Children who make reversal errors exhibit poor visual-motor skills and poor visual perceptual tendencies, resulting in a tendency to make less progress in reading and general academic performance
 Children with reading difficulty made more errors in letter orientation



RESULTS

11-20% of children did not attempt to write letters they were confused about
 Disproportionate letter reversals in j, z, b, c, q, i, t, d, l, p, s
 Independently written letters reversed more often than those written within words

No correlation to increasing grade
 Agree with previous findings

DISCUSSION

Children have less difficulty producing letters when they use an integrated approach of letter sounds, formations and directionality matching when committing the letters to memory during the initial letter recognition and writing phase.
 Written orientation of letters and numbers combined with the ability to recognise when an error has been made in the printed orientation of letters and numbers, require more attention when teaching children to write, read and spell.
 Eight of the letters: u / t / q / n / k / g / j / z (j / z most difficult) do not correlate to grade
 Most commonly reversed letters in the English language, b / d / p / q and t / c are easily confused due to similarity in shape and sound

RECOGNISED/ READ REVERSALS

P	g
D	q
K	z
E	4
c	7
s	9
t	3
d	
a	

WRITTEN REVERSALS

j (9.5%),
 z (11.9%),
 b (0.8%)
 c (0.8%)
 i (0.8%)
 q (0.8%)
 t (0.8%)
 d (1.6%)
 l (1.6%)
 p (1.6%)
 s (2.4%)

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