



NSW Speech Pathology Evidence Based Practice Interest Group

Critically Appraised Paper (CAP)

CLINICAL BOTTOM LINE: Children with mild to moderate intellectual disabilities, learn sight words most quickly when presented with words alone.

Clinical Question:

In children with disabilities, does the use of pictures support literacy development?

Citation: Didden,R. de Graaff,S. Nelemans,M. Vooren,M. and Lancioni,G. (2006). Teaching Sight Words to Children with Moderate to Mild Mental Retardation: Comparison between Instructional Procedures. *American Journal on Mental Retardation*, Vol.III, No.5, 357-365

Design/Method/Materials:

- An alternating treatments design was used.
- Study looked at 3 training procedures to teach sight words. These procedures were:
 1. Word presented without picture
 2. Word presented with integrated picture (sight word embedded in the picture)
 3. Integrated picture was faded out of the word (4 step fading process where each step depicted a less visible outline of the picture).
- 12 sight words – each of 3 or 4 letters, were randomly and evenly allocated to each of the 3 conditions. 2 baseline probe sessions were held.
- Children then had training sessions 3 times a day where each experimental condition was presented.
- Presentation of sight words and procedures were randomly varied across sessions.
- There were also 12 objects that corresponded to the sight words.
- Children were asked to select the object on hearing the word.
- Probe sessions were conducted during training and to assess retention between 2 and 5 weeks after the last training session.

Participants:

- 13 children (9 boys and 4 girls) aged between 10 and 15 years (M=12.58 years).
- The children functioned in the moderate to mild range of intellectual disability (IQs ranged from 36 to 59) – assessed using the Wechsler Intelligence Scale for Children-Revised Dutch version – WISC-RN.
- They attended a school for children with severe learning disabilities and were not able to read words by analysing and synthesising, although some could identify a small number of letters and/or sight words.
- No participants had motor, visual or hearing impairments, or disruptive behaviour.
- All children could express themselves in complete sentences.

Experimental Group: All 3 instructional procedures were presented to each child.

Control Group: No control group

May 2002

Results:

- Percentage of correct responses during probe sessions during the baseline, training and retention phases for each of the 3 experimental conditions and for each participant were graphed.
- During baseline, there were no correct responses, i.e. no child could read the sight words.
- During training, 10/13 children reached criterion level (reached when the child correctly responded to all four sight words in one condition and when able to select the corresponding object upon hearing the word for that object) fastest in the word-alone condition.
- 3/13 children reached criterion level in the picture-fading condition and no children reached criterion in the integrated-picture condition.

Comments:

- No data was collected on entry skills of the participants.
- No statistical analysis.
- No control group.
- Would be easy to replicate.

Level of Evidence (NH&MRC): Level IV

Appraised By
Clinical Group: AAC EBP Group

Date: 15 May 2007