



### Who do symbols help?

- · Anybody who has difficulty with text
- · People with recognised learning difficulties
- People for whom English text presents challenges

### Who are these people?

- · Young Children
- · Intellectual Disability
- · Dyslexia, eg: Reading difficulties
- · Acquired Disability eg: After a stroke or car accident.
- Culturally or Linguistically Diverse Backgrounds (CALD)
- · Limited educational outcomes
- · Aging and sensory issues
- Psychiatric difficulties
- · Everyone in the community!!!!



### Research - word reading

- Samuels, 1967; Samuels et al. 1974; Lang & Solman, 1979; Saunder & Solman, 1984
- Children learned more words and learned words faster when not paired with symbols
- Questions
  - How old is this research/impact on technology if repeated?
  - Methodology?
  - What symbol set?
  - Exposure to symbols through the use of AAC?



### Spectronics

- Research clearly suggests that pairing pictures with words slows down word identification instruction, but no clear research to guide our use of picture supported text in supporting areas of reading outside of word reading.
- Current practice has suggested that modified picture supported reading can be of benefit if your goal is to develop emergent readers and writer's literacy attitudes and understanding.

Center for Literacy and Disability Studies



### **Current Practice suggests**

- Increased
  - Interest
  - Attention
  - Time on task
  - · Comprehension of content
  - Self-esteem

## Warwickshire Symbols Inclusion Project

- Impact of using symbols to help enable inclusion
  - Improving behaviour and motivation by understanding and remembering visual information
  - Creating greater independence by providing print information in a way they can understand
  - Giving access to the curriculum and learning by making the comprehension more permanent once concept is understood
  - Self Study or reference books in a variety of formats ie. Text only, supported text, symbol, simplified and one symbol
  - Learning to Read for students who will never gain full functional mastery of text, can improve self esteem and their ability to learn

### Sum, H. & Johnson, H. (2006)

- Further research is needed to explore the effect of pictures on the ability to extract meaning from information presented in text for people with developmental disabilities
- · Especially adults
- The use of pictures to facilitate understanding of meaning presented in printed material is recommended....little empirical literature to support this recommendation

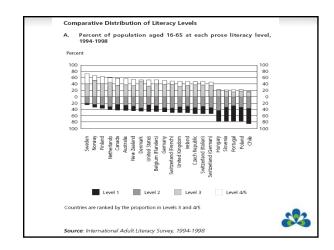


? When? V	Vho?	
Reading Words	No (? Research)	
Language Learning	?	
Access to Information/Curriculum	Yes little research	
Comprehension of Content	Yes little research	
Writing Support	Yes little research	
Support Independence	Yes practice/little research	
Increase interest and motivation	Yes practice/little research	
Increase attention	Yes practice	
Increase self-esteem	Yes practice	
Improve literacy attitudes and understanding	Yes practice	
Communication	Yes	
Behaviour	Yes	



"while this practice provides some (people) with access to content they would otherwise be unable to access independently, there are many issues to consider before implementing this practice broadly"

Center for Literacy and Disability Studies





## What do we expect people to be able to read?

- Storybooks
- Text Books
- Instructions
- Papers/fact sheets
- Surveys
- Signs
- Computer internet, email, messaging, etc
- Brochures
- Catalogues
- Letters
- Invitations
- Minutes
- Newspapers
- Other Technologies -Mobile phones, electronic diary, I-pods, ATM's



### **Literacy Bill of Rights**

 "Everyone, regardless of extent of severity of their disabilities, have a basic right to use print."

Yoder, Erickson, & Koppenhaver, 1996. p.3

## Australian Laws and Policy Documents

- Federal Disability Discrimination Act (1992)
- State
   Victorian Disability Act (2006)
   Equal Opportunity Act (1995)
   Victorian Charter of Human Rights and
   Responsibilities (2007)

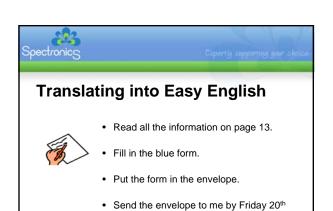
### **Translating into Plain Language**

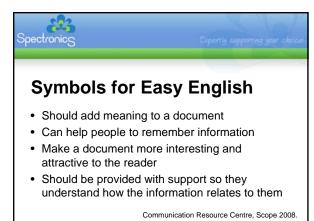
Complex Language

It is important that you shall read the notes, advice and information detailed opposite then complete the form overleaf (all sections) prior to its immediate return to the Council by way of the envelope provided.

· Plain Language

Please read the notes opposite before you fill in the form. Then send it back to us as soon as possible in the envelope provided.



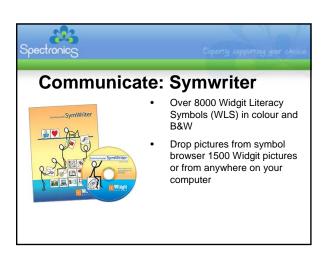


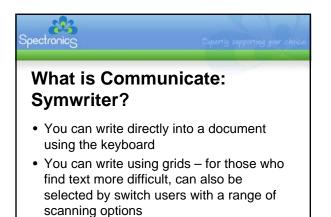
### Who should be doing this?

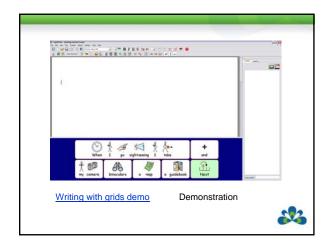
May, 2005

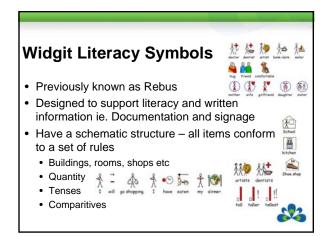
- Government
- Healthcare
- Employers and employment services
- Education
- Travel and Leisure Industry
- · Shopping and Marketing Centres
- Any Organisation needing to include people with low levels of literacy





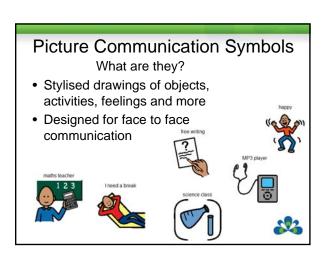












### Boardmaker

- · Resource for making printable materials.
- Core library of 4500 symbols
  - Addendums
  - Import digital images and additional symbols





### **Boardmaker Plus**

- · Resource for making printable materials.
- Also allows you to make interactive onscreen activities.



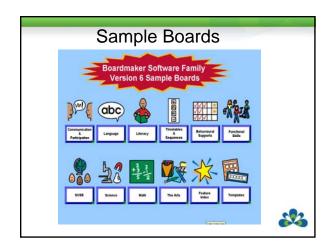




### **BM+: Interactive Activities**

- On-screen interactive activities
- Interactive talking books
- Songs
- Games
- Pop-Up Questions
- · Assessments with feedback
- Plus Much, Much More!



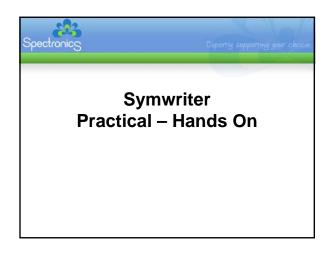


## Boardmaker with Speaking Dynamically Pro

- Resource for making printable materials.
- Also allows you to make interactive on-screen activities.
- Includes Word Prediction and Abbreviation Expansion for writing and communication: eg. Word prediction – predicts spelling as you type.; Type abbreviation and expanded text will appear (GH – Hello, how are you?)
- · Includes additional voice options



# PCS Addendums • 2000, 2002, 2004 & 2008 • 6000 extra symbols • Build your symbol libraries







### Boardmaker Practical Hands On

Symbolate

### In both programs....

- place symbol above or below the text
- alter the size of the symbol in relation to the text
- change the font colour or symbol colour including monochrome
- Have only key words or all words linked with a symbol
- Use a range of picture and symbol options
- Alter the background and foreground colours to suit user needs
- Talking symbol processor
- Grids for Writing (on-screen)
- Switch Access



### Why Symwriter?

- · Talking word processor
- Smart Symbolising Technology
- Allows you to view alternative symbols as you go
- Can change qualifiers (plural, verb tense, comparative or superlative) locally for one symbol or for the whole document
- · Pictorial spellchecker
- Can switch between colour and monchrome
- · Skin tone icon
- · Text only or symbols



### Can be useful for people to:

- Attempt spelling words with visual and auditory feedback
- Check the meaning of complex vocabulary
- Help them understand the meaning of words that they don't use correctly in their spoken language ie. He/she/they
- · Get access to information
- Help them remember and understand complex concepts



### Why Boardmaker Plus?

- Grids for Printing ie. Communication aids, timetables
- Flexible interface drag and drop
- PCS
- · Interactive On-screen activities
- NB: Needs someone to set it up



### Can be useful for people to:

- Make communication aids using the grids for printing
- Design interactive onscreen activities
- Quickly and easily develop symbol supported documents
- Needs someone to set it up to read with highlighting
- Not ideal for independent student use



## **Symbol Software Comparison Chart**

- <a href="http://www.spectronicsinoz.com/article/symbol-software-comparison-chart">http://www.spectronicsinoz.com/article/symbol-software-comparison-chart</a>
- · Search site













### **Online Resources & Support**

- Widgit Resources
   http://www.widgit.com/resources/index.htm
- Widgit Product Support http://www.widgit.com/support/index.htm
- DynaVox Knowledge Base http://dynavoxsys.custhelp.com/



### **General Principles from Widgit**

- Never just type check the meanings for words is correct and it is not cluttered
- 2. Only include relevant, key symbols that support the text
- 3. Remove symbols that make no sense to the user ie. Turn off or change label
- 4. Make sure each sentence begins on a new line
- 5. Remove pronouns and replace with a noun
- 6. Remove qualifiers if necessary
- 7. Increase the spacing for visual clarity
- 8. Evenly space the symbols

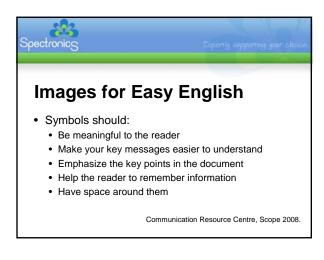


## Level of Symbol Support Level of Symbol Support Level of Symbol Support Support Symbol Support Level of Symbol Support Simplified Cine Symbol Simplified Ci

Communication Resource
Centre, Scope

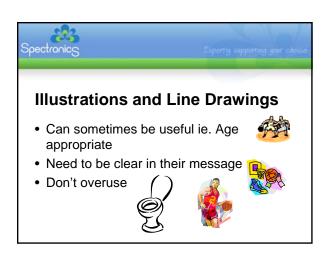
• Easy English Style Guide
<a href="http://www.scopevic.org.au/therapy\_crc\_e">http://www.scopevic.org.au/therapy\_crc\_e</a>
asyenglishstyleguide.html

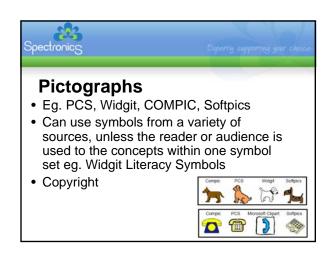
 Images for Easy English http://www.scopevic.org.au/ImagesforEasy English.pdf

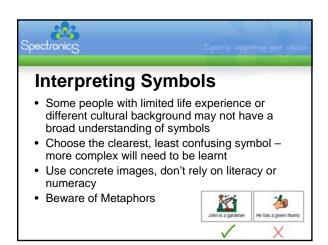


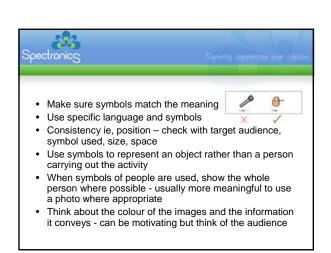




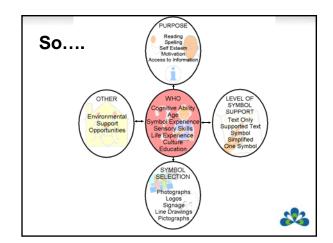


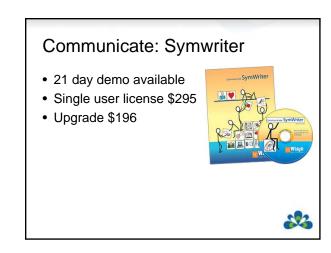


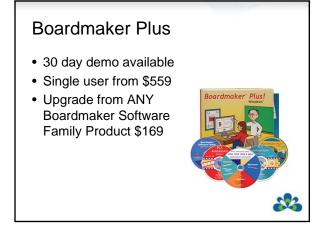














### References & Acknowledgements

- Communication Aids and Resource Materials. (2005). Easy English writing style guide. Retrieved from Scope Web site http://www.scopevic.org.au
- Communication Aids and Resource Materials. (2008). Images for
- Communication Aids and Resource Materials. (2008). Images for Easy English. Retrieved from Scope Web site http://www.scopevic.org.au

  Dowse, r. & Ehlers, M. (2005). Medicine labels incorporating pictograms: Do they influence understanding and adherence? Patient Education and Counselling, 58, 63 70.

  Hameen-Anttila, K., Kemppainen, K., Enlund, H., Patricia, J.B., & Marja, A. (2004). Do pictograms improve children's understanding of medicine leaflet information? Patient Education and Counselling, 55, 371-378.
- Lang, R.J. & Solman, R.T. (1974) Effect of Pictures on Learning to Read Common Nouns. British Journal of Educational Psychology, 49(2),138-149.
- McCulloch, P. (1994) Writing and Reading with Symbols, Online.



#### References & Acknowledgements

- Plain English Campaign. (2004). How to write in plain English. Retrieved from Plain English Campaign Web site: http://www.plainenglish.co.uk/plainenglishguide.html Pufpaff, L.A., Blischak, D.M., & Llyod, L.L. (2000). Effects of modified orthography on the identification of printed words. American Journal on Mental Retardation, 105 (1), 14-24.

- American Journal on Mental Retardation, 105 (1), 14-24.
  Rose, T. A., Worall, L. E., & McKenna, K. T. (2003). The
  effectiveness of aphasia-friendly principles for printed health
  education materials for people with aphasia following stroke.
  Aphasiology, 17, 947-963.
  Samuels, S. J., et. al. (1967). Attentional processes in reading –
  The effects of pictures on the acquisition of reading responses.
  University of MN. Manuscript available from the ERIC
  Clearinghouse.
- Samuels, S. J., et al. (1974). Effects of pictures and contextual conditions on learning to read. Occasional Paper No. 25, Minnesota University.



### References & Acknowledgements

- Saunder, R. J., & Solman, R. T. (1984). The effect of pictures on the acquisition of a small vocabulary of similar sight-words. British Journal of Educational Psychology, 54(3), 265-275.

  Sum, H. & Johnson, H. (2006) Do key pictures assist in extracting information presented in text for adults with developmental disabilities who are nonreaders? Unpublished honours thesis, La Trobe University, Victoria, Australia.
- Trobe University, Victoria, Australia.

  The Use of Pictures in Early Reading Instruction. Research to Practice Brief. The Center for Literacy and Disability Studies, University of North Carolina at Chapel Hill.

  Woollard, P. & Groves, L. (1994) Teaching strategies used to encourage the development of literacy skills in adults with an intellectual disability who are AAC users. Paper, AGOSCI National Conference, Sydney.
- Yoder, Erickson, & Koppenhaver, (1996). Literacy Bill of Rights. Augmentative Communication News, 9 (4), 3.

