

Table 1: Summary of Participants in Included Studies

Study	Participants	Age	Gender	Diagnosis	Vision & Hearing	IDD	Aided AAC	SGD used in literacy instruction?	Speech Intelligibility	Response Method
Literacy Area — Phonological & Phonemic Awareness, Phonics										
Banajee (2007)	Child A	8;9	F	Cerebral Palsy	WNL	No	SGD tablet	No	limited	Direct access
	Child B	6;1	F	Cerebral Palsy	WNL	No	SGD Springboard	No	limited	Scanning
	Child C	5;0	F	Down Syndrome	WNL	No	SGD TechSpeak	No	unintelligible	Direct access
Blischak et al. (2004)	Larry	5;0	M	SCI	WNL	No	SGD unspecified	No	30-35% unfamiliar	Direct access pointing and manipulating alphabet tiles
	Gabe	7;0	M	SCI	WNL	No	No	N/A	20-30% unfamiliar	
	Jane	6;2	F	SCI	WNL	No	No	N/A	20-30% unfamiliar	
Benedek Wood (2010)	Cameron	3;6	M	Autism Spectrum Disorder	WNL	Unknown	SGD Auggie	No	No speech	Direct access
	Zach	5;6	M	Autism Spectrum Disorder	WNL	Unknown	Low tech	N/A	Difficult to understand	Direct access
	Cole	4;11	M	Autism Spectrum Disorder	WNL	Unknown	Low tech	N/A	Difficult to understand	Direct access
Johnston Davenport et al. (2009)	Eddie	5;3	M	Cerebral palsy	WNL	? mild	Low tech symbols	N/A	5 intelligible words	Direct access pointing
	Mary	4;2	F	Pervasive developmental disorder	WNL	? mild	Low tech symbols	N/A	5 intelligible words	Direct access pointing
Millar et al. (2004)	Melinda	7;0	F	Cerebral palsy SCI cystic fibrosis congenital left hand amputation	WNL	Unknown	SGD DeltaTalker	No	Vocalisation	Scanning, eye gaze
	Haley	10	F	Cerebral Palsy SCI	WNL	Unknown	SGD Dyna Vox	No	30%	Scanning
	Gary	10	M	Alternating hemiplegia of childhood	WNL	Unknown	SGD DynaMyte	No	0%	Direct selection

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Johnston, Buchanan & Davenport (2009)	Keith	4;10	M	Autism & cognitive delay	WNL	Yes	Graphic symbols? low tech	No	No verbal responses	Direct selection
	Carson	5;4	M	Autism & cognitive delay	WNL	Yes	No	No	7 intelligible words	Direct selection
Literacy Area — Single Word Reading										
Fallon et al. (2004)	Dale	11;9	M	Intellectual disability SCI	WNL	Yes	SGD DynaMyte	Available	25 % SWI	Direct access pointing
	Sam	14;0	M	Intellectual disability SCI	WNL	Yes	SGD Liberator	Available	20 % SWI	Direct access pointing
	Tommy	9;11	M	Cerebral palsy SCI	WNL	Unknown	No	N/A	30 % SWI	Direct access pointing
	Amy	10;3	F	Cerebral palsy SCI	WNL	Unknown	No	N/A	25 % SWI	Direct access pointing
	Nate	9;5	M	Down syndrome SCI	WNL	Yes	SGD DynaMyte	Available	10 % SWI	Direct access pointing
Coleman-Martin et al. (2005)	Alice	11	F	Cerebral palsy SCI	All able to see print hearing unknown	Yes	SGD Speak Dyn Pro	Available	No measures given	Verbalised "Yeah"
	Beth	12	F	Autism SCI		Yes	SGD Enkidu	Available	No measures given	SGD
	Carrie	16	F	Brain injury (stroke grade 3) SCI		Yes	SGD Dynavox	Available	No measures given	Hand on examiners hand to indicate correct response
Swineheart-Jones et al. (2009)	Alice	8	F	Cerebral palsy SCI	All able to see print hearing unknown	Unknown	SGD Dynavox	Not incorporated	No measures given	Say yes, linear scanning
	Beth	7	F	Cerebral palsy SCI		Unknown	SGD Dynavox	Not incorporated	No measures given	Eye gaze, linear scanning
	Carl	6	M	Cerebral palsy SCI		Unknown	SGD Dynavox	Not incorporated	No measures given	Direct access
	Dave	12	M	Cerebral Palsy SCI		Unknown	SGD Pathfinder	Not incorporated	No measures given	Direct access

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Harwood (1996)	Sam	7	M	Cerebral palsy	WNL	Yes	No	Not incorporated	Familiar listeners	Direct access pointing
	Christopher	14	M	Cerebral palsy	Vision impairment	Unknown	SGD Real Voice	Not incorporated	Familiar listeners	Switch access
	Marie	12	F	Cerebral palsy	Vision impairment	Yes	No	Not incorporated	Intelligible	Touch pictures
	Theresa	13	F	Cerebral palsy	? WNL	Yes	SGD Liberator	Not incorporated	Familiar listeners	Direct access point
Heller et al (2002)	Al	9;3	M	Holt-Oram Syndrome SCI	Able to see enlarged print	Yes	SGD Macaw	Not incorporated	No natural speech	Direct access toe pointing, yes/no switches
	Betsy	16;1	F	Cerebral palsy	Able to see enlarged print	Yes	SGD Dynavox 2	Not incorporated	No natural speech	Direct access pointing 5 sec delay
	Cathy	22;11	F	Cerebral Palsy	Able to see enlarged print legally blind		Liberator	Not incorporated	Few words	Direct access pointing 20 sec delay

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Literacy Area — Both										
Hanser et al. (2007)	Child A	13;2	F	Cerebral Palsy	Unknown	No	SGD Vantage	Yes	No natural speech	Direct access
	Child B	13;1	M	Cerebral palsy & cognitive delay	Unknown	Yes	SGD Pathfinder	Yes	No natural speech	Direct access
	Child C	7;2	M	Cerebral palsy	Unknown	No	SGD Vanguard	Yes	No natural speech	Head switch 2 switch scanning
Truxler & O'Keefe (2007)	Child 1	8;0	M	Cerebral palsy & cognitive delay	All WNL	All had cognitive delay	Three out of four students used low tech communication books with pictures and photographs. One student used pictures attached to his tray table.	No for all	All had 1-2 word utterances intelligible to familiar listeners	All used direct selection
	Child 2	9;5	Unknown	Cerebral palsy & cognitive delay ESL						
	Child 3	8;7	Unknown	Cerebral palsy & cognitive delay ESL						
	Child 4	9;5	Unknown	Cerebral palsy & cognitive delay						