Supplementary materials

Appendix 1: Search strategies

Note that following a pilot search we eliminated terms referring to Tourette, dyspraxia and DCD because of insufficient evidence yet a large number of irrelevant results.

ERIC:

(Neurodiversity OR Neurodiverse OR Neurodivergent OR Neurodivergence OR Autism OR Autistic OR Asperger OR Aspergers OR Asperger's OR ASD OR ASC OR “Attention deficit hyperactivity disorder” OR ADHD OR “Attention Deficit Disorder” OR Tourette OR Tourettes OR Tourette's OR Dyslexia OR “Developmental co-ordination disorder” OR DCD OR Dyspraxia OR "learning disability" OR "learning difficulty" OR "learning difference") AND (adjustment OR accommodation OR support) AND (student OR undergraduate OR postgraduate OR university OR college OR "higher education" OR "post-secondary") AND (review OR meta-analysis) -school pubyearmin:2010 pubyearmax:2022

PsycINFO:

TI((Neurodiv* OR Autis* OR ASD OR ASC OR “Attention deficit hyperactivity disorder” OR *ADHD OR “Attention Deficit Disorder” OR Tourette* OR Dyslexia OR “Developmental co-ordination disorder” OR DCD OR Dyspraxia OR "learning di*") AND (adjustment* OR accommodation* OR support) AND (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education") AND (review OR meta-analysis) NOT school*) OR AB((Neurodiv* OR Autis* OR ASD OR ASC OR “Attention deficit hyperactivity disorder” OR *ADHD OR “Attention Deficit Disorder” OR Tourette* OR Dyslexia OR “Developmental co-ordination disorder” OR DCD OR Dyspraxia OR "learning di*") AND (adjustment* OR accommodation* OR support) AND (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education") AND (review OR meta-analysis) NOT school*)

TI((Neurodiv* OR Autis* OR ASD OR ASC OR “Attention deficit hyperactivity disorder” OR *ADHD OR “Attention Deficit Disorder” OR Tourette* OR Dyslexia OR “Developmental co-ordination disorder” OR DCD OR Dyspraxia OR "learning di*") AND (adjustment* OR accommodation* OR support) AND ("post-secondary") AND (review OR meta-analysis) NOT (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education" OR school*)) OR AB((Neurodiv* OR Autis* OR ASD OR ASC OR “Attention deficit hyperactivity disorder” OR *ADHD OR “Attention Deficit Disorder” OR Tourette* OR Dyslexia OR “Developmental co-ordination disorder” OR DCD OR Dyspraxia OR "learning di*") AND (adjustment* OR accommodation* OR support) AND ("post-secondary") AND (review OR meta-analysis) NOT (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education" OR school*))

Since January 2010; English; Exclude dissertations; Academic Journals and Electronic Collections (not Books)

ProQuest:

TI((Neurodiv* OR Autis* OR ASD OR ASC OR "Attention deficit hyperactivity disorder" OR ADHD OR "Attention Deficit Disorder" OR Tourette* OR Dyslexia OR "Developmental co-ordination disorder" OR DCD OR Dyspraxia OR "learning di*") AND (adjustment* OR accommodation* OR support) AND (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education") AND (review OR meta-analysis) NOT school*) OR AB((Neurodiv* OR Autis* OR ASD OR ASC OR "Attention deficit hyperactivity disorder" OR ADHD OR "Attention Deficit Disorder" OR Tourette* OR Dyslexia OR "Developmental co-ordination disorder" OR DCD OR Dyspraxia OR "learning di*") AND (adjustment* OR accommodation* OR support) AND (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education") AND (review OR meta-analysis) NOT school*) AND stype.exact(("Scholarly Journals") NOT ("Trade Journals" OR "Reports" OR "Conference Papers & Proceedings" OR "Other Sources" OR "Working Papers" OR "Newspapers" OR "Wire Feeds" OR "Books" OR "Magazines" OR "Dissertations & Theses" OR "Blogs, Podcasts, & Websites" OR "Historical Newspapers")) AND la.exact("ENG")

TI((Neurodiv* OR Autis* OR ASD OR ASC OR "Attention deficit hyperactivity disorder" OR ADHD OR "Attention Deficit Disorder" OR Tourette* OR Dyslexia OR "Developmental co-ordination disorder" OR DCD OR Dyspraxia OR "learning di*") AND (adjustment* OR accommodation* OR support) AND ("post-secondary") NOT (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education" OR school*) AND (review OR meta-analysis)) OR AB((Neurodiv* OR Autis* OR ASD OR ASC OR "Attention deficit hyperactivity disorder" OR ADHD OR "Attention Deficit Disorder" OR Tourette* OR Dyslexia OR "Developmental co-ordination disorder" OR DCD OR Dyspraxia OR "learning di*") AND (adjustment* OR accommodation* OR support) AND ("post-secondary") NOT (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education" OR school*) AND (review OR meta-analysis)) AND stype.exact(("Scholarly Journals") NOT ("Trade Journals" OR "Reports" OR "Conference Papers & Proceedings" OR "Other Sources" OR "Working Papers" OR "Newspapers" OR "Wire Feeds" OR "Books" OR "Magazines" OR "Dissertations & Theses" OR "Blogs, Podcasts, & Websites" OR "Historical Newspapers")) AND la.exact("ENG")

Databases: Coronavirus Research Database, International Bibliography of the Social Sciences (IBSS), Periodicals Archive Online, Periodicals Index Online, Publicly Available Content Database; Peer-reviewed; After 01 January 2010; English

Scopus:

TITLE-ABS-KEY ((neurodiv* OR autis* OR asd OR asc OR "Attention deficit hyperactivity disorder" OR *adhd OR "Attention Deficit Disorder" OR tourette* OR dyslexia OR "Developmental co-ordination disorder" OR dcd OR dyspraxia OR "learning di*") AND (adjustment* OR accommodation* OR support) AND (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education") AND (review OR meta-analysis) AND NOT school*) AND PUBYEAR > 2009 AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (DOCTYPE , "re"))

TITLE-ABS-KEY ((neurodiv* OR autis* OR asd OR asc OR "Attention deficit hyperactivity disorder" OR *adhd OR "Attention Deficit Disorder" OR tourette* OR dyslexia OR "Developmental co-ordination disorder" OR dcd OR dyspraxia OR "learning di*") AND (adjustment* OR accommodation* OR support) AND ("post-secondary") AND (review OR

meta-analysis) AND NOT (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education" OR school*)) AND PUBYEAR > 2009 AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (DOCTYPE , "re"))

Cochrane Library:

(Neurodiv* OR Autis* OR ASD OR ASC OR “Attention deficit hyperactivity disorder” OR *ADHD OR “Attention Deficit Disorder” OR Tourette* OR Dyslexia OR “Developmental co-ordination disorder” OR DCD OR Dyspraxia OR "learning disability" OR "learning difficulty" OR "learning difference") AND (adjustment* OR accommodation* OR support) AND (student* OR undergraduate* OR postgraduate* OR universit* OR college* OR "higher education" OR post-secondary) AND (review OR meta-analysis) NOT (school*). Since 1 January 2010

Appendix 2: Summary of identified primary studies

Table S1

Primary studies into extended examination time.

Primary study	Review	Subject	Design and sample	Outcomes	Limitations
Osborne (1999)	Dobson Waters & Torgerson (2021)	Performance of dyslexic students in written coursework and examination assessments.	QED 38 dyslexic students and 38 non-dyslexic students. Both groups completed all coursework and examination assessment tasks.	Significant difference in examination performance between the groups, with dyslexic students performing worse. Non-significant difference in coursework performance, with dyslexic students performing slightly worse.	Small sample size.
Runyan (1991)	Duncan & Purcell (2020)	Effectiveness of additional exam time on performance of students with LDs.	QED 16 students with LDs and 16 TD students. Condition 1: Standard time. Condition 2: Extra time. Both groups completed written comprehension test under both conditions.	Maximum potential thesis. In 20-minute timed comprehension task under standard time conditions, students with LDs scored significantly lower than TD students. In additional time condition, gap in performance was closed. No difference in scores between students with LDs in additional time condition and TD students in standard time condition. No improvement of scores for TD students between conditions.	Small sample size. Participants were not allowed to go back and change their answers when granted additional time, which may explain why TD participants did not improve their scores.
Lesaux, Pearson, & Siegel (2006)	Duncan & Purcell (2020)	Effectiveness of additional exam time on performance of students with LDs.	QED 22 students with LDs and 42 TD students. Group 1 spent fewer years in education than Group 2. Condition 1: Standard time. Condition 2: 100% extra time.	Differential boost hypothesis. Under standard time condition, students with LDs attempted significantly fewer questions than TD students and had a lower number of correct responses. Under additional time condition, both groups answered all questions. Students with LDs had significantly fewer correct responses than TD	Small sample size.

			Both groups completed reading comprehension test in both conditions.	students. The gap in performance was significantly reduced.	
Lewandowski, Cohen, & Lovett (2013)	Duncan & Purcell (2020)	Effectiveness of additional exam time on performance of students with LDs.	QED 26 students with LDs and 50 TD students. Condition 1: Standard time. Condition 2: 50% extra time. Condition 3: 100% extra time. Both groups completed reading comprehension test in all conditions.	Overinflation of scores. Both groups were equally accurate. TD students scored increasingly higher than students with LDs with increased time allocation, although all participants improved their scores. Students with LDs scored lower under standard time condition and higher under both extra time conditions than TD students under standard time condition.	Small sample size. Test was not administered as recommended. The standard time allocation was significantly less than intended.
Duncan & Purcell (2017)	Duncan & Purcell (2020)	Effectiveness of additional exam time on performance of students with LDs.	QED 69 students with LDs granted 25% extra exam time, some of whom used a word processor, and 70 TD students under standard exam conditions.	Students with LDs did not produce a higher word count than TD students. Students with LD who had extra time scored lower than TD students. No difference between students with LD who had extra time and used a word processor and TD students.	TD students were not granted the same adjustments for comparison.

Table S2. Primary studies into explicit instruction.

Primary study	**Review**	**Subject**	**Design and sample**	**Outcomes**	**Limitations**
Zawaiza & Gerber, 1993	Dobson Waters & Torgerson, 2021; Hock, 2012	Effects of explicit instruction on math word-solving abilities.	QED with randomised controlled element of pre-test and post-test design. 38 community college students with LD.	Students in Translation & diagramming condition scored higher than students in Translation and Control conditions on math word-problem-solving strategies and process knowledge. Students in Translation & diagramming condition significantly reduced reversal mistakes and compared problem errors had increased correct	Small sample size.

			2 experimental conditions: Translation and Translation & diagramming. Control condition. 22 Maths-competent students pre-tested and used as normative sample.	answers pre- to post-test. These students achieved closer scores to the normative sample.	
~~Massengill (2003)~~	~~(Hock, 2012)~~	~~Impact of guided reading on reading performance.~~	~~Single-case.~~ ~~4 low-literate adults.~~ ~~32 hr of instruction.~~	~~Word-level skills improved significantly.~~ ~~Overall global reading level was increased for all participants from 1.4 grade equivalent to 3.1 grade equivalent.~~	~~Small sample size. Non-experimental study. LDs not confirmed.~~
~~Rich and Shepherd (1993)~~	~~(Hock, 2012)~~	~~Effects of modified reciprocal teaching reading intervention.~~	~~RCT~~ ~~90 struggling readers at adult basic education centre.~~ ~~3 experimental conditions: self-questioning, summarizing, or both reading comprehension strategies.~~ ~~2 control conditions: tests or materials and tests.~~	~~Participants in reciprocal teaching condition scored significantly higher on reading comprehension.~~	~~LDs not confirmed.~~
McNaughton, Hughes, and Clark (1997)	Dobson Waters & Torgerson, 2021; Hock, 2012	The effects of explicit instruction on learning proofreading for spelling accuracy intervention.	RCT Explicit instruction on learning proofreading. 5 experimental conditions: (a) writing by hand with no additional support; (b) writing by hand with print dictionary; (c) writing by hand with hand-held spell-checker; (d) using word processing with no spell-checker; (e) using word processing with spell-checker.	After explicit instruction, spelling accuracy improved, but below the level of TD peers. Only condition (e) resulted in significant gains in spelling performance compared to other conditions.	N unspecified in review. Normative sample unclear.

Ruhl, Hughes and Gajar (1990)	Dobson Waters & Torgerson, 2021; Hock, 2012	Effects of note-taking strategy (pausing in lectures and directed discussion during the pauses) on note-taking skills.	QED 15 students with LDs and 15 TD students. 4 groups, 3-phase design.	The group receiving pause procedure scored significantly higher on immediate recall. Not stated if performance of both students with LDs and TD students was increased. Long-term recall was not improved.	Small sample size. The non-learning disabled participants were also from courses in special education but assumed to be non-disabled.
Ruhl and Suritsky (1995)	Dobson Waters & Torgerson, 2021; Hock, 2012	Tested whether the addition of a lecture outline to the pause procedure would produce greater gains.	Multiple baseline. Follow-up on Ruhl, Hughes and Gajar (1995) above. 33 students with LDs. 3 intervention groups: pause procedure, lecture outline with pause, and outline only.	Students in pause only condition scored higher on immediate recall and completeness of notes than other groups.	Small sample size.
Mellard and Scanlon (2006)	Hock, 2012	Feasibility of using explicit instruction with adults with LD.	Observations (Ecobehavioral assessment). Pilot study. 4 classes in adult education centres.	Instructors could learn and use a new instructional model (explicit instruction with a meta-cognitive focus). Students obtained significantly more instruction under this model.	Pilot study.
Guyer and Sabatino (1989)	Dobson Waters & Torgerson, 2021	Use of structured language programmes to promote reading improvement delivered via multi-sensory teaching and learning methods as additional learning support.	RCT 3 groups of 10 dyslexic students: (a) structured language programme using multi-sensory phonic remediation; (b) non-phonetic language programme (comparison group); (c) control group.	Multi-sensory phonic intervention improved reading achievement and was significantly more effective than non-phonetic technique or no intervention.	Small sample size.
Guyer, Banks, and Guyer (1993)	Dobson Waters & Torgerson, 2021	Use of structured language programmes to promote spelling improvement delivered via multi-sensory teaching and learning methods as additional learning support.	Combined RCT and QED 3 groups of 10 dyslexic students: (a) multi-sensory phonetic technique; (b) non-phonetic spelling programme (comparison group); (c) control group.	Significant group differences between the intervention procedures accounted for group that received the multi-sensory phonetic technique. No statistically significant improvement in non-phonetic remediation and control groups.	Small sample size.

Table S3

Primary studies into strategy instruction.

Primary study	Review	Subject	Design and sample	Outcomes	Limitations
Allsopp, Minskoff, and Bolt (2005)	Hock, 2012	The effects of 3-year demonstration project involving development and field-testing of course-specific strategy instruction model.	Pre-post. 46 students with LD. One-to-one semester-long instruction by graduate student tutors.	GPA improved significantly and was maintained after tutoring support ended.	No comparison group.
Butler (1995)	Hock, 2012	Effectiveness of self-regulation and strategic learning instruction on performance in various postsecondary education programmes and settings.	Multiple baseline. 6 students with LDs. One-to-one intense explicit instructional tutoring.	Student performance improved significantly in writing and metacognitive knowledge about the writing tasks. Engagement was high.	Small sample size. Non-experimental study.
Butler, 2003	Hock, 2012	A review of the strategic content learning (SCL) model with adults and adolescents with LD to support the development of self-regulation and metacognitive behaviours.	Review. 7 studies.	Students could learn to construct strategies to address tasks, increase metacognitive knowledge about tasks, monitor their learning progress compared to students who did not participate in the SCL instruction.	No data on measures of literacy outcomes in reading, writing, or math.
Berne (2004)	Hock, 2012	Effects of think-aloud strategy for adult struggling readers.	Intact-class pre–post test pilot study community college students.	No improvement, attributed to lack of basic skills preventing them from engaging in think-aloud strategy.	N unspecified in review. LDs not confirmed. No control group.
Unspecified	Hock, 2012	Effectiveness of cognitive writing strategy.	Multiple baseline	Instruction in writing strategies significantly improved writing skills of 3 participants.	N unspecified in review.

			Adult Basic Education students attending General Educational Development preparation classes. Writing classes 2-3 times a week for 3 to 4 weeks.		
Butler, Elaschuk, and Poole (2000)	Zeng et al., 2018	Effectiveness of teaching learning strategies.	Multiple case studies within a pre—post test. 3 students with LDs.	Participants were able to transfer new writing strategies developed through Strategic Content Learning technique to tasks outside of intervention sessions. The scores on the metacognitive knowledge questionnaire were increased.	Small sample size, no control group.
Cooper, Lingo, Whitney, and Slaton (2011)	Zeng et al., 2018	Effects of paired associates strategy on improving the recall and mastery of information.	Multiple probe. 9 students with LDs.	Participants improved ability to identify and recall pairs and trios of information.	Small sample size, no control group.
Gaddy, Bakken, and Fulk (2008)	Zeng et al., 2018	Application of test-structure strategy in reading science expository-text passages.	Experimental. 40 students with LDs.	Participants in intervention condition gained higher mean scores than participants in traditional instruction condition on immediate and delayed tests. They improved reading comprehension, especially on delayed recall of compare-and-contrast text structures.	Small sample size.
Holzer, Madaus, Bray, and Kehle (2009)	Zeng et al., 2018	Use of PIRATES mnemonic test-taking strategy to improve ability recall information in testing environment.	Multiple baseline. 5 students with LDs.	Strategy significantly affected performance prompts in all intervention and follow-up phases and reduced levels of test anxiety.	Small sample size, no control group.
Nicholas, Menchetti, and Nettles (2005)	Zeng et al., 2018	Use of researcher-designed structured writing strategy.	Experimental. 36 students with LDs.	No significant difference in writing quality or writing self-efficacy between intervention and control groups. Improved use of supporting details in expository essays compared with control group.	Small sample size.
Patwa, Chafouleas, and Madaus (2005)	Zeng et al., 2018	Effects of paired associates strategy on improving the recall and mastery of information.	Multiple baseline. 5 students with LDs.	Performances slightly increased. 3 participants consistently used the paired associates strategy after intervention.	Small sample size, no control group.

Lock and Layton (2008)	Zeng et al., 2018	Impact of individualized tutoring teaching strategies to remediate skill deficiencies on GPA.s	Mixed method. 530 students with LDs.	Participants improved their ability to understand and master course content, study preparation skills, knowledge of individual learning styles and disability characteristics, academic accountability, and motivation. Students with fewer absences from tutoring sessions had higher GPAs.	No control group.
Jackson et al. (2018)	Anderson et al., 2019	Effects of writing learning strategy (DATE) on quality of writing.	Multiple baseline; pre-post social validity survey. 3 participants with AS.	All 3 participants improved the quality of writing. Written prompts increased gains, which were generalised to content-specific writing tasks. All passed College Writing I.	Small sample size, no control group.

Table S4

Primary studies into comprehensive support programmes.

Primary study	**Review**	**Subject**	**Design and sample**	**Outcomes**	**Limitations**
Harrison, Areepattamannil, and Freeman (2012)	(Zeng et al., 2018)	Effectiveness of the Learning Opportunities Task Force (LOTF) Program.	Survey. 969 students with LDs.	82.9% of participants reported the programme contributed to their academic success. Students in the programme had zero dropout rate and lower failure rate than national average. Students improved understanding of their LDs and ability to explain LDs to others and advocate for themselves.	No control group.
Reed et al. (2009)	(Zeng et al., 2018)	Effectiveness of Individualized Success Courses.	QED 27 students with LDs.	Participants improved self-efficacy and academic resourcefulness in course- and high-intervention groups. Anxiety was reduced among three study groups. 88% of course- and high-intervention groups and 36% of low intervention group had a GPA at least 2.33.	Small sample size.
Troiano, Liefeld, and	(Zeng et al., 2018)	Effectiveness of Individualized	Correlational.	Higher usage of learning support was associated with higher GPA.	No control group.

Trachtenberg (2010)		Learning Support programme.	262 students with LDs.	Students who used academic support centre services had higher graduation rates than those who did not.	
Pearlman-Avnion (2016)	Anderson et al., 2019	Effects of peer mentors, workshops, lectures, academic support, dormitory support on self-efficacy and future-orientation.	Pre-post single group. 19 students with ASD.	Improvement in self-efficacy and future orientation.	Small sample size, no control group.
Jansen et al. (2017)	Kuder & Accardo, 2018	Effect of extended exam duration, taking exam in smaller group, and support from student counsellor on attention, problem solving, flexibility, and organization.	Descriptive data. 43 students with ASD.	Extended exam time was most frequently used accommodation and perceived as most effective. Students reported deferring exams and taking them with smaller group to be effective for reducing stress and managing difficulties with planning and organising. Extended time for other tasks was reported to be effective for managing executive functioning difficulties.	Small sample size, no control group, no objective measures.

Table S5

Primary studies into technology-based interventions.

Primary study	Review	Subject	Design and sample	Outcomes	Limitations
Johnson and Hegarty (2003)	Hock, 2012	Technology-based intervention.	Interviews and observations adults with LD	Students enjoyed working on internet and put effort into learning in internet environment. Some students did not have the skills and strategies to obtain information on the internet.	N unspecified in review. No objective measures.
Silver-Pacuilla (2006)	Hock, 2012	Effects of multi-sensory print through text-to-speech and speech recognition software on literacy skills and engagement in learning.	Exploratory design with case studies, reflective conversation, and focus groups. 10 adult basic education students with LDs.	Students reported being more engaged in learning, more organised, better able to engage in self-study, and that assistive technology could make self-study more effective and rewarding.	Small sample size. No objective measures.

Kitz and Thorpe (1995)	Hock, 2012	Effectiveness of direct instruction videodisc programme (mastery learning of skills and components, quizzes and feedback, and extensive review) to teach algebra.	Experimental design. college students with LD. Intervention and control groups.	Students in videodisc condition performed significantly better than control group on measures of lesson content. Videodisc group had significantly higher grades in college algebra course and on two measures of algebra skills and knowledge.	N unspecified in review.
Floyd and Judge (2012)	Zeng et al., 2018	Effects of text-to-speech technology to improve reading and writing comprehension.	Multiple baseline design. 6 students with LDs.	Number of correct answers to comprehension questions was increased. Moderate intervention effect to increase reading test scores. Not all students improved performance.	Small sample size, no control group.
Stodden and Roberts (2005)	Zeng et al., 2018	Effects of assistive technology to improve reading and writing comprehension.	Mixed methods design. 15 students with LDs.	Not clear if voice recognition software (VRS) improved writing performance. Availability of time, ease of use, acquisition of skills, personal issues, use of Standard English, disability, and having other compensatory strategies affected use of VRS. VRS could help in using larger words and matching students' vocabulary with writing tasks.	Small sample size, no control group.
Mason et al. (2012)	Anderson et al., 2019; Kuder & Accardo, 2018	Effects of group video modelling social skill intervention on eye contact, facial expression, conversation turn-taking and shared emotions.	Multiple baseline single-case 2 participants with AS and comorbid anxiety. 5 weeks, two 50-min meetings per week. Each session included viewing a video and four to six 5-min data unscripted conversational interactions.	One participant had statistically significant change in all target skills. Other participant improved eye contact and conversation turn-taking.	Small sample size, no control group.
McCoy et al. (2014)	Anderson et al., 2019	Effects of biofeedback on heart rate variability to monitor stress and anxiety.	Exploratory data analysis. 10 male participants with ASD and 37 TD students as controls.	Both students with ASD and TD students showed small improvement in heart rate variability. ASD group had larger and more consistent gains. No assessment of anxiety.	Small sample size, high attrition rate (40% for ASD and 34% for TD groups)

Pierce (2013)	Anderson et al., 2019	Effects of video self-modelling on eye contact, conversational pause, initiating conversation.	Multiple baseline. 4 participants with AS or PDDNOS.	2 participants had positive response. 2 participants needed prompting before positive response. 2 participants generalised target behaviour across therapists.	Small sample size, no control group.
White et al. (2016)	Anderson et al., 2019; Kuder et al., 2021; Kuder & Accardo, 2018	Compared psychosocial training programme (College and Living Success) to computerized programme (Brain-Computer Interface for ASD) for improving navigation of social situations, executive functioning, and dealing with stress.	RCT (two interventions) 8 participants with ASD. At least one comorbidity: anxiety, depression, panic disorder, agoraphobia, OCD, specific phobia, dysthymia 4 participants per experimental treatment: (a) elements of CBT (e.g. problem-solving) with mindfulness approaches (stress management and emotional regulation); weekly individual therapy, bi-weekly social activities and outings, and supportive coaching. (b) Computerized programme to help to interpret facial expressions and practice social interaction skills in a virtual environment; 10–15 weekly sessions between 15 and 30 min long.	Participants reported both treatment programmes to be feasible, acceptable, and enjoyable. Behavioural outcomes were insignificant and differed across participants and interventions. No change in adaption to college, academic adjustment, attachment, personal-emotional adjustment and social adjustment.	Small sample size.
Taylor, Duffy & Hughes (2007)	Dobson Waters & Torgerson, 2021	Effectiveness of animated and non-animated slides on learning.	QED. 13 dyslexic students and 13 non-dyslexic students. All participants received intervention (set of animated slides).	Non-dyslexic group had higher speed of understanding concepts. Both groups thought there was no difference between animated and static slides in assisting in understanding of concepts, interaction of concepts, and their application of in practice.	Small sample size.
Koegel et al. (2016)	Kuder & Accardo, 2018	Effects of combined video feedback with visual framework technique to enhance	Single case. . 3 male participants with ASD.	All three participants had higher use of empathetic listening statements and questions. These improvements in communication skills were maintained over time.	Small sample size, no control group.

		the empathetic communication.	40-min intervention session once a week for 5 to 9 weeks. 2 components: video feedback and a conversational probe.	General level of empathy and self-report measure of communication skills were improved.	

Table S6

Primary studies into mentoring and coaching.

Primary study	Review	Subject	Design and sample	Outcomes	Limitations
Ames et al. (2016)	Anderson et al., 2019; Kuder et al., 2021	Effectiveness of peer mentoring programme	Post-only single group programme evaluation 12 students with ASD, HFA, or AS..	High overall satisfaction. Most students reported programme helped them achieve their goals and rated individual and group meetings as useful. Satisfaction with individual meetings was higher than for group meetings. 9 students reported stress and coping discussions to be helpful.	Small sample, no control group, no pre-test, no objective measures.
Ashbaugh et al. (2017)	Anderson et al., 2019	Effectiveness of structured social planning and social skills training with peer mentoring.	Multiple baseline; pre-post academic performance; pre-post social satisfaction survey. 3 participants. 2 with ASD, 1 with ADHD. Both ASD participants had depression, one had anxiety.	All 3 participants increased and maintained attendance of community-based social events and cumulative number of peer interactions. 2 increased and maintained informal social activities. All 3 increased extracurricular activities; only 2 maintained them. All 3 improved GPA and had higher satisfaction with college experience and social experience.	Small sample, no control group.
Koegel et al. (2013)	Anderson et al., 2019	Effects of structured social planning intervention with peer mentoring.	Multiple baseline; pre-post quality of life indicators. 3 participants with ASD. One also presented with had depression, another one with anxiety.	All 3 participants increased and maintained attendance of structured social events, which generalised to non-structured social interactions. All 3 had increased satisfaction with college experience and peer interactions. GPA and employment were also increased among participants. Level of satisfaction with intervention was high.	Small sample size, no control group.
Longtin (2014)	Anderson et al., 2019	Effects of mentor programme and in-service training for faculty, staff,	Post only single group programme evaluation. 5 participants with ASD.	4 mentees reported that the programme helped their academic and social success and that they would continue to use it if it was extended.	Small sample size, no control group, no pre-test, no objective measures.

		mentors, and administrators.		All mentors agreed that the programme helped the mentees.	
Ness (2013)	Anderson et al., 2019	Effects of peer mentoring self-regulated learning (time management, organisational supports, self-monitoring) on cumulative GPA, course grades, self-regulated learning skills.	Post-test only case study. 3 participants with AS.	One participant increased GPA, 2 improved course grades in some subjects. All reported the intervention was acceptable and useful.	Small sample size, no control group, no pre-test.
Siew et al. (2017)	Anderson et al., 2019; Kuder et al., 2021	Effects of individual specialist peer mentoring on wellbeing, self-advocacy, anxiety, academic performance, mean % assessments passed, retention rate.	Pre-post single group programme evaluation. 10 participants with AD or related condition. Weekly meeting for 1h.	Participants reported increase in social support, decrease in general communication apprehension, and high satisfaction with programme including perceived. Participants improved social and communication skills. Mean percentage of assessments passed was 93.9%, with 62.9% passed with distinction or higher. No change in overall anxiety scores, state communication apprehension or perceived communication competence. Participants reported that provision of constant, stable support, comfort of peer-to-peer support, and flexible and individualised support were helpful.	Small sample size, no control group.
Gunn et al. (2017)	Anderson et al., 2019; Kuder & Accardo, 2018	Effectiveness of Behavioural Skills Training (observation with immediate feedback) to teach the social pragmatic and executive function skills needed to meet pre-school	Case study (single case AB). 1 participant with PDDNOS, anxiety, OCD, ADHD, dyscalculia, dysgraphia. Once a week for 1 h.	Increase in all dependent variables, but high variability scanning and engagement variables. The participant completed practicum successfully. Supervisor reported improvement in quality of classroom interactions.	Only one participant. A highly specific intervention unlikely to generalise to other contexts.

		practicum requirements.			
Weiss and Rohland (2015)	Kuder & Accardo, 2018	Effects of a Communication Coaching Programme.	Descriptive data (retention) and non-random groups. 23 students. Components: disability counsellors, communication coaches, peer coaches, social skills groups, additional campus resources (e.g. a writing centre, a tutoring centre). Weekly communication coaching sessions for 1–2h; total number of sessions varied.	Participants improved planning, goal-setting, and social skills. Zero dropout rate while five students with ASD not in the programme were dismissed from university due to poor grades.	Small sample size, no control group. Measures unclear.
Lucas and James (2018)	Kuder et al., 2021	Effects of mentoring by trained university mentors.	Mixed-methods questionnaire and interviews. 13 participants with ASD	High overall satisfaction and satisfaction with mentor-mentee relationship. Participants reported that mentoring helped with their well-being.	Small sample size, no control group. No objective measures.
Ncube et al. (2018)	Kuder et al., 2021	Effectiveness of a peer mentoring programme by graduate students in Clinical Psychology.	Questionnaire. 23 participants with ASD. Weekly or biweekly meetings. Group social events, workshops on topics such as navigating relationships and sexuality and managing stress.	Most students were satisfied with the programme and individual meetings.	Small sample size, no control group. No objective measures.
Zwart and Kallemeyn (2001)	Ahmann et al., 2018	Effects of peer coaching.	QED. A matched-pairs analysis. 22 college students with ADHD (some had LD) and a control group of 20 students, some of whom only had LD and not ADHD. 2-10 sessions (weekly, in one semester).	Participants in the intervention group showed pre- to post-rest improvements in self-efficacy and measures of awareness and use of skills and attitudes related to academic success (LASSI). Changes in self-efficacy and one of the subscales of LASSI were no longer significant after an adjusted control group (n=11) of students with ADHD was formed.	Small sample size.

				A matched pairs analysis showed that intervention group had significant improvement on eight subscales of LASSI, but not on Attitude and Information Processing. Adjusted comparison group only had significant improvement in Concentration and Self Testing.	
Swartz et al. (2005)	Ahmann et al., 2018	Effects of coaching by doctoral-level psychology student coach.	Case study with pre-test and post-test data. 1 participant with ADHD. 8 weekly sessions.	Pre- to post-intervention improvement in four of seven self-selected goals. No change in one goal and a decrease in two. Improved LASSI scores.	One participant.
Reaser (2008)	Ahmann et al., 2018	Effects of coaching by doctoral-level psychology student coach.	Qualitative case series and quantitative pre-post-test component. 7 graduate students with ADHD. 9 weekly sessions.	Improvement on at least six of 10 LASSI subscales. Students reported improvements in outlook, organisation, self-awareness, and self-control. Most students reported coaching to be more helpful than other ADHD treatments they had experienced and expressed the desire to continue it for longer.	Small sample size, no control group.
Parker and Boutelle (2009)	Ahmann et al., 2018	Effects of coaching by formally trained coaches	Phenomenological study 7 students at college focused on students with ADHD and LDs. One had math-based LD but not ADHD; others had ADHD. 10 weekly sessions	Students reported changes in thinking and behaviour and improvements in goal attainment skills, well-being, and positive sense of the future.	Small sample size, no control group, no objective measures.
Maitland et al. (2010)	Ahmann et al., 2018	Effects of coaching by formally trained coaches.	Mixed methods. 6 students with ADHD (3 also had LDs). 8-13 weekly sessions (in one semester).	Quantitative findings related to self-determination, executive functioning skills, life satisfaction were not significant. Students reported increases in these three domains and in confidence about future success.	Small sample size, no control group.
Parker et al. (2011)	Ahmann et al., 2018	Effects of coaching with formally trained coaches.	Mixed methods. 7 students with ADHD.	Improvements in GPA and gains in Self-Regulation subscale of LASSI.	Small sample size, no control group.

			Weekly for semester.	Students reported improved goal attainment skills, wellbeing, and self-regulation, and coaching to be enjoyable, effective, and supportive.	
Richman et al. (2014)	Ahmann et al., 2018	Effects of coaching by formally trained coaches on self-determination, executive functioning, and academic skills.	Mixed methods. 16 students with ADHD/LD in intervention group and 8 students in comparison group. 12-24 sessions (weekly over 2 semesters).	Quantitative results were not significant.	Small sample size.
Prevatt and Yelland (2015)	Ahmann et al., 2018	The effects of coaching by doctoral-level practicum students in Psychology using EF-focused, CBT- and psychoeducationally-oriented approach.	Prospective descriptive study. 148 students with ADHD. Coaching and between-session check-ins. 8 weekly sessions.	Significant treatment effects for all variables, except for interpersonal relations. Reduction in distress, improvement in self-esteem, learning and study strategies (including time management and concentration), and satisfaction with school. Suggested that students with higher initial motivation, less comorbid anxiety and depression, and lower self-rated ADHD symptoms may benefit from coaching more. Higher coach ratings on between-session assignments was associated with positive changes in anxiety, concentration, selecting main ideas, and test strategies.	No control group.
Field et al. (2013)	Ahmann et al., 2018	Effects of coaching by formally trained coaches.	RCT 88 students with ADHD in intervention group and 39 students in comparison group on 10 college campuses. Avg. 17-18 weekly sessions.	Coached students showed significantly improved executive functioning and scores on Will, Skill, and Self-Regulation subscales of LASSI. No similar gains in comparison group. No statistically significant differences between participants who self-reported having ADHD only or ADHD and another condition, except for LASSI Self-Regulation subscale.	

Parker et al. (2013)	Ahmann et al., 2018	Effects of coaching with formally trained coaches.	Interviews. a purposive sample of 19 coached students from the Field et al. (2013) study. Avg. weekly 17-18 sessions	Students reported that coaching helped them with goal attainment skills, designing more effective coals, developing coping strategies, self-regulation, working productively, and achieving positive outcomes.	A qualitative study but based on the RCT described above.
Prevatt et al. (2011) *Examined separately, not part of the comprehensive search	Ahmann et al., 2018	Effects of coaching and between-session assignments (e.g. purchasing a planner, scheduling daily study times, or gathering articles for a research paper).	Non-experimental. 13 students with ADHD.	Coaches rated utility of the between-session assignments in helping students deal with problem areas as 5.17 out of 7 on average. Coach ratings of overall progress were positively associated with their ratings of student attitude towards assignments. No difference in compliance between written and oral assignments. Written instructions were associated with more time spent on assignments.	Small sample size, no control group. Only coach ratings.

Table S7

Primary studies into university transition supports.

Primary study	Review	Subject	Design and sample	Outcomes	Limitations
Kelly (2008)	Anderson et al., 2019	Effects of transition support service (goal planning meeting).	Multiple baseline single subject design; pre-post-secondary variables. 10 participants with AS. Comorbidities: anxiety, OCD, ODD, Tourette's, ADHD, nonverbal learning disability.	Results were mixed. Increase in some measures of self-determination for some participants. No conclusive evidence of increases in other self-determination measures and goal-planning. Mixed satisfaction scores.	Small sample size, no control group.
Lambe (2015)	Anderson et al., 2019	Effects of 3-day residential transition programme on worries and concern about starting university.	Pre-post mixed method program evaluation. 25 students with ASD and anxiety.	Worries about socialising were significantly reduced. No change in worries about course, leaving home, and self-care. More students felt positive about starting university. All found programme helpful and enjoyable.	Small sample size, no control group.
McLeod and Harrison (2013)	Anderson et al., 2019	Effects of transition support from personal assistant and residential staff	Post only single group program evaluation. 12 students with AS or ASD.	All students passed all courses and improved time management, organisational and communication skills. Most students developed	Small sample size, no control group.

		(orientation, study skills, time management, accommodation and social adjustment) on courses passed.		stress and anxiety reduction strategies and participated in social events. PA was found helpful by all, and many students reduced their time with PA. Increased awareness of Asperger's Syndrome at university.	
Rando et al. (2016)	Anderson et al., 2019	Effects of transition program and bi-weekly support group on GPA, behavioural violations, programme satisfaction, retention rate, number of faculty phone calls to disability office requesting assistance.	Post only single group program evaluation. 12 students with ASD.	Slight increase in mean GPA increased from 2.58 to 2.71 after second semester. 72.7% retention rate in first year, compared to 61.5% university rate. 7 of retained students continued into third year. Reduction in students expelled due to poor behaviour concerns and a decrease in calls to disability office.	Small sample size, no control group.
Schindler and Cajiga (2015)	Anderson et al., 2019	Effects of individual occupational therapy peer mentoring transition programme on performance in individual goals and college retention.	Pre-post single group. 11 participants with AS. Comorbidities: anxiety, depression, ADD.	Students had higher perception of ability to meet their goals. High participant satisfaction and 82% retention rate.	Small sample size, no control group.
Shmulsky et al. (2015)	Anderson et al., 2019; Kuder & Accardo, 2018	Effects of transition programme on retention rate, academic performance, GPA.	Post only single group programme evaluation. 30 students with ASD (85% male).	Students in programme had academic success similar to peers. 2.74 average GPA compared to 2.58 for all first-year students. 90% first year completion compared with 84% college-wide.	Small sample size, no control group.

Table S8

Primary studies into employment transition supports.

Primary study	Review	Subject	Design and sample	Outcomes	Limitations
Meeks et al. (2015)	Kuder et al., 2021	Pilot of employment resource offerings through collaboration among university	Pilot study, anecdotal and descriptive data. 12 students with ASD.	Students reported reduction in anxiety about interviews and learned about counselling centre as resource for personal and professional support.	Pilot study, small sample size, no control group.

		disability resources, career, and counselling centres.	Group and individual sessions to help with career preparation goals.	One-third of students maintained individual counselling centre appointments. 25% of students obtained internships.	

Table S9

Primary studies into psychological supports.

Primary study	Review	RQ	Design and sample	Outcomes	Limitations
Furuhashi (2017)	Anderson et al., 2019; Kuder et al., 2021	Effectiveness of individual and group CBT and recreational activities.	Pre-post single group. 11 participants with AD, AS, or PDDNOS. Six-month biweekly sessions.	Significant improvement in mean depression score, mean state anxiety score, and the mean self-esteem score. No change in trait anxiety. Self-reported reduction in depressive symptoms and anxiety and improvements in self-esteem, No change in clinician measures of symptom severity. Group meetings were reported to be most helpful component.	Small sample size, no control group.
Hillier et al. (2017)	Anderson et al., 2019; Kuder et al., 2021	Effects of support groups on time and stress management, managing group work, social communication.	Pre-post programme evaluation; social validity survey. 52 students with ASD (51 male). 4–7 students per group. Group support sessions. 1 h/w for 7 weeks.	Significant increases in self-esteem and reduction in loneliness and generalised anxiety. No change in social anxiety, academic distress or depression. 79% of students graduated or re-enrolled. Programme was rated as enjoyable. 85% of participants reported having made friends in the group.	No control group.
Holgate (2012)	Anderson et al., 2019	Effects of CBT on change in individualized therapy goals (social and academic feelings and behaviours).	Case study. 6 participants in main study, 1 participant in pilot study. ASC, depression, anxiety.	All social and academic feelings and behaviours self-ratings increased but fluctuated and varied between participants. Intervention was reported to assist with social life, emotions, academic study, and life skills. Some generalisation was found after intervention. Intervention was rated as acceptable and beneficial.	Small sample size, no control group.

Pugliese and White (2014)	Anderson et al., 2019; Kuder et al., 2021; Kuder & Accardo, 2018	Effects of Group Problem Solving Therapy (CBT programme) on changes in problem-solving and subjective distress.	Case study. Pre-post-multiple measures. 5 male participants with AD (1) or AS (4)..	2 participants showed improvement in problem-solving ability and subjective distress. Other 3 had no change.	Small sample size, no control group.
Quinn et al. (2014)	Anderson et al., 2019	Effects of Unilink service (individual weekly meeting with an occupational therapist face-to-face, text, email, phone) on exams passed, failed years, and withdrawals.	Post only single group programme evaluation and chart review. 29 participants with AS (27 male). Comorbidities: anxiety (2), depression (4), ADHD (4), OCD (3), dyspraxia, dyslexia (1).	59-66% of students using the service passed each year. Most students found setting goals useful.	Small sample size, no control group.