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AI as a Virtual Coach in Disability-Friendly Skill A Demonstration: Systematic Literature Review

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Abstract: The use of artificial intelligence (AI) in education is expanding, particularly through virtual coaches that guide learning adaptively and independently. This systematic literature review examines the role of AI as a virtual coach in disability-friendly skill demonstration for learners with disabilities. The review followed the PRISMA 2020 guideline. Scopus, Taylor & Francis Online and SpringerLink were searched for publications from 2020 to 2025, returning 21 records. After three duplicates were removed, 18 articles were screened, assessed in full text and included. Data were extracted with an analysis matrix and synthesised thematically. Four themes emerged: adaptive learning, demonstration support through visuals and feedback, learner autonomy, and the research gap in the disability context. Twelve of the 18 articles were published in 2025 or later, yet only eight addressed learners with disabilities explicitly, and only two combined an explicit disability focus with AI as the central element. None of the included articles evaluated an AI virtual coach designed for psychomotor or vocational skill demonstration with learners with disabilities. The potential of AI as a disability-friendly virtual coach therefore remains an extrapolation from adjacent studies rather than a directly evidenced claim. Design-and-development and evaluation studies focused on this population are needed.

Keywords: Artificial intelligence, Virtual coach, Persons with disabilities, Skill demonstration, Inclusive education, Systematic review

1. Introduction

According to the World Health Organization, an estimated 1.3 billion people, or 16% of the world's population, live with a significant disability, and this group consistently records poorer educational outcomes than the general population (World Health Organization, 2022). The gap does not arise from disability as such but from barriers within education systems, including inflexible learning environments and a shortage of appropriate support. A joint report by the World Health Organization and UNICEF estimates that more than 2.5 billion people need at least one assistive product, and that almost one billion of them are denied access to it (World Health Organization & United Nations Children's Fund, 2022).

Commitment to inclusive education has long been articulated internationally (UNESCO, 2020) and has been translated into the Malaysian context through the Malaysia Education Blueprint 2013–2025, which places improvement in the quality of special education and inclusive programmes among its main agendas (Kementerian Pendidikan Malaysia, 2013). The Zero Reject Policy introduced later widened the access of pupils with special educational needs to mainstream schools, although studies show that teachers' readiness to implement it remains uneven (Jusimin & Mohamad Salleh, 2022).

Among the many forms of learning, skill demonstration poses a distinctive challenge. Mastery of psychomotor and vocational skills depends on observing a model performed step by step, followed by repeated attempts with feedback, and practical performance remains a central component of vocational assessment alongside theoretical knowledge (Baharudin et al., 2025). Van Gog and Rummel (2010) explain that example-based learning, whether through observed modelling examples or analysed worked examples, builds a cognitive representation of the task, and that its effectiveness depends on the type of task and the characteristics of the learner. For learners with disabilities, the need for repetition, sequencing and an adjustable learning pace is more pronounced, whereas a workshop demonstration is typically delivered once by one teacher to a group of learners.

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Empirical evidence shows that recorded, repeatable demonstrations produce measurable benefits for this population. In an evidence-based systematic review, Chen and Yakubova (2023) found that video-based interventions are effective in teaching vocational skills to transition-age youth with autism spectrum disorder. Sun and Brock (2024) showed that teachers and paraprofessionals can themselves implement step-by-step video prompting for the vocational skills of students with significant intellectual and developmental disabilities, with individual adaptations required for students who did not initially progress. Similarly, a systematic review of 24 single-case studies found that video prompting and modelling delivered on mobile devices were effective in teaching daily living skills to individuals with intellectual disability (Stierle et al., 2023). These studies support the basic premise of this review: demonstrations that can be repeated and adapted are beneficial.

In Malaysia, vocational skills for pupils with special educational needs are delivered through Specific Vocational Skills in the Integrated Special Education Programme, and teacher capacity building has been identified as a critical factor in its implementation (Kamisan et al., 2025). Special education teachers in Johor who teach vocational skills to pupils with more severe disabilities reported a need for further training, teaching materials and funding (Dahalan & Toran, 2023). At tertiary level, Mohd Jamil et al. (2024) identified digital infrastructure, individualised learning pathways and teacher competence as prerequisites for inclusive digital pedagogy in Malaysian technical and vocational education and training (TVET). The National TVET Policy 2030 also places digital skills at the core of national TVET transformation (Majlis TVET Negara, 2024).

At the same time, AI has begun to be used as an instructional agent in learning environments. Schroeder et al. (2025) define pedagogical agents as virtual characters integrated into a learning environment to help learners learn. A virtual coach is one form of pedagogical agent that guides, monitors and provides feedback adaptively, and it is this concept that the present review addresses.

Evidence on the effectiveness of such systems is accumulating but is moderate. In a systematic review of AI-driven intelligent tutoring systems in K–12 education, Létourneau et al. (2025) reported positive but limited learning effects. Through a meta-analysis of 49 effect sizes from 22 studies, Dai et al. (2024) found that AI-powered virtual agents in computer-based simulations have a moderate positive effect on learning outcomes. Both sources indicate genuine potential, but not a large or automatic effect.

This caveat matters because the educational technology literature has a long history of locating effectiveness in the device. In a second-order meta-analysis of four decades of research, Tamim et al. (2011) concluded that learning outcomes depend on how technology is used pedagogically rather than on the technology itself. UNESCO's global education monitoring report likewise warns that some proposed education technology solutions may be harmful if they are not evaluated against users' actual needs (UNESCO, 2023).

Existing reviews of AI in education are broad and seldom isolate learners with disabilities. Through a scoping meta-review and bibliometric analysis, Fu et al. (2025) mapped the rapid growth of AI-in-education research without a specific focus on disability. Al-Zahrani (2025) examined the effect of inclusive and accessible learning technologies on student engagement in higher education, while Sajja et al. (2025) described an AI-assisted educational framework for vocational certification with no disability context. The most rigorous synthesis to date, a meta-analysis of AI interventions for students with disabilities, reported a medium overall effect that fell to a small effect after correction for publication bias (L. Zhang et al., 2026), but it was not organised around skill demonstration. None of these reviews synthesises the literature according to the function of a virtual coach in skill demonstration for learners with disabilities.

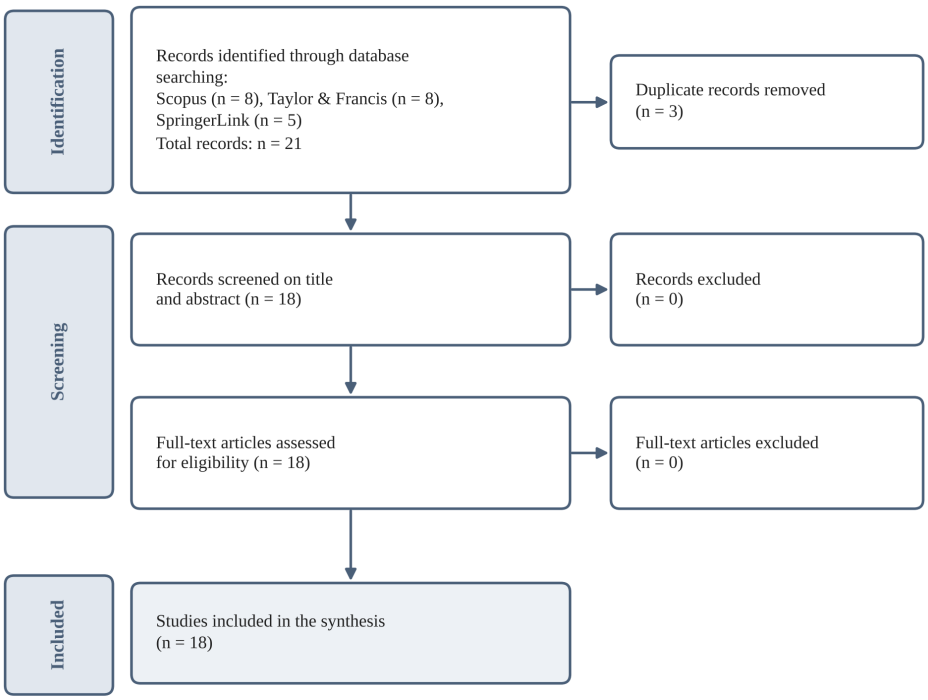
There is, therefore, a clear gap. Evidence on repeatable demonstration for learners with disabilities exists, and evidence on AI-powered virtual agents in general education also exists, but the two bodies of literature have not been brought together systematically. As a result, the claim that AI could serve as a disability-friendly virtual coach is often made by extrapolation from adjacent studies, without a systematic check of what has and has not actually been studied.

This review aims to collate and synthesise systematically the existing literature on the use of AI as a virtual coach in disability-friendly skill demonstration. Four research questions were formulated: (i) what are the trends and focus of research on AI as a virtual coach in skill demonstration; (ii) how is AI used as a virtual coach to support skill demonstration; (iii) what is the effect of AI as a virtual coach on disability-friendly skill learning; and (iv) what research gaps remain in research on AI as a disability-friendly virtual coach. It should be stressed that this review is a literature synthesis and not an empirical study; its findings therefore describe the state of existing research and do not measure the effectiveness of any system.

2. Methodology

2.1 Research Design and PRISMA Protocol

This study adopted a systematic literature review to identify, appraise and synthesise previous studies on the use of AI as a virtual coach in disability-friendly skill demonstration. The approach was chosen because it allows the literature to be analysed in a planned, transparent and replicable manner. Article selection followed the PRISMA 2020 guideline (Page et al., 2021), which requires each stage of identification, screening, eligibility assessment and inclusion to be reported. Figure 1 presents the PRISMA flow diagram for this review.



Flow diagram adapted from the PRISMA 2020 statement (Page et al., 2021).

Figure 1: PRISMA 2020 flow diagram of the screening and selection process

2.2 Literature Search Strategy

Searches were run in three academic databases: Scopus, Taylor & Francis Online and SpringerLink. All three were chosen because they index peer-reviewed journals in education, educational technology, special education and artificial intelligence. The search string combined four keyword clusters with Boolean operators: artificial intelligence, virtual coach, skill demonstration and disability. Table 1 presents the search string used.

Table 1: Databases and search string

Database	Search string
Scopus, Taylor & Francis Online, SpringerLink	("Artificial Intelligence" OR "AI") AND ("Virtual Coach" OR "AI Coach" OR "Intelligent Tutor") AND ("Skill Demonstration" OR "Skill Training" OR "Skills Development") AND ("Disability" OR "Special Needs" OR "Inclusive Education")

Note: The search was limited to publications from 2020 to 2025 and was run on titles, abstracts and keywords.

The 2020–2025 limit was chosen so that the findings would reflect current developments in AI, and it was applied to the date of first publication; one included article (Villamin & Luppicini, 2026) was first published online in 2024 and has since been assigned to a 2026 journal issue, and it is cited here by its version-of-record year.

2.3 Inclusion and Exclusion Criteria

Inclusion and exclusion criteria were set before screening began so that selection decisions would be made consistently. Table 2 presents the criteria.

Table 2: Inclusion and exclusion criteria

Category	Criteria
Inclusion	Peer-reviewed journal articles published from 2020 to 2025
	Concerned with the use of artificial intelligence in education or training
	Discusses the role of AI as a virtual coach, intelligent tutor or learning support system
	Involves skill demonstration, skill training or competency development
	Relevant to inclusive education or persons with disabilities
Exclusion	Conference proceedings, technical reports or book chapters
	Conceptual articles without educational application or implications
	Studies focusing solely on technical aspects of AI without a pedagogical element
	Articles not available in English or Malay
	Articles not discussing skill demonstration or training

Note: The criteria were set before screening began. Section 4.6 discusses how consistently they were applied.

2.4 Article Selection Process

The initial search returned 21 records: eight from Scopus, eight from Taylor & Francis Online and five from SpringerLink. Three records were identified as duplicates and removed, leaving 18 unique records. All 18 records were screened on title and abstract, and all met the inclusion criteria at that stage. Full-text assessment was then carried out on all 18 articles, and none was excluded at that stage. Eighteen articles were therefore included in the final analysis, as shown in Figure 1.

This 100% inclusion rate reflects a highly specific search string that combined four keyword clusters and so filtered out most irrelevant records before screening; its implications are discussed in Section 4.6.

2.5 Data Extraction and Analysis

Data were extracted with an article analysis matrix recording the author and year of publication, the form of AI or virtual coach studied, the disability context, the type of skill addressed and the main findings of each study. For each article, the disability context was coded as an explicit disability focus when the study specified a particular population or condition, and as a general context when the study referred only to inclusive education or to education in general.

The extracted data were analysed thematically. The findings of each article were read repeatedly and given descriptive codes, and codes sharing a meaning were grouped into themes. Simple frequencies were also computed for year of publication and disability focus so that the first research question could be answered with counts rather than estimates.

3. Results

3.1 Research Trends and Focus

The first research question examined research trends and focus. Of the 18 included articles, two were published in 2021, one in 2022, one in 2023, two in 2024, eleven in 2025 and one in 2026 (by version-of-record year). In other words, 12 of the 18 articles (66.7%) were published in 2025 or later. This distribution supports the view that research in this area has grown rapidly over the past two years.

In terms of publication venue, the articles were concentrated in special education and disability journals, AI-in-education journals, and technology and technical education journals. Three articles appeared in the International Journal of Developmental Disabilities and three in the International Journal of Artificial Intelligence in Education.

Two more important counts were made of the focus of the articles. First, eight of the 18 articles had an explicit focus on a population with special needs, namely autism, hearing impairment, dysgraphia, complex support needs, intellectual disability and the employment of persons with disabilities. The remaining ten discussed inclusive education, technical education or AI in general terms without specifying a disability population. Second, eight of the 18 articles placed AI as the central element of the study, while the other ten discussed digital technology, educational interventions or policy without a specific AI component.

When the two counts were crossed, only two of the 18 articles met both conditions simultaneously, that is, an explicit focus on a population with special needs and AI as the central element of the study. This numerical finding underpins the fourth theme in Section 3.6.

3.2 Article Analysis Matrix

Table 3 presents the analysis matrix for all 18 included articles, covering the form of technology studied, the disability context, the type of skill and the main findings of each study.

Table 3: Analysis matrix of the 18 included articles

No.	Author (Year)	Form of technology studied	Disability context	Type of skill	Main finding
1	Avcı et al. (2025)	Generative large language models (ChatGPT, DeepSeek)	Autism	Caregiver information support	Compared the quality of guidance generated by two models for parents
2	Avsec & Rupnik (2025)	Student AI literacy	General	AI literacy and agency	Profiled AI literacy of technical high school students
3	Bone et al. (2025)	Labour-market skill demand analysis	General	Employability skills	Documented a shift towards skill-based hiring
4	Coy et al. (2025)	AI-based communication support system	Hearing impairment	Communication and language access	Proposed an AI solution pathway for inclusive deaf education
5	Dodick (2025)	Policy discourse on AI in education	General	No specific skill	Argued for localising AI to local contexts
6	Fu et al. (2025)	Meta-review of AI use	General	Various	Mapped growth and foci of AI-in-education research
7	Hassan et al. (2021)	ICT in TVET	General	Technical skills	Identified infrastructure and educator-readiness constraints
8	Kalenjuk et al. (2022)	Scoping review without an AI component	Dysgraphia	Handwriting	Mapped research on children with dysgraphia and their carers
9	Kurth et al. (2025)	Document analysis of IEPs	Complex support needs	Learning planning	Found IEP components to be misaligned
10	Mohd Jamil et al. (2024)	Inclusive digital pedagogy	Inclusive	TVET skills	Set infrastructure, individual pathways and teacher competence as prerequisites
11	Obrusnikova et al. (2021)	Structured familiarisation intervention without AI	Intellectual disability	Psychomotor	Independent performance of resistance-training tasks improved
12	Okada et al. (2025)	Pedagogical model and AI competency framework	General	Transversal skills	Open schooling fostered transversal skills
13	Ricoy et al. (2025)	AI in school counselling	General	Guidance support	Recorded professionals' perspectives on AI use
14	Sahrul et al. (2024)	Institution-level AI marketing	General	No specific skill	Linked institutional strategy to the competitive advantage of vocational schools
15	Villamin & Luppicini (2026)	Mobile digital interventions	Autism	Life skills	Mapped mobile interventions for life-skills development
16	Wei et al. (2025)	Social media without an AI component	Intellectual disability	Social support	Described forms of online support received
17	D. Zhang (2023)	Presidential address without a technology component	Disability and employment	Employability	Proposed new norms for integrated and competitive employment
18	Z. Zhang et al. (2025)	Cloud-computing-based career visualisation	General	Career planning	Developed indicators of career visualisation ability

Note: The disability context was coded as a specific category when the study named a particular disability population, and as 'General' or 'Inclusive' when it did not.

The matrix shows marked diversity in the forms of technology studied. Those recorded include generative large language models, AI competency frameworks, communication support systems, mobile interventions, social media and pedagogical approaches with no technology component. This diversity means that the synthesis that follows describes a field that is still fragmented and has not yet converged on a single form of system that can be compared directly.

3.3 Theme 1: Adapting Learning to Individual Ability

The first theme covers studies describing the adaptation of content, pace or form of support to individual ability. Fu et al. (2025) mapped adaptive learning as one of the main foci of AI-in-education research, while Okada et al. (2025) linked such adaptation to the UNESCO AI competency framework in the context of open schooling. For populations with special needs, Kurth et al. (2025) showed that individualised education programmes (IEPs) for students with complex support needs are often misaligned across their components, an adaptation problem that exists before any technology is introduced.

It should be noted that none of the studies in this theme tested an automatic adaptation system with learners with disabilities during skill demonstration. The adaptation reported is pedagogical or policy-level, not algorithmic adaptation evaluated empirically.

3.4 Theme 2: Demonstration Support through Visuals and Feedback

The second theme covers studies describing demonstration support through visual, simulation or feedback channels. Coy et al. (2025) described an AI-based solution pathway for the inclusive education of deaf learners that relies on visual support and sign language. Villamin and Luppicini (2026) mapped mobile digital interventions for the life-skills development of learners with autism, while Obrusnikova et al. (2021) showed that a structured familiarisation intervention improved the independent performance of adults with intellectual disability on resistance-training tasks.

Obrusnikova et al. (2021) is the only study in this set that measured psychomotor skill performance directly. However, the intervention was a community-based familiarisation programme and did not involve any AI system.

3.5 Theme 3: Autonomy and Self-Directed Support

The third theme covers studies linking technology to user autonomy. Avcı et al. (2025) compared two generative large language models as sources of guidance for parents of children with autism, a form of information support that can be accessed without a professional intermediary. Wei et al. (2025) described social media support among people with intellectual disabilities in China, while D. Zhang (2023) discussed new norms for integrated and competitive employment of persons with disabilities.

It must be stressed that autonomy in these studies refers to access to information and social support, not to the ability to perform a skill without guidance. The relationship between these two forms of autonomy was not tested in any of the included studies.

3.6 Theme 4: The Research Gap in the Disability Context

The fourth theme is the most robust finding of this review because it rests on the counts in Section 3.1 rather than on interpretation. Beyond the finding that only two articles combined a disability focus with AI, none of the 18 articles evaluated an AI virtual coach designed specifically for psychomotor or vocational skill demonstration for learners with disabilities. The studies that involved psychomotor skills did not involve AI, and the studies that involved AI did not measure psychomotor skill mastery. In other words, the two bodies of literature needed to support the concept of a disability-friendly virtual coach exist separately but have not yet met.

Implementation constraints were also identified in this set of articles. Hassan et al. (2021) reported infrastructure and educator-readiness constraints on integrating information and communication technology (ICT) in TVET, while Mohd Jamil et al. (2024) identified digital infrastructure, individualised learning pathways and teacher competence as prerequisites for inclusive digital pedagogy. Dodick (2025) cautioned that AI in education must be localised to contextual needs rather than transferred directly from one setting to another.

4. Discussion

4.1 Research Trends and Their Meaning

The concentration of publications in 2025 and later is consistent with the bibliometric mapping of AI-in-education research as a whole by Fu et al. (2025). This growth indicates an expanding field, but the small absolute number of articles in this set suggests that the intersection of AI, skill demonstration and learners with disabilities remains a thin niche.

The concentration of publications in two distinct groups of journals, disability journals on the one hand and AI-in-education journals on the other, reinforces this interpretation. Both research communities publish actively, but rarely in the same space.

4.2 How AI Is Used as a Virtual Coach

The second research question examined how AI is used as a virtual coach, and the answer must be given cautiously. None of the forms recorded in the matrix operated as a virtual coach in the sense of a pedagogical agent, that is, a virtual character integrated into a learning environment to help learners learn (Schroeder et al., 2025). What was recorded instead were generative large language models used as information sources (Avcı et al., 2025), communication and language-access support systems (Coy et al., 2025), and policy and competency frameworks (Dodick, 2025; Okada et al., 2025).

The gap between the concept searched for and the forms found is itself a meaningful finding. The meta-analysis by Dai et al. (2024) shows that AI-powered virtual agents in computer-based simulations do produce a moderate positive effect, and the review by Létourneau et al. (2025) shows that intelligent tutoring systems have a positive but limited effect. Both bodies of evidence come from general populations. What is missing is their application to skill demonstration for learners with disabilities.

4.3 Effects on the Skill Learning of Learners with Disabilities

The third research question examined the effect of AI as a virtual coach on disability-friendly skill learning. On the basis of the 18 articles analysed, this question cannot be answered directly. No study measured the skill mastery of learners with disabilities after using an AI virtual coach.

The closest evidence falls into two groups. On the one hand, Obrusnikova et al. (2021) showed improved independent performance of adults with intellectual disability on psychomotor tasks through a structured familiarisation intervention, with no AI component. On the other hand, Coy et al. (2025) and Avcı et al. (2025) described the use of AI in disability contexts, but measured information access and communication support rather than skill mastery. The reasonable conclusion is that the benefit of AI as a virtual coach for the skill learning of learners with disabilities remains a plausible projection, not an established finding.

This conclusion is consistent with the caution by Tamim et al. (2011) that learning outcomes depend on how technology is used pedagogically rather than on the technology itself, and with UNESCO's (2023) warning that education technology solutions must be evaluated against users' actual needs. For learners with disabilities, the assumption that a system effective for general learners will automatically be effective for them is an untested assumption.

4.4 Research Gaps and Implementation Challenges

The fourth research question examined the gaps that remain. As Section 3.6 shows, the gap is structural, not merely a shortage of studies. Three implementation challenges were also identified. The first is infrastructure and educator readiness for integrating technology in TVET (Hassan et al., 2021; Mohd Jamil et al., 2024). In Malaysia, teacher capacity building for Specific Vocational Skills in the Integrated Special Education Programme reflects the same issue (Kamisan et al., 2025), and research on ICT training for Malaysian educators likewise identifies training and institutional resources as key constraints (Shafie et al., 2025).

The second is accessibility and ethics. Systems that are not designed inclusively risk creating new inequalities, particularly when almost one billion people who need assistive technology still lack access to it (World Health Organization & United Nations Children's Fund, 2022). The third is contextual fit. Dodick (2025) argues that AI in education must be localised to local needs, a caution that applies to any system developed abroad and used in a Malaysian special education classroom.

4.5 Implications for Research and Educational Practice

For research, these findings set a specific agenda. What is needed is not further reviews of the potential of AI, but design-and-development studies that produce virtual-coach prototypes for skill demonstration, followed by empirical evaluation with learners with disabilities using objective measures of skill mastery. Design references for such studies already exist in the step-by-step video prompting literature (Chen & Yakubova, 2023; Sun & Brock, 2024), and the most plausible contribution of AI lies in adaptation and feedback, not in replacing the demonstration itself. The technical means for such feedback are increasingly accessible: low-cost cameras combined with AI-based markerless pose estimation can now track human movement, although two-dimensional systems remain sensitive to depth and environmental conditions (Edriss et al., 2025). Whether such feedback is usable and accurate for learners with physical, sensory or intellectual disabilities is an open empirical question.

For practice, the findings suggest a cautious stance. Until direct evidence is available, AI is better positioned as support for teachers in preparing repeatable, adaptable demonstration materials than as a substitute for face-to-face guidance. This stance is consistent with the international inclusive education framework (UNESCO, 2020) and with the national direction for special education (Kementerian Pendidikan Malaysia, 2013), and it can be integrated with the digital skills agenda of the National TVET Policy 2030 (Majlis TVET Negara, 2024). For institutions wishing to begin, the most reasonable priority is a library of sequenced, repeatable digital demonstrations for the skills taught most often, with an AI layer for adaptation and feedback added once that library has been evaluated.

4.6 Limitations

Six limitations must be acknowledged. First, the search was limited to three databases and did not cover specialised education or special-education databases such as ERIC or PsycINFO, so relevant literature may have been missed; the choice of search systems is known to shape what a systematic review can retrieve (Gusenbauer & Haddaway, 2020). Second, the initial search returned only 21 records, a small number for a systematic review that indicates an overly narrow search string.

Third, all 18 screened records were ultimately included, with none excluded at either the screening or the full-text stage. A 100% inclusion rate is unusual in a systematic review and indicates that the inclusion criteria were applied leniently. The matrix itself supports this: it contains several articles with no AI component, even though the search string required one, and one presidential address despite the criterion of peer-reviewed research articles.

Fourth, screening and extraction were not conducted in duplicate and blind, and no inter-rater agreement coefficient was computed, although coding decisions are known to vary both between and within reviewers over time (Belur et al., 2021). Fifth, no methodological quality appraisal instrument was used, so reviews, conceptual studies, policy addresses and empirical studies were given equal weight in the synthesis. Sixth, the protocol was not registered in advance, so readers cannot verify that the criteria were not changed after the search results were seen.

Taken together, these limitations mean that the 18 articles are better understood as a sample of adjacent literature than as comprehensive coverage of the field; the counts in Section 3.1 describe this set and cannot be generalised to the literature as a whole.

5. Conclusion and Recommendations for Future Research

This systematic literature review analysed the role of AI as a virtual coach in disability-friendly skill demonstration. Research on AI in education is growing rapidly, but only a small fraction of the articles analysed combined an explicit disability focus with AI as the central element, and none evaluated an AI virtual coach designed for psychomotor or vocational skill demonstration for learners with special needs. The claim that AI could serve as such a coach therefore remains a plausible projection from adjacent studies, not a finding supported by direct evidence, and the field now needs development and evaluation studies rather than further reviews.

Academically, this review contributes a synthesis that maps numerically what has and has not been studied at the intersection of AI, skill demonstration and disability. Practically, it recommends that educators and policymakers prioritise sequenced, repeatable digital demonstration materials, the element with the strongest evidence to date, before investing in an AI layer.

On the basis of the gaps identified, four recommendations are made for future research. First, design-and-development studies should produce AI virtual-coach prototypes designed specifically around the accessibility needs of learners with special needs. Second, such prototypes should be evaluated empirically with objective measures of skill mastery, not only with perception questionnaires. Third, longitudinal research is needed to assess long-term effects on skill mastery, motivation and employability. Fourth, future systematic reviews in this area should register their protocol in advance, search specialised special-education databases, and apply dual screening and a quality appraisal instrument.

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Conflict of Interest

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