DOI: https://doi.org/10.61841/chbt7s58 Publication URL: https://jarel.org/index.php/EL/article/view/58

PEDAGOGICAL SUPPORT FOR ELEMENTARY SCHOOL PUPILS WITH ADHD IN COLOMBIA

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To Cite This Article:

PEDAGOGICAL SUPPORT FOR ELEMENTARY SCHOOL PUPILS WITH ADHD IN COLOMBIA (M. A. Castro Reyes & J. Insuasti, Trans.). (2026). *Journal of Advanced Research in Education and Literature*, *12*(6), 1-10. https://doi.org/10.61841/chbt7s58

ABSTRACT

Elementary school teachers need practical approaches to support pupils with attention-deficit/hyperactivity disorder (ADHD). Still, improvements in classroom behavior should not be equated with gains in learning or evidence of local intervention effectiveness. This critical narrative review examines selected research on classroom interventions, teacher development, organizational skills, and digital learning, with particular attention to their relevance for Colombian elementary education. The synthesis combines international evidence reviews and intervention research with Colombian studies. It uses a purposive, non-exhaustive literature selection and does not report a systematic search, a new meta-analysis, or elementary school-level data. The literature supports structured classroom routines, explicit instruction, behavioral support, and teaching organizational skills, while showing that effects differ across outcomes and research designs. Teacher training can improve knowledge, but evidence of sustained changes in pupil outcomes is less consistent. Digital activities require evaluation of curriculum learning and transfer beyond the trained task. A proposed implementation framework links an observable classroom barrier to a feasible support, a learning outcome, and a review decision. Its application to Colombian schools requires attention to resources, family participation, pupil preferences, and local evaluation. The review concludes that educational support should be individualized and monitored, and that claims of effectiveness must specify what changed, for whom, and under what conditions.

KEYWORDS: *ADHD; elementary education; inclusive education; classroom interventions; teacher professional development; Colombia*

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1. INTRODUCTION

ADHD creates an important educational challenge because classroom participation demands extend beyond knowing subject content. Pupils must organize materials, begin tasks, sustain engagement, follow instructions, and coordinate their participation with others. Difficulties in these activities can interfere with opportunities to learn. DuPaul et al. (2022) identify behavioral approaches, organizational skills teaching, and self-regulation strategies as prominent components of school support. Their review also emphasizes collaboration between educational and clinical professionals. These findings support a pedagogical question: how can teachers change classroom conditions and instruction so that pupils can participate and demonstrate learning?

The distinction between educational observation and clinical diagnosis is essential. Teachers can document patterns across tasks and provide useful information to families and professionals, but classroom difficulties alone do not establish ADHD. NICE (2018) recommends that an appropriately qualified professional diagnose using a comprehensive assessment. Educational support should therefore respond to observed barriers without asking teachers to make a clinical determination. This distinction also helps prevent a pupil's difficulties from being interpreted simply as unwillingness to learn.

In Colombia, discussion of ADHD has included the relationship between schools, families, and public services. Vélez-Álvarez and Vidarte Claros (2012) locate the issue within early childhood public policy and advocate coordinated attention. Their contribution provides contextual justification for collaboration, rather than a current prevalence estimate or proof that a particular classroom program works. More directly relevant to teachers, Miranda Padilla et al. (2018) document gaps in ADHD knowledge in a municipal sample. Such evidence supports professional development while leaving open how training should be translated into sustained classroom practice.

The educational motivation for the present review is elementary schooling in Nariño, Colombia. This geographical focus is a context for considering application, not a research site from which this article reports new results. No claim is made that the proposed strategies have already improved outcomes in local schools.

This review addresses three questions. Which pedagogical approaches have support in the selected literature? How should differences between teacher knowledge, pupil behavior, and academic attainment affect interpretation? What implementation principles could guide a locally evaluated approach in Colombian elementary schools? The contribution is a critical translation of research into an explicit classroom decision process. It does not seek to establish a universal ranking of interventions or to estimate a new pooled treatment effect.

2. REVIEW APPROACH AND SCOPE

This article is a critical narrative review. An initial contextual bibliography was expanded through targeted web searches on 4 November 2026. Retrieval used title, author, and topic searches to locate publisher records, PubMed and PubMed Central articles, SciELO publications, university repositories, clinical guidance, and official Colombian policy documents. Search combinations included ADHD with classroom interventions, school-based interventions, teacher training, organizational skills, reading difficulties, peer inclusion, implementation, and digital learning; Spanish searches addressed TDAH, teacher knowledge, and Colombian inclusive education. This was purposive retrieval, not an exhaustive database search.

Sources were selected for relevance to elementary schooling, the distinction between educational outcomes, and a verifiable publication record. Systematic reviews and meta-analyses were complemented by controlled trials, Colombian contextual studies, a methodological article, clinical guidance, and policy documents. The final bibliography contains 28 sources published between 2008 and 2025. Middle-school evidence was included only to illuminate organizational support and limits on transfer across age groups. Policy documents were used for context rather than as evidence of intervention effectiveness.

The synthesis organizes evidence into classroom conditions, behavioral support, organization and self-regulation, teacher development, digital learning, and collaboration. It distinguishes a source's design from the strength of the inference it supports. A descriptive survey can establish a knowledge gap in its sample, whereas a controlled trial can examine comparative intervention effects under specified conditions. Neither automatically establishes effectiveness in another setting.

For each source, the synthesis considered population and age range, study design, intervention or policy focus, outcome domain, and the limits of its relevance to Colombian classrooms. Sources were compared narratively rather than assigned numerical weights. Educational proposals are identified as proposals, and findings from different age groups, settings, or informants are not treated as equivalent.

No protocol registration, independent duplicate screening, formal risk-of-bias assessment, or new quantitative pooling was undertaken. Where full text was inaccessible, interpretation was restricted to information available in the published abstract and bibliographic record. Reporting follows SANRA's emphasis on explicit aims, a transparent description of literature identification, and appropriate scientific reasoning (Baethge et al., 2019); no formal SANRA score is claimed. Consequently, this article offers a reasoned synthesis of selected evidence rather than a complete map of the literature.

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3. EVIDENCE RELEVANT TO PEDAGOGICAL SUPPORT

3.1 CLASSROOM BEHAVIOR AND ACADEMIC LEARNING

Gaastra et al. (2016) synthesized classroom interventions addressing off-task and disruptive behavior among children with ADHD symptoms. Their findings support the potential value of antecedent-based approaches, consequences, and self-regulation. However, the magnitude of reported effects depended on study design and intervention category. Large estimates from single-case studies should not be directly ranked against estimates from group comparisons. The review focuses on classroom behavior; it cannot establish equivalent improvements in reading, mathematics, or long-term attainment.

DuPaul et al. (2012) likewise examined behavioral and academic interventions across a heterogeneous school literature. Their synthesis underscores why intervention category, research design, and outcome must be considered together. It would be misleading to turn these findings into an unconditional statement that every strategy works for every pupil. In particular, increased time on task is a learning opportunity, but the content and quality of instruction still matter.

More recently, Yegencik et al. (2025) reviewed school-based randomized trials and included 22 trials in their meta-analyses. They reported improvements in several domains, including inattention and academic performance, while the pooled hyperactivity/impulsivity effect was not statistically significant. Academic performance showed a pooled standardized effect of $d = 0.37$. Heterogeneity and possible reporter bias limit the interpretation of these results. Because the review covers children and adolescents, it should not be treated as a elementary-school-only estimate or a forecast for a particular Colombian school.

Moore et al. (2018) add a complementary synthesis of 28 randomized studies involving 1,807 participants. Their analyses suggest benefits from multicomponent support and possible value in daily report cards, while emphasizing uncertainty about which features consistently account for academic improvement. Such findings support carefully specified combinations of strategies rather than a list of interchangeable techniques.

Taken together, these sources justify evaluating at least two outcomes whenever a classroom strategy is introduced: the behavior that the support is intended to change and the educational achievement it is intended to enable. For example, starting written work more promptly and producing more accurate written work are related but distinct outcomes. A pupil may improve on the former while still requiring explicit teaching of the latter.

3.2 CLASSROOM CONDITIONS AND BEHAVIORAL SUPPORT

NICE (2018) identifies environmental modifications such as reducing distractions, adjusting seating, using shorter periods of focused activity with movement breaks, and supporting spoken instructions with written cues. These recommendations provide practical starting points, but they are not a validated package for every classroom. Their appropriateness depends on the task, the pupil's preferences, and whether the adjustment actually improves access to instruction.

The classroom literature supports examining what happens before a difficulty and how adults respond afterward (Gaastra et al., 2016). In pedagogical terms, a teacher can make an instruction more manageable before a task begins and give timely, specific feedback when the pupil uses the intended strategy. A request to “behave better” is less observable than an agreed action such as preparing the required materials or completing the first step of an assignment.

This review proposes that feedback be private when appropriate, proportionate, and linked to teachable actions. Rewards should not depend on a pupil concealing difficulties or remaining motionless throughout a lesson. The educational aim is participation with growing independence. This proposed framework should avoid public comparison charts and unattainable goals because they conflict with its commitment to dignity and meaningful access. These are design principles for the framework, not outcomes measured by the present review.

3.3 ORGANIZATION AND SELF-REGULATION

Bikic et al. (2017) synthesized organizational skills interventions for children and adolescents with ADHD. Their findings support organization as a distinct intervention target rather than assuming it will improve automatically when attention improves. Differences between informants and outcome domains also caution against treating a single favorable rating as evidence of generalized academic success.

For elementary classrooms, the practical implication is to teach routines explicitly. A proposed routine might involve identifying the next task, locating the necessary materials, checking a short sequence of steps, and reviewing completion. A teacher can first model the routine, then practice it with the pupil, and gradually reduce prompts. Whether the routine is effective must be assessed locally; this example is an application of the review rather than a tested intervention protocol.

Self-regulation also requires developmental sensitivity. A young pupil may need pictorial reminders and adult co-regulation before using a checklist independently. Self-monitoring should help the pupil understand what supports learning, rather than become another task that produces repeated failure. This distinction matters when a strategy appears simple to adults but demands the very organizational abilities the pupil is still developing.

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A elementary-school trial provides a more specific example. Abikoff et al. (2013) randomized 158 children in grades 3–5 to organizational skills training, a performance-focused intervention, or a waitlist. The trial makes organization, time management, and planning explicit treatment targets. Its structured delivery should not be equated with merely handing a pupil a checklist. Langberg et al. (2012), studying a middle-school intervention, found improvements in parent-rated organization and homework outcomes but not corresponding significant teacher-rated changes. That older age group offers a caution about informant and setting differences, not a directly transferable elementary-school protocol.

3.4 TEACHER KNOWLEDGE AND PROFESSIONAL DEVELOPMENT

Miranda Padilla et al. (2018) studied 62 elementary teachers in public schools in Sabaneta, Antioquia. Teachers answered 48.52% of the knowledge questionnaire items correctly, with stronger performance on symptoms and diagnosis than on some other domains. This finding concerns a particular sample and instrument. It cannot establish that teachers throughout Colombia have the same knowledge profile, nor can it demonstrate that a training program improves pupil learning.

Ward et al. (2022) found that ADHD teacher training improved knowledge immediately after training, while evidence concerning retention and pupil outcomes was more qualified. Improvements in pupil behavior observed in pre–post comparisons were not clearly reproduced in controlled comparisons. The distinction is consequential: satisfaction with a workshop and gains on a knowledge test should not be used as substitutes for evidence of classroom implementation or pupil benefit.

The present framework therefore proposes professional development that includes rehearsal, observation, and follow-up discussion. A teacher would practice one selected strategy, record whether it was feasible, and review work samples with a colleague. School leaders would reserve time for this process. This proposal recognizes that implementation responsibility cannot rest solely on an individual teacher's motivation; schedules, class organization, and access to support shape what can be sustained.

3.5 DIGITAL GAMES AND THE PROBLEM OF TRANSFER

Moreno and Valderrama (2015) provide a relevant Colombian example involving statistics learning in fourth grade. Their study compared pupils with and without ADHD who experienced a digital learning activity alongside instruction. The authors noted concurrent teaching and unequal computer access as limitations. The design does not isolate a game effect against an equivalent group receiving no game, and it does not demonstrate that all digital games are effective ADHD interventions.

Prins et al. (2011) investigated game elements within working-memory training and reported benefits for motivation and training performance. Those outcomes differ from the ability to apply curriculum knowledge in an ordinary lesson. Evidence of engagement should therefore prompt a further question about learning transfer rather than end the evaluation.

Westwood et al. (2023) reinforce this distinction. Their meta-analysis of computerized cognitive training found improvements in working-memory measures, but limited clinical transfer and no immediate benefit on the academic outcomes analyzed. Cognitive training and curriculum-based games are not identical interventions; nevertheless, the findings challenge the assumption that improvement within a digital task necessarily produces broader educational gains. Digital resources should be evaluated against a defined learning objective and an accessible non-digital alternative.

3.6 COLLABORATION ACROSS HOME AND SCHOOL

Pfiffner et al. (2014) evaluated an integrated psychosocial program for children with the predominantly inattentive presentation of ADHD. Its coordinated parent, child, and teacher components illustrate a structured approach to linking settings. The trial supports examining coordinated support, but its findings do not establish that an informal exchange of messages will reproduce the effects of a manualized program.

For Colombia, Vélez-Álvarez and Vidarte Claros (2012) provide a complementary argument for involving family and school within a broader response. Practical coordination should recognize differences in caregivers' time, literacy, access to communication, and responsibilities. The proposed framework treats the family as a source of information and partnership, without making classroom support contingent on participation in a demanding home program.

Pfiffner et al. (2016) extend this evidence through a cluster-randomized evaluation of Collaborative Life Skills in 23 schools with 135 pupils in grades 2–5. The integrated school, parent, and pupil program improved several rated outcomes relative to usual services, including teacher-rated academic performance. Its delivery by school-based mental health providers is relevant to feasibility: a school without equivalent support cannot assume that a reduced version will reproduce those results.

3.7 EVIDENCE QUALITY AND APPLICABILITY

Evidence strength is not captured by the number of supportive publications alone. Reviews may include the same trials, and intervention names can conceal different components or delivery conditions. Evans et al. (2018) emphasize variation by age, treatment characteristics, generalization across settings and time, and sample diversity. Their

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observation that higher parental education is overrepresented in parts of the literature is particularly relevant when judging whether an intervention's demands can be met by all participating families.

Differences between ratings and direct measures also matter. Daley et al. (2014) found more qualified conclusions when behavioral intervention outcomes were rated by people likely to be unaware of allocation. Teacher observations remain valuable for classroom decisions, but knowledge of treatment may influence ratings. A practical evaluation can reduce dependence on one perspective by combining brief observations with curriculum work samples and pupil feedback. This is a proposed measurement approach, not a claim that these sources validate a particular local instrument.

4. PROPOSED FRAMEWORK FOR COLOMBIAN ELEMENTARY CLASSROOMS

The following framework is an original practice proposal derived from the review. It has not been validated in Colombian schools. Its purpose is to explicitly link a classroom barrier, a support, and an evaluation decision. Schools can adapt it to their resources and then study its feasibility and effects.

4.1 DEFINE THE EDUCATIONAL BARRIER

Begin with a specific learning situation. Instead of recording that a pupil "does not pay attention," describe the task, instruction, materials, and observable difficulty. For example, the pupil may not begin independent writing after a multistep oral instruction. Ask the pupil what is difficult and examine whether vocabulary, task complexity, missing prerequisite knowledge, or classroom conditions also require attention. The description should guide support without being treated as a diagnostic assessment.

4.2 SELECT A MANAGEABLE SUPPORT

Choose one initial adjustment with a clear rationale and minimal additional burden. In the writing example, the teacher could present the first step visually, ask the pupil to explain the task, and provide a brief check-in after work begins. The learning objective remains unchanged unless a separate curricular decision is justified. Record the support clearly enough that another teacher can apply it consistently. Table 1 illustrates how the framework can be used; its indicators are proposed examples, not validated scales.

Table 1: Proposed supports and indicators for local evaluation

Classroom barrier	Proposed support	Access and learning indicators
Task initiation	One visible first step and a brief check-in	Time to start; accuracy of the first response
Managing materials	Model and rehearse a short preparation checklist	Materials available; completed work of comparable difficulty
Sustained participation	Short task segments with planned breaks	Participation during segments; mastery across the full task
Independent organization	Practice a routine and gradually reduce prompts	Prompts required; completion and quality of work
Digital engagement without transfer	Link the game to an explicit curricular objective	Participation; performance on a comparable non-game task

Note. These are author-proposed examples, not results or validated measurement instruments.

4.3 MONITOR ACCESS AND LEARNING SEPARATELY

Collect a small baseline sample during comparable activities, then introduce the selected support. Keep task difficulty and observation conditions as consistent as practical. Record both an access indicator, such as beginning the task, and a learning indicator, such as the accuracy of a short response. Also note whether the strategy was actually delivered. An apparent lack of benefit cannot be interpreted confidently when the support was inconsistently available, or the tasks changed substantially.

Monitoring should be brief enough to survive ordinary teaching demands. A teacher might review a small set of work samples each week, and record one agreed observation during the same lesson period. Such records can inform adjustment, but an uncontrolled before-and-after comparison cannot establish causation. Changes in instruction, attendance, medication, maturation, or task familiarity may also contribute. Where information is shared, limit it to what is needed and handle it through the school's appropriate consent and confidentiality arrangements.

4.4 REVIEW WITH THE PUPIL AND RELEVANT ADULTS

At a prearranged review point, ask whether the support is useful, acceptable, and feasible. If participation improves but learning does not, examine instruction and prerequisite skills. If neither improves, review the match between barrier and support before adding more demands. If the support works, consider how it can be maintained across lessons and how unnecessary adult prompting can gradually decrease. A decline after prompts are removed may indicate that support was withdrawn too quickly.

Family communication can focus on one shared goal and one concrete observation. School counseling or qualified health professionals can be involved when difficulties require broader assessment (DuPaul et al., 2022). The teacher's

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role remains educational: documenting classroom needs, adapting teaching, and contributing observations. The framework does not replace clinical assessment or treatment.

5. DISCUSSION

5.1 WHAT SHOULD COUNT AS EDUCATIONAL EFFECTIVENESS

The central implication of this synthesis is that pedagogical effectiveness requires an explicit account of the outcome being pursued. Reduced disruption may create a better opportunity for instruction, but it does not establish that the pupil has acquired a concept, can apply it independently, or retains it over time. Equally, a pupil who continues to move or request clarification may still make meaningful academic progress. School evaluation should therefore make the intended educational benefit visible before selecting an intervention. This prevents a convenient observation, such as remaining seated, from becoming an unintended substitute for learning.

The wider evidence base strengthens this interpretation while also qualifying it. Moore et al. (2018) found benefits for interventions combining multiple features but no consistent ranking of intervention types in meta-regression. Their component analysis generated tentative indications about self-regulation, individualization, and delivery; it did not establish a universally sufficient package. Daley et al. (2014) likewise found that conclusions differed by outcome and whether raters were likely to know the treatment allocation. These findings explain why apparently conflicting reviews need not be contradictory: they may ask different questions of different designs and measures.

For practice, we propose recording an access outcome and a learning outcome together, with a third, brief check on the pupil's experience. An intervention that improves written output while increasing distress or peer exclusion warrants revision. Conversely, an initially acceptable support may still need changes if curriculum progress remains limited. These are proposed decision rules, not validated cutoffs. Teachers and pupils should agree on what improvement would mean for the particular task, rather than import an effect size from a review as an individual target.

5.2 INSTRUCTION AND SUPPORT MUST ADDRESS DIFFERENT BARRIERS

A useful pedagogical distinction is between making an existing skill easier to perform and teaching a skill that has not yet been acquired. A visible reminder may help a pupil start a familiar task, whereas it cannot teach decoding or place value. This distinction is especially important when ADHD co-occurs with learning difficulties. DuPaul et al. (2013) document substantial overlap between ADHD and learning disabilities in the literature they reviewed, although their aggregate estimate should not be used as the prevalence in a Colombian classroom. Teachers need evidence about the pupil's actual academic skills as well as attention-related behavior.

Tamm et al. (2017) illustrate the value of matching treatment to the target difficulty. In their randomized study of children in grades 2–5 with ADHD and word-reading difficulties, reading intervention produced stronger word-reading and decoding outcomes than ADHD treatment alone, while ADHD treatment more directly addressed ADHD symptoms. Combined treatment addressed both domains without establishing an additional advantage within each domain over its corresponding specific treatment. The educational inference is that participation support and explicit subject instruction should be planned together. This study does not prescribe a reading program for Spanish-speaking pupils, whose instructional context and language require separate consideration.

In the proposed framework, persistent errors after task initiation improves should trigger a review of instruction, prerequisite knowledge, and task accessibility. Increasing rewards or reminders alone would be poorly matched to a missing academic skill. Schools should also avoid interpreting the need for repeated scaffolding as a failure of effort. A support may remain necessary even after progress occurs; independence is better understood as increasingly effective use of available resources than as the disappearance of all assistance.

5.3 INCLUSION INCLUDES RELATIONSHIPS AND PUPIL AGENCY

Inclusion involves access to shared activities and social belonging as well as academic achievement. Mikami et al. (2013) tested an approach that supplemented behavioral management with procedures encouraging peer inclusion in a structured summer program. The study supports investigating the peer environment, but its setting limits direct application to ordinary classrooms. It should not be read as evidence that any public praise or peer activity will improve acceptance. A classroom intervention can change how classmates perceive a pupil, making acceptability and unintended effects relevant outcomes rather than optional additions.

We therefore propose private, specific feedback when public correction would expose a pupil's difficulties, alongside classwide expectations for respectful interaction. Teachers can ask whether a pupil is able to join group tasks, seek help, and contribute without embarrassment. The pupil's account can reveal barriers that an adult behavior rating misses. These procedures are ethical and pedagogical commitments of the proposed framework; this review has not measured their effects. They should be examined locally through appropriate, non-stigmatizing methods.

Pupil participation should be developmentally accessible. Younger children might compare two visual reminders or explain which part of a task is confusing rather than complete a lengthy self-report scale. The purpose is to understand the support from the learner's perspective. A strategy that adults find manageable may impose additional organizational demands on the child. Listening to that experience allows modification before a technically plausible support becomes another source of repeated failure.

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5.4 TRANSLATING INTERNATIONAL RESEARCH INTO COLOMBIAN SCHOOLS

Colombian policy provides an important context for discussing participation without establishing the effectiveness of a particular ADHD intervention. Decreto 1421 concerns educational provision for persons with disabilities, including reasonable adjustments and individualized planning within its scope (Presidencia de la República de Colombia, 2017). Ley 2216 promotes inclusive education for learners with specific learning disorders (Congreso de la República de Colombia, 2022). These categories should not be collapsed: ADHD is not synonymous with a specific learning disorder, and an ADHD label alone does not settle the applicability of every disability-related procedure. Schools should interpret the relevant provisions with their education authorities and the pupil's assessed needs.

The practical connection to this review is the need to identify barriers in teaching and participation, then specify how the institution will respond. Universal classroom routines may reduce some barriers, while other pupils need additional individualized support. Neither policy language nor an intervention's international reputation demonstrates that it can be delivered effectively in a particular school. Questions about class size, staff availability, materials, communication, and continuity must be investigated rather than assumed. The Colombian sources included here are useful contextual contributions, but they do not constitute an implementation assessment of Nariño.

Adaptation should distinguish a support's intended function from its surface format. For example, a printed checklist and a reusable illustrated card may serve the same organizational purpose, while replacing explicit practice with a one-time verbal reminder may remove an essential learning opportunity. We propose that schools document what they change and why. This would allow a future evaluation to determine whether a disappointing result reflects a weak theory, an inaccessible format, inadequate implementation, or a mismatch with the pupil's needs.

5.5 TEACHER DEVELOPMENT AND ORGANIZATIONAL RESPONSIBILITY

Professional development should be evaluated beyond attendance and immediate knowledge gains. The teacher-training evidence reviewed above justifies learning about ADHD, but the route from knowledge to pupil benefit depends on what happens during lessons. Durlak and DuPre (2008), in a broader review of prevention and promotion programs rather than ADHD-specific teaching alone, show why implementation conditions merit measurement. Their work supports attention to organizational support and training arrangements, while not providing an effect estimate for Colombian elementary schools.

We propose a school-supported cycle in which teachers rehearse a strategy, try it during a defined activity, and review a small sample of observations and pupil work with a colleague. The leadership task is to make this process possible through time allocation, accessible materials, and a clear route for consultation. The process should record whether the support was delivered and whether it was feasible, without turning monitoring into a punitive evaluation of teachers. When implementation is inconsistent, simplifying the procedure may be more useful than immediately concluding that the pupil cannot benefit.

Chacko et al. (2024) identify continuing challenges in the efficacy, access, and delivery of psychosocial interventions. This reinforces the need to evaluate how support reaches pupils, rather than assume that publication of an effective protocol guarantees availability. Family participation should be supported through flexible communication and realistic goals. It should not become a condition that prevents a pupil from receiving classroom help when a caregiver cannot attend meetings or supervise a complex home program.

5.6 SUSTAINABILITY AND A LOCAL RESEARCH AGENDA

Maintenance is a distinct empirical question. Pfiffner et al. (2018) found that comparative follow-up benefits of the Collaborative Life Skills program were clearer in parent than teacher ratings during the next school year. This cautions against equating short-term improvement with sustained benefit across teachers and settings. A local plan should include an agreed handover at grade transitions and opportunities to review supports after routines change. It should also record whether reduced prompting preserves performance, rather than regard prompt withdrawal itself as evidence of progress.

A feasible first research stage would examine acceptability, delivery, and the suitability of the proposed indicators with teachers, pupils, and caregivers. A subsequent study could compare supported professional development with usual practice, using school or classroom allocation where feasible and accounting for clustering. Where a large trial is impractical, a carefully designed multiple-baseline study could examine repeated outcomes across staggered introductions of support. Neither option is equivalent to an uncontrolled pre–post comparison, and both require prospective methodological and ethical planning.

Future research should specify a elementary curriculum outcome, a participation measure, implementation records, and a follow-up period before collecting data. Work samples could be scored using a prespecified rubric by assessors unaware of the support phase where feasible. Reporting should include missing observations, other concurrent supports, teacher workload, and adverse or unwanted experiences. The framework's contribution is to make these decisions explicit; its effectiveness, affordability, and sustainability in Colombian schools remain questions for empirical investigation.

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6. LIMITATIONS

This review uses purposive literature selection and may omit relevant studies, particularly unpublished work and research not readily accessible through the sources consulted. It does not provide systematic coverage by search date, a formal certainty rating, or a statistical comparison between intervention categories. Some cited reviews draw on overlapping elementary studies, so agreement between them is not necessarily independent replication. Several syntheses include adolescents or pupils identified by symptoms rather than identical diagnostic criteria. Contextual studies from Colombia are geographically limited and should not be treated as current national surveillance.

The implementation framework is a reasoned proposal. The authors collected and analyzed no new observations, teacher interviews, institutional outcome data, or pupil assessments. This review cannot support claims of increased ADHD prevalence in Pasto, improved outcomes in local schools, or uniform teacher preparedness. Its practical value depends on subsequent adaptation, implementation, and evaluation.

The expanded bibliography improves the range of perspectives but does not convert the review into a systematic synthesis. Search selection remains vulnerable to language and accessibility bias, and no independent extraction or formal certainty assessment was performed. The policy discussion distinguishes educational categories but does not determine individual legal eligibility. The review also cannot estimate costs or teacher workload in Colombian schools because it contains no local implementation data.

7. CONCLUSIONS

This critical narrative review supports a pedagogical approach in which classroom adjustments, behavioral support, organizational skills teaching, and collaboration are selected in relation to a defined educational barrier. The expanded literature provides reasons to use these approaches, but it does not justify a universal intervention package or a claim that effects will transfer unchanged to Colombian elementary education. The appropriate conclusion is conditional: support should be matched to the learner, connected to instruction, and evaluated against the outcome it is intended to improve.

The first substantive conclusion is that access and learning must be assessed separately. Beginning work, remaining engaged, and completing an activity are educationally valuable, but they cannot establish mastery on their own. When participation improves without corresponding academic progress, the next decision should concern the quality and accessibility of instruction and the pupil's prerequisite skills. This is particularly relevant when attention-related difficulties coexist with specific learning needs. A support plan should make subject learning visible rather than assume that improved behavior will produce it automatically.

The second conclusion concerns implementation. Teacher knowledge is necessary for informed support, yet a successful workshop does not demonstrate sustained change in classroom practice. Schools need manageable opportunities for rehearsal, feedback, and review, together with responsibility for the resources and coordination required. Family collaboration and pupil participation can inform this process, provided that communication is accessible and classroom assistance is not contingent on a caregiver's capacity to deliver an extensive home program. Peer relationships, dignity, and the pupil's experience should remain part of judging whether a strategy is educationally worthwhile.

The third conclusion is that digital resources require the same evidentiary discipline as other supports. Engagement with a game or improvement on a trained cognitive task is insufficient evidence of curriculum learning. A digital activity should have a specified educational objective, a feasible alternative for pupils with limited access, and an assessment of performance beyond the activity itself. This position allows appropriate experimentation without assuming that technology is either inherently beneficial or inherently unsuitable for pupils with ADHD.

For Colombian elementary schools, the proposed framework offers a practical starting point: describe a barrier in a specific lesson, select a feasible support, monitor participation and learning, and review the decision with the pupil and relevant adults. It is an unvalidated proposal, not a report of successful intervention in Nariño. Its next contribution must come from a prospectively designed local evaluation that measures feasibility, academic benefit, inclusion, and maintenance. The broader educational objective is meaningful participation in shared learning with support that remains responsive to evidence and to the pupil's experience.

FUNDING

This research received no public or private funding and was undertaken on the authors' own initiative.

DATA AVAILABILITY

No new datasets were generated or analyzed. The review is based on the publications and policy documents cited in the reference list.

ETHICS AND CONSENT

This article reviews published literature and policy documents; it reports no recruitment of participants or collection of identifiable personal data. Any future study implementing the proposed framework with pupils would require appropriate ethical review and consent procedures before data collection.

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