Integrated Pedagogy and Socio-Emotional Development in Preschool Education: A Systematic Narrative Review of Evidence from 2010–2025

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Abstract—Socio-emotional development in preschool education is central to children's emotional regulation, empathy, peer interaction and readiness for later learning. This systematic narrative review was based on PRISMA 2020 reporting guidelines, and sought to summarise evidence regarding integrated pedagogical practices in preschool and early-childhood settings. Scientific databases that were searched included: Scopus, Web of Science, Google Scholar, PubMed and manual searches. The review period was 2010–2025. A total of 19 reports were excluded from the synthesis following date-range verification and 138 reports after eligibility assessment were excluded from the synthesis, leaving 133 reports for the synthesis. Due to variation in design, intervention format, outcome measures and educational context, a thematic narrative approach was used, along with VOS viewer-based keyword/term co-occurrence mapping. According to the synthesis, there was a presence of social-emotional learning and self-regulation support, storytelling and dialogic work, arts and movement, play-based and guided-play, as well as technology supported activities in the eligible literature. Associations reported of the integrated pedagogical approaches with the socio-emotional domains (emotional regulation, empathy, interaction with peers, social competence, classroom adjustment and self-management) included evidence. The conclusions should be taken with a grain of salt as the study-level design features, sample size, fidelity indicators, measures and formal risk-of-bias judgement varied. The review provides evidence for the importance of integrating socio-emotional learning objectives into play, expression, dialog and cooperative activities, as well as teacher mediated classroom routines, and suggests a need for more studies with longitudinal designs, experimental designs, and culturally relevant designs.

Keywords—socio-emotional learning; preschool education; integrated pedagogy; PRISMA; play-based learning; early childhood education; VOS viewer

I. INTRODUCTION

A. Background and Rationale

Early childhood is a critical time in which children learn basic skills and abilities in attention, emotional skills, communication, peer skills, and skills to be part of a learning environment [16, 98]. The socio-emotional development is therefore not a secondary result of preschool education. It can affect frustration management, the communication of needs, others' responsiveness, and group collaboration, as well as maintaining engagement in classroom activities [16] [36].

Preschool education is a social environment also. Children learn by interacting with teachers, peers, materials, culture, routines, stories, play events and emotionally significant experiences. The frameworks of social-emotional learning focus on the interrelatedness of being aware of oneself, managing oneself, being socially aware, social competency, and making responsible decisions, rather than just these skills [30, 41]. In early childhood, these skills are often developed in a context of shared activity and guided participation, and are not directly taught.

B. Why Integrated Pedagogy Matters

Integrated pedagogy involves purposeful collaboration of two or more pedagogical elements in a coordinated way in the preschool classroom. For early childhood

settings this can be play-based learning, teacher-guided interaction, social-emotional learning, arts, movement, storytelling, classroom dialogue, and developmentally appropriate technology. Such an integration is in line with the social constructivist perspectives of learning where meaning is constructed through interaction, language, culture and adult scaffolding [132] [136].

This is important because SEL is often not learned in stand-alone sessions. Emotional regulation can and does occur during waiting, sharing, dramatic play, story discussion, during art making and conflict resolution. There are a number of ways to encourage empathy: use guided dialogue, role play, picture book interpretation, discuss and model peer collaboration. Routines and co-regulation, reflective prompts, and purposeful choice can enhance student self-management. Single-method descriptions of classrooms are then less representative of the realities of preschool classrooms than integrated models are [145, 146].

C. Review Gap

There is a significant amount of literature on the development of social-emotional learning programmes, play-based learning, arts-based education, storytelling or digital activities alone [41] [146] [145]. The preschool classrooms are more commonly integrated with all of these. Less focus on multi-component pedagogical integration and its connection to socio-emotional outcomes. This gap makes it difficult for educators and policymakers to get a sense of the relationships between classroom processes that look promising, where classroom conditions are important and how, and why there is variability in reported results across cultural and educational environments.

The student will examine some of the aims and research questions that can be developed from a question.

This review was designed to pull together evidence on integrated pedagogical approaches and socio-emotional development in preschool education, between 2010 and 2025. The four questions that guided the review were: (RQ1) What types of integrated or multi-component pedagogy do exist in the eligible preschool education literature? (RQ2) What SE outcomes are reported? (RQ3) What contextual, cultural and instructional factors do you think influence outcomes? What are the gaps in the evidence base for methodology and reporting?

II. CONCEPTUAL AND THEORETICAL FRAMEWORK

A. Conceptualising Socio-Emotional Development

In preschool education, socio-emotional learning can be structured around 4 Interrelated Domains: Emotional Regulation, Social Awareness and Empathy, Relationship and Interaction Skills, and Self-management/Behaviour Regulation. Emotional regulation is the ability to identify, express and regulate emotions in socially appropriate ways. Social awareness and empathy is the ability to understand people's feelings, thoughts and needs. Relationship skills are defined as skills in communication, cooperation, turn taking, negotiation and conflict resolution. Self-management involves attention, impulse control, persistence and compliance with common classroom behaviors. These domains overlap in everyday classroom situations. When a child learns to regulate his or her emotions during cooperative play, he or she is learning to regulate emotions, to interact with the peer group, and to control behaviours. When a child shows empathy towards a character in a story, this is an expression of social awareness and involves language, imagination and perspective-taking. This is because of this interdependence, making the classroom practice of integrated play theoretically relevant in relation to socio-emotional outcomes.

B. Theoretical Foundations

The review is justified by the social constructivism view because the learning in preschool is mediated by language, shared activity, support from adults and cultural tools [132] [136]. Whole-child and developmentally appropriate practice perspectives also highlight that cognitive, social, emotional, physical and linguistic development are not independent of each other, but interrelated [96]. SEL frameworks offer a practical language for describing the competencies and early childhood pedagogy for how the competencies are integrated in daily classroom activities [30, 41].

This review framework considers integrated pedagogy as a means by which processes in the classroom affect social and emotional growth. The use of play, SEL, arts, storytelling, guided interaction, and technology is not necessarily equal and effective in all situations. They can contribute if teacher is able to mediate, if cultural expectations are appropriately shared during the class, if the class size is not too large, if teacher conducts the class well, and if there is good interaction between teacher and students.

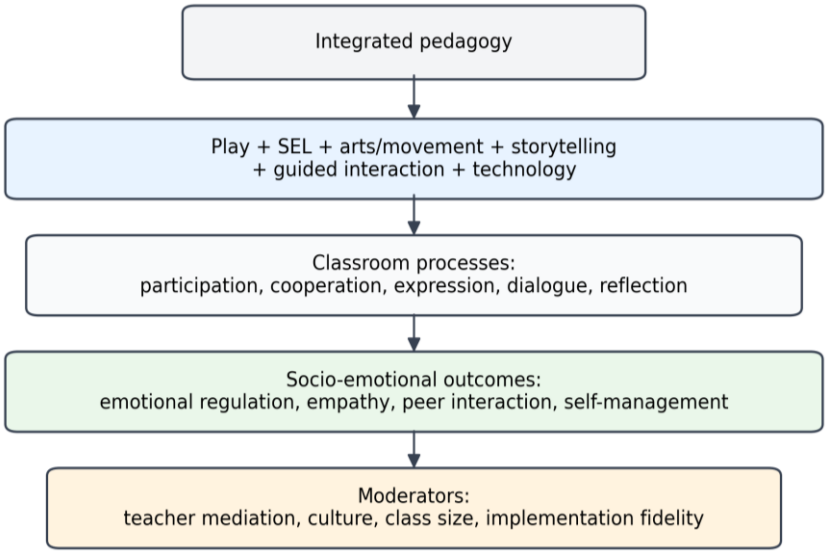

Fig. 1. Conceptual framework linking integrated pedagogy and socio-emotional development.

III. METHODOLOGY

A. Review Design

The study adopted systematic narrative review design because the evidence included in the study was of different types of research design, intervention structure, outcome measures, context. It was not possible to undertake a meta-analysis because of methodological diversity. Reporting was standardized on the basis of the PRISMA 2020 guidelines for the transparent identification, screening, eligibility assessment and inclusion [102].

B. Search Strategy and Sources

Scopus, Web of Science, Google Scholar and PubMed were searched with manual searching. The search concepts included early childhood or preschool terms along with terms for integrated or multi-component pedagogy and for socio-emotional outcome. However, the search documentation is not consistently maintained at the database level, so it is reported at the level of the last focused search pool, not as a count of retrieved documents per database.

TABLE I. Available Search Documentation for the Final Focused Search Pool

Database/source	Search concept	Example search string or keyword combination	Filters/limits applied	Review period	Retrieval documentation
Scopus	Preschool/early childhood + integrated pedagogy + socio-emotional outcomes.	preschool OR kindergarten OR early childhood AND integrated pedagogy OR play-based OR social-emotional learning OR storytelling OR arts AND emotional regulation OR empathy OR social competence	English-language, peer-reviewed, 2010–2025 where available.	2010–2025	Part of final focused database/library pool (n = 1,257).
Web of Science	Early-childhood pedagogy and	early childhood education	English-language, peer-reviewed,	2010–2025	Part of final focused

Database/source	Search concept	Example search string or keyword combination	Filters/limits applied	Review period	Retrieval documentation
	socio-emotional outcomes.	AND multi-component pedagogy OR guided play OR arts OR SEL AND socio-emotional development	2010–2025 where available.		database/library pool (n = 1,257).
Google Scholar	Education-focused preschool pedagogy and SEL outcomes.	preschool education AND play-based learning OR social-emotional learning OR teacher mediation AND self-regulation OR peer interaction	Education records, English-language, 2010–2025 where available.	2010–2025	Part of final focused database/library pool (n = 1,257).
PubMed	Psychological and developmental literature on preschool socio-emotional outcomes.	preschool children AND emotion regulation OR empathy OR social competence AND intervention OR pedagogy OR classroom practice	English-language, peer-reviewed, 2010–2025 where available.	2010–2025	Part of final focused database/library pool (n = 1,257).
Supplementary/manual searching	Citation follow-up and relevant manual additions.	Targeted checking of publications aligned with the population, pedagogy and socio-emotional outcome criteria.	Same eligibility criteria as database records.	2010–2025	31 additional records identified before duplicate removal.

C. Eligibility Criteria

Empirical studies that included constructs of pedagogy and socio-emotional outcomes were selected through eligibility criteria if they included preschool or early childhood populations, integrated or multicomponent pedagogy and socio-emotional outcomes. No changes to the inclusion/exclusion criteria were made during screening.

TABLE II. Eligibility criteria.

Criterion	Inclusion criteria	Exclusion criteria
Population	Children aged 3-6 years or clearly preschool/early-childhood population.	Primary or secondary school samples without separate preschool data.
Setting	Preschool, kindergarten, nursery, pre-primary or early childhood education setting.	Special education-only or clinical settings unless preschool-inclusive classroom data were separately reported.
Study type	Empirical peer-reviewed journal articles and peer-reviewed conference proceedings reporting preschool-relevant data.	Editorials, commentaries, non-empirical papers, dissertations, theses, reports, abstracts without full empirical reporting, and review papers.
Pedagogy	Integrated or multi-component pedagogy, including combinations of play, SEL, arts, storytelling, guided interaction, teacher mediation or technology.	Single-method pedagogy without integration or without socio-emotional relevance.
Outcome	Socio-emotional outcome reported or clearly extractable.	Academic, cognitive, technology or readiness outcomes without socio-emotional data.
Record status	Unique records after duplicate removal.	Duplicate or overlapping records.

D. Study Selection Process

The study selection process was done in accordance with the PRISMA process: identification, duplicate removal, title/abstract screening, eligibility assessment and inclusion [102]. The (final) database/library searches yielded 1257 records and the supplementary/manual search yielded 31 additional records. A total of 1288 was the number of records in the pool before any were deduplicated. A total of 1,223 records were screened after 65 were duplicated. Of these, 933 were excluded after title/abstract screening, with 290 reports sought and/or assessed for eligibility. After eligibility assessment, 138 reports were excluded from the analysis and 19 reports were removed after date-range verification resulting in a final total of 290 reports eligible for analysis. Finally, 133 suitable records were left for the synthesis.

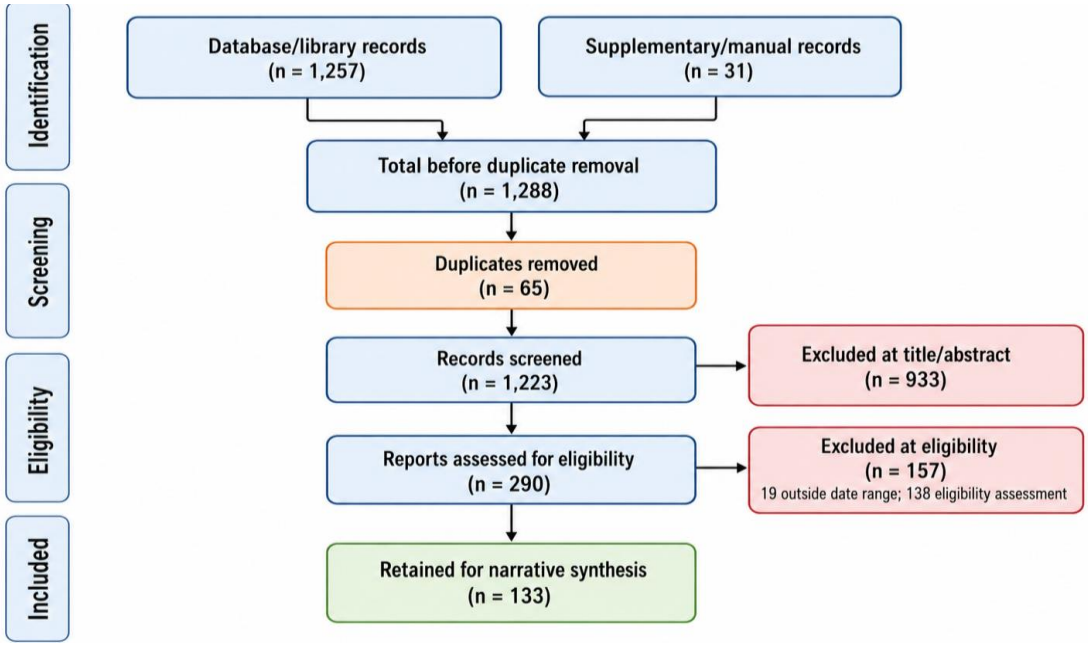

Fig. 2. PRISMA 2020 flow diagram showing identification, screening, eligibility assessment and final inclusion

TABLE III. Eligibility-stage exclusion breakdown after date-range verification.

Eligibility-stage exclusion reason	Records/reports excluded
Outside review period after date-range verification	19
Excluded after eligibility/full-text assessment	138
Total excluded at eligibility stage	157

E. Data Extraction and Appraisal Approach

The information retrieved was title, authors, year of publication, source, DOI (where it is reported), pedagogical pattern, socio-emotional outcome domain, abstract, final decision and decision reason. These fields were used in PRISMA accounting, publication year mapping, pedagogical-pattern synthesis, and outcome domain synthesis and interpretation of the final eligible set. A few study-level variables were missing from publications, such as country, exact design, sample size, age distribution of participants, context, tool or measure, risk-of-bias information, etc.

Due to inconsistent reporting of design and outcome details, full study-level risk-of-bias (ROB) scoring was not possible for all publications. The review therefore employed a more conservative approach to appraising risk of bias by not assigning high, moderate and low risk of bias ratings without supporting evidence

.

TABLE IV. Evidence-Confidence Appraisal Based on Available Screening Information.

Evidence group/pedagogical pattern	Available design information	Outcome clarity	Pedagogical relevance	Main appraisal concern	Overall evidence confidence
Structured SEL/self-regulation programmes	Several publications used intervention, programme or trial language; complete design details were not uniform.	Generally clear where emotion, self-regulation, social competence or classroom adjustment was named.	High conceptual alignment with socio-emotional development.	Need full-text confirmation of sample, measures, attrition, fidelity and analysis.	Moderate confidence
Storytelling, picture-book and dialogic approaches	Often described as classroom or activity-based interventions; design details varied.	Clear for empathy, perspective-taking and moral or emotional understanding.	Strong pedagogical relevance for preschool language and social understanding.	Need verification of outcome tools, cultural context and comparison conditions.	Moderate confidence
Arts, drama, music, movement and expressive pedagogy	Design information ranged from programme/intervention descriptions to broader pedagogical publications.	Moderate clarity for expression, participation and social competence.	Strong relevance where expressive activity was linked to socio-emotional outcomes.	Dosage, teacher training and fidelity often need full-text verification.	Moderate to limited confidence
Play-based and guided-play practices	Some experimental or intervention publications were visible, but practice descriptions varied.	Moderate clarity for peer interaction, cooperation and regulation.	High relevance to preschool classroom routines and peer learning.	Activity structure and adult mediation were not consistently available.	Moderate to limited confidence
Technology-supported activities	Emerging publications included digital, tangible or media-related activities.	Variable clarity for regulation, engagement or mediated interaction.	Relevant when developmentally appropriate and mediated by adults.	Risk of overinterpreting engagement as socio-emotional development	Limited confidence

Evidence group/pedagogical pattern	Available design information	Outcome clarity	Pedagogical relevance	Main appraisal concern	Overall evidence confidence
				without outcome evidence.	
Other or unclear integrated focus	Available source details did not always allow firm classification.	Outcome relevance varied.	Potentially relevant but less secure.	Pedagogical mechanism and outcome measures require author verification.	Not assessable from available source details

F. Data Synthesis

Thematic narrative synthesis was employed due to the variation in study design, intervention format, outcome measures and setting of the eligible evidence [105, 129]. The synthesis categorized the eligible publications for publication year and for the most prominent pedagogical pattern and for the major socio-emotional outcome domain. Numerical pooling was not performed because effect sizes were not consistently comparable to those of other studies, and the duration of the interventions and fidelity indicators were not comparable, nor were complete risk-of-bias evaluations.

G. Bibliometric and Thematic Mapping Analysis

To assist in the thematic narrative synthesis, bibliometric mapping and thematic mapping were performed using VOSviewer. After screening by PRISMA 133 records were considered eligible and included in the analysis. Conceptual clustering from keyword and term co-occurrence mapping was performed on the evidence included to group keywords and terms into conceptual clusters. Wherever possible, terms have been taken from titles, abstracts and keyword fields. Equivalent expressions were combined, such as social-emotional learning, social-emotional development variants, and self-regulation variants, using a thesaurus file. The repeating of a word in one record had no undue weight on the map, using binary counting. The terms were kept following the minimum occurrence threshold and manual relevance screening. The final map included terms related to the social and emotional learning, self-regulation, storytelling, empathy, play, arts, technology, and preschool classroom practice that were relevant to the theme. Avoid use of generic methodological terms for the selection of terms. Thematic clustering, temporal tendencies and areas of conceptual concentration were explored using the network, overlay and density visualisations prepared.

IV. RESULTS

A. Screening and Included-Evidence Profile

Final synthesis included 133 eligible records between 2010–2025 following date-range verification and eligibility assessment. All evidence cited is listed in the reference list as [59] to [118]. There was a distinct clustering of eligible publications in the later part of the review period, as evidenced from the publication-year data. The highest annual contribution was seen in 2025 followed by 2024 and 2023. The trend shows an increasing focus in the research on integrated or multi-component pedagogical approaches to socio-emotional preschool development, but does not suggest methodological superiority of the later publications.

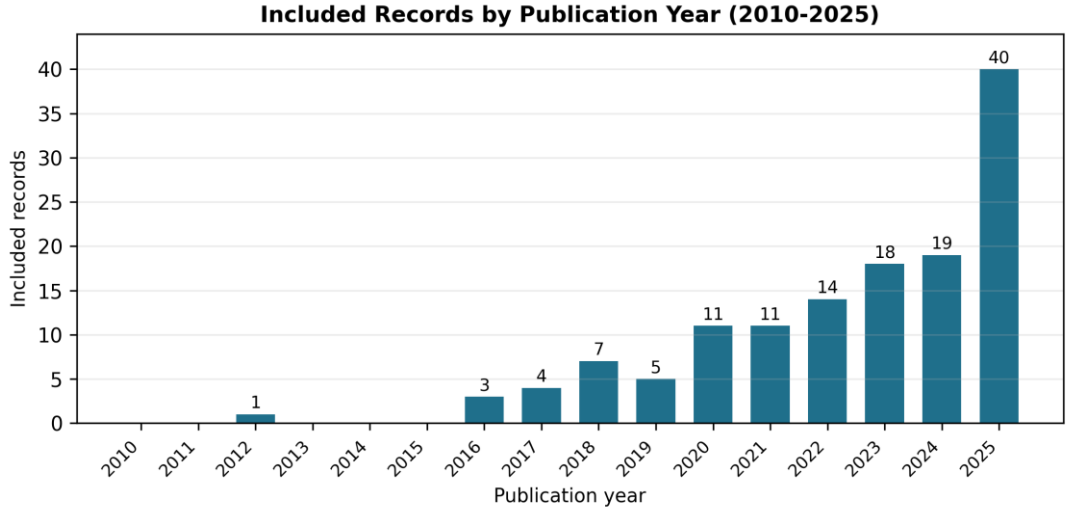

Fig. 3. Included records by publication year after date-range correction.

The concentration of records in 2025 may partly reflect search timing and database-indexing patterns and should not be interpreted as evidence that the field expanded only in that year.

B. Types of Integrated Pedagogy

There was a significant presence of SEL and self-regulation supports, storytelling or narrative pedagogy, arts/movement-based activity, play-based or guided-play practice, and technology-supported activity in the pedagogical profile. To avoid double counting publications that might reasonably be classified in more than one pedagogical pattern, the distribution in Fig. 4 is consolidated. These numbers represent representation in the eligible set and not effectiveness rankings.

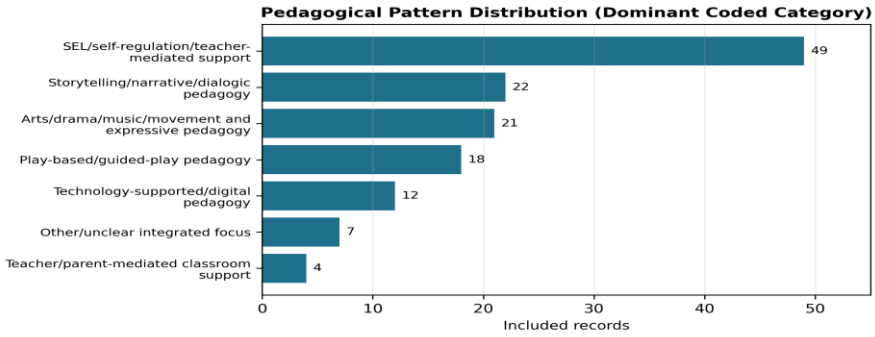

Fig. 4. Pedagogical pattern distribution after date-range correction. Counts describe representation, not effectiveness.

The category with the most combined items was SEL and self-regulation supports. Emotion knowledge, behavioural regulation, classroom adjustment, prosocial behaviour or structured teacher-supported intervention [31, 59, 86, 133, 144] and [12, 42, 43, 58, 60, 61, 88, 99, 120, 135] were common themes in these publications. They were also important as they were related to the storytelling approach, dialogue and narrative, picture book, empathy, moral understanding, perspective taking and emotional language [3, 5, 7, 26, 32, 33, 37, 39, 46, 53, 54, 56, 67, 87, 100, 101, 106, 111, 112, 128, 134, 142]. Arts, drama, music, movement, yoga, physical activity and related expressive modalities were seen as opportunities for emotional expression, participation and social competence [23, 45, 75, 79, 85, 94, 118, 131, 143, 147]. The publications on play based and guided play were the publications that emphasized the importance of peer interaction, cooperation, negotiation and regulation in everyday classroom activity [2, 20, 24, 25, 48, 49, 65, 71, 95, 110, 113, 119, 120, 124, 125]. Its interest has been expressed with technology-supported publications in the following areas: digital storytelling, tangible interfaces, screen/mediaguide and developmentally mediated regulation tools [1, 14, 21, 52, 57, 74, 76, 80, 99, 122] and [51] and [149].

C. Socio-Emotional Outcomes Domains

There were some overlap and diversity in the outcome categories. Emotional regulation and self-management were the most common domain represented, followed by classroom adjustment/well-being, social awareness and social empathy, social competence/ prosocial behavior and peer interaction/ relationship skills. The domain counts in Fig. 5 reflect record contributions and are not mutually exclusive studies.

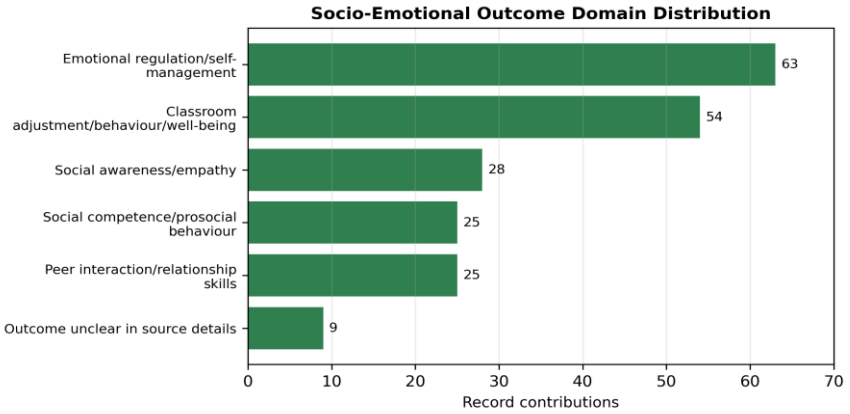

Fig. 5. Socio-emotional outcome domain distribution. Counts are non-mutually exclusive record contributions.

The evidence profile indicates that the connection between integrated pedagogy and regulatory and relational outcomes is more common. SEL oriented and mindfulness programs, programs that focused on self-regulation and teacher-mediated programs often highlighted emotional regulation, self-management and classroom adjustment. Storybooks, picture books, dialogic and moral-development works seemed to feature prominently with regard to empathy and social awareness. Linkages between peers were represented across play-based, arts-based, cooperative and collaborative classroom approaches as were links to prosocial behaviour.

D. Evidence Interpretation by Pedagogical Pattern

The review distinguishes between descriptive representation and methodological certitude. There was greater evidence when the publications included a structured intervention, a clearly defined socio-emotional outcome, and a plausible teacher-mediated mechanism. Where the pedagogical component, the outcome measure, age group, the length of time the program was implemented, or classroom context were not clearly described in the center details, evidence was more limited.

TABLE V. Evidence interpretation by pedagogical pattern.

Pedagogical pattern	Main socio-emotional outcome	Interpretation	Main caution
SEL/self-regulation and teacher-mediated supports	Emotion knowledge, self-management, prosocial behaviour and classroom adjustment.	This group was frequently represented and often included intervention or programme language.	Full design, sample, measurement and fidelity details need confirmation from the full texts.
Storytelling, narrative, picture-book and dialogic approaches	Empathy, perspective-taking, moral understanding and emotional language.	Story-based pedagogy aligned closely with preschool social understanding and classroom dialogue.	Measurement tools and cultural context were not consistently reported across publications.
Arts, drama, music, movement and expressive activities	Emotional expression, participation, social competence and prosocial behaviour.	Expressive modalities appeared useful for representing feelings and encouraging peer participation.	Dosage, fidelity and comparison conditions varied or were unavailable.
Play-based, guided-play and cooperative play practice	Peer interaction, cooperation, regulation and participation.	Play created everyday contexts for turn-taking, negotiation and regulation with adult support.	Implementation quality and activity structure were not consistently described.
Technology-supported and digital activities	Engagement, regulation and mediated interaction.	Technology appeared most relevant when developmentally appropriate and teacher- or parent-mediated.	Some publications required stronger evidence of socio-emotional outcome relevance.

E. Thematic Synthesis

Five synthesis themes were developed from the aggregate pedagogy and outcome profiles. They should be read as interpretive categories rather than confirmed causal pathways for every publication.

TABLE VI. Thematic synthesis: integrated pedagogy, mechanisms and socio-emotional outcomes.

Theme	Representative evidence/references	Pedagogical mechanism	Main socio-emotional outcome	Interpretation	Evidence confidence/limitation
Embedded SEL within classroom routines and play	[12, 38, 42, 43, 55, 58, 59, 60, 61, 69, 70, 72, 86, 88, 99, 120, 133, 135, 144]	Teacher-guided emotion language, reflection, behaviour practice and routine-based co-regulation.	Emotional regulation, self-management and classroom adjustment.	Integrated routines can make socio-emotional practice part of everyday preschool life.	Moderate confidence; full fidelity and measurement details require verification.
Storytelling and guided dialogue for empathy	[3, 5, 7, 26, 32, 33, 37, 39, 46, 53, 54, 56, 67, 87, 100, 101, 106, 111, 112, 128, 134, 142]	Narrative perspective-taking, character discussion, moral reasoning and dialogic reflection.	Empathy, perspective-taking, social awareness and emotional language.	Story-based pedagogy is well aligned with preschool social understanding.	Moderate confidence; cultural and measurement variation should be checked.
Arts and expressive activities for emotional expression	[23, 45, 75, 79, 85, 94, 118, 131, 143, 147]	Embodied, visual, musical or dramatic representation of feelings and social roles.	Expression, participation, prosocial behaviour and relationship skills.	Expressive modalities may help children communicate affect and participate with peers.	Moderate to limited confidence; dosage and teacher training need fuller appraisal.
Guided play for peer interaction and regulation	[2, 20, 24, 25, 48, 49, 65, 71, 95, 110, 113, 119, 120, 124, 125]	Adult-scaffolded play, pretend roles, cooperative tasks and negotiated interaction.	Peer interaction, cooperation, regulation and social competence.	Play offers natural contexts for turn-taking, conflict negotiation and self-management.	Moderate to limited confidence; implementation quality varies across publications.
Technology-supported activity as a mediated tool	[1, 14, 21, 51, 52, 57, 74, 76, 80, 99, 122, 149]	Digital storytelling, tangible interfaces, screen/media guidance or technology-assisted regulation.	Engagement, regulation and mediated social interaction.	Technology appears most credible when it supports interaction rather than replacing teacher mediation.	Limited confidence; socio-emotional outcome specificity should be verified.

F. Bibliometric Mapping of the Included Evidence

The included evidence was mapped bibliometrically. The VOSviewer keyword/term co-occurrence analysis resulted in another mapping of the thematic structure of the evidence included. The network visualisation revealed a regulatory domain of emotional competence, emotional regulation, self-regulation, social skills and prosocial behavior. A second cluster identified storytelling and connected interactive storytelling and empathy, while a third cluster made a connection between social-emotional learning and social-emotional development, self-awareness, social awareness, self-management, and technology and preschool education. The patterns generally matched with the "synthesis themes" identified in the narrative analysis.

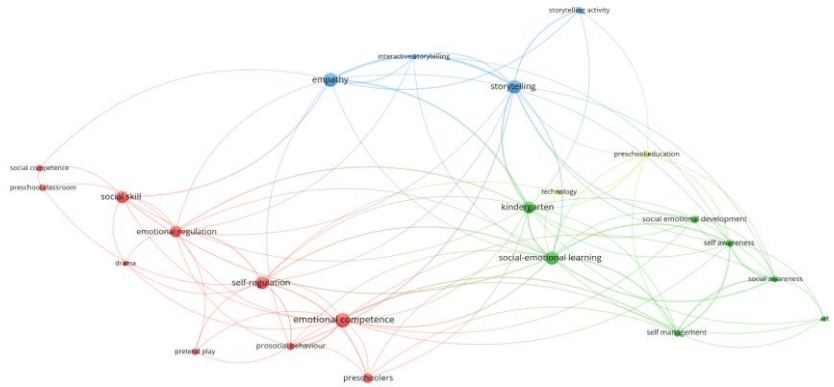

Fig. 6. Keyword co-occurrence network map of the included evidence.

The overlay visualisation showed the spatiotemporal distribution of major terms during the review period. Towards the end of the colour scale were more visible terms related to regulation, storytelling and technology, indicating recent focus on socio-emotional competence, mediated storytelling and regulation-focused classroom practices. The overlay map is not meant to show intervention effectiveness, but is rather a temporal description of term occurrence.

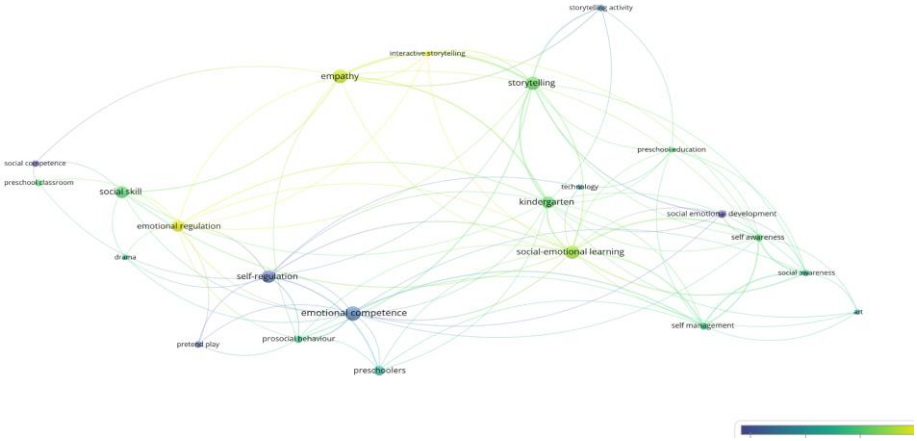

Fig. 7. Overlay visualisation of keyword/term co-occurrence by publication year.

The density visualisation revealed the highest conceptual density around storytelling, empathy, SEL (social-emotional learning), kindergarten, emotional competence and self-regulation. Other areas of focus were apparent within social skills, emotional control, self-awareness and social awareness. The maps, when read together, indicate that the literature that is included is grouped around socio-emotional learning for the purposes of regulation and development of empathy through stories, with a focus on preschool classroom practices.

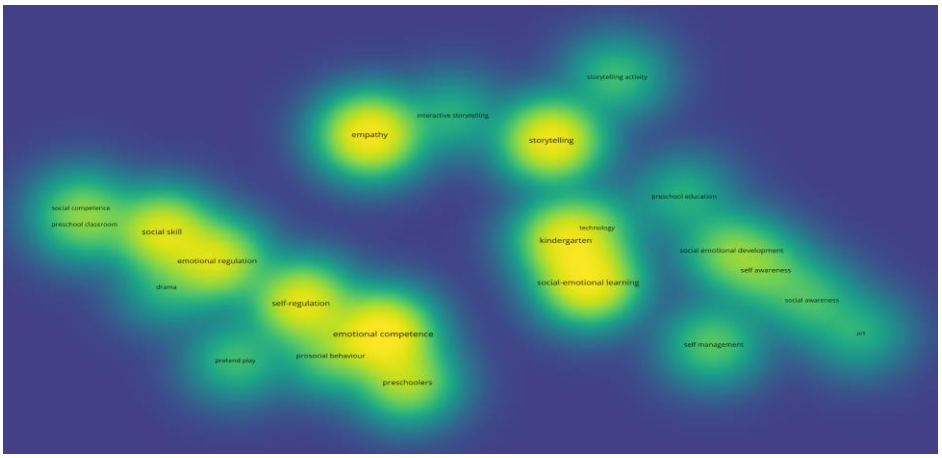

Fig. 8. Density visualisation of major keyword/term concentrations.

TABLE VII. VOSviewer cluster interpretation and relation with narrative synthesis themes.

VOSviewer cluster	Main terms	Bibliometric interpretation	Linked narrative synthesis theme
Cluster 1	Emotional competence; emotional regulation; self-regulation; social skills; prosocial behaviour	Regulation-oriented SEL and prosocial development	Embedded SEL within classroom routines and play
Cluster 2	Storytelling; interactive storytelling; storytelling activity; empathy	Storytelling and dialogue as routes to empathy and emotional understanding	Storytelling and guided dialogue for empathy
Cluster 3	Social-emotional learning; social-emotional development; self-awareness; social awareness; self-management	SEL-related awareness and self-management competencies	Embedded SEL within classroom routines and play
Cluster 4	Pretend play; drama; art; preschool classroom	Play-based and expressive classroom activity	Arts and expressive activities; guided play
Cluster 5	Technology; preschool education; kindergarten	Technology-supported preschool pedagogy	Technology-supported activity as a mediated tool

V. DISCUSSION

A. Interpretation by Pedagogical Pattern

The review provides a cautious conclusion: that Socio-Emotional skills are not a single target of instruction, but rather a process that occurs within the classroom. Young children learn to regulate their emotions, to be aware of and understand others' emotions, to develop skills in getting along with others, and to manage themselves, as they repeatedly engage in turn taking, problem solving, listening, expressing and negotiating with teachers.

The most common pedagogical patterns varied in terms of how they work. SEL and self-regulation programmes provided clear, concrete language, explicit activities, and repetition. Perspective taking, empathy and emotional language was enhanced through storytelling and picture book activities. Arts, music, drama and movement provided a way to express and engage in which was not verbal or written. Play and guided play – integrated socio-emotional practice in regular peer interactions. Technology-supported activities were more diverse and most justifiable in the context of mediation by adults and reflection, as well as storytelling or regulation.

B. Teacher Mediation and Implementation Fidelity

It is not a plug-and-play process. Teachers organize routines, provide models for children to use as an emotional language, facilitate peer interactions, assist children in resolving conflicts, and maintain a classroom culture that allows children to learn how to self-manage. Previous studies on SEL and developmentally appropriate practice also highlight the importance of instructional quality and adult-child interaction in the early learning process [30, 96].

Implementation fidelity is particularly applicable because multi-component pedagogy can be very variable. Two classrooms can say they are both play-based and/or SEL-focused, but be quite different in teacher preparation, the nature of their interactions, the frequency of activities, the size of groups involved, or the consistency of reflection. The available evidence does not allow to clearly distinguish between limitations of a pedagogical model and the inconsistencies in the implementation of the model.

C. Cultural Variation in Socio-Emotional Outcomes

Emotions are viewed differently in different cultures and cultural context is important because emotional expression, self-control, cooperation, independence, assertiveness and empathy are valued and interpreted differently across cultures [115]. What might be deemed a confident participation in one situation might be interpreted differently in another. Likewise, self-management can be taught as self-control or as harmony or responsibility with others in different classrooms. The review does not, therefore, presume that there is a universal expression of socio-emotional competence in all preschool settings.

D. Implications for ECCE and NEP 2020

The findings are applicable to Early Childhood Care and Education in India and/or the National Education Policy 2020. In the NEP 2020 there is an emphasis on the critical role of the foundational stage in facilitating flexible, play-based, discovery-oriented and developmentally responsive learning [93]. The National Curriculum Framework for the Foundational Stage also places great importance on activity, play, conversation, story and art and experience in the early learning [97]. The current synthesis supports these policy goals, as play, expression, dialogue and teacher mediation are intentionally linked as most likely to support socio-emotional outcomes.

For practicing ECCE, the meaning is not to neglect other models. Socio-emotional goals should be integrated into the daily routines in the design of learning environments for preschool programmes. Teacher preparation is a

must. Practical strategies for emotion talk, cooperative play, story-based reflection, inclusive participation and culturally responsive behaviour guidance. The number of students in the classroom, available resources, time commitment, and professional assistance can also influence the consistency of implementing integrated pedagogy.

E. Strength and Interpretation of the Evidence

The eligible publications, when viewed together, mention multiple associations between integrated classroom practices and socio-emotional constructs including emotional regulation, empathy, peer interaction, social competence, and classroom adjustment. Final results are not yet available. Evidence is not consistent across study design, intervention length, measurement instruments, sample size, fidelity indicators, or risk of bias ratings. Pedagogical integration thus seems appropriate for the context of preschool socio-emotional development, but more rigorously evaluated research at the study level is needed before definitive causal inferences can be drawn.

VI. LIMITATIONS AND FUTURE RESEARCH

The review has a number of limitations. Secondly, the literature review was limited to English-language, peer-reviewed literature, so there may be relevant local or non-English literature that was not included. Secondly, the review was not able to provide any breakdown of the number of records retrieved from each database due to the loss of the original database-level log of exports during the search process. Third, not all eligible publications were available at the study level for details such as country, design, sample size, age group, setting, tools, intervention duration, implementation fidelity, teacher training, and formal risk-of-bias details. Fourth, rather than an unsupported formal risk-of-bias scoring, evidence-confidence interpretation was employed. Fifth, the increased volume of publications in 2025 may be the result of the search timing and indexing of publications rather than a growth in the field. The VOSviewer mapping was descriptive, and relied on the completeness and consistency of the titles, abstracts and keywords available for the eligible records. Lastly, methodological heterogeneity hindered meta-analysis due to the absence of comparable effect sizes, measures and parameters of the interventions.

Longitudinal and experimental studies are needed in the future that report characteristics of samples, context, intervention length, fidelity of intervention, and validated socio-emotional measures. The effects of teacher preparation and classroom climate on outcomes should also be studied. There is a need for culturally sensitive tools, as emotional expression, cooperation, autonomy and self-control, may not be understood in the same way in different educational settings. Complete database-level search logs, full included-publication extraction tables and transparent judgments of risk of bias should be maintained for future syntheses.

VII. CONCLUSION

The integrated pedagogy seems to be promising to support SEL in preschool education. Following verification of dates and eligibility and based on the data, 133 records were kept for narrative synthesis. Based on the literature that is found to be eligible, there is a connection with emotional regulation, empathy, peer interaction, social competence, and self-management in the context of socially-emotional learning when it is integrated into play, arts, storytelling, guided dialogue, teacher mediation, and with the appropriate use of technology. Concurrently, methodological heterogeneity and incomplete appraisal fields of the studies limit the strength of the conclusions.

In the end, the review suggests a balanced conclusion: while integrated approaches are pedagogically relevant and evidence of whole-child, SEL and ECCE policy orientations, more robust longitudinal, experimental and culturally responsive research is required before any single model can be deemed to be the most effective. The central message for practice is that designing classrooms which incorporate S.E.L. into participation, expression, cooperation and reflection in the preschool classroom is intentional.

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