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Digital Storytelling and Social-Emotional Learning in Adolescents: A Systematic Review Across CASEL Domains

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ABSTRACT

Adolescence is a formative period for identity development, emotional regulation, and relationship skills. For that reason, social-emotional learning (SEL) is often considered an essential part of both education and development for adolescents. One potentially effective pedagogical method to support SEL is Digital storytelling (DST), the practice of creating or viewing digital narratives, because it combines reflection with digital media practices already familiar to young people. This review examined 20 empirical studies to explore how DST may support adolescents' SEL across the five CASEL (Collaborative for Academic, Social, and Emotional Learning) domains. The results suggest that DST is most often associated with improvements in self-awareness and social awareness. Evidence for relationship skills is present though less frequently, and very few studies showed strong links to self-management or responsible decision-making. Most DST interventions are creation-focused and seemed to produce broader SEL outcomes, while viewing-focused DST was connected with specific benefits such as health self-management and ethical reasoning supporting decision-making. Assessments relied heavily on qualitative reflections, with very few studies using validated quantitative tools. The success of DST interventions also depended on contextual factors such as facilitation quality, equity of access, and safeguarding practices. Overall, DST shows promise as a pedagogical and developmental tool for developing adolescent SEL, yet gaps in methodology and uneven research designs indicate the need for more rigorous and diverse studies before stronger conclusions can be drawn.

INTRODUCTION

Social-emotional learning (SEL) refers to the processes through which people learn to recognize and manage their emotions, build healthy identities, pursue goals, show empathy, sustain supportive relationships and make thoughtful, caring decisions in everyday life (Durlak et al., 2011; Lawson et al., 2019; Taylor et al., 2017). A leading model for understanding SEL is the Collaborative for Academic, Social, and Emotional Learning (CASEL) framework, which provides a coherent structure for integrating SEL into education, research, and policy (CASEL, 2020). The framework has been extensively validated through meta-analyses, showing significant benefits for academic achievement, prosocial behavior, and

mental health (Durlak et al., 2011; Taylor et al., 2017) and is now the most widely adopted SEL standard internationally, shaping curricula and large-scale interventions across the world (Jones et al., 2017).
Five central SEL competencies are identified in the CASEL framework: self-awareness (recognizing emotions, values, strengths, and limits), self-management (handling stress and impulses, working toward goals), social awareness (empathy, perspective-taking, cultural understanding), relationship skills (communication, cooperation, conflict resolution), and responsible decision-making (ethical, safe, and prosocial choices across contexts) (Durlak et al., 2011; Lawson et al., 2019). Together, these competencies are believed to support not only academic performance but also interpersonal effectiveness and mental well-being throughout the life span (Corcoran et al., 2018; Taylor et al., 2017).

Adolescence is often regarded as a particularly crucial period for social-emotional learning. It is a pivotal and formative period in identity development, perspective-taking, and emotional-regulation development (Taylor et al., 2017). Research also suggests that exposure or access to strong SEL interventions at this age can have long-term benefit, affecting life outcomes in and out of school including academic achievement and overall well-being (Durlak et al.,2011; Taylor et al., 2017). Evidence also suggests an association between SEL and lower levels of risky behaviors, stronger ties with peers and family, and, later in life, more participation in civic activities (Jones et al., 2019; Taylor et al., 2017).

Digital storytelling (DST), the production, sharing or viewing of digital, multimodal narratives involving spoken words, images, video, and music, has gained attention as a promising pedagogical and therapeutic strategy (Gubrium et al., 2014; Robin, 2016). There are two main modalities of DST: creation-focused DST, in which young people compose and produce their own stories, and viewing-focused DST, in which they engage with narratives produced by others (Robin, 2016; Yang & Wu, 2012). DST is especially well-suited for use by adolescents, who are often described as ‘digital natives’ because of their comfort and proficiency with technology use as well as engagement with multimodal platforms for communication (Ng, 2012; Clark et al., 2009). Because of its availability and relation to the experiences of adolescents, DST is a rich medium for developing reflection, empathy, and collaboration (Gubrium et al., 2014). Existing learning theories also support pedagogical utility of DST. Constructivist learning theory emphasizes the role of active engagement and activity in constructing knowledge, which has been demonstrated within creation-focused DST (Hmelo-Silver et al., 2007; Lazonder & Harmsen, 2016; Scott, 2015), while social learning theory emphasises the importance of observational learning, in alignment with viewing-focused DST (Bandura, 2001).

Although there is good theoretical support, existing empirical evidence on the role of DST in adolescent SEL is fragmented. Existing reviews have focused on effects of DST on literacy, civic engagement, health, but few have attempted to map outcomes on SEL frameworks in a standardized manner (Robin, 2016; Yang & Wu, 2012). Furthermore, adolescents are frequently grouped into subpopulations (e.g., “students” or “youth”), which are too broad for drawing specific conclusions, and may obscure their unique developmental needs (Taylor et al., 2017, McAdams and McLean, 2013). Methodologically, while a lot of studies draw on qualitative reflections or interviews, the use of validated quantitative SEL measures is often limited, which can restrict effect estimation and comparability across contexts

(Corcoran et al., 2018; Durlak et al., 2011; Jones et al., 2019). This review seeks to address these limitations by systematically synthesizing 20 empirical studies of adolescents (aged 10-19) who engaged with DST interventions and showed improvements in one or more CASEL domains. It aims to:

1. Determine which SEL domains are frequently reported across adolescent DST interventions,
2. Compare the contributions of the creation- versus viewing-focused modalities,
3. Examine the methods used to assess and measure SEL outcomes, and
4. Identify context-based factors that can promote or constrain DST's impact.

METHODOLOGY

2.1 Review Design

This study employed a systematic literature review aligned with the PRISMA 2020 guidelines (Page et al., 2021). Three main stages were conducted: (i) formulation of review questions; (ii) identification and selection of relevant studies, including database searching, screening, and eligibility assessment; and (iii) extraction and analysis of data from the included studies.

2.2 Review Questions

The review was guided by four research questions, which structured the analysis presented in Section 4 (Results):

RQ1: What impact does DST have on adolescents' SEL across the five CASEL domains?

RQ2: What are the modalities of DST interventions associated with improvements in SEL among adolescents?

RQ3: How have studies assessed adolescents' SEL outcomes in DST interventions?

RQ4: What contextual factors influence DST's impact on adolescents' SEL?

2.3 Selection Process

2.3.1 Databases and Sources

A comprehensive search strategy was developed to identify relevant literature. Four electronic databases were selected due to their having extensive coverage of education, psychology, and interdisciplinary research, which are ERIC, PsycINFO, Scopus, and Web of Science (WoS). To ensure comprehensiveness, the reference lists of included studies were searched for additional eligible articles.

2.3.2 Search Terms

The search strategy was designed to capture three main dimensions:

1. Digital storytelling (e.g., "digital storytell*", "multimedia narrative").

2. Social-emotional learning and related constructs (e.g., "SEL", "emotional intelligence", "self-awareness", "self-management").

3. Adolescents (e.g., "adolescen*", "teen*", "secondary school", "high school").

Boolean operators and truncations were adapted to each database. No date limits were applied to ensure full representation of the literature. Full search strings for each database are provided in Appendix A.

2.3.3 Inclusion and Exclusion Criteria

Eligibility was determined according to the following inclusion and exclusion criteria:

Inclusion criteria:

- Population: Participants between 10 and 19 years or have a mean age in this range, or studies explicitly reporting outcomes for adolescents separately.

- Intervention: DST was the central pedagogical or psychosocial intervention, defined as the primary method for delivering the intervention's core content (not supplementary)

- Outcomes: Studies reported SEL-related outcomes aligned with one or more CASEL domains: self-awareness, self-management, social awareness, relationship skills, responsible decision-making. A domain was credited only if the study's results section explicitly reported it (e.g., validated scale scores, qualitative reports of empathy, or documented peer collaboration)

- Study design: Empirical studies employing quantitative, qualitative, or mixed-methods designs, published in peer-reviewed journals or conferences.

Exclusion criteria:

- Non-empirical publications (e.g., conceptual essays, reviews, opinion pieces).
- Dissertations, book chapters, conference abstracts, or reports not subject to peer review.
- Studies where DST was not the central intervention.
- Studies where adolescent-specific data could not be disaggregated.

2.3.4 Screening Procedure

All search results were exported into reference management software (Rayyan), and duplicates were removed. Screening was conducted in two stages: (i) titles and abstracts were reviewed for relevance, followed by (ii) full-text assessment of potentially eligible articles.

The search initially yielded 283 records (WoS = 104; Scopus = 122; ERIC = 33; PsycINFO = 24). After duplicate removal, screening, and inclusion of an additional study through reference searching, 20 studies met all criteria and were included in the final synthesis. The screening process is summarised in Figure 1 (PRISMA Flowchart).

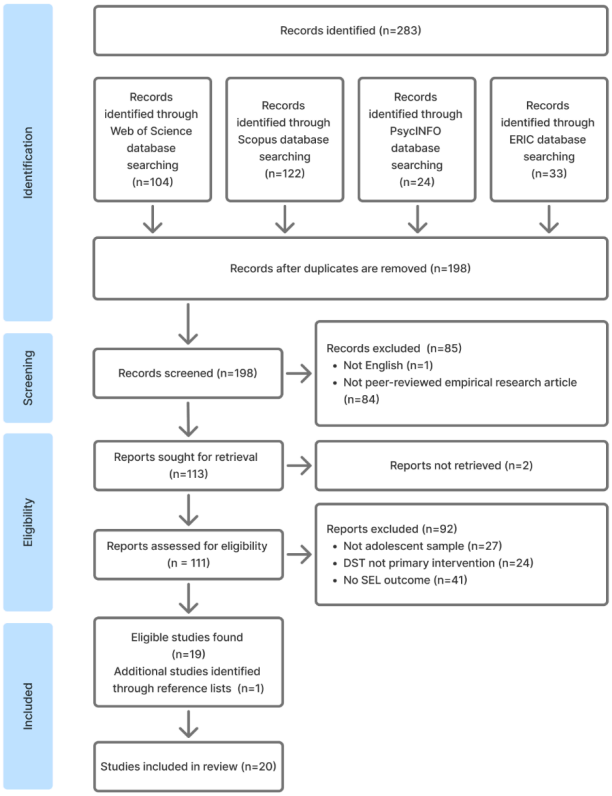

Fig 1. PRISMA Flowchart showing study selection process (Page et al., 2021)

2.4 Data Extraction and Analysis

A structured data extraction protocol was developed to ensure consistency and transparency in synthesising the included studies. All 20 studies were coded into a master extraction file, which captured key descriptive and analytic fields: study year, author(s), country, participant sample and size, setting,

research design, DST modality, CASEL domains reported, assessment type, and contextual factors (e.g., facilitator role, duration, equity of access, safeguarding). This file served as the basis for the descriptive tables and the subsequent analyses.

The data extracted were then analyzed in a four-step process, aligned with the review questions. First, a descriptive summary of the extracted data was conducted to summarize key study characteristics, including geographic distribution, participant demographics, research contexts, and methodological designs. Second, frequency analysis of SEL outcomes was conducted by coding each study to the CASEL domain(s) explicitly reported in its results. Frequencies were calculated to show the relative distribution of outcomes across domains, which formed the basis of Table 2. Third, modality and assessment mapping was performed by grouping studies according to DST modality (creation-focused vs. viewing-focused) and assessment strategy (validated quantitative, non-validated questionnaires, teacher reports, qualitative reflections). These analyses informed Table 3 and the appraisal of methodological strengths and limitations. Finally, a thematic synthesis of contextual factors was performed with reference to the coded data on facilitation, equity, setting and safeguarding. This synthesis revealed the contexts in which DST interventions promoted and inhibited adolescent SEL, and established the basis for Table 4 and the narrative synthesis of RQ4.

RESULTS

3.1. Study Characteristics

A total of 20 studies were included in the review. A summary of characteristics for each individual studies is presented in Table 1.

Year	Author(s)	Country	N	Sample	Setting	Design of study
2021	Hinojosa et al.	Mexico	240	High school students (14-18 yrs)	Private school	Quasi-experimental
2018	Larkey et al.	USA	30	Latina adolescents (15-21 yrs)	Community youth orgs	Experimental

2022	Zarifsaniey et al.	Iran	66	Adolescents with type 1 diabetes (12-18 yrs)	Clinics	Experimental
2015	Niemi & Multisilta	Finland, Greece, USA	319	Students (8-18 yrs)	Schools	Cross-sectional survey
2022	Petousi et al.	Greece	15	Adolescents (13-17 yrs)	Remote history class	Mixed-methods
2011	Wexler	USA	23	Youth (14-21 yrs) + Elders; Inupiat community	Community	Qualitative case
2012	Wales	Singapore	3 focal (~200 DSTs)	Marginalised boys; out-of-school	Out-of-school	Longitudinal ethnography
2013	Cole et al.	USA	136	Secondary students + teachers	Secondary school	Mixed-methods
2014	Sukovic	Australia	34	Girls (Years 7-10)	School library	Qualitative case
2015	Truong-White & McLean	USA, India	2	Middle/secondary students	International partnership	Qualitative case
2017	Ellison	USA	1	African American boy, 13 yrs	After-school club	Qualitative case
2017	Eglinton et al.	USA	31	Alaska Native youth (10-24 yrs, adolescent focus)	Villages	Qualitative case
2017	Staley & Freeman	USA	49	Rural high-school students	High school	Qualitative case

2018	Gubrium et al.	USA	30	Latina adolescents (15-21 yrs)	Community youth org	Qualitative case
2020	Li & Hawkins	China, Uganda, USA	~30-36	~10-12 youth per site	Schools/labs	Qualitative case
2021	Hammond et al.	UK	10	Adolescents (14-18 yrs) in care	Residential care	Qualitative case
2024	Murray et al.	Ireland	19	Girls (~16 yrs)	Secondary school	Qualitative case
2024	Glass et al.	UK	4	Autistic pupils (12-15 yrs)	Secondary school	Qualitative case
2024	Nik et al.	Australia	~1,750 students; 36 teachers	Year-8 students; teacher reports	Low-SES school	Qualitative case
2025	Cody	UK	7	Adolescent girls (12-19 yrs)	Specialist CSE service	Qualitative case

Table 1. Characteristics of included studies (n=20)

Most of the studies were conducted in the United States (n=10), and further contributions came from Europe (n=6), Asia (n=3), and Australia (n=2). Sample sizes varied widely from single-case ethnographies to a large secondary-school cohort with 1,750 students. The majority of studies were conducted within school settings, with a few conducted from community or health perspectives. As to methodology, qualitative case studies were the most numerous (n=13), followed by experimental designs (n=2), evaluations mixing both methods (n=2), one quasi-experimental, one cross-sectional survey and one longitudinal ethnography.

3.2. Research Questions

RQ1: What impact does DST have on adolescents' SEL across the five CASEL domains?

Evidence for SEL outcomes was uneven across the five CASEL domains. Self-awareness (SA) (n=12) and Social Awareness (SoA) (n=11) dominated the literature, while Relationship Skills (RS) were reported in five studies. Responsible Decision-making (RD) and Self-management (SM) were rarely addressed, reported in two and one studies, respectively.

CASEL Domain	No. of studies	Studies	Evidence summary
Self-awareness (SA)	12	Wexler, 2011; Wales, 2012; Sukovic, 2014; Ellison, 2017; Eglinton et al., 2017; Staley & Freeman, 2017; Hammond et al., 2021; Glass et al., 2024; Cody, 2025; Hinojosa et al., 2021; Nik et al., 2024; Truong-White & McLean, 2015	Identity exploration, racial or neurodivergent pride, personal agency, reflective self-understanding
Self-management (SM)	1	Zarifsaniey et al., 2022	Significant improvement in self-management behaviours
Social awareness (SoA)	11	Larkey et al., 2018; Petousi et al., 2022; Wexler, 2011; Sukovic, 2014; Eglinton et al., 2017; Cole et al., 2013; Li & Hawkins, 2021; Glass et al., 2024; Murray et al., 2024; Gubrium et al., 2018; Truong-White & McLean, 2015	Empathy, perspective-taking, intercultural understanding, prosocial intention
Relationship skills (RS)	5	Niemi & Multisilta, 2015; Wexler, 2011; Staley & Freeman, 2017; Glass et al., 2024; Nik et al., 2024	Peer cooperation, communication, intergenerational relationships, sense of belonging

Responsible decision-making (RD)	2	Niemi & Multisilta, 2015; Petousi et al., 2022	Problem-solving and decision-making

Table 2. CASEL domains reported across included studies

Self-awareness (SA)

SA was the most frequently reported outcome (n=12), primarily through identity-focused work. Cultural identity affirmation was emphasised in Indigenous community projects (Wexler, 2011; Eglinton et al., 2017), while racial identity and agency were noted in after-school DST (Ellison, 2017). Neurodivergent pride and self-acceptance were documented in participatory projects with autistic pupils (Glass et al., 2024). In clinical and care settings, DST enabled adolescents to articulate personal aspirations or reframe trauma into narratives of resilience and pride (Hammond et al., 2021; Cody, 2025). The qualitative data was supported by quantitative evidence: a pre-post study found significant improvements in emotional intelligence scores following a semester-long DST intervention (Hinojosa et al., 2021). Collectively, the findings of these studies suggest that DST interventions are closely associated with adolescents' SA across a variety of contexts.

Self-management (SM)

SM was the least represented domain. Only one study reported validated evidence: an RCT of adolescents with type 1 diabetes found improvements in self-management behaviours following a DST-based health education programme, measured with the Self-Management of Diabetes in Adolescents (SMOD-A) scale (Zarifsaniey, 2022).

Social awareness (SoA)

SoA results were commonly reported (n=11), often associated with empathy and perspective-taking. In both workshops and classroom settings, story circles and narrative sharing supported peer-to-peer empathy and critical reflection (Gubrium et al., 2018; Murray et al., 2024). Exposure to authentic narratives also encouraged perspective-taking: under teacher facilitation, watching Holocaust testimonies on the IWitness platform strengthened empathy (Cole et al., 2013), while intercultural video exchange supported the understanding of cultural richness and global perspectives (Li & Hawkins, 2021). Adolescents also reflected upon various civic perspectives while engaging with interactive branching narratives, which in turn reinforced SoA (Petousi et al., 2022).

Relationship skills (RS)

RS was less commonly reported (n=5) but were most evident when adolescents collaborated with others in producing digital stories. Youth co-producing stories resulted in increased cooperation and trust (Staley & Freeman, 2017; Glass et al., 2024) and intergenerational DST projects showed increased connectedness between young people and the elders (Wexler, 2011). In classroom settings, collaboration on DST tasks was associated with communication and teamwork (Niemi & Multisilta, 2015).

Responsible decision-making (RD)

Evidence for RD remained sparse (n=2). Validated evidence was provided by Niemi & Multisilta (2015), whose participants reported improvements on problem-solving and decision-making subscales after taking part in collaborative digital storytelling with the MoViE platform. Additional RD evidence was reported in an interactive digital history simulation (Petousi et al., 2022), where results explicitly addressed decision-making outcomes.

RQ2: What are the modalities of DST interventions associated with improvements in SEL among adolescents?

Two distinct modalities of DST were identified across the included studies: creation-focused and viewing-focused. Creation-focused DST engages adolescents as authors and producers of their own stories (e.g., scripting, recording, editing, and some form of sharing), while viewing-focused DST engages adolescents primarily as audiences or learners encountering pre-produced digital stories (e.g., animations, survivor testimonies, interactive simulations). Creation-focused DST predominated (18 of 20 studies) and were associated with the broadest range of social-emotional learning (SEL) outcomes, particularly self-awareness (SA) and social awareness (SoA). Viewing-focused interventions were far less common (2 of 20 studies) and targeted more specific domains, most notably self-management (SM) and responsible decision-making (RD).

Creation-focused DST

Creation-focused DST was implemented across schools, community-based and Indigenous workshops, and specialised contexts such as residential care and health programmes. Several studies documented improvements in SA, with adolescents using DST to articulate cultural identities, racial identity, and neurodivergent pride, or to reframe experiences of trauma into resilience and agency (Wexler, 2011; Ellison, 2017; Eglinton et al., 2017; Hammond et al., 2021; Glass et al., 2024; Cody, 2025). Quantitative evidence supported these findings: a pre-post study reported significant gains in emotional intelligence scores following a semester-long DST course (Hinojosa et al., 2021). SoA was also frequently associated with creation-focused DST, as adolescents engaged with diverse perspectives through peer exchange and intercultural video collaborations (Gubrium et al., 2018; Li & Hawkins, 2021; Murray et al., 2024). In addition, RS were strengthened in collaborative projects that required teamwork, communication, and

trust, such as group video production or intergenerational storytelling partnerships (Niemi & Multisilta, 2015; Staley & Freeman, 2017; Wexler, 2011). Evidence for RD was more limited, but appeared in studies where collaboration explicitly involved problem-solving or ethical reasoning, such as cooperative tasks on the MoViE platform (Niemi & Multisilta, 2015).

Viewing-focused DST

Viewing-focused DST was implemented in two studies, each embedding pre-produced narratives into structured pedagogical or health programmes. In health education, adolescents viewed a 35-minute animated film, Diabetes and Bumblebee, which modelled diabetes self-care behaviours. Participants reported significant improvements in SM on a validated scale (SMOD-A), although no physiological changes were observed in HbA1c (Zarifsaniey, 2022). An interactive digital history simulation situated in Ancient Athens required students to make civic and ethical decisions at branching points, thereby exercising RD as well as SoA through perspective-taking (Petousi et al., 2022). These examples illustrate that while viewing-focused DST was much less common, it was associated with targeted StEL outcomes in SM, SoA, and RD.

RQ3: How have studies assessed adolescents' SEL outcomes in DST interventions?

Assessment practices across the included studies were highly varied, with a notable imbalance between validated and non-validated approaches. A significant finding was the limitation of psychometrically robust tools: only three of the 20 studies employed validated quantitative instruments to measure SEL outcomes, while the majority relied on custom questionnaires, teacher reports, or qualitative reflections. This uneven distribution can limit comparability across studies and constrains the strength of inferences that can be drawn.

Assessment type	Studies	Instruments / Materials
Validated quantitative instruments	Zarifsaniey et al., 2022; Niemi & Multisilta, 2015; Larkey et al. 2018	SMOD-A + HbA1c (Zarifsaniey); validated engagement & problem-solving subscales (Niemi & Multisilta); Narrative Quality Assessment Tool (Larkey et al.)

Non-validated structured questionnaires	Hinojosa et al., 2021; Murray et al., 2024	20-item "emotional inventory" (Hinojosa et al.); post-session reflection forms (Murray et al.)
Teacher / facilitator reports	Nik et al., 2024; Sukovic, 2014	Teacher questionnaires (Nik et al.); Sukovic: librarian/teacher reflections on student work (Sukovic)
Mixed-method approaches	Cole et al., 2013; Petousi et al., 2022	Combination of student surveys (Cole et al.), teacher reports, DST analysis; Combination of surveys , interviews, classroom dialogue analysis (Petousi et al.)
Qualitative reflections (interviews, focus groups, ethnography, artefacts)	Wexler, 2011; Wales, 2012; Truong-White & McLean, 2015; Ellison, 2017; Eglinton et al., 2017; Staley & Freeman 2017; Gubrium et al., 2018; Li & Hawkins, 2021; Hammond et al., 2021; Glass et al., 2024; Cody, 2025	Ethnographic observation, interviews, focus groups, story artefact analysis, participant reflections

Table 3. Assessment methods in included studies

Validated quantitative instruments

Validated quantitative instruments were employed in only three studies, in both educational and health contexts. Zarifsaniey (2022) employed the Self-Management of Diabetes in Adolescents (SMOD-A) scale, demonstrating improvements in self-care behaviours. Niemi and Multisilta (2015) assessed student outcomes using validated subscales for problem-solving, cooperation, and decision-making, while Larkey (2018) applied the Narrative Quality Assessment Tool (NQAT) to examine emotional engagement and identification. Together, these studies provide the strongest quantitative evidence in the dataset, but they represent a small fraction of the literature.

Non-validated structured tools

Non-validated structured tools were used in several studies, including Hinojosa et al. (2021) and Murray (2024), which relied on inventories or reflection forms developed for the intervention but without psychometric testing. These tools were often easy to administer and tailored to local contexts, but their

lack of validation can raises questions about reliability and comparability across settings.

Qualitative reflections

Qualitative reflections constituted the dominant percentage of assessment methods. Interviews, focus groups, narrative analyses of digital stories, and ethnographic observation were widely implemented to capture mechanisms such as identity development, empathy, and collaboration (e.g., Wexler, 2011; Gubrium et al., 2018; Cody, 2025). These approaches generated rich insights into how adolescents experienced DST, but they depended heavily on researcher interpretation and were not designed to provide generalisable outcome measures.

Teacher/facilitator reports

Teacher/facilitator reports were also featured prominently, particularly in school-based projects, offering practical perspectives on student engagement and social-emotional growth (Nik et al., 2024; Sukovic, 2014). However, they risked inflating outcomes by relying on adult perceptions rather than adolescent self-report.

Mixed-method approaches

Mixed-method approaches were less common, combining surveys, educator reports, and qualitative analyses of artefacts or dialogue to offer broader perspectives (Cole et. al, 2013, Petousi et al, 2022). Yet integration was often inconsistent, and quantitative components were rarely validated.

RQ4: What contextual factors influence DST's impact on adolescents' SEL?

Analysis of the contextual evidence revealed how contextual factors such as equity, facilitation, setting, duration, and risks affect the intervention (Table 4).

Contextual factor	Studies	Evidence summary
Equity and access	Nik et al., 2024; Li & Hawkins, 2021; Wales, 2012	Access was constrained by SES inequities (Nik et al.) and platform restrictions/gatekeeping (Li & Hawkins). Wales highlights structural marginalisation in out-of-school contexts.

Duration & sustainability	Hinojosa et al., 2021; Niemi & Multisilta, 2015; Wales, 2012	Longer engagements (semester-long, validated surveys, ethnographies) yielded more sustained identity and collaboration outcomes than short workshops. Sustainability was limited by resource and staffing constraints.
Educator / facilitator role	Murray et al., 2024; Petousi et al., 2022; Sukovic, 2014; Cole et al., 2013; Nik et al., 2024	Adult scaffolding was decisive: structured prompts (Murray et al.), dialogue facilitation (Petousi et al.), librarian-teacher partnerships (Sukovic), and teacher guidance (Cole et al.; Nik et al.). Facilitation quality shaped depth of reflection.
Setting (school vs. community vs. health vs. care)	Zarifsaniey et al. 2022; Wexler, 2011; Eglinton et al., 2017; Cole et al., 2013; Nik et al., 2024; Murray et al., 2024; Hammond et al., 2021	Context influenced outcomes: clinical = self-management (Zarifsaniey et al.); community/Indigenous = identity and resilience (Wexler; Eglinton et al.); school = engagement and reflection (Cole et al.; Nik et al.; Murray et al.); residential care = identity work (Hammond).

Table 4. Contextual factors reported in studies

Equity and access

Equity and access factors included the digital divide and resource inequalities, which limited participation in low-SES schools or rural contexts. Studies reported that limited internet access, insufficient equipment, and linguistic barriers constrained equitable engagement, sometimes privileging adolescents with stronger digital or English-language literacies (Li & Hawkins, 2021; Nik et al., 2024).

Duration & sustainability

Programme duration and sustainability also played a decisive role: short-term workshops tended to generate enthusiasm and immediate reflection, but longer courses or longitudinal engagements (e.g., semester-long modules or multi-year ethnographic projects) were associated with more sustained outcomes, particularly in identity development and collaboration (Hinojosa et al., 2021; Niemi & Multisilta, 2015; Wales, 2012). Sustainability challenges were frequently noted, often tied to resource and staffing constraints in under-resourced schools (Nik et al., 2024).

Facilitator role

Facilitators were consistently identified as pivotal to outcomes. Studies consistently reported that scaffolding by adults (teachers, librarians, researchers, or youth workers) was important in guiding reflection, mediating group dynamics, and addressing ethical dilemmas. For example, empathy maps and structured prompts enabled students to articulate feelings and consider diverse perspectives (Murray et al., 2024), while librarian-led school library initiatives supported transliteracy and empathy through iterative critique (Sukovic, 2014). In contrast, inadequate facilitation sometimes led to superficial outputs or the reproduction of dominant narratives without critical reflection (Truong-White & McLean, 2015). Thus, facilitation quality emerged as a major determinant of whether DST can build deeper SEL outcomes or remained limited to technical skill acquisition.

Ethical and safeguarding risks

Ethical and safeguarding risks were highlighted most clearly in projects with vulnerable groups. Several studies documented risks of retraumatisation when adolescents disclosed sensitive experiences without sufficient support structures (Cody, 2025; Hammond et al., 2021). Safeguarding concerns also emerged where adolescents shared highly personal narratives, requiring careful adult mediation and ethical oversight. The mode of sharing significantly influenced these risks: public screenings offered validation of voice and community recognition (Wexler, 2011; Eglinton et al., 2017), but also heightened exposure, while private or controlled sharing created safer spaces for identity work (Hammond et al., 2021). Ethical facilitation, wraparound support, and careful design of dissemination processes were therefore critical to ensuring that DST interventions enhanced rather than harmed adolescents' socio-emotional development.

DISCUSSION

4.1. Key Findings & Interpretation

This review synthesized 20 empirical studies on digital storytelling (DST) and adolescent social-emotional learning (SEL). Evidence was strongest for self-awareness (SA) and social awareness (SoA), emerging for relationship skills (RS), and very limited for self-management (SM) and responsible decision-making (RD). Two modalities were identified: creation-focused DST, which predominated and yielded broad outcomes, and viewing-focused DST, which was less common but produced targeted outcomes in SM and RD. Assessment practices were dominated by qualitative and non-validated methods, with only three studies employing validated quantitative measures. Finally, outcomes were consistently shaped by contextual factors such as facilitation, equity, setting, and ethical safeguards.

4.2. Interpretation and Implications of the Findings

The dominance of SA and SoA in the literature suggests that DST may be well-suited for engaging adolescents in reflection on self and others. The process of story creation in creation-focused DST requires adolescents to make sense of personal experiences and present them to an audience, which naturally promote identity exploration and empathy. This is consistent with longstanding views of adolescence as a period of identity formation (Meeus, 2011; McAdams et al., 2013) and with research highlighting narrative as a developmental tool (McLean et al., 2016; McAdams et al., 2013). Particularly in marginalized groups, DST appeared to function as a form of cultural validation and agency. Thus, DST should be considered as a promising educational practice to support identity development and social connectedness in adolescents.

The review also showed that modality matters. Creation-focused DST placed youth as authors of their own stories and was associated with broad SEL outcomes, especially SA and SoA. This is consistent with constructivist perspectives that emphasize learning through active engagement. Viewing-focused DST, while rare, was linked to outcomes that were otherwise underrepresented: improvements in self-management in health education and responsible decision-making in civic education. These findings suggest that viewing-focused DST can function as a modeling or perspective-taking exercise, and it demonstrates potential that has not yet been fully explored in the current literature.

The field is currently methodologically limited. Most studies employed qualitative reflections, which can be explained by the fact that emotion and identity-related outcomes often require in-depth exploration (Scherer, 2005), leading researchers to rely on qualitative tools such as digital stories, interviews, observations, and reflective accounts. They can provide detailed accounts of how adolescents experience DST, but offer little in terms of measurable effect size or comparability across contexts. Only three studies employed validated tools, and these were inconsistent in design. Future work should prioritize mixed-methods designs that combine the depth of qualitative data with validated quantitative outcome measures. [Include this interpretation]

This uneven methodological base also limits how much can be inferred about the relationship between research design and DST modality. Because qualitative studies and creation-focused DST both dominate the current sample, their overlap largely reflects a base-rate effect rather than a correlational relationship. The current evidence base is too small and uneven to determine whether certain research methods align more naturally with specific DST modalities. Larger and more balanced studies will be needed before such modality-method correlations can be meaningfully assessed.

Finally, the review highlighted the importance of context. DST outcomes were influenced by facilitation quality, equity of access to resources, and institutional readiness. At the same time, the practice carries ethical risks. Because it often involves disclosure of sensitive personal narratives, there is potential for retraumatization or breaches of privacy if safeguards are inadequate. These findings echo broader work on trauma-informed pedagogy (Carello & Butler, 2015), which stresses the need for protective structures

when working with vulnerable populations. Effective implementation of DST therefore requires not only technical tools but also well-prepared facilitators and strong ethical protocols.

4.3. Limitations of the Review

This review is subject to several limitations. First, there is considerable methodological variation across studies, either in design, intervention format, and measurement tools, which limited comparability. Second, language and geographic bias likely affected coverage as only English-language publications were included, and most studies originated from North America and Europe, reducing global transferability. Finally, study screening and coding were conducted by a single reviewer, which may have introduced selection bias despite efforts to apply systematic procedures.

4.4. Implications for Practice and Policy

The findings of this review suggest several implications for professional practice. For educators, youth workers, and clinicians, modality should be matched to desired outcomes. Creation-focused DST appears particularly effective for supporting identity development, empathy, and collaborative competencies, whereas viewing-focused DST may be more appropriate when the aim is to model specific behaviors, such as self-management in health contexts, or to promote perspective-taking through exposure to structured narratives. These insights point to the importance of careful pedagogical design when adopting DST in educational, psychological and community programs.

Effective implementation also requires substantial investment in facilitator preparation. The personal nature of storytelling means that facilitators must be equipped not only with technical skills but also with competencies in ethical practice and trauma-informed approaches. Without such preparation, the potential benefits of DST may be undermined by risks of harm, particularly among vulnerable populations. In addition, safeguarding protocols are essential to ensure that adolescents are protected during processes of story creation and dissemination.

At the policy level, sustained investment is necessary for DST to achieve its potential. Equitable access to technology and infrastructure must be prioritized to avoid exacerbating existing inequalities in participation. Moreover, long-term programming is more likely to produce durable outcomes than short-term or one-off workshops, suggesting the need for funding sources that support continuity.

4.5. Recommendations for Future Research

Future research should address several gaps. More studies are needed on self-management and responsible decision-making, and methodological rigor should be strengthened through mixed-methods designs that combine qualitative insight with validated quantitative tools, preferably in pre–post or controlled designs. There is also a need for more balanced methodological work, including studies that examine viewing-focused or hybrid DST using quantitative or mixed-method approaches, to clarify

whether certain DST modalities align with particular research designs. Greater attention is required to understudied contexts, including regions like Asia, South America, and Africa, as well as clinical settings and neurodiverse populations. In addition, as digital modalities become more common, future research should also consider how the CASEL framework might be adapted for online contexts, for instance by explicitly incorporating concepts such as digital empathy or critical digital citizenship, which surfaced across several DST studies. Research should examine the conditions for sustainable and scalable implementation, and longitudinal studies are needed to determine the durability of DST's effects on SEL.

CONCLUSION

This review demonstrates that DST is promising for supporting adolescent SEL, particularly in the domains of SA and SoA. While creation-focused DST provides a powerful means of building identity and empathy, viewing-focused DST shows potential for targeted outcomes such as self-management and decision-making. The field remains constrained by methodological variations and limited use of validated measures, and outcomes are dependent on context, facilitation, and ethical safeguards. The review also highlights emerging considerations, such as how SEL frameworks translate to digital contexts and the need for more balanced methodological work, that future research should continue to explore. To realize its potential as an evidence-based practice, future work must adopt more rigorous designs, expand research to diverse settings and populations, and integrate DST into sustainable, ethically grounded educational and community frameworks.

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Appendix A: Full Search String by databases

Scopus:

TITLE-ABS-KEY ("digital storytell*" OR "digital stor*" OR "multimedia narrat*" OR "multimedia stor*") AND TITLE-ABS-KEY ("social emotional learning" OR SEL OR "emotional learning" OR empathy OR "self awareness" OR "self management" OR "social awareness" OR "relationship skills" OR "responsible decision making" OR "emotional intelligence" OR engagement OR "self reflection") AND TITLE-ABS-KEY (adolescen* OR teen* OR youth OR "high school" OR "secondary school")

Web of Science:

TS=("digital storytell*" OR "digital stor*" OR "multimedia narrat*" OR "multimedia stor*")

AND TS=("social emotional learning" OR SEL OR "emotional learning" OR empathy OR "self awareness" OR "self management" OR "social awareness" OR "relationship skills" OR "responsible decision making" OR "emotional intelligence" OR engagement OR "self reflection")

AND TS=(adolescen* OR teen* OR youth OR "high school" OR "secondary school")

PsycINFO & ERIC:

(TI("digital storytell*" OR "digital stor*" OR "multimedia narrat*" OR "multimedia stor*")

OR AB("digital storytell*" OR "digital stor*" OR "multimedia narrat*" OR "multimedia stor*")

OR SU("digital storytelling" OR "digital stories" OR "multimedia narrative" OR "multimedia story"))

AND

(TI("social emotional learning" OR SEL OR "emotional learning" OR empathy OR "self awareness" OR "self management" OR "social awareness" OR "relationship skills" OR "responsible decision making" OR "emotional intelligence" OR engagement OR "self reflection")

OR AB("social emotional learning" OR SEL OR "emotional learning" OR empathy OR "self awareness" OR "self management" OR "social awareness" OR "relationship skills" OR "responsible decision making" OR "emotional intelligence" OR engagement OR "self reflection")

OR SU("social emotional learning" OR empathy OR "emotional intelligence" OR "self awareness" OR "self management" OR engagement))

AND

(TI(adolescen* OR teen* OR youth OR "high school" OR "secondary school")

OR AB(adolescen* OR teen* OR youth OR "high school" OR "secondary school")

OR SU(adolescen* OR teen* OR youth OR "secondary school students"))