

Parental Sustainability Talk during Shared Book Reading and its Association with Preschoolers' Hope

Dorit Aram

Naama Elias

Elad Yosef

Tel Aviv University, Israel

Submitted April 23, 2026; Accepted August 19, 2026

ABSTRACT

Although sustainability education is increasingly emphasized from an early age, little is known about how family literacy practices, such as Shared Book Reading (SBR), contribute to children's understanding of sustainability and related psychological resources, such as hope—a cognitive–emotional construct involving agency (goal-directed thinking) and pathways (strategies for reaching goals). The study examined the nature of SBR at home as a context for sustainability education and explored its associations with children's hope. Participants were 57 parent–preschooler dyads (aged 4–6). Parents read two urban gardening picture books that differed in the explicitness of their sustainability message (explicit vs. implicit). Parent–child interactions were video-recorded and transcribed. Researchers coded parents' extra-textual sustainability-related utterances and assessed children's hope. Results showed significantly richer sustainability-related parental discourse when reading the book with explicit sustainability content. At the same time, correlations across the two books indicated consistency in parents' scaffolding style. Importantly, parents' scaffolding was positively associated with children's hope levels. These findings highlight SBR as a promising and accessible context for early sustainability education. They further suggest that parental scaffolding during reading may contribute to the development of children's hope, a psychological resource that may support future engagement with environmental challenges.

Keywords: Early childhood; Environmental education; Family literacy; Parent–child discourse; picture books; Socio-emotional development

The World Commission on Environment and Development (1987) introduced the concept of sustainable development, defining it as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs" (p. 16). This definition broadened the understanding of sustainability beyond environmental protection to encompass the interrelated dimensions of environmental integrity, social equity, and economic well-being. As such, sustainability is increasingly viewed as a multidimensional concept that requires individuals and communities to consider the long-term consequences of their actions for both present and future generations (UNESCO, 2017).

Researchers argue that early childhood settings play an important role in fostering children's sense of responsibility, empathy, participation, and hope, thereby laying the foundations for sustainable ways of living and learning throughout the lifespan. Parents play an important role in introducing young children to a wide range of environmental values and practices (Sihadi et al., 2017). The concept of sustainability encompasses multiple meanings (Vogt & Weber, 2019), yet all perspectives emphasize the need for behavioral and lifestyle changes to improve current conditions. These changes are shaped through everyday practices in the family and educational

settings, which constitute the child's most immediate microsystems within the broader ecological system of development (Bronfenbrenner, 1979).

Parent-child Shared Book Reading (SBR) is a common activity in many families and provides rich opportunities for conversation about ideas and experiences (e.g., Brekke Stangeland et al., 2024). As such, SBR may provide a meaningful context for introducing sustainability-related ideas to young children. In the present study, we focused on the environmental aspect of sustainability, examining educational efforts to promote environmental awareness and urban gardening in a highly industrialized urban setting.

Beyond its well-documented contribution to children's language development (e.g., Korat et al., 2018), shared reading has also been shown to support young children's social-emotional development (e.g., Schapira & Aram, 2026; Wirth et al., 2022). Within this context, the present study examines parents' discourse about sustainability with their preschool children and its relation to children's hope. Snyder (2002) conceptualizes hope as a cognitive-emotional belief system involving goal-directed thinking (agency) and the ability to generate pathways toward goals, enabling individuals to cope with challenges and adapt to change (Marques & Lopez, 2017). By examining parents' discourse during SBR and its association with children's hope, this study aims to clarify how families discuss sustainability with young children and to contribute to the growing body of research linking SBR with children's socio-emotional resources in early childhood.

Early Education for Sustainability

Education for Sustainable Development has emerged as a key educational framework for promoting sustainable futures. It seeks to empower learners with the knowledge, skills, values, and dispositions necessary to make informed decisions and act responsibly in ways that support environmental stewardship, social justice, economic responsibility, and global citizenship (UNESCO, 2017, 2020). Rather than focusing solely on environmental issues, education for sustainable development emphasizes holistic thinking, critical reflection, participation, and agency, enabling learners to address complex societal challenges and contribute to sustainable communities.

UNESCO has identified education for sustainability as a pressing global priority for 2020–2030 and a central means of transmitting sustainability values to future generations while encouraging the lifestyle changes needed to achieve sustainability goals (UNESCO, 2020). Accordingly, sustainability education has been increasingly integrated into educational systems worldwide, spanning all levels of education from early childhood settings to higher education institutions (UNESCO, 2024). Alongside conceptual knowledge, sustainability education also aims to foster personal competencies that enable individuals to take action and contribute to positive environmental change (Scoffham & Rawlinson, 2022).

Contemporary approaches emphasize three interconnected dimensions of sustainability: environmental sustainability, which involves caring for the natural world; social sustainability, which promotes inclusion, well-being, democratic participation, relationships, and peace; and economic sustainability, which encourages responsible consumption and thoughtful use of resources in developmentally appropriate ways (Davis, 2023; Samuelsson & Kaga, 2008).

In early childhood education, sustainability education shows considerable conceptual flexibility. In their literature review, Hedefalk and colleagues (2015) identified two main approaches to sustainability education in early childhood. The first focuses on learning about the environment, emphasizing children's acquisition of knowledge about nature—such as natural cycles, animals, and plants—often combined with experiences in natural environments. This approach commonly uses direct teaching strategies such as explanations and stories. The second approach conceptualizes sustainability as integrating environmental, social, and economic dimensions. Educators who adopt this perspective address environmental issues while also engaging children with broader social themes, such as justice, equality, and democratic participation. Across both approaches, the goal is to encourage young children to act in ways that support sustainability. Accordingly, sustainability education seeks to foster children's awareness and guide them to reflect on everyday practices and make environmentally responsible decisions, such as recycling (Furu et al., 2023).

Olof and Osbeck (2018) call for integrating moral dimensions into sustainability education by reading relevant literature. In their study, the researchers examined six youth books and identified themes related to sustainability, such as concern for animals and nature, the ability to enjoy nature, practical thinking and doing good, the ability to lead a healthy life, the capacity to imagine and think through narrative scenes, and the ability to form attachments to people and objects. According to the authors, sustainability literature can help readers understand what actions are expected of them to realize the vision of sustainability: protecting nature and using natural resources responsibly to ensure quality of life for the present generation while also safeguarding them for future generations. The authors therefore advocate for continued identification of sustainability principles in children's and youth literature and for reading books that address sustainability, namely, the relationship between humans and the Earth, within educational settings.

Shared Book Reading as a Context for Sustainability Understanding

In Western society, Shared Book Reading (SBR) is part of young children's daily routines at home and in educational settings (e.g., Zucker et al., 2013). Reading a book distances the reader from the situation and facilitates discussion of the character's feelings, motivations, and behaviors. When parents talk with their children about a book, they bridge the book's content and the child, mediating the text's meaning. According to Vygotsky's developmental theory (Winsler, 2003), adults help children understand and notice aspects that they may find difficult to perceive or comprehend independently. Through adult scaffolding, children learn to understand and gain control over content and skills that were previously less clear, supporting their development.

Some studies indicate that a book's characteristics are associated with the way adults share books with children (Henkaline & Wagner, 2020). For example, Bergman Deitcher and Johnson (2022) found that book genre influences parent-child discourse. Specifically, when reading informational books, parents provided cognitively richer support and used more varied vocabulary than when reading narrative books. When reading narrative books, the protagonist matters. When reading books on the same theme, parental discourse was richer when the book's protagonist was human rather than an animal (Aram et al., 2026). Book design also plays an important role. Bergman-Deitcher and colleagues (2021) studied shared reading of alphabet books and found that parents provided more support for the writing system when reading the less visually and textually dense book. The current study explored whether parents' reading and discourse vary with the book's level of implicitness.

SBR demonstrates consistent positive effects on children's language development (Galea et al., 2025) as well as on early literacy skills and literacy achievement (Inoue et al., 2018). Beyond these, growing attention has focused on the links between parent-child discourse during shared reading and children's socio-emotional development and behavior. For example, Schapira and Aram (2020) found that parents' socio-emotional utterances during book reading predicted children's ability to explain emotions, their level of empathy, and their expression of prosocial behavior. Other studies have found associations between shared book-reading discourse and children's moral understanding and behavior (Chou et al., 2021) and social behavior (Chen et al., 2025). The present study seeks, for the first time, to examine the relationship between SBR and the development of hope, with a specific focus on an aspect of the sustainability domain – protecting the environment, gardening in cities.

Hope

According to Snyder (2002), hope is a cognitive-emotional construct whose presence enables individuals to set goals (agency thinking) and to act in varied ways to achieve them (pathways thinking). High levels of hope enable individuals to cope with difficulties, as challenges are perceived as obstacles to be overcome rather than barriers (Snyder, 2002). Among adults, higher levels of hope are associated with stronger coping abilities such as adapting to chronic illnesses and changing behavioral patterns to support a healthy lifestyle, as well as coping in times of crisis (Berg et al., 2011; Rasmussen et al., 2023). Although some researchers suggest that both components of hope (agency and pathways) begin to develop in infancy, a review of the literature indicates that most empirical studies have focused on children in elementary school (e.g., Ciarrochi et al., 2015; Dixon et al., 2016; Marques et al., 2017), but see Fraser et al. (2026). Among elementary school children, hope has been associated with adaptive behavior,

mental health, and self-esteem (Marques & Lopez, 2017). For example, Kaye-Tzadok and colleagues (2019) found that higher levels of hope among children in grades 2–6 moderated the negative association between insufficient material resources and psychological well-being.

Marques and Lopez (2017) argue that parents should intentionally foster hope in children from an early age. According to them, parents influence hope development through modeling and conversations about goals and ways to overcome challenges. Such interactions may help children develop both agency and pathways thinking. In the present study, we examine the relationship between characteristics of sustainability-related discourse during SBR and preschool children's hope—a topic that, to the best of our knowledge, has not yet been explored in the literature.

Hope and Sustainability

Ojala's work highlights hope's central role in sustainability education and environmental engagement. In a questionnaire study with Swedish adolescents and young adults, Ojala (2012) found that constructive hope—grounded in trust in individual and collective action was positively associated with pro-environmental behaviors. Extending this, Ojala (2017) argued that although many young people feel pessimistic or helpless about global environmental problems, hope is not merely a positive emotion but a crucial educational resource for sustainability. Drawing on Snyder's theory, she conceptualized hope as involving meaningful goals, realistic pathways to achieve them, and a sense of agency and efficacy. Accordingly, effective education should foster realistic, critical, and action-oriented forms of hope that help young people cope with climate-related concerns while supporting environmental engagement and motivation to act.

Regarding early childhood, Wolff and colleagues (2020) conducted a literature review examining the relationship between sustainability and hope and identified key elements of sustainability education. Their review suggests that children should be educated to become agents of change by fostering their ability to set goals and adopt behaviors that promote sustainable development. Supporting this view, Spiteri (2022) interviewed 11 children aged 3–7 about how to live sustainably. The children repeatedly emphasized the need to change habits and take action, such as recycling and reducing waste. These findings indicate that even young children understand that achieving an environmentally responsible lifestyle requires both setting goals and taking action.

The Present Study

In the present study, in the context of SBR of sustainability-themed books, we examined the relationship between parents' sustainability-related discourse during shared reading and preschool children's hope. The study had two main aims. Because the study is exploratory, the questions remained open:

1. How do parents mediate concepts of sustainability to their young children via reading books that address this topic?
 - a. We compared the characteristics of the discourse across two books, one that explicitly addresses sustainability, whereas the second addresses the topic implicitly
 - b. We also examined whether parents display a style of sustainability scaffolding that goes beyond the specific characteristics of the book.
2. What is the relationship between parental scaffolding of sustainability during SBR and children's hope?

METHOD

Participants

The sample included 57 parent–child dyads. The original sample included 60 dyads; however, analysis of the interactions indicated that three parents did not refer to sustainability during the reading sessions. We therefore excluded these dyads from the analyses.

Children's ages ranged from 50 months (4.1 years) to 82 months (6.1 years); the mean age was 67.46 months ($SD = 6.44$ months). The sample included 25 boys (43.9%) and 32 girls (56.1%). Regarding birth order, 21 children were firstborn (36.8%), 23 were secondborn (40.4%), nine were thirdborn (15.8%), and four were fourthborn or later (7.1%). All children attended preschools.

The participating parents included 52 mothers (91.2%) and five fathers (8.8%), aged 30 to 47 years ($M = 37.81$, $SD = 4.18$). Most parents were married ($n = 54$, 94.7%), two were divorced (3.5%), and one was a single mother (1.8%). The number of children per family ranged from one to six ($M = 2.81$, $SD = 1.03$). Most participating parents had an academic education: 25 held a bachelor's degree (43.9%), 25 held a master's degree (43.9%), and four held a doctoral degree (7.0%). Three parents had professional certification without an academic degree (e.g., video editing, beautician) (3.5%).

Materials and Measures

Books for Shared Reading

Two picture books were selected for the study:

1. *The Curious Garden* by Peter Brown (Hebrew edition published in 2011 by Matar). The story follows a curious boy who lives in a highly industrialized city with little vegetation. During one of his explorations of an abandoned railway station, he discovers dying plants and decides to become their gardener. Although he initially struggles, he gradually succeeds through repeated attempts and learning. The story then describes how the garden spreads throughout the city. By the end of the book, the city becomes green and flourishing, and many children join Liam in cultivating plants in the urban environment. The book contains 16 pages (see Figure 1).
2. *Florette* by Anna Walker (Hebrew edition published in 2018 by Keter). This story describes a girl who moves with her family to a large city and misses the garden she left behind. She attempts to recreate a garden through play and creative activities, but her attempts repeatedly fail. Everything changes when she discovers a neighborhood park and enthusiastically brings her family there. On her way, she follows a small bird to a closed flower shop called *Florette*. Under the shop door, she finds a small plant sprout, cares for it, and grows it in her new apartment. Other children later join her and help create a garden in the new place. The book contains 17 pages (see Figure 1).

Experts in children's literature from a children's literature center at an academic college selected the books in consultation [Yemima Center for Children's Literature at Beit Berl Academic College in Israel]. They were considered suitable for the study because they are relatively recent publications and feature child protagonists (a boy in one book and a girl in the other), enabling young readers to identify with the characters while maintaining some distance from their own lives. Both books address a range of emotions and invite discussion about coping with challenges. The illustrations and text complement each other and together encourage dialogue. The content and language level are appropriate for preschool children. To further ensure age appropriateness, nine preschool educators who are also mothers reviewed the books and confirmed they were suitable.



Figure 1. Pages from the books, *Florette* on the left and *The Curious Garden* on the right.

Coding of Shared Book Reading

All reading interactions were transcribed and analyzed using Atlas.ti, a qualitative data analysis software that facilitates the organization, coding, and analysis of textual data. The basic unit of analysis was the utterance, defined as a linguistically complete unit of speech (Golinkoff & Ames, 1979). The analysis focused specifically on parental scaffolding of sustainability; specifically, utterances referring to human actions toward nature or relationships between humans and nature were defined as sustainability-related utterances. We counted and summed the number of parents' sustainability-related utterances in each category across the readings:

1. Sustainability-related clarifications: Utterances referring directly to details in the text, including clarification of unfamiliar words (e.g., "Withering means they are about to die") or story events (e.g., "Liam couldn't take care of the plants because it was winter"), or comments closely tied to the illustrations or narrative (e.g., "Wow, look how beautiful the garden is").
2. Sustainability-related elaborations: Utterances extending beyond the "here and now" of the text. These included (a) thinking functions such as generalizations (e.g., "Spring, summer, autumn, and winter are the seasons of the year"); comparisons and inferences (e.g., "This is like the song that we sing about the flowers"); and (b) provision of additional world knowledge (e.g., "A place where the soil is fertile and plants can grow. That's called fertile land", "butterflies need flowers").
3. Sustainability-related scaffolding: Hints or prompts provided by the parent when the child was unable to answer a question (e.g., "What is this? [The child does not answer.] What do we call this action? Pru... [the mother provides the first sound] pruning"; "What do these plants need?" The child says, "water," and the mother continues, "yes, water and someone who..."; the child completes, "helps them.").
4. Sustainability-related closed-ended questions: Yes–no questions related to environmental themes in the story (e.g., "Do you remember how it used to look when there were no plants everywhere?" referring to the transformation of the city from gray to green).
5. Sustainability-related open-ended questions: Questions encouraging extended responses rather than yes–no answers (e.g., "Who could come there without destroying it or stepping on it?").

Children's Hope

We assessed children's hope using an expanded, developmentally adapted version of the Children's Hope Scale (McDermott et al., 1997), originally designed for children aged 8–16. We expanded the questionnaire from 6 to 18 items and changed the scale from a 6-point to a 3-point scale (1 = never, 2 = sometimes, 3 = always). Half of the items related to agency thinking (i.e., the child's ability to set goals), and half assessed pathways thinking (i.e., the child's ability to generate strategies to achieve these goals and overcome obstacles). Examples of items for agency: "I think I can succeed"; "If I want to, I can play with other children"; "I will succeed in understanding what the teacher explains". Examples of items for pathways: "I can think of ways to achieve the things I want"; "I can find ways to play with a child I want to play with"; "When I do not understand what the teacher explained, I can find ways to understand it". Before administering the questionnaire, children completed a short practice task that included three sample statements (e.g., "I like playing in the sandbox") to ensure they understood the response format and task instructions.

In a pilot study with eight participants aged five to seven years ($M = 6.10$, $SD = 0.38$), the questionnaire's internal reliability was Cronbach's $\alpha = .88$. In the current study, reliability was Cronbach's $\alpha = .93$.

Children's Vocabulary

Based on extensive evidence indicating a positive association between characteristics of shared book reading and children's vocabulary (e.g., Murphy et al., 2023; Hindman et al., 2014), children's vocabulary was included as a control variable in analyses examining the associations between the sustainability-related discourse during shared reading and children's hope. Children's receptive vocabulary was assessed using the Peabody Picture Vocabulary Test (PPVT; Nevo & Oren, 1979). The examiner presented the child with four pictures and asked the child to identify the picture that matched a word spoken by the examiner. Each child was presented with 30 items (nouns and verbs),

adapted for children aged 5–6 years. Items included words such as eagle, locomotive, and freckles. For each word, the examiner instructed the child, “Show me, X.” Scores ranged from 0 to 30, with higher scores indicating a higher level of receptive vocabulary.

Procedure

The study received ethical approval from Tel Aviv University. Data were collected in the participants’ homes, and participants were recruited through social media announcements (Facebook and WhatsApp groups) and snowball sampling. Each parent read two books with their child in two sessions scheduled within one week of each other. The researcher video-recorded the interactions and ensured parents were unfamiliar with the books before participating. Parents received the books in advance and were asked to read each book to their child at least once before the recorded session. The researcher recorded the second reading because evidence suggests parents often read books multiple times, and the second reading tends to be richer (Schapira et al., 2021). The researcher counterbalanced the reading order across participants: half read *The Curious Garden* first and then *Florette*, while the other half read *Florette* first and then *The Curious Garden*. The researcher set up a tripod, positioned the camera toward the parent–child dyad, instructed participants to read the story and then talk about it as they normally would, and left the room during the interaction. Participants called the researcher back after finishing the reading and discussion. We assessed children’s vocabulary and hope individually in the family home (for half of the participants before the recorded interaction and for the other half afterward), without the parent present. We stored the dyadic interaction videos in accordance with the University’s ethical guidelines.

Data Analysis

To compare parents’ sustainability scaffolding across the two books, we performed a series of Negative Binomial Distribution (NBD) regressions predicting parents’ scaffolding by the book. We used NBD regressions because the count measures in the study had large standard deviations and followed a Poisson distribution (e.g., Hilbe, 2011). To learn about parental sustainability scaffolding style across the books, we conducted a correlational analysis. As the data were not normally distributed, we used Spearman’s rank correlations.

Lastly, we computed Pearson correlations to examine associations between parental sustainability scaffolding and children’s level of hope. Given the children’s wide age range (50 to 82 months) and the well-established association between parental scaffolding during shared book reading and children’s language (e.g., Zucker et al., 2013), we used partial correlations, controlling for children’s age and vocabulary level (PPVT).

RESULTS

Parents’ Scaffolding across the Two Books

We first describe parents’ sustainability scaffolding across the two books and the correlations between the books. Table 1 presents the descriptive statistics and Spearman correlations between the two books. Table 2 presents the NBD regressions comparing them.

As evidenced in Table 1, when reading the books about gardening, parents addressed the topic of sustainability, while the high standard deviations indicate variability among parents. During SBR, parents clarified facts from the books, elaborated on sustainability-related content, and asked questions about sustainability. In both books, clarification was the most common parental reference to sustainability. Parents tended to clarify facts in the books to ensure that their children understood the plot. During the shared book reading, they frequently asked questions. However, they rarely provided scaffolding during the interaction; that is, they rarely offered hints to their children when they struggled to answer sustainability-related questions.

Table 1*Parental Sustainability Scaffolding During SBR of the Two Books: Descriptive Statistics and Spearman Correlations*

Type of Utterance	Florette <i>M (SD)</i>	The Curious Garden <i>M (SD)</i>	<i>r</i>
Clarification	7.05 (6.53)	17.18 (14.30)	.67***
Elaborations: Thinking functions	2.82 (3.65)	4.39 (5.40)	.69***
Elaborations: World knowledge	0.49 (1.15)	1.42 (3.12)	.27***
Scaffolding	0.52 (1.00)	0.68 (1.15)	.33*
Closed-ended questions	3.49 (3.19)	5.67 (4.83)	.43***
Open-ended questions	3.72 (4.57)	6.56 (6.44)	.49***

Note. *N* = 57.**p* < .05, ****p* < .001.**Table 2***Negative Binomial Distribution (NBD) Results Examining Differences in Parental Sustainability Scaffolding Between the Two Books*

Type of Utterance	Florette <i>M (SE)</i>	The Curious Garden <i>M (SE)</i>	Wald χ^2	Exp(B)	<i>p</i>
Clarification	7.07 (.86)	17.18 (1.88)	58.95***	2.44	< .001
Elaborations: World knowledge	0.49 (.15)	1.42 (.41)	14.96***	2.89	< .001
Elaborations: Thinking functions	2.82 (.48)	4.39 (.71)	10.96***	1.55	< .001
Open questions	3.72 (.56)	6.56 (.85)	16.49***	1.76	< .001
Closed questions	3.49 (.42)	5.67 (.63)	12.79***	1.62	< .001
Scaffolding	0.52 (.13)	0.68 (.15)	0.90	1.30	.34

Note. *N* = 57.**p* < .05, ****p* < .001.

Table 2 shows that, across the measures (except for Scaffolding), parents engaged significantly more in sustainability-related scaffolding when reading *The Curious Garden*, which addresses sustainability directly and explicitly, than when reading *Florette*, which addresses sustainability more implicitly. That is, when sustainability was the book's explicit theme (*The Curious Garden*), parents engaged with it more frequently and mediated it more extensively to their children. They provided more clarification, asked more open-ended and closed-ended questions, and encouraged the child to think about sustainability. In contrast, in *Florette*, where sustainability is addressed more implicitly and the overt theme centers on a girl's longing for her former green environment before relocation, parents discussed sustainability to a lesser extent.

Studying the parents' sustainability scaffolding style, Table 1 shows significant correlations between parental scaffolding characteristics in one book and those in the other. These significant correlations across all measures indicate a characteristic parental scaffolding style regarding sustainability. That is, parents who frequently engaged in sustainability-related scaffolding when reading one book tended to do so when reading the other as well.

Associations Between Parental Sustainability Scaffolding and Children's Hope

The second aim of the study was to examine the associations between parental sustainability scaffolding style across the two books and children's level of hope. The children rated their ability to set goals (agency) and act toward achieving them (pathways) as moderate, tending toward high. On a three-point scale (1 = never, 2 = sometimes, 3 = always), children's hope scores ranged from 1.28 to 3 (*M* = 2.39, *SD* = 0.38).

Given the finding that parents use a consistent discourse style with their children, we created new variables by averaging each utterance type across the two books. We then examined the associations between each type of parental utterance and children's level of hope, controlling for children's age and vocabulary (see Table 3).

Table 3

Associations Between Parental Sustainability Scaffolding and Children's Hope, Controlling for Language Level and Age

Parental Utterance Type	Children's Hope
Clarification	.25*
Elaborations: World knowledge	.23*
Elaborations: Thinking functions	.06
Scaffolding	.21^
Closed questions	.25*
Open questions	.05

Note. $N = 57$

* $p < .05$, ^ $p = .058$.

Table 3 shows small but significant associations between the frequency of parental clarification, elaborations, provision of world knowledge, scaffolding, and closed-ended questions about sustainability and children's level of hope, controlling for child age and vocabulary. That is, higher levels of sustainability scaffolding during SBR of books that focused on children's gardening were associated with higher reported levels of children's hope.

DISCUSSION

The current study addressed two primary aims. First, it sought to characterize parents' sustainability-related scaffolding for their children during SBR of gardening-themed books and to determine whether a consistent parental scaffolding style could be identified. Second, it examined the associations between parental sustainability scaffolding during shared reading and children's level of hope. The findings indicated that parental sustainability scaffolding varied significantly with the book's thematic explicitness. When reading *The Curious Garden*, in which sustainability is presented explicitly, parents engaged more extensively with sustainability on all measures than when reading *Florette*, in which it is conveyed more implicitly. At the same time, the results suggested a stable parental scaffolding style, as reflected in consistent patterns of discourse across the books. Furthermore, parental sustainability-related discourse was associated with children's hope, even after accounting for differences in child age and vocabulary.

Characteristics of Parental Discourse on Sustainability Across Two Books

Research on sustainability education has largely focused on teachers' roles in introducing children to the environment (e.g., Edwards et al., 2011; Güler Yıldız et al., 2021; Lewis et al., 2010). A growing body of work highlights the importance of parental involvement in this process (e.g., Alam & Hamzah, 2025; Sihvonen et al., 2024). Parents are the ones who are closest to the child.

The study shows that parent-child SBR is a pathway of sustainable socialization. While long recognized as a tool for fostering language and literacy (e.g., Mol et al., 2009; Dowdall et al., 2020), SBR also offers opportunities to learn about our environment, as it frequently portrays everyday experiences and challenges, thereby inviting discussion of these issues. Also, SBR offers a calm setting that fosters attentive listening and meaningful parent-child dialogue, enabling links between stories and children's experiences.

Indeed, we found that books provide a valuable platform for discussing sustainability with children. The stories and accompanying illustrations prompted parents to engage their children in conversations about the topic. Parents provided their children with sustainability-related clarifications, sustainability-related elaborations in the form of

world knowledge, sustainability-related elaborations involving cognitive functions, and questions on sustainability. For example, one father explained: “This is called fertile land—a place where the soil is rich, and plants can grow. ‘Fertile’ means it has the conditions needed for growth.” A mother noted, “Everything is bright; there is sunlight. The sun helps plants a lot.” Parents also asked questions such as, “Why didn’t he expect to find plants there?” to which the child responded, “Because it is a very gray city.” In another instance, a mother asked, “What book does he read if he wants to become a gardener?” Additionally, a mother pointed to the illustration of the wind turbines and explained how they work.

These findings connect two complementary lines of research. Hsiao and Shih (2016) qualitatively demonstrated the potential of picture books as a pedagogical tool in preschool settings, showing that teachers' use of picture books led to significant improvements in children's understanding of the environment. At the same time, Borg et al. (2017) highlighted the importance of adult-child discussions, showing that parents' sustainability-related conversations are positively associated with children's declarative knowledge, although such discussions may occur less consistently at home than in educational settings. In educational settings, teachers tend to integrate sustainability more systematically into the curriculum, whereas at home, such discussions may occur less consistently. Taken together, our findings extend this literature by showing that shared book reading in the home may serve as a natural and accessible context for eliciting meaningful parent-child discussions about sustainability.

Comparing the Books

When comparing the books, we found that during the reading of *The Curious Garden*, parents provided their children with more sustainability-related clarifications and elaborations in the form of world-knowledge and cognitive-function elaborations, as well as open- and closed-ended questions on sustainability. These findings align with evidence that the characteristics of children's books shape the nature of parental scaffolding during SBR interactions (Aram et al., 2026; Bergman-Deitcher et al., 2021; Henkalin & Wagner, 2020). For instance, wordless picture books elicit richer discourse than texted books (Smadja et al., 2019), and informational books can promote broader and more in-depth discussions than narrative books (Bergman-Deitcher et al., 2019a). Even within the same genre, variations in book structure and content can shape reading styles (Bergman-Deitcher et al., 2019b). The *Curious Garden* clearly highlights sustainability through both words and pictures (see Figure 2), encouraging parents to discuss the topic with their children. The story begins with a dull, gray city devoid of plants, and later shows the main character—Liam—caring for plants—gardening, pruning, and watering—leading to the city's transformation into a vibrant, green space.

In contrast, while sustainability is present throughout *Florette*, it emerges indirectly through Mei's longing for her former garden. The story opens with Mei's wish to bring her garden with her, shown in her holding a single wilted flower. The narrative mainly elicits emotional talk about transition and loss, while sustainability themes—such as the value of nature and green spaces in urban settings—remain more implicit and layered (see Figure 3).



Figure 2. Illustrations in “*The Curious Garden*” that explicitly invite discussion of Liam's transformation, as the city shifts from an industrial environment to a green, flourishing one.

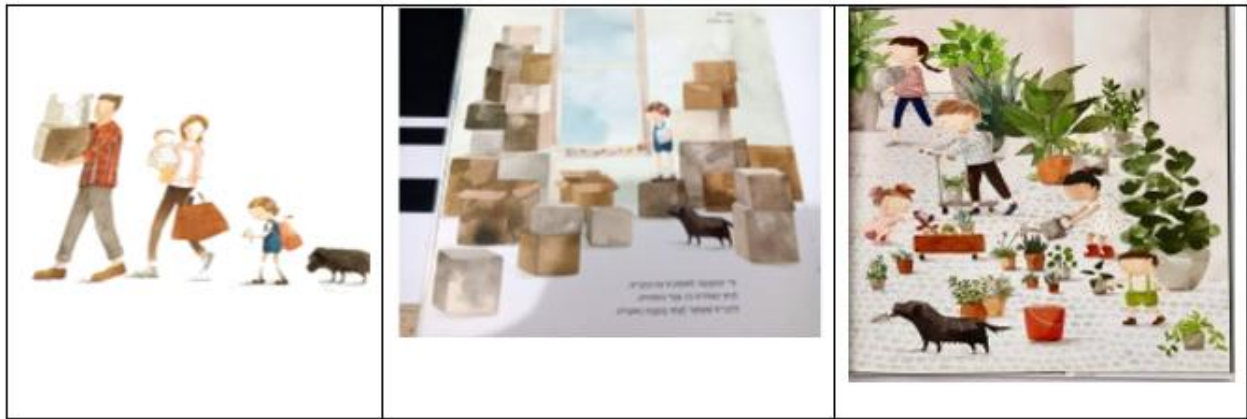


Figure 3. Illustrations from *Florette* that implicitly invite discussion on her love of nature (conveyed through the “treasures” on the windowsill), and scenes of planting and watering sprouts.

Encouraging parent–child discussion on a specific topic appears to depend on how explicitly the topic is presented and conveyed through both text and illustrations. Consistent with this, Park and Ostrosky (2014) selected books that explicitly addressed disabilities and inclusion to create a context that would guide parental discourse on the topic. Similarly, in the present study, the book's most salient features seemed to prompt parents to focus on its central theme.

Parental Scaffolding Style

Parents who frequently mediated sustainability while reading *The Curious Garden* tended to do so as well when reading *Florette*. This pattern suggests that, beyond the influence of book characteristics, parents exhibit a relatively stable scaffolding style. This interpretation is consistent with prior research comparing parental scaffolding across different reading contexts. Although scaffolding levels may vary with book features, associations among scaffolding indices point to underlying consistency in how parents engage with their children during SBR (e.g., Price et al., 2009). Thus, parental scaffolding appears to reflect not only responsiveness to textual affordances but also a stable, individual interaction style.

A possible explanation for this consistency lies in parents' beliefs about the purposes of reading with children. Meagher et al. (2008) found that mothers who viewed reading as a learning opportunity provided richer, more cognitively oriented scaffolding. In the present study, parents may have approached both books with a similar instructional orientation, using the reading context to support their children's understanding of sustainability.

Evidence from other domains of parent–child interaction further supports the notion of stable parental styles (Metsäpelto et al., 2001). Studies of parent–child writing interactions in early childhood have documented consistent scaffolding patterns across different tasks (e.g., Aram & Chorowicz Bar-Am, 2016). Taken together, these findings highlight the interplay between contextual properties and stable parental tendencies. While a book's explicitness and structure shape the content and focus of parent–child discourse, parents bring their own scaffolding style to the interaction, which guides how they interpret and elaborate on the text.

Parental Sustainability Scaffolding and Children's Hope

We found small yet statistically significant associations between parental sustainability scaffolding during SBR and children's level of hope beyond their age and vocabulary. That is, parents who engaged more extensively in sustainability-related discourse tended to have children with higher levels of hope. In the context of sustainability, achieving sustainability goals involves the core components of hope: agency—setting goals toward a sustainable lifestyle—and pathways—identifying the routes and behavioral changes required to achieve these goals (Snyder,

2002). Both books show how children initiate change in their environments. Liam, the protagonist of *The Curious Garden*, initiates an environmental transformation in his city, turning it from a highly industrialized city into a green, flourishing one. Mae, the protagonist of *Florette*, adapts to a new living environment following relocation and creates a garden. Thus, the protagonists in both books must identify ways to act to achieve their goals. Both characters thus demonstrate high levels of hope.

Hope can be learned and fostered (e.g., Grund & Brock, 2019; Westburg & Martin, 2003). Parental scaffolding on sustainability may therefore also function as a form of hope scaffolding. The associations found between parental sustainability scaffolding and children's level of hope highlight the potential power of such scaffolding. These findings are consistent with research in sustainability education, which calls for teaching children to take action (pathways thinking) and for explicitly fostering components of hope—goal setting and identifying routes to achieve them—within sustainability education (e.g., Grund & Brock, 2019; Spiteri, 2022; Wolff et al., 2020).

Limitations and Directions for Future Research

To the best of our knowledge, our study is a pioneering examination of how parents address sustainability during SBR and of the association between parental sustainability scaffolding and preschool children's level of hope. Several limitations should be acknowledged: First, the sample size was relatively small (57 parent-child dyads). A larger sample might yield more robust and precise findings. Second, the range of parental education in the sample was limited, with most participants holding academic degrees. Future research should examine whether the observed associations hold across populations with more diverse socio-economic backgrounds. Third, the present study is correlational. Intervention studies that use books to promote sustainability-related discourse are needed to establish causal relationships between adults' scaffolding and children's hope. Such interventions could clarify the extent to which engaging in sustainability-related discussions during SBR fosters children's hope. Given that sustainability is also addressed within early childhood education systems (e.g., Melis et al. 2026), future research should examine both parental and educational discourse with preschool children during storybook reading and investigate how targeted interventions can enhance sustainability discourse, hope, and additional social-emotional outcomes.

Educational Implications

Despite its limitations, the study provides important insights into the nature of sustainability-related discourse during SBR and highlights an association between parental sustainability scaffolding and children's hope. We suggest integrating sustainability education into programs that foster social-emotional competencies, such as life skills curricula. In particular, we recommend incorporating books that address sustainability and emphasize humans' capacity to take action and influence reality. Parents and educators are encouraged to engage children in discussions about sustainability and about children's own ability to initiate change in their surroundings.

Sustainability encompasses a broad range of topics, including environmental protection, mutual responsibility, care for public spaces, and social responsibility. Children's literature richly reflects these themes, making it a valuable context for promoting sustainability-related discourse. Such activities may help parents and preschool teachers engage children in meaningful conversations, deepen their understanding of the world, and foster both their sense of hope and their perceived capacity to help make the world a better place.

References

- Alam, S., & Hamzah, R. A. (2025). The role of parental involvement in promoting education for sustainability in primary schools. *Asian Education and Development Studies*, 14(3), 563–578.
- Aram, D., Avman Wolff, I., Aviram-Brill, S., Roth-Barkai, Y., & Zaidman Zait, A. (2026). The Character Matters: Exploring Adult-Child Discourse in Shared Reading of Books with Animal vs. Human Protagonists. In R. Schapira & D. Aram (Eds.), *Shared Book Reading and Children's Social-Emotional Competence*. Chap. 3. Pp. 27–40.

- Aram, D., & Chorowicz Bar-Am, O. (2016). Parent-kindergartner joint writing: A comparison between computer use and pencil and paper. *International Journal of Child-Computer Interaction*, 7, 15–21. doi:10.1016/j.ijcci.2016.03.001
- Berg, C. J., Ritschel, L. A., Swan, D. W., An, L. C., & Ahluwalia, J. S. (2011). The role of hope in engaging in healthy behaviors among college students. *American Journal of Health Behavior*, 35(4), 402–415. <https://doi.org/10.5993/AJHB.35.4.3>
- Bergman Deitcher, D. B., & Johnson, H. (2022). Parents and children reading together: Expanding shared book-reading across genres. *Journal of International Education and Practice*, | 5(01). <https://doi.org/10.30564/jiep.v5i1.4493>
- Bergman Deitcher, D., Johnson, H., & Aram, D. (2019a). Does book genre matter? Boys' and girls' word learning from narrative and informational books in the preschool years. *Journal of Research in Reading*, 42(3), 193–211. DOI:10.1111/1467-9817.12266.
- Bergman-Deitcher, D., Aram, D., & Goldberg, A. (2019b). Alphabet books: The nature of parents' shared reading between and across books. *Journal of Early Childhood Literacy*, 42(1), 193–211. <https://doi.org/10.1177%2F1468798418814103>
- Borg, F., Winberg, M., & Vinterek, M. (2017). *Children's learning for a sustainable society: Influences from home and preschool*. *Education Inquiry*, 8(2), 151–172. <https://doi.org/10.1080/20004508.2017.1290915>
- Brekke Stangeland, E., Campbell, J., Kucirkova, N., & Hoel, T. (2024). Shared book reading: a Norwegian survey of reading practices in families, *Scandinavian Journal of Educational Research*, 68:6, 1304–1319. DOI:10.1080/00313831.2023.2229369
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design* (1st ed.). Harvard University Press. <https://doi.org/10.4159/9780674028845>
- Brown, P. (2009). *The curious garden*. Little, Brown Books for Young Readers.
- Chen, H., Lyu, D., & Zhu, L. (2025). The effectiveness of social-themed picture book reading in promoting children's prosocial behavior. *Frontiers in Psychology*, 16, 1569925. <https://doi.org/10.3389/fpsyg.2025.1569925>
- Chou, Y. J., Hu, B. Y., & Roberts, S. K. (2021). Features of Taiwanese parents' moral discourse in shared storybook reading: Exploring associations related to preschoolers' cognitive and affective moral attribution. *Early Childhood Education Journal*, 49(6), 1007–1019. <https://doi.org/10.1007/s10643-020-01110-z>
- Ciarrochi, J., Parker, P., Kashdan, T. B., Heaven, P. C. L., & Barkus, E. (2015). Hope and emotional well-being: A six-year study to distinguish antecedents, correlates, and consequences. *The Journal of Positive Psychology*, 10(6), 520–532. <https://doi.org/10.1080/17439760.2015.1015154>
- Davis, J. M. (2023). *Young children and the environment: Early education for sustainability* (4th ed.). Cambridge University Press.
- Dixson, D. D., Worrell, F. C., Olszewski-Kubilius, P., & Subotnik, R. F. (2016). Beyond perceived ability: the contribution of psychosocial factors to academic performance. *Annals of the New York Academy of Sciences*, 1377(1), 67–77. <https://doi.org/10.1111/nyas.13210>
- Dowdall, N., Melendez-Torres, G. J., Murray, L., Gardner, F., Hartford, L., & Cooper, P. J. (2020). Shared picture book reading interventions for child language development: A systematic review and meta-analysis. *Child Development*, 91(2), e383-e399. DOI: 10.1111/cdev.13225
- Edwards, S., & Cutter-Mackenzie, A. (2011). Environmentalising early childhood education curriculum through pedagogies of play. *Australasian Journal of Early Childhood*, 36(1), 51–59. <https://doi.org/10.1177/183693911103600109>
- Fraser, A., Calley, A., Wang, W., Bryce, C., & Kennington, K. (2026). Hope in Early Childhood: Novel Methodology for Measuring Hope in 5-and 6-Year-Olds. *Wiley Interdisciplinary Reviews: Cognitive Science*, 17(2), e70024. <https://doi.org/10.1002/wcs.70024>
- Furu, A. C., Chan, A., Larsson, J., Engdahl, I., Klaus, S., Navarrete, A. M., & Turk Niskač, B. (2023). Promoting resilience in early childhood education and care to prepare children for a world of change: A critical analysis of national and international policy documents. *Children*, 10(4), 716. <https://doi.org/10.3390/children10040716>
- Galea, C., Jones, A., Ko, K., Salins, A., Robidoux, S., Noble, C., & McArthur, G. (2025). Home-based shared book reading and developmental outcomes in young children: A systematic review with meta-analyses. *Frontiers in Language Sciences*, 4, 1540562. <https://doi.org/10.3389/flang.2025.1540562>

- Golinkoff, R. M., & Ames, G. J. (1979). A comparison of fathers' and mothers' speech with their young children. *Child Development*, 50(1), 28–32. <https://doi.org/10.2307/1129037>
- Güler Yıldız, T., Öztürk, N., İlhan İyi, T., Aşkar, N., Banko Bal, Ç., Karabekmez, S., & Höl, Ş. (2021). Education for sustainability in early childhood education: A systematic review. *Environmental Education Research*, 27(6), 796–820. <https://doi.org/10.1080/13504622.2021.1896680>
- Hsiao, C.-Y., & Shih, P.-Y. (2016). Exploring the effectiveness of picture books for teaching young children the concepts of environmental protection. *International Research in Geographical and Environmental Education*, 25(1), 36–49. <https://doi.org/10.1080/10382046.2015.1106203>
- Hedefalk, M., Almqvist, J., & Östman, L. (2015). Education for sustainable development in early childhood education: A review of the research literature. *Environmental Education Research*, 21(7), 975–990. <https://doi.org/10.1080/13504622.2014.971716>
- Henkaline, K., & Wagner, L. (2020). The influence of book subgenre on parent-child reading interactions. *Cognitive Development*, 55, 100907. <https://doi.org/10.1016/j.cogdev.2020.100907>
- Hilbe, J. M. (2011). *Negative binomial regression* (2nd ed.). Cambridge University Press.
- Inoue, T., Georgiou, G. K., Parrila, R., & Kirby, J. R. (2018). Examining an extended home literacy model: The mediating roles of emergent literacy skills and reading fluency. *Scientific Studies of Reading*, 22(4), 273–288. <https://doi.org/10.1080/10888438.2018.1435663>
- Hindman, A.H., Skibbe, L.E., & Foster, T.D. (2014). Exploring the variety of parental talk during shared book reading and its contributions to preschool language and literacy: evidence from the Early Childhood Longitudinal Study-Birth Cohort. *Reading and Writing: An Interdisciplinary Journal* 27, 287–313. <https://doi.org/10.1007/s11145-013-9445-4>
- Kaye-Tzadok, A., Ben-Arieh, A., & Kosher, H. (2019). Hope, material resources, and subjective well-being of 8- to 12-year-old children in Israel. *Child Development*, 90(2), 344–358. <https://doi.org/10.1111/cdev.13130>
- Korat, O., Segal-Drori, O., & Spielberg, L. (2018). Word explanation and content expansion during storybook reading: Relation to SES and children's language. *Early Child Development and Care*, 188 (6), 691–708. <https://doi.org/10.1080/03004430.2016.1230107>
- Lewis, E., Mansfield, C., & Baudains, C. (2010). Going on a turtle egg hunt and other adventures: Education for sustainability in early childhood. *Australasian Journal of Early Childhood*, 35(4), 95–100. <https://doi.org/10.1177/183693911003500412>
- Marques, S. C., Gallagher, M. W., & López, S. J. (2017). Hope- and academic-related outcomes. A meta-analysis. *School Mental Health*, 9, 250–262. <https://doi.org/10.1007/s12310-017-9212-9>
- Marques, S. C., & López, S. J. (2017). Promoting hope in children. In M. W. Gallagher & S. J. Lopez (Eds.), *The Oxford handbook of hope* (pp. 117–132). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780199399314.013.10>
- McDermott, D., Hastings, S.L., Gariglietti, K.P., & Callahan, B. (1997). *The development of the Young Children's Hope Scale*. Unpublished manuscript, University of Kansas, Lawrence.
- Melis, C., Borg, F., & Falcichio, G. (2026). Sustainability in early childhood education: a comparison among national curricula in Italy, Norway and Sweden. *Environmental Education Research*, 32(1), 47–68. DOI: 10.1080/13504622.2025.2505954
- Metsäpelto, R. L., Pulkkinen, L., & Poikkeus, A. M. (2001). A search for parenting style: A cross-situational analysis of parental behavior. *Genetic, Social, and General Psychology Monographs*, 127(2), 169–192.
- Meagher, S. M., Arnold, D. H., Doctoroff, G. L., & Baker, C. N. (2008). The relationship between maternal beliefs and behavior during shared reading. *Early Education and Development*, 19(1), 138–160. <https://doi.org/10.1080/10409280701839221>
- Mol, S. E., Bus, A. G., & de Jong, M. T. (2009). Interactive book reading in early education: A tool to stimulate print knowledge as well as oral language. *Review of Educational Research*, 79(2), 979–1007. <https://doi.org/10.3102/0034654309332561>
- Nevo, B., & Oren, A. (1979). *Hebrew version of the Peabody Picture Vocabulary Test*. University of Haifa Press. (Hebrew).
- Olof, F., & Osbeck, C. (2018). Challenging the concept of ethical literacy within Education for Sustainable Development (ESD): Storytelling as a method within sustainability didactics, *Education 3-13*, 46(2), 133–142. <https://doi.org/10.1080/03004279.2016.1201690>

- Park, H., & Ostrosky, M. M. (2014). What typically developing children's parents say when they read books about disabilities. *Topics in Early Childhood Special Education*, 33(4), 225–236.
<https://doi.org/10.1177/0271121413497104>
- Price, L. H., Van Kleeck, A., & Huberty, C. J. (2009). Talk during book sharing between parents and preschool children: A comparison between storybook and expository book conditions. *Reading Research Quarterly*, 44(2), 171–194. <https://doi.org/10.1598/RRQ.44.2.4>
- Rasmussen, H. N., England, E., & Cole, B. P. (2023). Hope and physical health. *Current Opinion in Psychology*, 49, 101549. <https://doi.org/10.1016/j.copsyc.2022.101549>
- Samuelsson, I. P., & Kaga, Y. (2008). The contribution of early childhood education to a sustainable society. UNESCO. <https://unesdoc.unesco.org/ark:/48223/pf0000159355.pdf>
- Schapira, R., & Aram, D. (2026). Shared Book Reading and Children's Social-Emotional Competence. Springer.
- Schapira, R., & Aram, D. (2020). Shared book reading at home and preschoolers' socio-emotional competence. *Early Education and Development*, 31:6, 819–837. DOI: 10.1080/10409289.2019.1692624.
- Schapira, R., Bergman Deitcher, D., & Aram, D. (2021). Variability and stability in parent–child discourse during and following repeated shared book reading. *Reading and Writing*, 34(1), 273–300. <https://doi.org/10.1007/s11145-020-10072-y>
- Scoffham, S., & Rawlinson, S. (2022). Teaching about sustainability. In *Sustainability education: A classroom guide* (pp. 53–66). Bloomsbury Publishing Plc. <https://doi.org/10.5040/9781350262119.ch-004>.
- Sihadi, D. W., Sofia, H., Yuliani, N., & Agus, S. (2017). The effects of green schooling knowledge level and intensity of parental guidance on the environmental awareness of early-age students. *Educational Research and Reviews*, 12(5), 251–257. <https://doi.org/10.5897/ERR2015.2608>
- Sihvonen, P., Lappalainen, R., Herranen, J., & Aksela, M. (2024). Promoting sustainability together with parents in early childhood education. *Education Sciences*, 14(5), 541. <https://doi.org/10.3390/educsci14050541>
- Smadja, M. L., Aram, D., & Ziv, M. (2019). The impact of variations in text presence in children's storybooks on preschool teachers' discourse. *Journal of Research in Childhood Education*, 33(2), 194–211.
<https://doi.org/10.1080/02568543.2019.1577774>
- Snyder, C. R. (2002). Hope theory: Rainbows in the mind. *Psychological Inquiry*, 13(4), 249–275.
- Spiteri, J. (2022). How can environmental sustainability be achieved? The perceptions of young children as expressed through their drawings. *International Journal of Early Childhood*, 54(1), 13–31.
<https://doi.org/10.1007/s13158-021-00312-9>
- UNESCO. (2017). Education for sustainable development goals: Learning objectives. UNESCO.
<https://www.unesco.org/en/articles/education-sustainable-development-goals-learning-objectives>
- UNESCO. (2020). *Education for sustainable development: A roadmap*. UNESCO Publishing.
<https://unesdoc.unesco.org/ark:/48223/pf0000374802>.
- UNESCO. (2024). *Greening curriculum guidance: Teaching and learning for climate action*. UNESCO.
<https://doi.org/10.54675/AOOZ1758>
- Vogt, M., & Weber, C. (2019). Current challenges to the concept of sustainability. *Global Sustainability*, 2, Article e4. <https://doi.org/10.1017/sus.2019.1>
- Walker, A. (2017). *Florette*. Clarion Books.
- Winsler, A. (2003). Introduction to special issue: Vygotskian perspectives in early childhood education: Translating ideas into classroom practice. *Early Education and Development*, 14(3), 253–270.
https://doi.org/10.1207/s15566935eed1403_1
- Wirth, A., Ehlig, S. C., & Niklas, F. (2022). The role of the home literacy environment for children's linguistic and socioemotional competencies development in the early years. *Social Development*, 31 (2), 372–387. <https://doi.org/10.1111/sode.12550>
- Wolff, L.-A., Skarstein, T. H., & Skarstein, F. (2020). The mission of early childhood education in the Anthropocene. *Education Sciences*, 10(2), 27.
<https://doi.org/10.3390/educsci10020027>
- World Commission on Environment and Development. (1987). Our Common Future. Oxford University Press. chrome-extension://efaidnbmnnnibpcjpcglclefindmkaj/http://www.un-documents.net/our-common-future.pdf

Zucker, T. A., Cabell, S. Q., Justice, L. M., Pentimonti, J. M., & Kaderavek, J. N. (2013). The role of frequent, interactive prekindergarten shared reading in the longitudinal development of language and literacy skills. *Developmental Psychology*, 49(8), 1425–1439. <https://doi.org/10.1037/a0030347>

Dorit Aram, Ph.D., is a full professor in the Constantiner School of Education, Tel Aviv University, Israel. She can be reached at dorita@tauex.tau.ac.il.

Naama Elias, M.A., obtained her master's degree from the Constantiner School of Education, Tel Aviv University, Israel. She can be reached at naamaelias@mail.tau.ac.il.

Elad Yosef, M.A., is an educational psychologist and a Ph.d. student in the Constantiner School of Education, Tel Aviv University, Israel. He can be reached at elad.psychologist@gmail.com.