

“Old newspapers from *my home*”: Storying children’s environmental and cultural sustainability

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Abstract

Stories in children’s daily lives reflect collective meaning-making and knowledge creation with educators, children, and families. The stories sparked during these collective journeys unveil their shared early childhood experiences (Engel, 2005) and inherited cultural wisdom across generations. Education for sustainable development (ESD) has drawn global interest within the field of early childhood education. UNESCO (2005) defined ESD as a weaving of social, environmental, and economical dimensions for building a sustainable world. In this article, one Hong Kong based case story was selected from a study about children’s storying conducted in Aotearoa New Zealand and Hong Kong to illustrate these dimensions.

This *Old-Newspapers* story was situated in *storied conversations* (Gaffney et al., 2019) among children aged 4-5 in a local kindergarten. Children inquired about the wise use of paper through conversations, experimenting, and play. Old newspapers offered pedagogical resources and inspiration that contributed to children’s understanding of environmental sustainability. Besides revealing the shared and co-created learning experiences *about, in, and for* the environment (Davis, 1998, 2009), this story revived hidden cultural heritage and intergenerational connections in families in the social dimension.

Keywords: Children’s stories, Cultural sustainability, Education for sustainable development, Early childhood education

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Introduction

A child pointed to the piles and proudly stated with satisfaction, “*These are the old newspapers from my home.*” This child’s spontaneous exclamation gave birth to a story that grew above and beyond environmental protection in sustainability development.

Children are born into a world with significant global issues such as climate change, pollution, and loss of biodiversity. Educating children to learn how to act in a sustainable way has become a strong movement (Hedefalk et al., 2015). Sustainable development is defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987, p. 54). In 2005, the United Nations (UN) declared a Decade of Education for Sustainable Development that guides schools’ education for sustainable development (ESD). Later, the UN announced 17 Sustainable Development Goals (SDGs), which form the foundation for today’s leading framework for international cooperation towards future sustainability in 2016-2030 (UN, 2015).

In the last decade, ESD became a global priority in early childhood education (ECE). Given the extensive collaboration of educators, children, and their families beyond national borders, Siraj-Blatchford et al. (2016) gathered ESD practices from different countries. Practitioners shared a common understanding of children as active agents of change and valued the interconnectedness of ecological, social, and economic sustainability (Siraj-Blatchford et al., 2016). Based on a systematic literature review about ESD studies in ECE between 1996-2013 conducted by Hedefalk et al. (2015), ESD is defined as: (i) Education *about, in, and for* the environment (Davis, 1998, 2009); and (ii) the inclusion of economic, social, and environmental dimensions of sustainability in the pedagogy, as addressed in the UN’s guiding documents (UNESCO, 2005). These studies focused on environmental programmes or educational insights with relevance to the SDGs (Siraj-Blatchford & Pramling-Samuelsson, 2013).

Some goals among the 17 SDGs focus on fostering attitudes and actions towards

environmental protection in ECE. For example, Goal 12 emphasises that positive attitudes and behaviours towards consumption and conservation are formed in early years and last a lifetime. Undoubtedly, curricula and pedagogy play crucial roles in supporting children's sustainable development learning. Teaching content and practices, however, never stand alone; they evolve within contexts and from history (Pramling-Samuelsson & Park, 2017). The cultural aspects of children's lives seed learning for sustainability. Values and wisdom embedded in children's cultures allow them to take the initiative, think, and reflect in ways that promote sustainability (Pramling-Samuelsson & Park, 2017).

Education for sustainable development in Hong Kong

In Hong Kong, ESD in ECE is guided by a curriculum policy framework (see Curriculum Development Council, 1994) that offered guidance and direction without mandatory requirements. The emphasis of ESD is evident in various schemes and awards, such as green-school schemes and sustainable development promotion awards. ESD is promoted within the key learning areas through school-based programmes and other learning experiences (Environment Bureau, 2010). Based on Hong Kong's Kindergarten Curriculum (Curriculum Development Council, 2017), ESD in ECE is primarily covered in *Nature and Living*, one of the six learning areas (Education Bureau, 2018). "To appreciate, respect and care for nature and live an environmentally-friendly life" is a learning objective example within this area (Curriculum Development Council, 2017, p. 45).

A few ESD studies have been conducted in local kindergartens. Chan et al. (2009) described a case study that aimed to raise children's environmental awareness using the Chinese philosophy of harmony (*He*) as a theoretical basis for understanding sustainable development. The case was an integrated project in which the concept of environmental protection was introduced through different learning areas, including language, science, and visual arts. Telling children traditional Chinese stories was a major activity delivered to model the harmonious relationship between humans and nature.

In Lee's (2001) environmental-education study, the results from a questionnaire reflected that ECE teachers emphasised education *about* the environment more than education *in* and *for* the environment. Lee and Ma (2006) reported a university-kindergarten partnership

project about developing school-based environmental programmes. Teachers' and parents' views on perceived changes in their children's environmental attitudes and behaviours were examined through questionnaires and interviews. Two main barriers were identified: logistical (i.e., resources and time constraints) and conceptual (i.e., lacking environmental concepts). While *these* programmes were focused on the transfer of ways to protect the environment through a variety of activities, the essence of underlying cultural capital was less considered.

Rationale and aim

These Hong Kong based early childhood studies featured a ESD project across different learning areas, teacher perspectives about a ESD programme, and parent and teacher perspectives on post-project changes in children's environmental attitudes and actions. In our study, the intention to understand children's perspectives led us to a novel research approach. We embarked on a journey to understand children's ESD experiences in their everyday ECE environment through the lens of children's collective storytelling.

Children are the protagonists of their lived stories. Everyday stories in their daily lives reflect collective meaning-making and knowledge creation with educators, children, and families. The stories sparked during these collective journeys unveil their shared early childhood experiences (Engel, 2005) and inherited cultural wisdom across generations. The concept of "small stories" has increasingly been explored in narrative research in ECE since 2000. Bamberg and Georgakopoulou (2008) referred to "small stories" as narrative activities, which are small, both literally and metaphorically. Besides being short or subtle, small stories are told in everyday life interactions rather than elicited in research interviews (Bamberg & Georgakopoulou, 2008; Georgakopoulou, 2006). Stories, in this sense, are viewed as social practices that record children's lives and identities (Juzwik & Ives, 2010). Stories are portals "through which a person enters the world and by which their experience of the world is interpreted and made personally meaningful" (Connelly & Clandinin, 2006, p. 375). We, therefore, focused on children's everyday experiences, interactions, and conversations through which their acts and identities relative to sustainable development are constructed and revealed.

The crafting and telling of stories in multimodal ways spans various genres. This article highlights the genre of *storied conversations* (Gaffney et al., 2019), which are dialogues in which two or more people co-craft and co-narrate stories, reflecting the lived experiences and identities of both story tellers and listeners-responders. The research question “What are the underlying meanings of the old newspapers relative to environmental and cultural sustainability?” was addressed through the examination of children’s collective conversations. We selected one Hong Kong based case story about old newspapers as an illustration of storied conversations with children and the teacher in natural settings. We unpacked children’s ESD experiences in environmental and economical dimensions, followed by discussion of cultural sustainability in the social area.

Methodology

This report is drawn from a phenomenological case study of storying conducted in four ECE research sites in two contexts of Aotearoa New Zealand (two kindergartens) and Hong Kong (two classrooms in one kindergarten) over a 6-month period. A phenomenological approach is distinct from the more common approach of a child, teacher, or setting designated as a case. In this approach, a phenomenon, *storying*, is the case. Assumptions underlying this methodology is that the essence of storying can be defined and observed in lived experiences. Aligned with Vagle’s (2014) post-intentional phenomenology, storying offers tentative manifestations of children’s lived experiences and imaginations.

Individual stories are the unit of analysis focused on the “particularity and complexity” (Stake, 1995, p. xi) inherent in the case of storying. Key participants were children aged 4-5 from the four research sites (each with daily rolls of 15-22 children) and their teachers and families. Informed consents were given by all participants.

Data were collected through observations and interactions with children naturally by the first author as the researcher-inquirer in 4-5 hours per day for approximately 10-12 days over 4-5 weeks in each research site. Spontaneous stories were identified in natural situations in children’s daily lives through observations and audio-video recordings.

Although often short and fragmented, children's spontaneous stories consist of events (*setting*) that are related to or actions (*plot*) and are carried out by *protagonist(s)*. Teacher and family perspectives about children storying were gathered as supplementary information through informal conversations.

Stories were analysed using a post-intentional phenomenological approach which “embraces intentionality as ways of being that run through human relations with the world and one another” (Vagle, 2010, p. 36). The analysis involved a continuous layering of understanding through a fluid phenomenological lens of the researchers' intentional relationships with the participants, the phenomenon, and their positionality together (Vagle, 2010). This approach facilitates our understanding of how children make sense of their lives and experiences (Merriam, 2009) and the inseparable connectedness (Vagle, 2014) between children and the everyday storying environment. The relational nature of lives and experiences is best described in stories (broadly known as narratives).

The story selected to chronicle in this report was situated in Room Camellia of Bauhinia Kindergarten¹ in Hong Kong in which 17 children and two teachers engaged in the study. Forty storied-conversations episodes were incubated from the learning theme “Wise Use of Paper”, which was co-developed by the children and teachers. One case story, *Old Newspapers From My Home*, was selected from this theme to illustrate the connections to ESD. The full story encompasses nine episodes of children's conversations over two days. Four episodes pertaining to reusing newspapers were selected as a subset to illustrate the child-protagonists' interactions with peers and the teacher, as back-and-forth conversations with the teacher occurred throughout all episodes. Each episode represents one idea of reusing newspapers co-developed by a child-protagonist and their family through storied conversations.

This story was examined along the three dimensions of sustainability with emphasis on the social dimension particularly, the cultural aspect. In Vagle's (2014) notion of phenomenology, the goal is to identify novel potentialities of the phenomenon in this case storying for innovative practices. We revisited the story and re-created new meanings for it.

The Story: “Old Newspapers From *My Home*”

Setting: Room Camellia

Nestled under a block of 30 plus-storey public estates in a small Hong Kong suburb with a population of over 48,000 and monthly household income below median (Centamap, 2016) is Bauhinia Kindergarten. Bauhinia is situated at the end of a cul-de-sac with a pedestrian area where children and caregivers gather for chit-chat before and after learning hours. Having no outdoor space, Bauhinia makes use of the community facilities such as playgrounds, gardens, and supermarkets to promote children's learning. Every school-day morning, many children walk to the kindergarten with grandparents, parents, and nannies from homes. Apart from the library area, music room, and a hallway, Bauhinia houses six classrooms with three grades (K1-K3) in same-age grouping with a full roll of over 100 children aged 3-6.

Ever since the 2003 SARS outbreak, once the main door opens at 8:45 a.m., children line up, put on hand sanitiser and take their temperature, greet teachers, walk through a bright and clean hallway towards their rooms, and change into their indoor shoes. Typically, children walk or skip into Room Camellia with smiles and a cheerful “morning” to the teacher, followed by handing in homework, shelving schoolbags, then playing with toys in their own seats until 9 a.m. when “official lessons” start. Children, grouped in two tables, spend their learning time predominantly in Room Camellia, leaving only to go to the music room and the hallway for physical education. Two sides of the room have shelves for storing schoolbags, homework, and toys. The other two sides are display walls for children's inquiry-based artwork and documented learning snapshots.

Protagonists

This story constitutes the lifeworld of all 17 children (aged 4-5) and their teacher in Room Camellia. Yin, Fung, and Chun are the protagonists of the four selected episodes in which they shared their ideas of using newspapers in storied conversations with peers and the teacher.

Prologue

Four words written on the whiteboard “Wise Use of Paper” (in Chinese: 節約用紙) ignited a new inquiry topic in Room Camellia. Over a month, children’s conversations were sparked around questions that evolved from one day to the next. For example, what types of paper do we use most each day? How can we reduce the use of paper? Which items can be recycled?

After conducting a survey with their family members about their household’s use of paper, children found that newspapers were the most common type of paper that families had at home. Children were motivated to further explore how to make good use of old newspapers rather than disposing of them. For their homework, children were invited to consult with their family members, think about suggestions on how to use newspapers, and share their ideas in drawings and writing on the homework sheets.

One morning, children brought in more bags than ever. Inside the bags were old newspapers. Piles of newspapers were stacked up in the corner of the room. A child pointed to the piles and proudly claimed, “*These are the old newspapers from my home*”. During group time, several children took turns sharing their uses for newspapers.

Episodes

The teacher, who was posting the homework sheets on the whiteboard, announced, “*Please come to the centre*”. Children then sat in a big circle facing the teacher. Children who had submitted the homework sheets were invited to share their work in turn.

Episode 1: Newspapers as window cleaner

Referring to her sheet, Yin said, “*It can make the windows shine*”. When asked how she could make the windows shine with newspapers, Yin stood silent. The teacher then prompted Yin by reading out her ideas.

Teacher *Here’s written, “Wipe the glass”. What do you mean?*

(Yin moved her hand like wiping the board with a brush.)

Ho *Wipe the glass?!*

- Teacher *What is used for wiping?*
Hin *Use a towel.*
Teacher *What did mummy say about this?*
Chun *Use a towel.*
Yin *Use newspapers.*

Later, the teacher encouraged children to try out how to wipe the windows best so they shined. Following several failed attempts, Yin finally succeeded in shining the window by using a dry newspaper as a sponge bath ball. Other children were impressed with her innovative solution.

Episode 2: Newspapers as moisture-absorbers for rain-boots

After several children relayed suggestions from their family conversations, the teacher asked Yin again to explain a picture of sock on her homework sheet. Yin replied, "*Put newspapers into the rain-boots*".

- Teacher *Who has rain-boots? (Many children raised their hands)*
Are your rain-boots getting wet after raining? (Children said, "Yes").
Yin said, "We can put the newspapers..."
Yin *Inside the rain-boots. It can absorb water.*
Ho *Wow!*
Teacher *It's convenient, isn't it?*
Ho *How to absorb water?*
Teacher *Put the newspapers into the rain-boots to absorb water.*
Lam *[Rain-boots] can't be washed.*
Kiki *Can be washed.*
Lam *No...*
Kiki *If you jump into the puddles, the boots are wet.*
Lam *It's always the case that no water comes into my rain-boots.*

When the teacher regained their attention, Lam and Kiki stopped the argument. Next, children teamed up to test out Yin's idea. Some children rolled newspapers into long rods, some wrapped the boots with newspapers, and some put torn newspapers strips

inside the rain-boots. They observed each other's uses and noticed why some ideas failed. Eventually, children found that newspaper rods were the most satisfactory solution for drying boots.

Episode 3: Newspapers as placemats

Earlier, Fung was invited to share his idea, but he forgot what his notes were about. After he recalled his family conversations, Fung enthusiastically shared the idea that his parents had written on his homework sheet.

Fung *Set the table.*

Teacher *Why is it used to set the table?*

Fung *Because when we're eating, we may be careless to drop food.*

When asked if they had similar experience of using newspapers as placemats, children replied verbally or by nodding that they had. One child, Lam, elaborated on Fung's idea, saying "*Put on the table... because grandma worries that I will drop rice on the table*".

Episode 4: Newspapers as homework resources

Fung reported another idea about using newspapers for drawing and cutting out shapes or words. Soon after, Chun talked about his homework.

Teacher *Here, your mummy said something like "doing a newspaper homework". What's that about?*

Chun *My homework book.*

Teacher *I see... his homework used newspapers by cutting out...*

Chun proudly showed the teacher his workbook with newspaper pieces glued on some pages. Several children eagerly raised their hands to indicate that they cut shapes or words from newspapers for homework as Fung and Chun did.

Reflecting environmental sustainability

Under UNESCO's (2005) framework for ESD, this story exhibited the environmental and economic aspects in terms of education *about*, *in*, and *for* the environment. The inquiry

theme (i.e., wise use of paper) and the child/family-derived topics showed the direct association with sustaining the environment. In the prologue, children noticed and identified environmental problems around them (e.g., paper consumption). In the story, children enhanced their awareness and knowledge of “reuse” and understanding of the paper-waste problem through exploring solutions by means of conversations and experiments. This reflected education *about* the environment in which ecological awareness, knowledge, and understanding were accentuated.

Education *in* the environment (i.e., direct experiences in nature) was evidenced in children's interactions with newspapers through their inquiries. In the episodes, children not only talked about uses of newspapers but also tried out the ideas. These first-hand investigations promoted children's engagement, environment-friendly dispositions, and responsive habits toward their surroundings. Considering the economic dimension of sustainability, newspapers are accessible to everyone in Hong Kong. Every morning, densely-packed crowds queue for free newspapers outside metro stations and convenience stores. Even with free access, many people purchase print newspapers, probably due to the low price (USD 0.9). Children likely understood that reusing newspapers for different purposes could be an economic way of sustaining the environment. Children-protagonists turned their common goal into actions, repurposing old newspapers. The education *for* the environment (i.e., the active participation in solving environmental problems) was realised. Through the storied conversations, children were collectively constructing awareness and knowledge *about*, participation *in*, and commitment *for* the environment.

Findings and Discussion: Acknowledging Culture in ESD

Holistically, sustainable development is related to both environmental and cultural sustainability. From a socio-cultural perspective, culture intrinsically encompasses values, behaviours, and lifestyles inherent in the ESD tenet (Tilbury & Mulà, 2009). The cultural nexus shaped by UNESCO connects the concept of culture as an enabler of sustainability, driving a unique, social dimension in sustainable development (Wiktor-Mach, 2020). This story is assayed in terms of funds of knowledge (Moll et al., 1992) across contexts from

family-to-education, within education, and family-to-family. The children are the carriers of culture that bridge these contexts. As children deepen their cultural knowledge and ways of being, sustainable practice is promoted.

Succeeding family's intelligence: From generation to generation

Funds of knowledge refer to the historically-accumulated and culturally-developed home knowledge, practices, and networks that families draw on to fulfil the needs and well-being (Moll et al., 1992). Episodes 1-2 illustrated children accessing families' knowledges. The ways to repurpose newspapers were costless and easily accessible and thus were common household practices in local families over several decades. Yin's parents shared their household knowledge of re-using newspapers as window cleaners and moisture-absorbers for rain-boots with her in the homework conversations. Yin learned about her parents' experiences and documented this new knowledge in drawing and writing notes together with her parents. From Bruner's (1996) perspective, Yin's meaning-making was situated in a cultural context (i.e., her family) and added to her prior understanding about newspapers (as pieces of paper with texts and pictures). She not only co-constructed new meaning with her family (i.e., different ways of using newspapers), she was able to share this new learning with her kindergarten peers and teacher.

Transforming knowledge: From child to peers

To relate to the pedagogical theme of using paper wisely, the teacher provided a stage for children to share with their peers the new knowledge built with their families. As shown in Episodes 1-4, the new knowledge (i.e., reuses of old newspapers) from one child and their family was transferred to other children through conversations. The conversations among children, peers, and the teacher were a socially-productive process in which the conversations were linguistically and relationally configured to support inquiry learning, shared thinking, communication, and collective problem solving (O'Connor & Michaels, 2007; Van der Veen et al., 2015).

Children's families hold diverse household intelligence, situated in their lived experiences. These daily experiences are manifestations of particular culturally-amassed

capacity that each family uniquely possesses (Llopart & Esteban-Guitart, 2018). The ideas children shared represent their families' practices and experiences. For example, a simple reply "*use a towel*" offered by Hin, a child in Episode 1, demonstrated that he brought forth this knowledge from his family's way of cleaning windows. Similarly, the argument between Lam and Kiki in Episode 2 about their different understanding of rain-boots reflected their varied home experiences.

Without urging presumed "correct" answers, the teacher's openness within the flow of conversations instilled the value of "respect"; respect for children's agency to share their understanding in the spirit of "exploration" in which they made meaning through exchanging and critiquing evidence and views of others. Another child, Ho, queried "*Wipe the glass?!*" (Episode 1) and made simple responses "*Wow!*" and "*How to . . .?*" (Episode 2). Ho's participation revealed his reservoir of family knowledge about using newspapers, which might differ from his peers. His curiosity was sparked and his responses encouraged others to engage and wonder.

These conversations helped children to scaffold their existing knowledge of environmental sustainability with novel contributions expanding their repertoire. As Connelly and Clandinin (1990) stated, the stories children merge with peers create new stories, also known as "collaborative stories" (p. 12). Furthermore, the collective intelligence gathered from families contributed to the shared knowledges among children in Room Camellia. Given the children's excitement, they likely carried their new experiences with demonstrations into family conversations. Children might encourage their family members to act for the environment together in reusing newspapers for meaningful purposes in new ways co-learned with their peers. This helps seed the change for ESD from family to family and generation to generation.

Being connected in shared experiences

In Episode 3, Fung talked about using newspapers as placemats. With the teacher's simple question "*Have any of you ever used newspapers as placemats when you have rice [meals] at home?*", other children were drawn into the conversation. Fung's idea connected to children's daily meal-time experience (i.e., using newspapers as placemats to protect the

table from food messes) and reflected shared experiences across families. In many local families, decent placemat is not a household necessity, rather, newspapers are the substitutes. Families could conveniently tidy up the table after meals by rolling up the newspapers and disposing them with the waste wrapped inside. The story reflected this shared daily household practice, displaying the cultural values of thriftiness and convenient efficiency in the society.

In Episode 4, Fung and Chun eagerly talked about cutting something out from old newspapers for homework. Other peers avidly confirmed that they had similar experiences. Newspapers were accessible and functional resources when children were doing homework. Children look up words, cut out shapes, or make puzzles from newspapers, ideas that were raised in the storied conversations. Doing homework and using newspapers for homework were natural parts of the children's lived experiences, which triggered their engagement in conversations. The homework connected to their lives and was done in partnership with their parents. In this story, children collected newspapers, talked about the possible methods of reusing newspapers, tried out the methods, and documented their shared ideas—together.

Sustaining cultural wisdom: The hidden treasures

Folklorist and independent scholar Kay Turner said, “Even if a story is the same, each culture will tell it differently, because each one has its own genres and cultural rules” (n.d. as cited in Choi, 2015, para. 3). Stories contain cultures. The old newspapers contained hidden treasures.

In the story, suggestions for reusing old newspapers were not innovative, esoteric solutions, but rather the practices reflected the traditional virtue of frugality. Despite the rising living standards, saving remains a highly valued virtue in contemporary Hong Kong. This key message of sustaining the environment, embedded with cultural wisdom and values, was passed from one generation to another, through family–child and children–peer conversations. For children, this was the seeding virtue for living sustainable futures.

The homework culture was another finding manifested in this story. Homework, as a take-home task (Cheuk & Hatch, 2007) or a non-play learning activity in Hong Kong's ECE often leads to controversy over the construct of early academic push and children's

stress in early learning (Wong et al., 2011). Despite the perpetual debate, homework as a cultural phenomenon showed its constructive side in the social nexus. Children displayed pleasure, not reluctance, when they talked about homework. Children who presented were not the talkative ones, fond of expressing views or boastfully showing their work. They made the effort to recall and share their ideas. The underlying motive was their family relationship. The homework was meaningful to the children and connected to their family. The parents' relational involvement in children's learning was cherished. Simply put, children were proud to represent their family's contribution to the project. The homework created opportunities for children to act to sustain the world together and with their families, which gave children a sense of connection, happiness, and meaning.

Teachers also played a crucial role in building a positive homework culture. In this story, the teacher's professionalism was key to supporting such connections. The teacher did not ask children to repeatedly do meaningless copy-work or skills-drills worksheets as intensive practice (Tam & Chan, 2011) but rather upheld the values of conversations within families and among peers. This homework culture, embedded in the reciprocal, relational, and fiduciary participation through parent-child and children-peers interactions and conversations, is a treasure to be sustained.

Empowering children's environmental identities

Children respond to their environment by adopting and adapting their own and others' words, actions, and practices in their daily lives (Williams & Chawla, 2016), shaping their identities. Environmental identities refers to a sense of connection to the natural environment that "affects the way in which we perceive and act toward the world" (Clayton, 2003, p. 46). Through thematic-conversational stories, children played multifarious roles as Inquirers, initiating conversations with parents to seek for answers; Experimentalists, testing out different ways of reusing newspapers; and Cultural Heirs, inheriting cultural wisdom. Bringing families' knowledge from home to educational settings, children were Presenters of their family stories and Conservers of culture and the environment. The actions children took might be on a small scale in terms of impactful changes to the world, but they were in the process of becoming Responsible Contributors to a sustainable world. To achieve this role, these young people need to be trusted as competent actors and

responsible decision-makers.

Implications

Education for sustainability often occurs in “official lessons” in which the knowledge *of*, awareness *in*, and actions *for* sustaining the environment are the educators’ pedagogical foci. Through the story, we have negotiated new meanings of sustainability beyond this “official” space. The less-structured conversations among children in the supportive and malleable environment, which were composed of relational materials, meaningful activities, and connected relationships (Ostrosky et al., 2006), have pedagogical and research implications. We invite educators and researchers to acknowledge and embrace the social and cultural aspects in the educational practices found in ESD.

Relational connections: From lifeless matter to powerful agent

Being harnessed as a teaching resource for environmental conservation, old newspapers served as powerful agents in children’s storying that elicited actions, conversations, and relations. As Tesar and Arndt (2016) put it, “things connect with children, teachers, parents, and other things through vibrant forces and matter that arouse life, vitality, imagination, and purpose” (p. 196). In this story, old newspapers, originally lifeless matter, were physically and emotionally embodied, connecting to children’s home experiences and their families’ knowledge. They were representational and invitational, resonating with cultural heritage from homes and forging relations between children and their families and peers. The old newspapers were alive, embedded with values and purposes the children and their families assigned to them.

The newspapers reflected the reciprocal relations between the environment and social community. The environment-related topic (reusing newspapers) connected parents–children and children–peers together. Reciprocally, the shared experiences and ideas (different ways to repurpose newspapers) were rewarded and extended to others. Through the conversations regarding old newspapers, a sense of “we are all related” was built among

children (e.g., shared experiences of homework and using newspapers). The connections helped build children's concept of relationships which encompasses relationships to self and family, to others, and to the environment. These relationships were tied to their collective identity and responsibility apropos sustaining the environment.

Storied conversations as liminal space for creating meanings

Storied conversations, a storying genre that involves children–parents', children–peers' and children–teachers' conversations, occur within meaningful activities in which children and educators share and respond to topics of mutual concern (e.g., the wise use of paper). Through interactions with peers and adults (Pramling-Samuelsson, 2011), children make sense of their prior experiences and the environment in which they are involved. Children are also empowered to co-create new meanings in a relational nature within the storied-conversation space.

As in dialogic pedagogy (White, 2015), the knowledge co-created in the conversations was not an end-point, but a process. Children's rights and potentiality in their learning are often ignored in the "official lessons" when ESD is initiated by teachers and even taught without children's input. The story reminds us that the dynamics of sense-making are evident in meaningful conversations. Educators should encourage children to think deeply, critically, and interactively about significant issues in their everyday lives. Children are indeed competent individuals who can make meanings about the world they encounter, create knowledge for themselves and others, and make reasoned decisions in the learning process when they are engaged in conversations.

Storied conversations as educational space for reviving culture

Culture is a gift that is shared in the society over time, waiting to be discovered, valued, inherited, and sustained. The family's knowledge, the virtues valued in the society, and the parent–child relational connections not only infuse knowledge and habits about sustaining our environment but also preserve and carry forward the culture heritage. Culture is a treasure for ESD inherited across generations, across families. In this story, children's

sustainable development learning experiences and motives were invigorated through connected relationships, including cross-generational relationships within families and across families through peer connections. The cultural relationships for responsive pedagogy approach (Berryman et al., 2018) that accentuates contexts for learning in which culture counts, learning is interactive and dialogic, and connectedness is particularly relevant. This approach recognises that children are not only learning and achieving for the future but also being strong and secure in their cultural identities.

To support children's sustainable development learning, storied conversations offered a "relational dialogic space" (Berryman et al., 2018, p. 6), opening opportunities for "the sharing of prior knowledge and experiences, identities, aspirations, concerns, and connections" (Berryman et al., 2015, p. 6). Such space requires trust, respect, and the need to understand children through conversations. In this story, the teacher, as an attentive listener-responder, encouraged children to exchange ideas of repurposing newspapers, without directly transmitting information. When educators trust children's capability and respect for cultural and family knowledges, children are empowered to act as agents for sustainability (Stuhmcke, 2012).

Family participation is prime in building cultural relationships. Within the families where the knowledge formed, the cultural wisdom rooted, and the interactions connected, all contributed to children's learning about cultural sustainability. Storied conversations co-created by children, their families, peers, and teachers lie at the heart of reviving culture as a reminder of the collective wisdom inherent in the reciprocal, intergenerational relationships.

Researching storying as phenomenon captivates possibilities

Many case studies in ECE focus on individual children, settings, or programmes. We took a novel research approach by viewing storying as the phenomenon and individual stories as cases and the unit of analysis. Vagle (2014) refers to phenomena as "the ways in which we find ourselves being in relation to the world through our day-to-day living" (p. 20). In this report, we are not depicting the qualitative properties of newspapers in ESD but exploring how children found themselves in relation to these old newspapers. Newspapers

are not just part of children's *natural world* (Husserl, 2003) that is replete with papers, prints, and purposes. The old newspapers are about the *lived world* in which the children, their families, and their society have "lived, felt, and sensed significance" (Vagle, 2014, p. 25).

This perspective helps researchers describe, interpret, and reflect upon the manifestations and essences of children's lived experiences (Vagle, 2014; Van Manen, 1990), focus on the intentionalities between children and the environment, and capture the complexity and richness of storying. With a focus on children's first-person experiences and everyday stories, this study vividly elicits children's voices and thoughts, and acknowledges children as active participants in the sustainable learning and culture. This research approach welcomes an open perspective to understand children's experiences in storying as malleable and contextually situated and captivates possibilities because storying can be revealed in multiple ways. In this article, we offer an alternative research approach pertaining to children's storying to (re)conceptualising ESD experiences in Hong Kong's ECE, emphasising cultural connections.

In Closing: Understanding Sustainability, Valuing Children's Stories

Beyond nurturing the environment, sustainability can be deciphered in the social dimension where cultural values and experiences are shared through children's collective storying. In ECE, the provision of accessible materials, meaningful activities, and reciprocal and cultural relationships, together with relational and responsive pedagogy, forms the basis for ESD.

The *Old-Newspapers* story is not a big story that is structured with beautiful expressions, gorgeous prose lines, or sophisticated words. Neither does it constitute imaginative or dramatic elements that move us, nor mythological or mysterious plots that amaze us. This story is small, yet meaningful, particularly to children and to us, as educational inquirers. Stories carry valuable insights to understand children (Engel, 2005) as the protagonists of their lived stories. Their stories played irreplaceable roles in connecting children with families and bridging families with the ECE community through shared, inherited wisdom.

The *Old-Newspapers* story itself was so minimal and fleeting that this could be forever neglected and unheard. Only with our wondering and valuing, the meanings of connectedness and togetherness that children are conveying become visible.

Stories were incubated in many ways. Storied conversations offered a space not only for knowledge transfer and creation about sustainability but also for acknowledging shared experiences and infusing the cultures inherent in the families and the society. Stories breathed new life into the newspapers through conversations that kept cultures alive. We revisited the broader meanings in education pertaining to sustainable development, from environmental to cultural, through the lens of collective storying where children interacted with their families and the teacher in conversations. This article serves as an invitation to educational inquirers to be attentive listeners-responders, noticing and acknowledging the ways our children make sense of the world and express who they are.

Acknowledgement

The authors thank the participating children, parents, and educators who shared their precious stories. The first author acknowledges scholarships from the Marie Clay Literacy Trust and the University of Auckland, which supported her focus on research.

Footnote

¹All names, children, kindergarten, and room, are pseudonyms.

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