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Sailing the 7 Cs: Exploring loose parts as anchors to nurture resilience

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The world has been challenged by uncertainty, chaos, grief and loss brought on by Covid-19. While inevitable trends such as working from home, online school and social distancing seem to challenge people's mental and physical health, people are forced to alter their mindsets and adapt to a new normal. In other words, many people have become more resilient and tried to positively respond to the challenges. Over this time, children were also expected to adapt to new routines and experiences which has led to experts studying resilience in the early years (University of Auckland, 2020). This article examines resilience from an early childhood perspective, using Ginsburg's 7 Cs model namely; Competence, Confidence, Connection, Character, Contribution, Coping and Control (Ginsburg & Jablow, 2015). Further, the article will discuss the value of loose parts as a tool to nurture children's resilience and the role of the teacher in nurturing children's resilience.

Introduction

In the early years, transitions and the settling-in periods are some of the occasions that call for children to demonstrate resilience as they adapt to a range of experiences (O'Çonnor, 2018). Resilience is not inborn; rather it can be nurtured and developed over time (Collet, 2017). Early childhood teachers can help children develop resilience by offering opportunities for them to build skills, dispositions and develop competence, confidence, connection, character, contribution, coping mechanisms and control (Ginsburg & Jablow, 2015). In this article, an analogy of navigating the seas is evoked to examine how early childhood educators can support the ebbs and flows of children's development as they practice the seven skills suggested by Ginsburg and Jablow. The author also examines the significance of loose parts as anchors or as a medium to build the components highlighted in the 7 Cs model.

Defining resilience

Resilience is described as the ability to "thrive and develop despite challenging circumstances" (Nolan et al., 2017, p. 270). *Te Whāriki: He whāriki mātauranga mō ngā mokopuna o Aotearoa: Early childhood curriculum* (*Te Whāriki)* (Ministry of Education [MoE], 2017) claims that children need to develop a sense of wellbeing and resilience in order to be competent and confident learners. The ability to develop resilience is dependent on the child's temperament and ability to self-regulate (McClelland & Tominey, 2014). Children who develop strong and secure attachment with caregivers are also known to have higher levels of resiliency (Nolan et al., 2017). Resilience is often associated with dispositions such as perseverance and the ability to stay focused on tasks. Children who are resilient view challenges as positive opportunities to develop and grow (Collet, 2017). However, children who are less resilient often fear challenges and making mistakes, and view failure as permanent (Seligman, 2011). Resilience can be developed by enhancing skills that help individuals to withstand challenges. Perhaps the best model to describe these skills is the 7 Crucial Cs designed by Ginsburg and Jablow (2015).

The 7 Cs of resilience

Ginsburg and Jablow (2015) propose the 7 Crucial Cs of resilience model. This model includes:

Competence: The ability to autonomously handle situations by making choices and trusting one's judgement.
Confidence: The belief in one's own abilities that is synchronous with being competent.
Connection: The sense of belonging that one has by developing ties with family, peers and the community, but also to wider social, religious and educational institutions.
Character: The ability to discern and take responsibility for one's actions by making the right choices.
Contribution: A sense of awareness of one's own actions and their implications on society.
Coping: The ability to develop strategies to overcome challenges and stressors.
Control: The knowledge that one can control their own decisions.

These traits are interrelated and it would be typical for some traits to be more prevalent in some individuals rather than others. Further, these traits resonate with essential 21st century learning skills such as:

- Critical thinking and problem-solving
- Collaboration and leadership
- Agility and adaptability
- Initiative and entrepreneurialism
- Effective oral and written communication
- Accessing and analysing information
- Curiosity and imagination
  (Saavedra & Opfer, 2012).

In early childhood education in New Zealand, play is considered to be a valuable means of empowering children with skills that they will require as lifelong learners (MoE, 2017). This article focuses on one such play experience - loose parts. Loose parts offer children opportunities to adapt to challenges, take risks, develop agency and creativity in thinking, navigate ambiguous situations, be curious and develop leadership skills (Daly & Beloglovsky, 2020).

The value of loose parts

In the 1970s, architect Simon Nicholson introduced the concept of loose parts as a means of nurturing autonomy and critical thinking among other skills (Nicholson, 1971). He defined loose parts as materials that can be manipulated, assembled, deconstructed and adapted from their original form, and promoted its use as a means of encouraging children to explore their world (Richards, 2020). Contrary to common belief, loose parts can also refer to the actual experiences that involve manipulation of sounds, words, concepts and ideas (Daly & Beloglovsky, 2020). The figure below lists a range of loose parts that can be used in early childhood settings:

Natural resources	Recycled resources	Link to schema/activity
Sticks	Old tyres	Rotating; trajectory/rolling
Stones/pebbles/rocks	Yoghurt containers, cans, tins	Enveloping/filling, building
Acorns/pinecones	Buttons	Collecting/scattering, sorting
Seashells	Fabric (offcuts)/hessian	Enveloping/covering, dressing
Stumps/logs	String and wool	Connecting/towing, tying
Branches	Bottle or container caps	Building walls or enclosures
Leaves	Plastic tubing	Rolling marbles through/filling

Water	Keys	Sound-making
Sand	Foam shapes	Pushing/squishing
Gravel	Ribbons	Decorating
Flowers	Wooden pegs/lollipop sticks	Connecting/mark-making
Feathers	Old picture frames	Enveloping
Bricks	Wire	Sculpting
Flax	Cardboard rolls or tubes	Orientation/going through
Toetoe grass	Wooden reels/spools	Spinning
Bulrush (Raupō) leaves	Plastic bottles/lids	Rotating
Mud pit	Cardboard boxes of various sizes	Transporting/enveloping
Clay	Mesh	Printing/enveloping/transporting
Bamboo	Wooden crates/pallets	Transporting/elevating
Natural colours/dye	PVC pipes	Connecting
Cork	Tiles or blocks	Stacking/connecting
	Small toys such as dinosaurs, animals, vehicles, mini figures	

(Beaudin, 2019; Daly & Beloglovsky, 2016; Houser et al., 2016)

It is important to ensure that loose parts are sourced and used responsibly to ensure that they are sustainable (Sear, 2016). For example, the use of polystyrene offcuts needs to be avoided as they are difficult to recycle and they contain small particles that are harmful for the airways. As kaitiaki (guardians), it is the role of the early childhood teacher to model and encourage sustainability and promote kaitiakitanga (guardianship) (Vincent-Snow, 2017). Similarly, the safety of children and the environment is vital, and hence resources that are battery-operated should be avoided (Vincent-Snow, 2017).

There are many benefits of loose parts. Playing with loose parts enables children to develop essential 21st century life skills within a safe environment and can be used effectively to nurture skills within the 7 Cs model. Skills such as coping and self-regulation or autonomy are nurtured when children engage with a range of loose parts. For instance, consider children's experiences as they adjust their play to accommodate the loose parts made available to them. The open-endedness of the resources allows for children to experiment and to take risks in their play. They learn to cope with the decisions they make and embrace change brought on by these decisions. In this process, children develop imagination, critical thinking, creativity and problem-solving skills (Daly & Beloglovsky, 2015; Richards, 2020). Competence is nurtured as children develop content knowledge in subject areas such as mathematics, science and technology as children estimate, test their working theories, experiment with cause and effect, and discover how things work while engaged (Spencer, 2013). This is accentuated when the childhood teacher provides provocations and rich language to promote children's inquiry. Loose parts foster the development of children's schemas (Thornhill, 2017). Schemas are repetitive patterns in behaviour and are evident in the way children play in the early years. Schemas support children's knowledge of how things work (Penrose & Warren, 2019). Some of the commonly seen schemas in the early years are transporting, transforming, trajectory, rotating, enclosing and enveloping, connecting and disconnecting (Hughes, 2016). The provision of loose parts enables children to practice these schemas, and in doing so, they develop confidence in their own abilities. Moreover, when children engage with loose parts, their social and emotional development is nurtured (McClelland & Tominey, 2014). Their character is developed as they draw on their positive learning dispositions such as perseverance, curiosity and risk-taking, which influence the choices they make as they play with loose parts. Leadership skills are enhanced when peers are invited to participate in different play experiences involving loose parts (such as constructions, make-believe play). This in turn has implications on their ability to control; empowering them and building their self-esteem (Spencer, 2013).

The role of the early childhood teacher in promoting the 7 Cs

Factors that play an important role in promoting resilience in the early years include the environment, relationships, pedagogical practices and an emphasis on a play-based curriculum (Nolan et al., 2017). These factors are best addressed within an early childhood setting. The provision of loose parts in an early childhood environment offers children opportunities to engage in open-ended manipulation of their environment. Early childhood educators can promote their competence and confidence, foster development of connection with people, places and things, nurture their development of character, acknowledge their contribution to their learning, as well as help them as they acquire coping and control skills when they encourage playing with loose parts.

Providing a responsive environment

It is important that children are offered an unhurried environment when they are playing with loose parts. This will provide them ample time to satisfy their curiosity and sustain their play for a longer period (Daly & Beloglovsky, 2015). Children are also able to develop stronger connections with their peers and with the early childhood environment they are in, which is beneficial to build their resilience. Moreover, early childhood teachers ought to provide a safe and inclusive environment where children are able to take risks, make decisions and draw on their own personal strengths (Collet, 2017). This would also apply to setting meaningful provocations using loose parts as children will be supported in their own identity development, such as in displaying acts of kindness towards peers, being inclusive of others, as well as demonstrating patience, perseverance and team spirit (Ginsburg & Jablow, 2015; Nolan et al., 2017).

Another factor within a responsive environment relates to the resources that are made available to children. Although a common belief associated with loose parts is that they need to be natural materials, resources such as pots, pans or fabric are also effective in promoting children's play (Beaudin, 2019). Early childhood centres could source these materials from their community, parents and even local resource centres. Gull et al. (2020) state that loose parts can be combined with existing toys or resources in the centre, thus encouraging children to include both in their play. For instance, children may use toy construction vehicles outdoors where they collect twigs, pinecones and leaves in them and then, use these loose parts as pretend food in the mud kitchen. When early childhood teachers offer sufficient and a variety of resources through loose parts, children develop competence in using different materials as well as their sense of contribution. Indeed, this idea is embedded within *Te Whāriki* where it notes that early childhood centres should entrust children with opportunities where they are able to take ownership of their learning and actions, and work in collaboration with others (MoE, 2017).

Confidence and control are enhanced when children are given autonomy to manipulate the loose parts; both of these are reflective of Ginsburg's 7 Cs (2015) which are skills children need to develop resilience. It is important to ensure that materials are not restricted to a specific area of the room, but accessible across the centre in both outdoor and indoor spaces. In addition, the aesthetically pleasing arrangement of materials in trays or containers should not restrict children's tendency to experiment with new ideas (Gull et al., 2020). Nicholson (1971) advocated for children to have freedom in the choices they make with loose parts, as he believed they were already restricted in what they could and could not do in daily life. This sentiment is echoed by other researchers who reiterate that early childhood teachers need to be flexible in allowing children to manipulate the material in ways they deem fit (Richards, 2020). Further, it is important not to wear children down with subtle suggestions about orderliness as this may impact on their creativity. Gull et al. (2020) believe that loose parts need to nurture discovery and too many rules would hinder the process. However, it can be argued that striated spaces, in other words, some element of structure, could stimulate creativity and encourage children to explore "new lines of flight" or different possibilities

(Deleuze as cited in Whyte & Naughton, 2014, p. 35). In this context, some structure in how the materials are presented to children and how they are used, could support children to have a clearer overview of their creations and foster divergent thinking. Hence, early childhood teachers should ensure that there is a balance of both flexibility as well as a degree of structure.

Daly and Beloglovsky (2015) suggest that loose parts can be arranged with consideration of their sensory appeal and function, as well as their accessibility and quantity available to children. Early childhood teachers should consider the accessibility of resources to foster children's autonomy. For instance, children will feel empowered to use them if they are easily visible, perhaps in baskets or clear boxes (Beaudin, 2019). Materials could be presented at different levels, that is, on tables, on shelves, on the floor and outdoors as children play in different ways (Daly & Beloglovsky, 2015). This also highlights the versatility of loose parts. Children may use the same resources differently in various settings. For example, loose parts such as sticks can be used for different purposes in play involving 'fishing' or 'dinosaur hunts' or as spoons in the mud kitchen. Kaiako should ensure that resources are varied, and can offer children opportunities to use them across a range of play settings. As a team, early childhood teachers can decide how or where they store loose parts so that they promote competence, confidence, connection, character, contribution, coping and control.

Relationships

Relationships between the early childhood teacher and children are crucial in nurturing children's social competence and resilience (McLaughlin et al., 2017). Responsive and reciprocal relationships are essential for children to develop a sense of trust, belonging and confidence that their ideas are valued (MoE, 2017). Similarly, early childhood teachers need to also be able to support children to realise the affordances of the resources and materials on offer. Early childhood teachers can nurture stronger bonds with the children in their care through their verbal and non-verbal communication in their response to children's play experiences. Modelling kindness and a culture of active listening, for instance, empowers children to become more confident in their abilities *(*Nolan et al., 2017) and opens up opportunities to develop competency as learners. Children's wellbeing is enhanced when early childhood teachers ensure that each child's voice is acknowledged. They can do this by inviting children to share their ideas, ensuring that "each child's contribution is valued" (MoE, 2017, p. 36). Children who have established a strong relationship with the early childhood teacher may take more risks and be bold in their manipulation of loose parts. They may feel more in control of their own choices which has a direct impact on their confidence and sense of competence.

Pedagogical practices and strategies

Sociocultural perspectives indicate that children learn best in collaboration with other children, teachers and the community (Gordon & Browne, 2014). Based on Vygotsky's concept of the Zone of Proximal Development (ZPD), early childhood teachers can support children through guided play. Guided play is a practice where the early childhood teacher sets up experiences or designs an activity depending on children's interests; however, the child still maintains control of their own learning based on factors such as their level of engagement (Hirsh-Pasek & Hadani, 2020). This idea resonates with offering provocations while setting up loose parts. Provocations are intentionally set up as "invitations for play, curiosity, wonder, engagement and discovery" (Daly & Beloglovsky, 2015, p. 23). Provocations empower children to make sense of the people, places and things in their world (MoE, 2017), which informs the early childhood teacher. Early childhood teachers can practice intentionality when setting up provocations for young children. This enables them to be co-constructors with the children as they wonder, predict and explore the loose parts together (Hargreaves, 2020). For instance, sticks can be used for provocations for cooking and birthday parties or three-dimensional collage, and can also be used in provocations involving

constructions, or building cars or houses. Teaching strategies that complement this include asking open-ended questions and modelling. With infants and toddlers, teachers can use these teaching opportunities to help them to notice, recognise and respond to children's interests, schemas and skills. For example, the teacher may have observed children collecting pebbles and stones and then transporting them to another area such as the sandpit.

Resilience is also nurtured when there is a focus on the process rather than the product (Collet, 2017). Therefore, it is important that early childhood teachers focus more on the learning taking place when children are engaged with loose parts, rather than the end product. This empowers children to take risks in their play without the fear of failure (Gull at al., 2020). The early childhood teacher needs to ensure that they are not taking over the child's play nor offering too many suggestions or chastising them for choices they make when they engage with the loose parts. Rather, the teachers would be role models for children by displaying dispositions such as risk-taking, curiosity, a sense of wonder and awe, and enthusiasm as they facilitate children's play (MoE, 2017).

Conclusion

This article has discussed the importance of nurturing our children's competence, confidence, connection, character, contribution, coping skills and control skills, thus empowering them to be resilient 21st century learners (Ginsburg & Jablow, 2015). The value of incorporating loose parts in children's play as a tool to nurture children's resilience has also been discussed, emphasising learning dispositions such as flexibility, autonomy, ability to be creative and conviction in their own abilities.

List of resource centres

Creative Junk http://creativejunk.org.nz/about-creative-junk/

West Auckland Resource Centre https://www.westaucklandresourcecentre.org.nz/

North Shore Resource Centre https://www.northshoreresourcecentre.org.nz/

References

Beaudin, H. (2019, March/April). One person's junk is a teacher's treasure: Learning with loose parts. *Exchange*, 83-86.

Collet, V. S. (2017). "I can do that!" Creating classrooms that foster resilience. *Young Children, 72*(1), 23-30.

Daly, L., & Beloglovsky, M. (2015). *Loose parts: Inspiring play in young children.* Redleaf Press.

Daly, L., & Beloglovsky, M. (2016). *Loose parts 2: Inspiring play with infants and toddlers.* Redleaf Press.

Daly, L., & Beloglovsky, M. (2020). *Loose parts 4: Inspiring 21st century learning.* Redleaf Press.

Ginsburg, K. R., & Jablow, M. M. (2015). *Building resilience in children and teens: Giving kids roots and wings.* American Academy of Pediatrics.

Gordon, A. M., & Browne, K. W. (2014). *Beginnings and beyond: Foundations in early childhood education* (9th ed.). Wadsworth Cengage Learning.

Gull, C., Goldstein, S. L., & Rosengarten, T. (2020, November/December). Seven loose parts myths busted: Moving toward enhanced creativity. *Exchange*, 34-38.

Hargreaves, V. (2020). *Materials for play: Why open-ended loose parts are important.* file:///H:/Downloads/Materials-for-play-Why-open-ended-loose-parts-are-important%20(1).pd

Hirsh-Pasek, K., & Hadani, H. (2020). *A new path to education reform: Playful learning promotes 21st-century skills in schools and beyond*. https://www.brookings.edu/wp-content/uploads/2020/10/Big-Ideas_Hirsh-Pasek_PlayfulLearning.pdf

Houser, N., Roach, L., Stone, M. S., Turner, J., & Kirk, S. F. L. (2016). Let the children play: Scoping review on the implementation and use of loose parts for promoting physical activity participation. *AIMS Public Health, 3*(4), 781-799.

Hughes, A. M. (2016). *Developing play for the under 3s: The treasure basket and heuristic play* (3rd ed.). Routledge.

McClelland, M. M., & Tominey, S. L. (2014). The development of self-regulation and executive function in young children. *Zero to Three, 35*(2), 2-8.

McLaughlin, T., Aspden, K., & Clarke, L. (2017). How do teachers support children's social-emotional competence? Strategies for teachers. *Early Childhood Folio, 21*(2), 21-27.

Ministry of Education. (2017). *Te Whāriki: He whāriki mā tauranga mō nga mokopuna o Aotearoa: Early childhood curriculum.* Author.

Nicholson, S. (1971). How not to cheat children: The theory of loose parts. *Landscape Architecture, 62*, 30-34.

Nolan, A., Stagnitti, K., Taket, A., & Casey, S. (2017). Supporting resilience. In S. Garvis & D. Pendergast (Eds.), *Health & Wellbeing in Childhood* (2nd Ed.). Cambridge University Press.

O'Çonnor, A. (2018). *Understanding transitions in the early years*: *Supporting change through attachment and resilience*. Routledge.

Penrose, P., & Warren, K. (2019). *Take another look tirohia ano: A guide to observing children. He momo arahi kit e tiro I nga tamariki.* (3rd ed.). New Shoots Publishing.

Richards, E. (2020, May/June). Turn children loose outside! *Exchange*, 73-75.

Saavedra, A., & Opfer, D. (2012). Learning 21st-century skills requires 21st-century teaching. *Phi Delta Kappan, 94*(2), 8-13.

Sear, M. (2016). Why loose parts? Their relationship with sustainable practice, children's agency, creative thinking and learning outcomes. *Educating Young Children, 22(2)*, 16-19.

Seligman, M. E. P. (2011). Building resilience. *Harvard Business Review,* 89, 100-6. https://hbr.org/2011/04/building-resilience

Spencer, A. M. (2013, May/June). Loose parts and learning on the playground. *Exchange*, 70-71.

Thornhill, M. (2017). *Loose parts and intelligent playthings categorized by schema*. https://brucecounty.on.ca/sites/default/files/Loose%20Parts%20By%20Schema_0.pdf

University of Auckland. (2020). *Study to explore the impact of Covid-19 "lockdown" on New Zealand children.* https://www.growingup.co.nz/study-explore-impact-covid-19-lockdown-new-zealand-children

Vincent-Snow, C. (2017). Bicultural approaches to sustainability within early childhood settings in Aotearoa/ New Zealand. *He Kupu, 5*(2), 69-75.

Whyte, M., & Naughton, C. (2014). "What's our next move?" Seeing children in the light of potentialities. *He Kupu, 3*(4), 28-38.