

# Beyond the Classroom Walls: Stakeholder Perspectives on Quality of Outdoor Environments in Early Childhood Education and Care

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# Talk Outline

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## 1. Introduction

- Importance of ECEC and Outdoor Environments in ECEC
- Research Questions

## 2. Methods

## 3. Results

## 4. Discussion

# Background

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- Over half of children in Canada attend some form of ECEC (Statistics Canada, 2022)
- It is expected that the number of children in these settings will increase as a result of the increased availability and access brought about by the CWELCC agreement (Government of Canada, 2021)
- Access to quality ECEC is an imperative economic and social issue (Phillips & Lowenstein, 2011)
- Quality is important, but primarily investigated within indoor environments

# The Benefits of Quality Outdoor ECEC Environments

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- Young children benefit from exposure to outdoor environments and natural light (Herrington & Brussoni, 2015; Sando, 2019; Herrington et al., 2017; Bento & Costa, 2018).
- Research has Documented
  - Developmental Benefits in:
    - Physical health
    - Gross motor skills
    - Mental health
    - Social and emotional development
    - Brain development
  - Connections to Nature:
    - Greater appreciation for environmental processes
    - Long-term pro-environment attitudes

# The Importance of Quality

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- But, just being exposed to any outdoor environment does not necessarily lead to optimal outcomes
- The quality of the outdoor environment is important (Herrington et al., 2017)

Can produce  
lasting negative  
outcomes

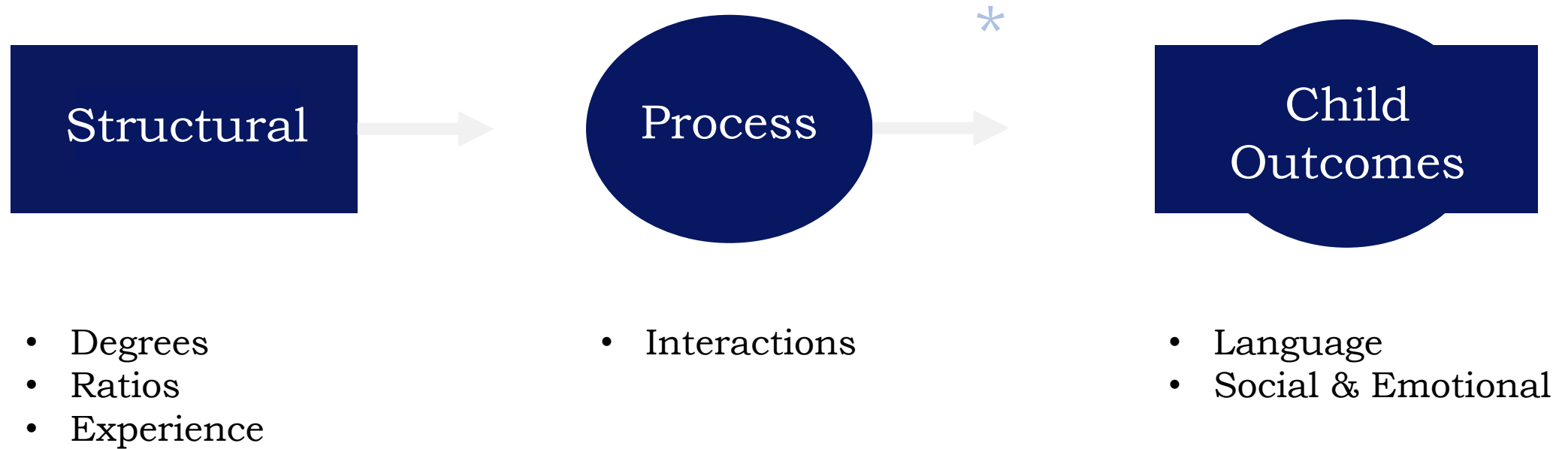
Low-Quality  
ECEC

High-Quality  
ECEC

Contributes to larger,  
consistent benefits to  
vulnerable children

# The Importance of ECEC Quality

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# Research on Quality in Outdoor ECEC Environments: Seven C's

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Seven C's	Description
Character*	The overall feel and design of the outdoor environments.
Context	The play space, its surroundings, and how they relate to one another.
Connectivity	The physical, visual, and mental connections in the play space itself.
Change	The range of different sized spaced available to kids, and how the space changes over time.
Chance*	The opportunities for kids to do something, or engage with and leave an impression on the play space.
Clarity*	How easily the space can be navigated as well as perceived by kids and adults
Challenge*	The set of physical and cognitive challenges that a play space provides.

# The Seven C's: Character

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- Character is the most holistic of the Seven C's
- Focuses on the atmosphere of an environment
- A range of greenery and textured features are recommended, including (Herrington & Lesmeister, 2006; Herrington et al., 2017):
  - Grass
  - Water
  - Sand
  - Woodchips
  - Surfaces that are soft, slippery, rough, and smooth

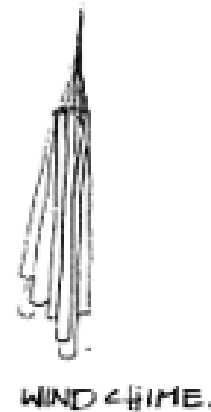
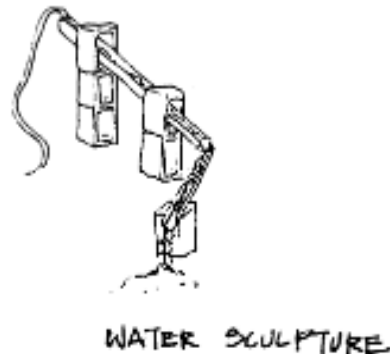




# The Seven C's: Chance

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- Chance refers to environments that provide opportunities for transformation
- Flexible, loose parts/materials are recommended (Ng et al., 2020)



# The Seven C's: Clarity

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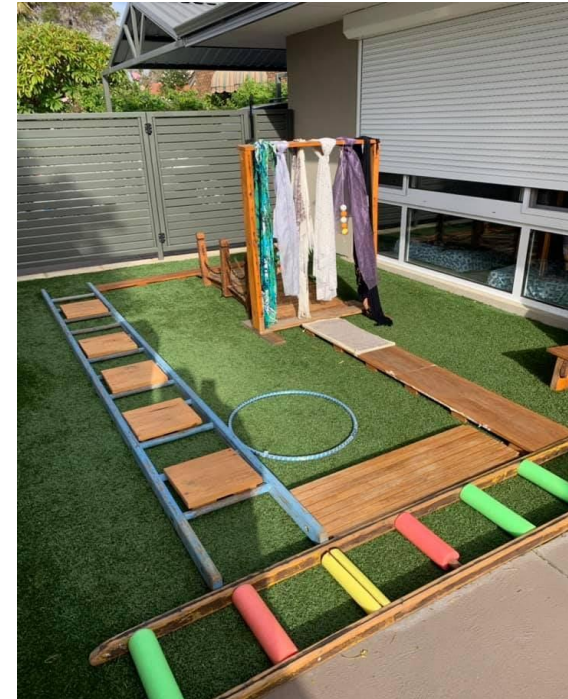
- Clarity refers to the thoughtful design of outdoor ECEC environments
- Outdoor environments with clearly defined areas are recommended (Herrington et al., 2017)



# The Seven C's: Challenge

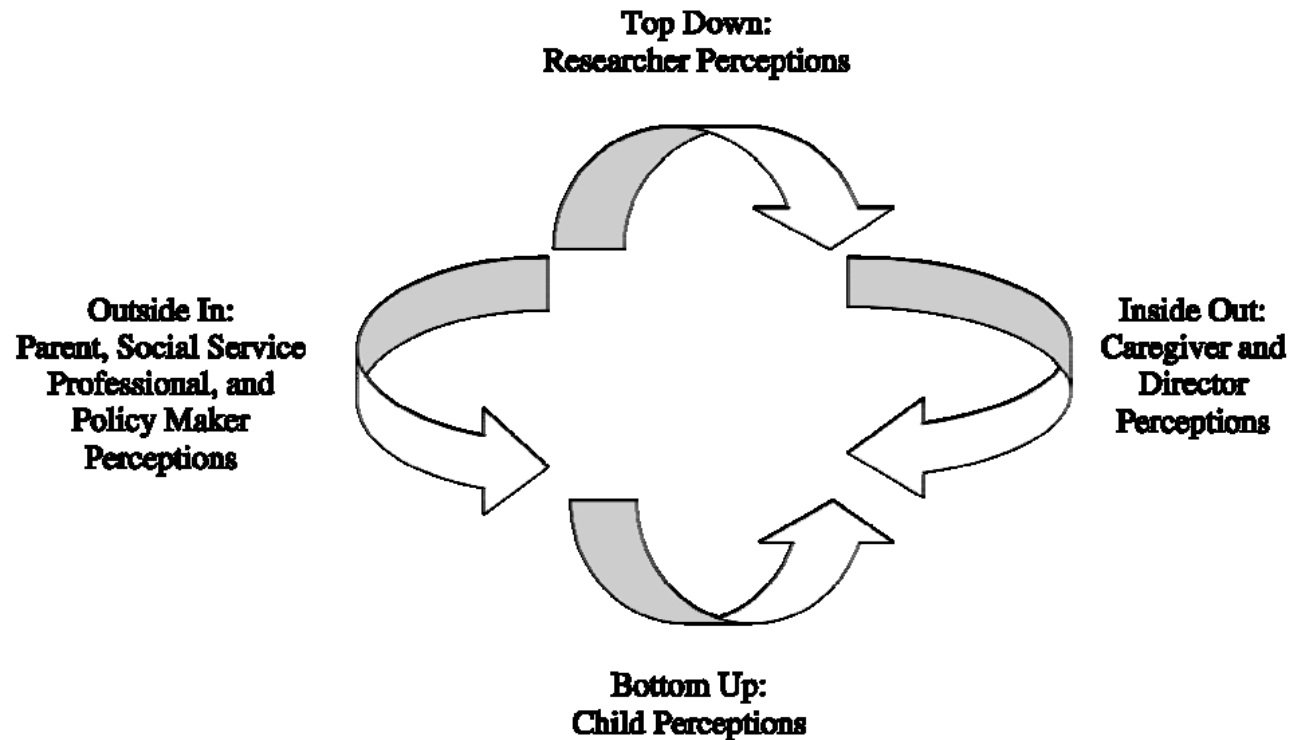
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- Physical challenges in the environment provide important learning opportunities for children
- Developmentally appropriate challenges allow children to take risks and challenge themselves (Herrington et al., 2017)
- These environments are **not dangerous**



# The Importance of Perspectives

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# The Current Study

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- To address the gap in literature related to the quality of outdoor ECEC environments,
- Gathered perspectives of five different stakeholder groups
- Address the following research questions:
  1. What are the key attributes of high-quality and low-quality in outdoor environments?
  2. How do attribute categories of high or low-quality outdoor environment in ECEC vary by stakeholder types?
  3. Are there high- and low-quality environment profiles by stakeholder type?

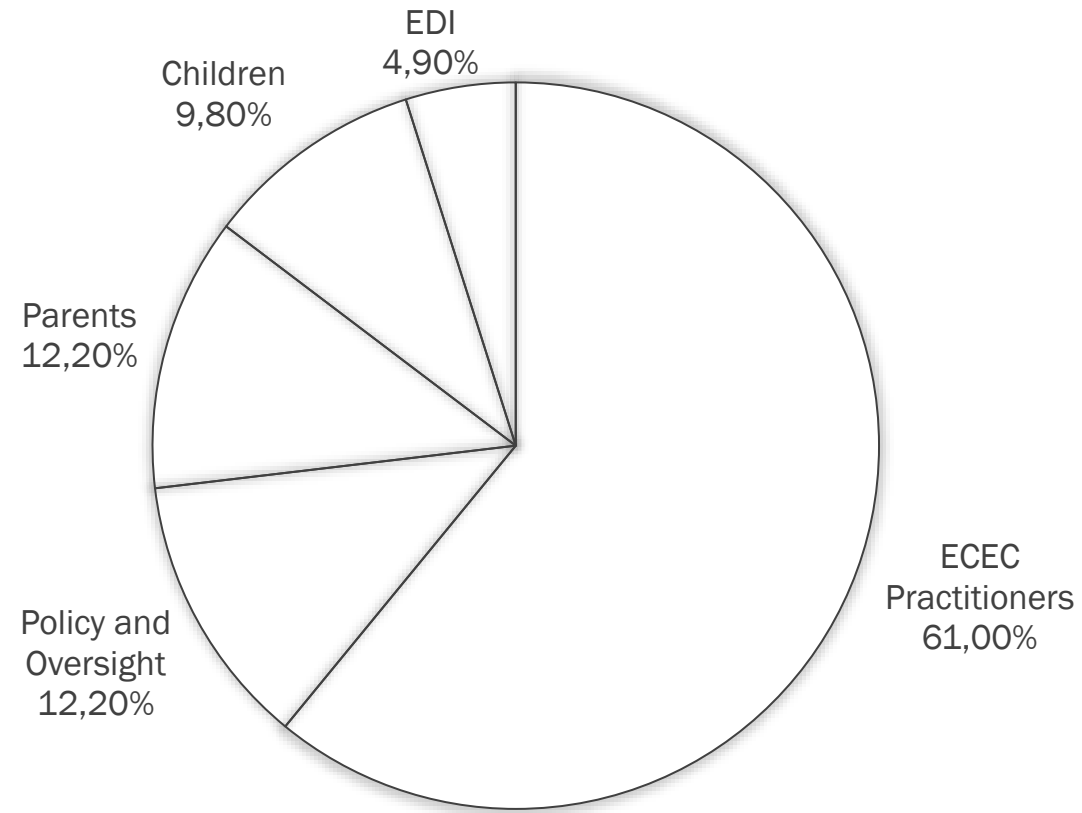
# Methods

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# Participants

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- A total of 295 participants in 39 focus groups (and two interviews)
- In: the Municipalities of Toronto, Durham, Muskoka in Ontario and in the North Shore Mi'kmaq District Council



# Procedure

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- There was an average of 8 participants per focus group (range: 2 – 25)
- Sessions lasted approximately 1.5 hours (range: 20 mins – 2.5 hours)
- Participants were asked:
  1. What are key attributes of high-quality in outdoor environments?
  2. What are key attributes of low-quality in outdoor environments?
- Quality oversight professionals from each region conducted the focus group sessions and transcribed participant responses



# Data Analysis

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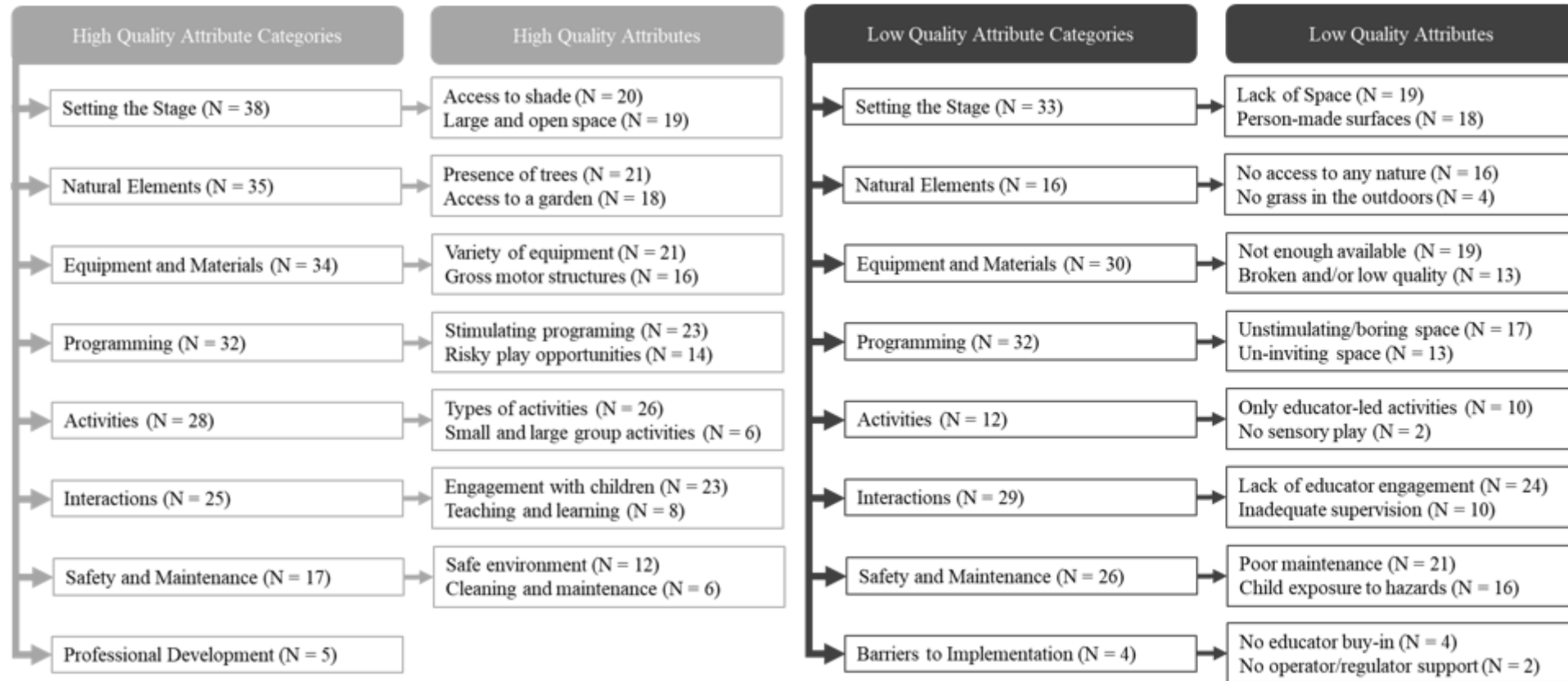
- Research assistants coded the participant responses
- They had a consistently high Cohen's Kappa score:
  - High Quality: 93% (80% - 100%)
  - Low Quality: 98% (90% - 100%)
- Larger attribute categories and more specific attributes of quality were identified in order to address the research questions
- We used heat maps and stakeholder profiles to visualize emerging patterns

# Results

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# Research Question 1:

What are the key attributes of high-quality and low-quality in outdoor environments?



# Research Question 2.

## Child Focus Groups Sample Responses

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### HIGH QUALITY

Equipment and Materials (100%)

*“A twisty slide (but not a tunnel where you can hit your head)”*

Setting the Stage (75%)

*“Have a squishy floor made of recycled tires so it is good for the environment and so you don’t get hurt when you fall down”*

Natural Elements (75%)

*“Open lakes and water to look at”*

### LOW QUALITY

Safety and Maintenance (100%)

*“Wobbly logs”*

*“Scary poisonous spiders”*

*“Mosquitos/horse flies”*

*“Cigarette butts”*

Programming (75%)

*“No hands on fun stuff to do”*

# Research Question 2.

## EDI Specialists Sample Responses

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### HIGH QUALITY

Programming (100%)

*“Natural materials as good learning materials”*

Natural Elements (100%)

*“Gardens, creatures, and animals; spacious playground”*

### LOW QUALITY

- Less than 75% of EDI Specialist groups discussed any low-quality characteristics
- Those who did, said:
  - *“Very little to no professional learning about Indigenous history and perspectives on Land based learning”*
  - *“Paved ‘jails’ without any toys or manipulatives”*

# Research Question 2.

## ECEC Practitioner Sample Responses

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### HIGH QUALITY

Setting the Stage (96%)

*“Covered area to use when it is raining”*

Natural Elements (88%)

*“living things in the play area (plants, trees, grass, bugs)”*

### LOW QUALITY

Setting the Stage (88%)

*“Little to no space for exploration”*

*“No access to shelter, washrooms, etc.”*

Programming (84%)

*“Children are told to stay on the path, watch out for puddles, rushing to meet a deadline”*

# Research Question 2. Policy and Oversight Professionals Sample Responses

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## HIGH QUALITY

Programming (100%)

*“Allows children to engage with different elements of nature, ex: mud, plants, insects, gardens, trees, grass”*

## LOW QUALITY

Equipment and Materials (100%)

*“Do not want equipment that encourages risky play”*

Programming (100%)

*“There are only certain things that the children are allowed to do outside”*

# Research Question 2. Parent Focus Groups Sample Responses

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## HIGH QUALITY

Setting the Stage (100%)

*“Would also expect to see a garden area that is used and kept looking good for the children to learn about plants”*

Programming (80%)

*“Outdoor play time should be programmed as well as giving kids free chance to use imagination and explore”*

## LOW QUALITY

Safety and Maintenance (100%)

*“Safety implications; unfenced or unkept spaces, garbage outside, grass not cut”*

Setting the Stage (80%)

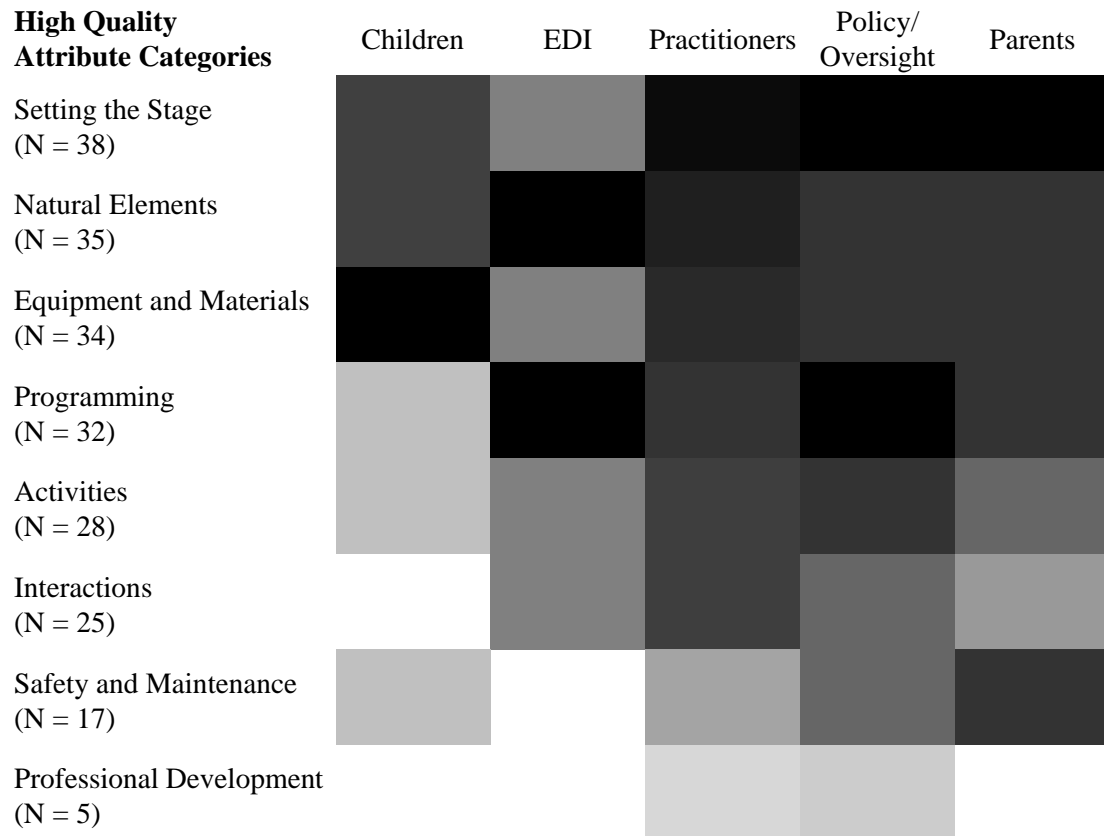
*“Enough space for children to have freedom of movement and engage their imagination”*



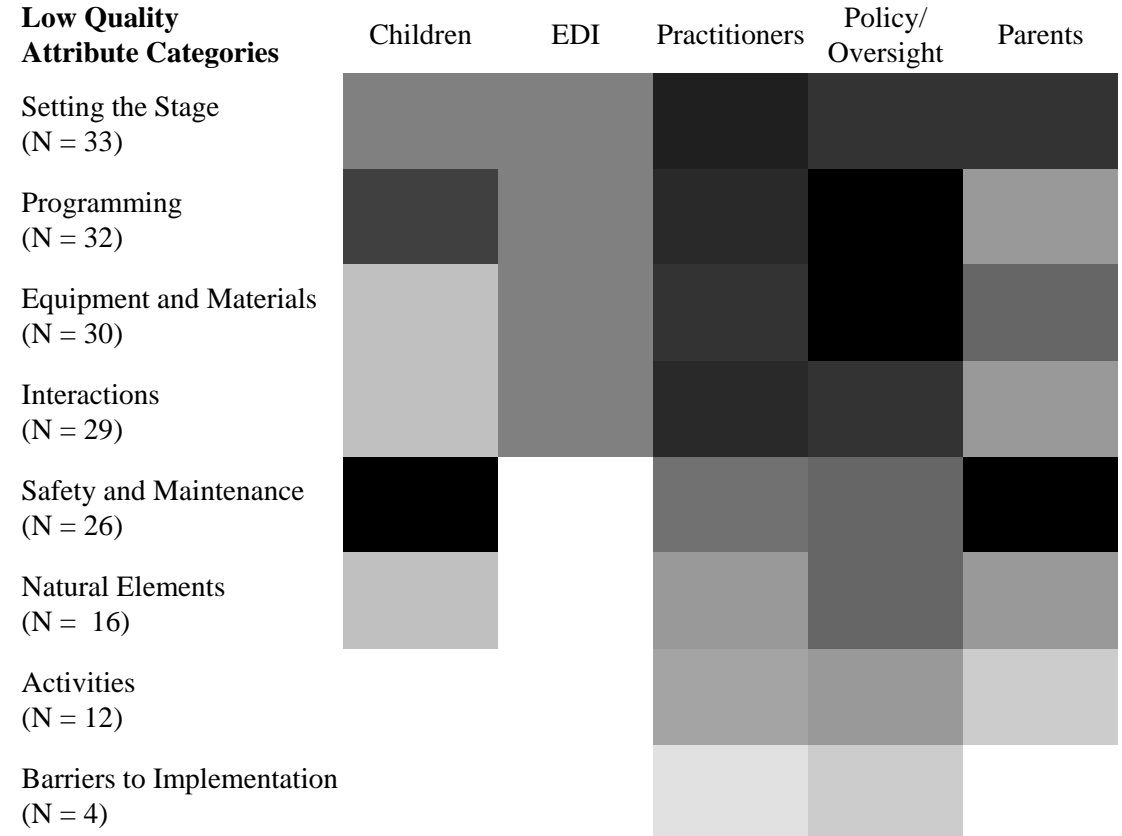
# Research Question 2:

How do attribute categories of high or low-quality outdoor environment in ECEC vary by stakeholder?

## High Quality Attribute Categories



## Low Quality Attribute Categories



# Research Question 3:

Are there high- and low-quality environments profiles by stakeholder type?

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- To understand the differences across characteristics that stakeholders are reporting, profiles were generated using codes that were identified during discussions of high-quality and low-quality
- Profiles highlight the most frequently reported attributes (> 75%) for each attribute category (> 50%)

High-Quality Outdoor Environments in ECEC

Examining the perceptions of high-quality attributes across five stakeholder groups:

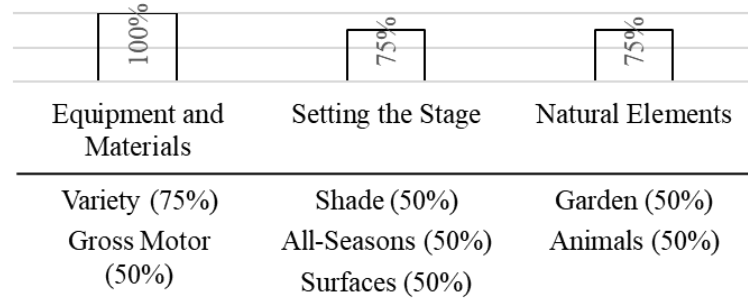
1. Children (N = 4)
2. EDI Specialists (N = 2)
3. ECEC Practitioners (N = 25)
4. Policy and Oversight Professionals (N = 5)
5. Parents (N = 5)

\*Only attributes above 75% are reported below

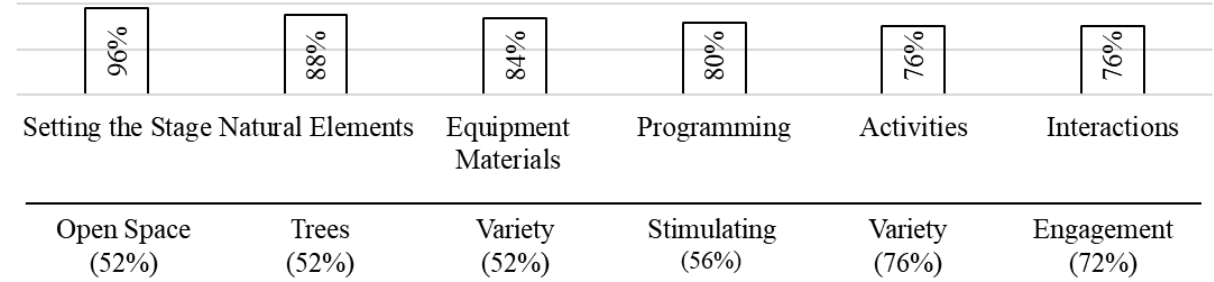
**EDI**



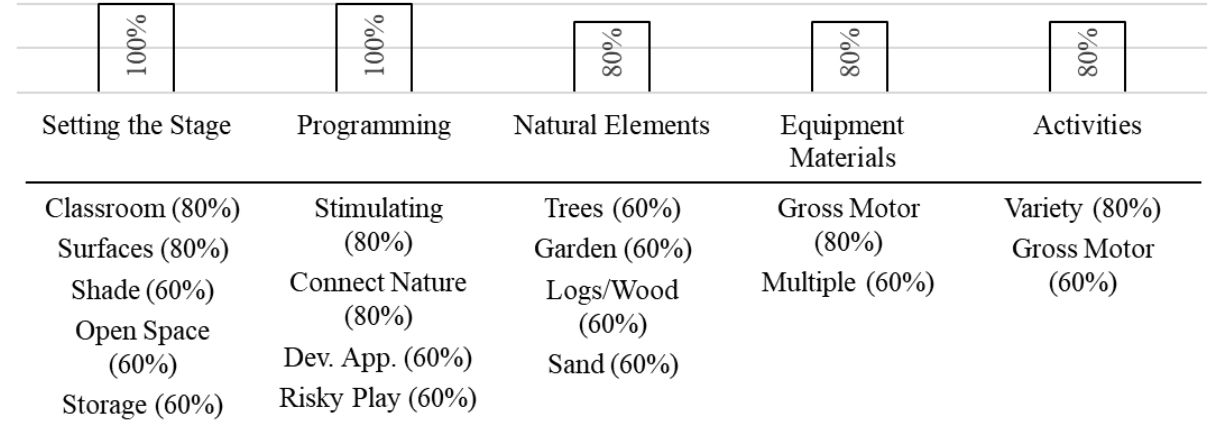
**Children**



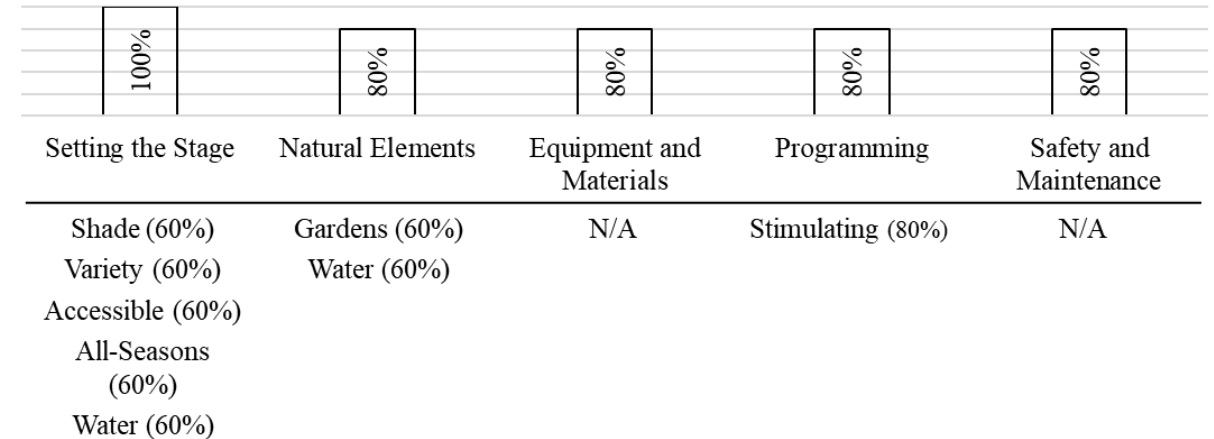
**Practitioners**



**Policy**



**Parents**



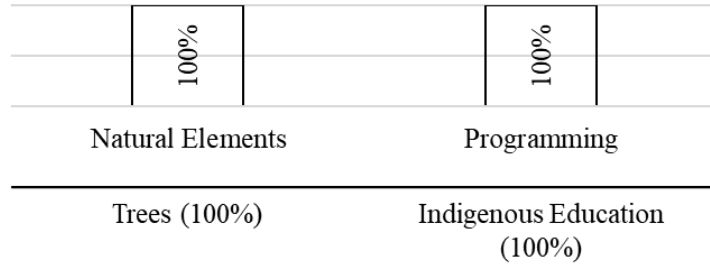
High-Quality Outdoor Environments in ECEC

Examining the perceptions of high-quality attributes across five stakeholder groups:

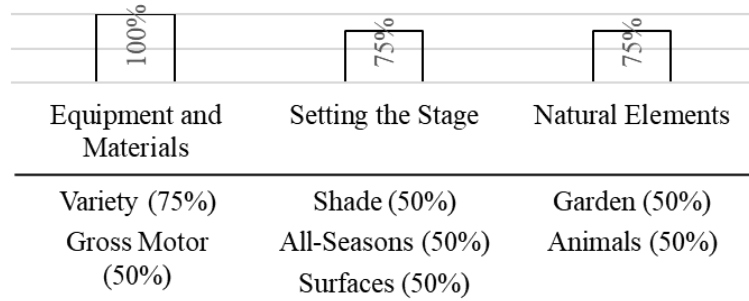
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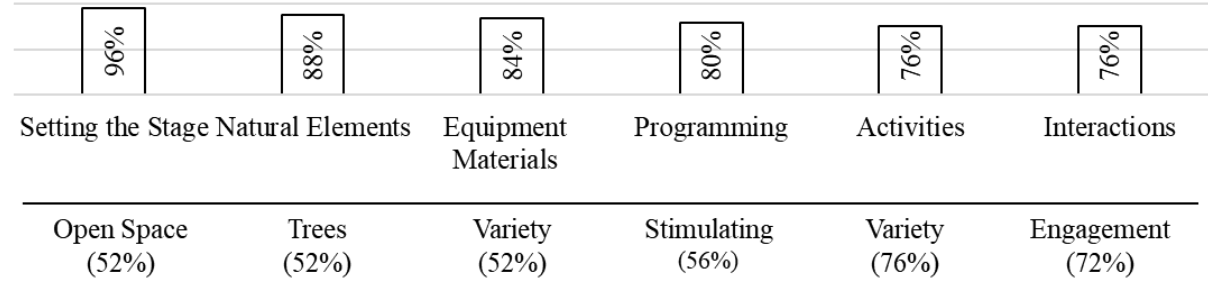
EDI



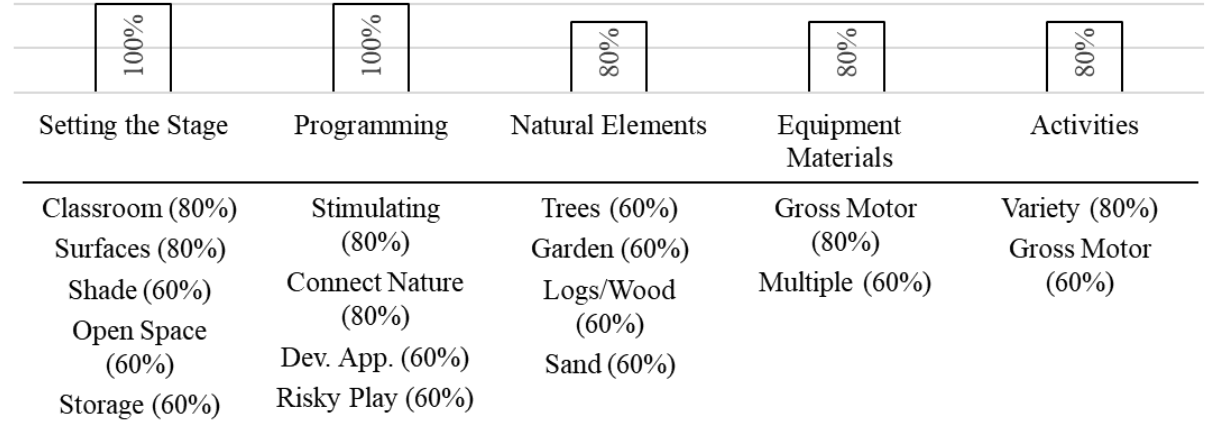
Children



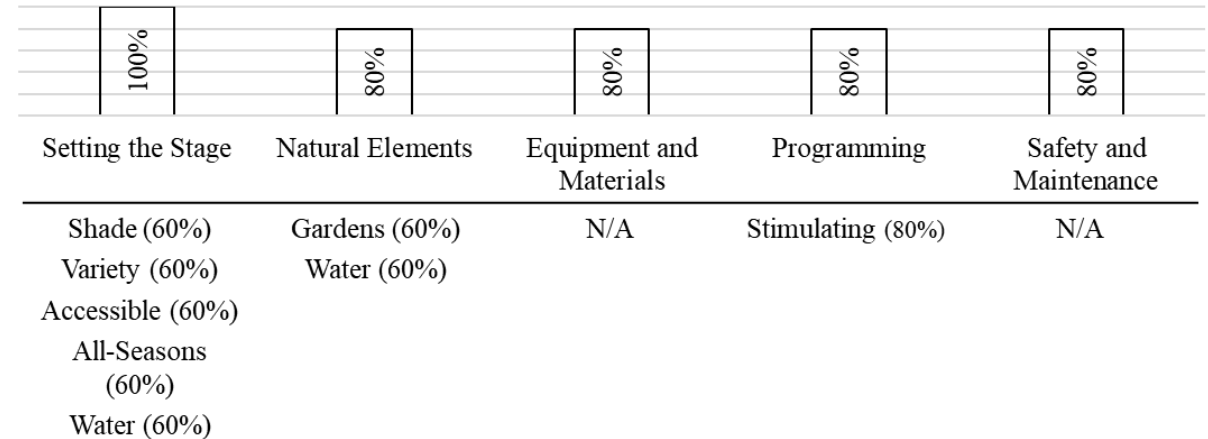
Practitioners



Policy



Parents



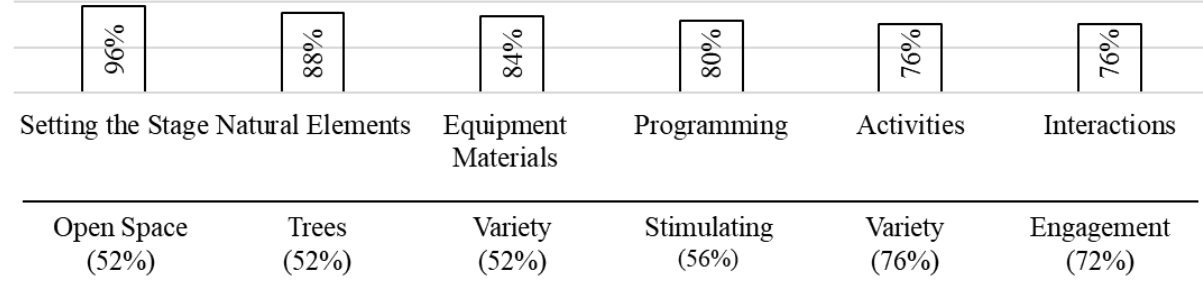
High-Quality Outdoor Environments in ECEC

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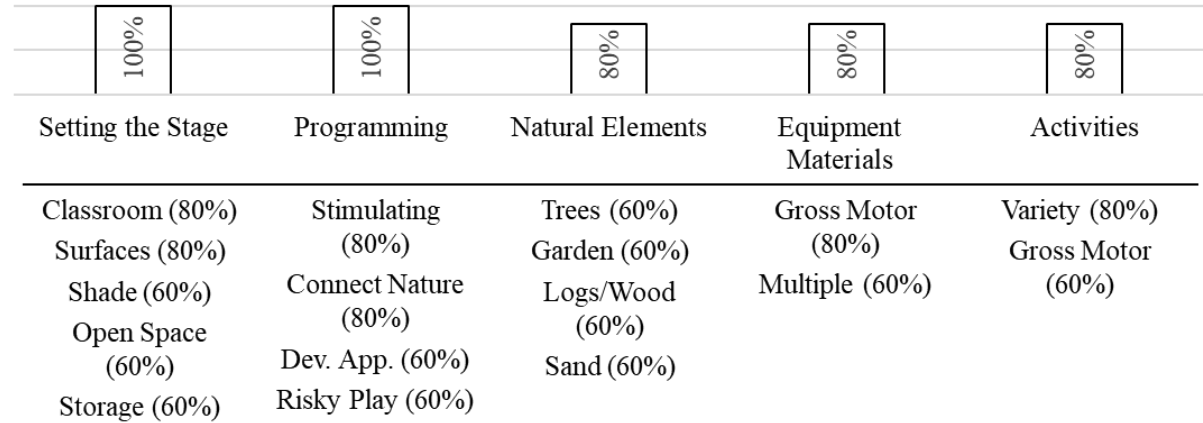
Practitioners



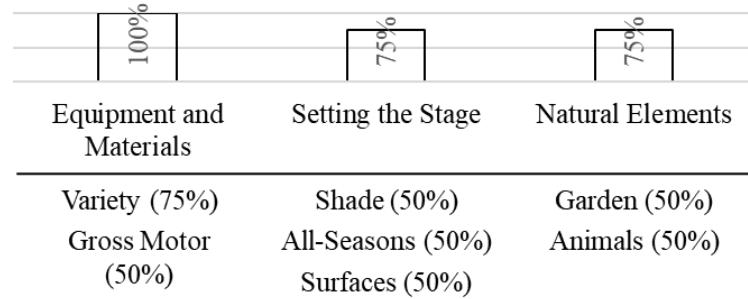
EDI



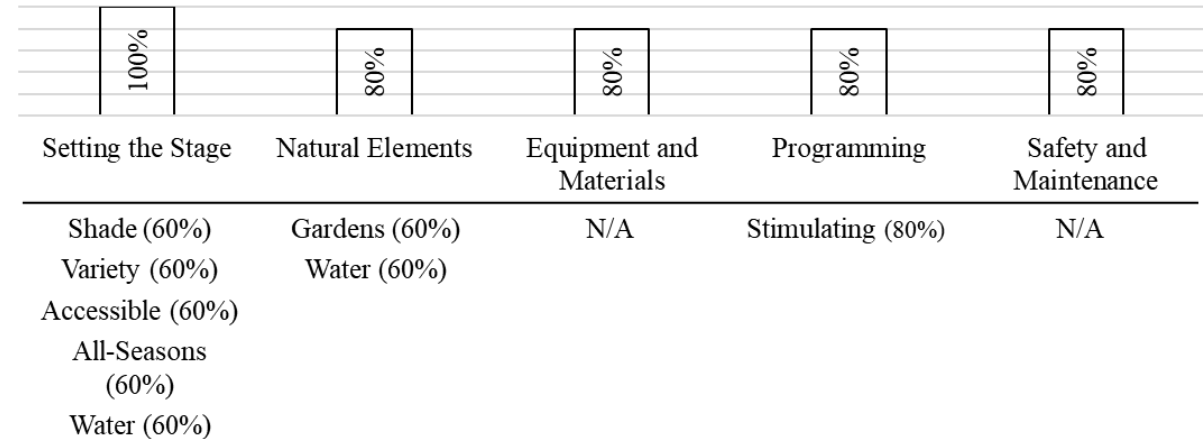
Policy



Children



Parents



# Research Question 3:

What do high- and low-quality environments look like based on profiles of stakeholder perspectives?

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- There is variation in the frequency and types of attributes and attribute categories our participants reported
- Specific attributes are quite different across groups
- It is really important to make sure that multiple perspectives are represented

# Limitations

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- Stakeholder types had smaller sample sizes
- Convenience sampling and generalizability
- Focus group/interview questions were asked in the same order (i.e., high quality then low quality)

# Conclusions

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Overall, stakeholders' discussions of low-quality outdoor ECEC environments were much shorter than their discussions of high-quality which provided numerous examples of each identified attribute category.

Unique insights were provided about potential barriers to the successful implementation of high-quality outdoor ECEC environments. Need for buy-in from:

- Policy and Oversight professionals
- ECEC practitioners
- Other stakeholders involved in the regulation, management, and delivery of ECEC programs



# Conclusions (Cont.)

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We see a lack of emphasis on interactions across many of the stakeholder groups

The diversity of perspectives across different stakeholder types provided a more holistic picture of what constitutes quality in outdoor ECEC environments

# Implications and Future Directions

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Educators can use these findings to inform the set-up of outdoor environments

Directors of ECEC settings can use these findings in deciding what materials and equipment to buy for outdoor environments

Our findings can be used to develop indicators for measuring quality in ECEC

# Thank you

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- The Lawson Foundation for funding our work
- Our partners from the Municipalities of Toronto, Durham and Muskoka in Ontario and from the North Shore Mi'kmaq District Council: Anne Hepditch, Beth Carson, Stephanie Turner, and Helen Bernard-Ward who recruited and interviewed participants and did so much more
- Project Research Assistants Arjun Puri and Esther Yu
- Everyone who took part in the study, including the equity, diversity, and inclusion specialists, policy and oversight professionals, early childhood educators, families, and children.

# References

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Bento, G., & Costa, J. A. (2018). Outdoor play as a mean to achieve educational goals – A case study in a Portuguese day-care group. *Journal of Adventure Education and Outdoor Learning*, 18(4), 289-302.

<https://doi.org/10.1080/14729679.2018.1443483>

Government of Canada (2021). A Canada-wide Early Learning and Child Care Plan.

<https://www.canada.ca/en/department-finance/news/2021/12/a-canada-wide-early-learning-and-child-care-plan.html>.

Harrist, A. W., Thompson, S. D., & Norris, G. J. (2007) Defining quality child care: Multiple stakeholder perspectives. *Early Education and Development*, 18(2), 305-336. <https://doi.org/10.1080/10409280701283106>

Herrington, S., Brunelle, S., & Brussoni, M. (2017). Outdoor play spaces in Canada: As if children mattered. In (Eds.) *The SAGE Handbook of Outdoor Play and Learning* (pp.2-23). SAGE Publications. Herrington, S., & Lesmeister, C. (2006). The design of landscapes at child-care centres: Seven cs. *Landscape Research*, 31, 63-82.

<https://doi.org/10.1080/01426390500448575>

Herrington, S., & Lesmeister, C. (2006). The design of landscapes at child-care centres: Seven cs. *Landscape Research*, 31, 63-82. <https://doi.org/10.1080/01426390500448575>

# References

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- Ng, M., Rosenberg, M., Thornton, A., Lester, L., Trost, S. G., Bai, P., & Christian, H. (2020). The effect of upgrades to childcare outdoor spaces on preschoolers' physical activity: Findings from a natural experiment. *International Journal of Environmental Research and Public Health*, 17(2), 468. <https://doi.org/10.3390/ijerph17020468/>
- Phillips, D. A., & Lowenstein, A. E. (2011). Early care, education, and child development. *Annual Review of Psychology*, 62, 483-500. <https://doi.org/10.1146/annurev.psych.031809.130707>
- Sando, O. J. (2019). The outdoor environment and children's health: A multilevel approach. *International Journal of Play*, 8, 39-52. <https://doi.org/10.1080/21594937.2019.1580336>
- Statistics Canada. (2022). Survey on early learning and child care arrangements, 2022. *The Daily*. <https://www150.statcan.gc.ca/n1/daily-quotidien/220601/dq220601a-eng.htm>

