LEARNING IN K-3 CLASSROOMS

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Introduction

Have you ever wondered why children are so drawn to playing with sticks, rocks, and cardboard boxes? These items are examples of open-ended materials in the environment, or *loose parts*. As educators, parents, grandparents, community leaders, and researchers, we have explored the importance of loose parts in classrooms. We've learned that, given the opportunity to experiment with loose parts, students grow socially, emotionally, physically, and cognitively.

Our intent with this book is threefold: to help you become acquainted with the loose-parts philosophy by developing a loose-parts mindset, to show you how you can apply loose parts in your educational setting, and to continue refining your teaching practices using loose parts.

The use of loose parts is a mindset that supports invention, promotes imagination, inspires innovation, instills problem-solving skills, and builds confidence. As authors, our goal is to provide tools and resources to help you develop, apply, and teach using this mindset.

Understanding and exploring the use of loose parts in early elementary classrooms allows for greater implementation and meaningful conversations around the topic. Creative and imaginative play fosters the development of learning in all students, especially in early elementary children. Having a deeper understanding of loose parts allows for more diverse application and use of this theory in our classrooms and schools. Developing and applying a loose-parts mindset promotes an engaging class and enhanced learning.

How This Book Is Organized

We offer a variety of tools and resources to refine your thinking and planning and to help you share the vision with others. This is one of the main goals of our book; we want to arm you with research, tools, resources, specific examples, and activities to justify your implementation and use of loose parts in your elementary classrooms.

In section 1, Developing and Implementing a Loose-Parts Mindset, we walk you through the research that defines and supports the use of loose parts in the classroom. We describe the benefits and potential uses of loose parts and examine common myths and challenges about using loose parts in educational settings. We look at obtaining buy-in from all the stakeholders: administration, teachers, and families. We also examine the realities of planning lessons to meet

educational philosophies and standards while allowing flexibility. As you read, we hope that you will make your own connections and see how you might use these principles and examples in your own classroom and school.

In this section, we outline a strategy for getting started, growing a loose-parts plan, repurposing what you already have, finding more loose parts, and utilizing housekeeping ideas for maintaining your materials. We discuss safety and the use of loose parts, and we address the role of the educator in a loose-parts environment.

In section 2, Applying and Teaching a Loose-Parts Mindset, we apply this mindset to the elementary classroom and address how to use a variety of approaches to loose parts and learning across learning domains. We use a science, technology, reading, engineering, arts, and math (STREAM) framework, recognizing the interconnectedness of disciplines and learning, and we offer specific suggestions and ideas for using outdoor spaces and transforming indoor environments and routines to allow for more playful moments. And, in chapter 15, we share a plethora of ways to celebrate loose parts in the classroom, including special days to investigate. In section 3, we offer tools and resources to help you get started and assessment options to help you document the learning that's taking place.

Thank you for your work in connecting students to a loose-parts mindset. Each step you take to allow students choices and a voice within the educational setting makes a difference. Expanding the borders of our classrooms to embrace the schoolyard and beyond allows access to more loose parts and opportunities.

Please use this book as a smorgasbord of ideas—no teacher can "do all the things," but choose the ones that work for you, your students, and your community, and adapt them as appropriate. Realize that as educators we are never done or perfect in our educational approach. We will continually evaluate and apply what we learn through this loose-parts journey. We are all on this adventure to apply loose parts in our learning situations more fully. Please connect with us on the Loose Parts Learning Facebook group and share what you learn and experience.

We hope these suggestions and options will be springboards for where you and your students can go with a loose-parts mindset. One beauty of loose parts is that it allows exploration and experimentation and provides additional connections and opportunities for building knowledge. Take time to reflect on your understanding of loose parts and how your students might benefit from them in the classroom. Dabble, try, and experiment with the concepts, words, and ideas that come up in the classroom. Apply that process of a loose-parts mindset to your own teaching practice and personal interests. Not one of us is too old for a little loose-parts play.

 SECTION 1
 DEVELOPING AND
 IMPLEMENTING
 A LOOSE-PARTS MINDSET



• CHAPTER 1 • An Overview of Loose Parts

Loose parts are often associated with play, but they are also vital components to learning and growth. As philosopher and education reformer John Dewey (1942) states in his book *The School and Society*, "Education is a social process. Education is growth. Education is not a preparation for life; education is life itself." The distinction between educational learning and play begins to vanish as we allow learning and development to take place with the use of loose parts.

Using open-ended materials is an age-old practice, starting from the first time a human picked up a rock or stick and used it in a creative way. Today's older generations often mention that playing with found materials—scavenging for natural and discarded objects outside for play and inventing—is just how they grew up. Additionally, theories and practices by education thinkers, including Friedrich Fröebel,

"To me, it is the experimentation and process that make loose parts, rather than the actual stuff." -Dr. Carla Gull

Maria Montessori, and John Milton, had roots in manipulating objects as part of learning, as did the adventure-playground movement after World War II.

Open-ended materials create opportunities to interact and manipulate with both natural and manufactured items and challenge children to think, build, and create. As educators, it is important that we "encourage children to take risks, explore, and investigate while engaging in active, sensory, collaborative, and dramatic play" (Carr et al., 2017).

Loose parts can intrigue and captivate students at any age and in any subject. Dewey argues that education and learning is an interactive, experiential, and engaging process. The experiential approach to education is founded on the idea that growth takes place when students are actively (physically, socially, intellectually, emotionally) involved in their learning rather than just being receivers of information (Stanchfield, 2016).

Exploring the Theory and Intent of Loose Parts

While many educational theories and practices have influenced open-ended play, architect Simon Nicholson coined the term *loose parts*. Nicholson's perspective, which he explains in his 1971 article "How NOT to Cheat Children—The Theory of Loose Parts," is that "in any environment, both the degree of inventiveness and creativity, and the possibility of discovery,

are directly proportional to the number and kind of variables in it." Nicholson believed that children can be creative and imaginative when incorporating loose parts in their play and learning. In his article, he defines *creativity* as "playing around with the components and variables of the world in order to make experiments and discover new things and form new concepts."

"Give the pupils something to do, not something to learn; and the doing is of such a nature as to demand thinking; learning naturally results."

-John Dewey

Peter Gray (2013), author of *Free to Learn*, admits that "play would be more respected if we called it something like 'self-motivated practice of life skills,' but that would remove the lightheartedness from it and thereby reduce its effectiveness." Of course, many life skills and personal qualities are essential to students' future academic, personal, and professional success. Looseparts explorations support important skills such as divergent thinking, decision making, creativity, problem solving, selfconfidence, adaptability, self-direction, and motivation.

Divergent thinking is a process of creating many ideas and solutions related to a concept a person is attempting to understand or a problem she is trying to solve. Unlike convergent thinking, the divergent approach encourages students to think cognitively, critically, and creatively. Using loose parts in classrooms supports this learning process and creates



"a spontaneous, fluid, non-linear mental approach based on curiosity and nonconformity. In fact, it is also a type of thinking very common in children, where joy, imagination, and a fresh perspective make their reasoning more free" (Exploring Your Mind, 2018).

Play is an essential aspect of the learning process. As Gray (2013) puts it, play is how students can learn to take control of their learning and lives. What important skills do children learn from play? In his 2019 article, "The Decline of Play-Peter Gray," Ying includes the ability to solve problems with creativity, imagination, and innovation; getting along with peers; social and emotional skills; and risk taking in the list. Along these lines, Nicholson (1971) suggests that loose parts move beyond playing with sticks and cardboard boxes (although both are important!) to a more complex understanding of engagement in education.

We pulled ten principles from his theory to rethink Nicholson's intent:

- 1. Limit the restrictions.
- Involve children in using, planning, and building spaces and learning.
- 3. Blur the lines between inside and outside.
- 4. Create a lab-like environment.
- 5. Solve real-life problems.
- 6. Allow children to learn through experimentation.
- 7. Use a variety of approaches to loose-parts play.
- 8. Just add water.
- 9. Use what you have.
- 10. Play





Limit the Restrictions

How can we have a "yes" mentality in classroom and outdoor learning? We put many restrictions on children throughout the day, as Nicholson points out: "Young children (often) find the world incredibly restricted—a world where they cannot play with building and making things, or play with fluids, water, fire, or living objects and all the things that satisfy one's curiosity and give us the pleasure that results from discovery and invention." While children may not be playing with fire in our classrooms, there are ways we can lessen the restrictions and say yes more often to children's curiosity and experimentation.



Involve Children in Using, Planning, and Building Spaces and Learning

Nicholson advocates for making children a part of the planning and environment of the learning space. He says that if environments such as schools, playgrounds, day-care centers, and museums do not work, it is because the adults (artists, landscape architects, planners) have had all the fun playing with materials, concepts, and planning alternatives—all the fun and creativity been "stolen." Children *can* be part of the design process of our classrooms. We can give that creativity and fun back and allow them to be integral in creating learning spaces. Children can give suggestions on class layout and how a space is used if we offer them choices both within the classroom and outside on the school grounds.



Blur the Lines between Inside and Outside

We often just think that learning only occurs in our individual classrooms; however, we might extend education to our entire school building, the schoolyard, and beyond. Nicholson suggests switching things up, allowing learning to take place outdoors and fun and games to occur indoors. He advocates letting the distinction between education and recreation begin to disappear. Think of the outdoor spaces in your school—the courtyards, school gardens, playgrounds, asphalt, and green spaces. Integrate nature into your classroom, and incorporate loose parts into outside recess. Think of ways to use outdoor spaces for learning and to bring more play inside.



Spark imagination, innovation, and collaboration with a



Loose parts. You have heard the term, probably in the context of promoting engaging play with open-ended, natural, and manufactured materials that can be manipulated with limitless possibilities. In this book, discover how a loose-parts mindset promotes active learning in the early elementary classroom, enhancing curriculum and ensuring connection to state standards.

Offering inspiration and guidance on developing, applying, and teaching a loose-parts mindset, the authors break down common myths of using loose parts for learning and walk you through getting started in the classroom and on the school grounds. Examine your role as an educator, address safety concerns, and explore how you might evaluate and assess loose parts in the classroom.

The inspiring photographs in this book showcase ways to apply the loose-parts mindset to science, technology, reading and literacy, engineering, art, and math lessons. Use this book as a smorgasbord of ideas—pick and choose ones that work for you, your students, and your community. None of us is too old for a little loose-parts play!



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