

# IALS JOURNAL

Volume XIV, No.1



international  
association of  
laboratory  
schools

## IN THIS ISSUE

**The Hatch Lab: A Case for Early Childhood STEM**  
*Brittney Tarr and Barbara Meyer* 1

**Reading about a Hero of the Holocaust:  
A Multiple Case Study of Families and Teachers  
from a Laboratory School**  
*Keely D. Cline, Sierra M. Merritt, Victoria Seeger,  
Brandy Haughey, and Heather Montenguise* 11

**The Inclusive Education: A Conceptualized Reality or  
Misapprehension in Postcolonial Guyana**  
*Lidon Lashley* 23

**Bridges over Troubled Waters: Anchoring Values and Democratic  
Education, Fostering Civic Skills and International Mindedness**  
*Pascale Haag and Monika Votava Mandelíčková* 37

**Oral Language and Literacy Skills Development**  
*Meenakshi Dahal* 45

**The Neurodiverse Explorers' Farming Adventures**  
*Lidon Lashley and Michelle Semple-McBean* 57

**The Coping Skills of Laboratory School Directors  
and the Influence on Job Engagement**  
*Maria Senerchia, Sue K. Adams, and Nilton Porto* 69

**Book Review: LabSchoolsEurope:  
Participatory Research for Democratic Education**  
*Elizabeth Morley* 79

# IALS

international  
association of  
laboratory  
schools

## **International Association of Laboratory Schools Officers 2023-2024**

### **The International Association of Laboratory Schools Board of Directors 2023-2024**

Nicolás Ramos Ortiz, University of Puerto Rico  
Executive Director

Eric Kirkman, University of North Alabama  
President

Jill Sarada, University of Pittsburgh  
Past-President

Chriss Bogert, University of Toronto  
President-Elect

Jean Bird, Carnegie Mellon University  
Secretary

Elizabeth Morley, University of Toronto  
International Connections-Chair

Ceceile Minott, University of the West Indies  
Board Member

Abigail Comber, Ball State University  
Board Member

Barbara Meyer, Illinois State University  
Board Member

Timo Zenke, Bielefeld University  
Board Member

Laura King, Northwest Missouri State University  
Board Member

---

**JOURNAL EDITOR AND REVIEW BOARD**

**Dr. Roberto E. Olmeda** has taught ninth-grade English for the past fifteen years and is currently the Academic Coordinator at the University of Puerto Rico Secondary School (UHS). He has taught undergraduate courses at the University of Puerto Rico, Río Piedras Campus and works as a cooperating teacher and student teacher supervisor at the College of Education. His research interests include language variation, cross-linguistic influence, sociolinguistics, second language acquisition, and bilingualism.

**REVIEW BOARD**

Dr. Mary Applegate	University of Puerto Rico
Dr. Antero Hietamaki	University of Jyväskylä, Finland
Dr. Barbara Meyer	Illinois State University
Dr. Michael Odell	University of Texas
Dr. Sahawarat Polahan	Thammasat University, Thailand
Dr. Jill Sarada	University of Pittsburgh

**EDITORIAL RESPONSIBILITY**

The peer-reviewed *IALS Journal* is published once a year and addresses key issues facing today's laboratory and university affiliated schools. Articles offer perspectives on educational trends and include topics such as the history and future of lab schools, innovations in curricula and programs, lab school administration, and teacher education. The journal includes articles grounded in evidence-based classroom practices, action research, and theoretically based quantitative and qualitative scholarship.

**IALS Journal**  
**Volume 14, Issue 1**

## CONTENTS

**The Hatch Lab: A Case for Early Childhood STEM / 1**

Brittney Tarr and Barbara Meyer  
Illinois State University

**Reading about a Hero of the Holocaust: A Multiple Case Study of Families and Teachers from a Laboratory School / 11**

Keely D. Cline, Sierra M. Merritt, Victoria Seeger, Brandy Haughey, and Heather Montenguise  
Northwest Missouri State University

**The Inclusive Education: A Conceptualized Reality or Misapprehension in Postcolonial Guyana / 23**

Lidon Lashley  
University of Guyana Early Childhood Centre of Excellence

**Bridges over Troubled Waters: Anchoring Values and Democratic Education, Fostering Civic Skills and International Mindedness / 37**

Pascale Haag  
Lab School Paris, École des hautes études en sciences sociales (EHESS)  
Monika Votava Mandelíčková  
Labyrinth Laboratory School, Czech Republic

**Oral Language and Literacy Skills Development / 45**

Meenakshi Dahal  
Kathmandu University, Nepal

**The Neurodiverse Explorers' Farming Adventures / 57**

Lidon Lashley and Michelle Semple-McBean  
University of Guyana Early Childhood Centre of Excellence

**The Coping Skills of Laboratory School Directors and the Influence on Job Engagement / 69**

Maria Senerchia, Sue K. Adams, and Nilton Porto  
University of Rhode Island

**Book Review: *LabSchoolsEurope: Participatory Research for Democratic Education* / 79**

Elizabeth Morley  
Dr. Eric Jackman Institute of Child Study Laboratory School, University of Toronto



## MESSAGE FROM THE EDITOR

The International Association of Laboratory Schools is proud to present the fourteenth edition of its journal, a space devoted to scholarship, research, and innovation in laboratory schools around the world. In this volume, we reassert our commitment to disseminating and advancing best teaching practices and present a collection of articles that are consistent with our mission to improve student learning at our member schools and beyond.

In “The Hatch Lab: A Case for Early Childhood STEM,” Britney Tarr and Barbara Meyer from Illinois State University argue that it is never too early for children to become fledgling engineers and experts in STEM. The Hatch Lab at Metcalf Laboratory School in Normal, Illinois aims to create a makerspace where children are not passive recipients of information, but instead become active learners who construct their own understanding of the world as they hatch new ideas and hone their problem solving skills. This article explores the benefits of introducing children to STEM at an early age and makes the case for other schools to adopt what has proven to be quite a fruitful initiative.

Although it is generally recommended that schools not teach about the Holocaust until sixth grade because children may not fully grasp the historical context in which this event took place, Kline et al. propose that it is plausible to introduce younger children to this topic through age-appropriate literature and parental guidance. In “Reading about a Hero of the Holocaust: A Multiple Case Study of Families and Teachers from a Laboratory School,” the authors set out to investigate how eight-year old children would react to reading and discussing the book *Nicky & Vera: A Quiet Hero of the Holocaust and the Children He Rescued?* (Sis, 2021) individually with their parents. Their study highlights the indispensability of parental involvement when addressing sensitive or “heavy” topics and posits that early exposure to Holocaust education may help combat the trend of “forgetting” about the Holocaust that has recently taken place in the United States of America.

Upon presenting an insightful historical overview of Guyana’s colonial history, Lidon Lashley lays out a rationale for the cultural influences that have impinged on the way in which Guyana’s educational system works with Special Education Needs and/or Disabilities (SEND) students. In “The Inclusive Education: A Conceptualized Reality or Misapprehension in Postcolonial Guyana,” Lashley denounces the lack of inclusion and marginalization of SEND students in his country and presents a call to action to the local government to legislate in

favor of inclusive educational policies that grant all students’ rightful access to mainstream education.

Laboratory schools are called to catalyze and promote innovative teaching and learning practices that not only develop the students’ cognitive skills but also their affective domain. In “Bridges over Troubled Waters: Anchoring Values and Democratic Education, Fostering Civic Skills and International Mindedness,” Haag and Votava Mandelíčková report on their findings after completing a four-phase project at the Labyrinth School in Brno, Czech Republic and the École des Hautes Études en Sciences Sociales in Paris, France. Their article cogently illustrates and asserts the significance of incorporating values and democratic education in our curricula to strengthen children’s emotional, social, and civic skills and fostering their openness to different cultures.

The development of oral and literacy skills in a second language during early childhood not only depends on the instruction offered at school, but also relies greatly on the support provided by family and community members back home. In “Oral Language and Literacy Skills Development,” Meenakshi Dahal, Associate Professor of Education at Kathmandu University in Nepal, closely studies the development of literacy skills in a group of preschool children in Banke, Nepal, who are acquiring Nepali and English as second languages. In addition to emphasizing the influence that schools, home environment, and community have on a child’s oral and literacy skills, Dahal also discusses the implications that her study has on local educational practices and provides several recommendations that pertain to educational policies in Nepal.

Together with the core subjects that are traditionally taught at most schools, Lashley and Semple-McBean from the University of Guyana advance the idea that children at all levels should be given the opportunity to reap the benefits of agriculture as part of the school curriculum. In “The Neurodiverse Explorers’ Farming Adventures,” the authors present a fascinating project at the University of Guyana Early Childhood Centre of Excellence (UG-ECCE) that invites 3- to 5-year-old children to be in close contact with nature as they engage in play-based activities and learn more about farming. The authors advance the idea that, by promoting initiatives such as this one, laboratory schools around the world would offer their students meaningful learning opportunities that go beyond classroom walls while providing them with much needed socialization experiences.

A laboratory school community is composed of several constituents that are essential to achieving its institutional mission and goals. Oftentimes, much of the responsibility of guiding, motivating, and supporting students, parents, and staff is assumed by school directors, who are tasked with the responsibility of leading their school to excellence and success. In “The Coping Skills of Laboratory School Directors and the Influence on Job Engagement,” Senerchia et al. explore how school directors cope with the stress of their job to increase and maintain work engagement among staff members. Upon revealing and discussing the results of their investigation, the authors propose future research initiatives that further look into lab school directors’ experiences with coping skills and job engagement.

To conclude the Spring 2024 edition of our journal, Dr. Elizabeth Morley from the University of Toronto presents a review of the book *LabSchoolsEurope: Participatory Research for Democratic Education*, edited by Benedict Kurz and Christian Timo Zenke (2023).

We are once more honored to share the work of our distinguished colleagues with the *IALS Journal* readership. We hope that their contributions inspire teachers, researchers, and administrators around the world to strive for excellence in their future endeavors and motivate other authors to submit their research and writing for publication in future editions.

**Roberto E. Olmeda Rosario**  
*IALS Journal* Editor

# The Hatch Lab: A Case for Early Childhood STEM

**Brittney Tarr**

FACULTY ASSOCIATE AT THOMAS METCALF SCHOOL, ILLINOIS STATE UNIVERSITY

**Barbara Meyer**

ASSOCIATE PROFESSOR IN THE SCHOOL OF TEACHING & LEARNING AT ILLINOIS STATE UNIVERSITY

---

## Introduction

STEM education, understood to be an integrated approach to teaching problem solving skills leveraging concepts of science, technology, engineering, and mathematics, is essential for innovation and discovery (Havice et al., 2018). Historically, innovation through STEM has led to the creation of jobs, industries, and opportunities, and STEM fields continue to play a critical role in the prosperity, security, and health of the United States (White House, 2022). While current federal initiatives call for schools to provide high-quality STEM education at all levels to meet STEM workforce demands, the purpose of STEM education goes beyond workforce preparation (Bers, 2022; U.S. Department of Education, 2022). Through STEM education children develop critical thinking, creative problem solving, collaboration, and communication skills, and they develop important character strengths such as grit, open-mindedness, and empathy (Bers, 2022).

At Thomas Metcalf Laboratory School in Normal, Illinois, makerspace began as a course offering to 5th graders in 2014. By 2017, makerspace was offered kindergarten through 8th grade. While our makerspace provided students opportunities to work with robotics and other technologies, our principal believed we could be doing more. Making a connection with Montour Elementary School in Pittsburg, Pennsylvania, he was inspired by the innovative use of LEGO bricks as a teaching tool that engaged even their youngest learners. In 2021, he began working with staff at Metcalf to reconceptualize makerspace and plan for a new space that could better meet the engineering needs of our lower grades. The first plans for our new maker lab imagined a LEGO laboratory modeled off Montour Elementary School's Brick Makerspace.

The first author served Metcalf as a special education teacher with an interest in leveraging STEM education practices to empower all learners to be creators, innovative problem solvers, and change makers in their communities. She changed positions to become the instructor for this reimagined makerspace. As plans evolved, the LEGO Lab was expanded to

include opportunities for all kinds of engineering and making, incorporating concepts of Universal Design to make STEM education accessible for all. Recognizing a need for a larger, more dedicated space than our existing classroom provided, an underutilized extra gymnasium space was identified. From there, the Hatch Lab was born. The first author worked closely with administration to ensure the space was accessible for all learners, regardless of age or ability. Everything from paint color, furniture choice, room acoustics, flooring options, and material selection had to be carefully selected to ensure the varied needs of all learners was considered.

As construction of the space began in the spring of 2022, attention shifted to curriculum redesign. What holes existed in our STEM curriculums? What would be the purpose of the Hatch Lab? Recognizing a need for more focused and purposeful STEM experiences in our younger grades, it was decided that the first author would focus their attention on creating a robust early childhood STEM curriculum. This includes conducting research on the connection between STEM identity and STEM success, as well as leveraging all we know about how young children become creative thinkers and problem solvers. The aim was to develop an innovative curriculum that leveraged evidence-based practices to empower young engineers to be creators and change makers in their communities. In this paper, the authors will describe the evolution of the Hatch Lab at Metcalf Laboratory School and end by providing proposed future research over the next five years.

## Holes in Existing Curriculum

Between our general education and existing makerspace curriculums, Metcalf was meeting state and national requirements through the Illinois Computer Science Standards and International Society for Technology Education (ISTE) Standards. The general education science classrooms were meeting the Disciplinary Core Ideas within the Next Generation Science Standards (NGSS), but they did not emphasize the Science and Engineering Practices within NGSS. The

existing curriculum focused heavily on computer science skills and standards. What was missing were experiences with varied engineering disciplines (civil, mechanical, structural, environmental, etc.). The Standards for Technological and Engineering Literacy (STEL) provide a holistic perspective on engineering skills but had not been used previously in our makerspace curriculum.

## The Purpose of the Hatch Lab

Thomas Metcalf Laboratory School has a vested interest in supporting students in their STEM education at all grade levels. Every student should think of themselves as being “good” at STEM regardless of race, gender, disability status, or socioeconomic status. The Hatch Lab was designed to create a feeling of belonging in STEM. STEM identity includes the way in which individuals create meaning of their experiences and participation with STEM classes, careers, and recreational activities, and influences learning behavior and academic achievement (Carlone & Johnson, 2007; Perez et al., 2014; Simpson & Bouhafa, 2020).

The Hatch Lab’s purpose was for all students to be able to see themselves as experts in STEM, including those students from marginalized groups who tend to not be well represented in STEM fields (Interagency Working Group on Inclusion in STEM et al., 2021). Evaluating the experiences of women of color in science-related courses and careers, Carlone and Johnson (2007) identified the three main contributions to one’s science identity to be performance, recognition, and competence. Since that time, researchers have applied this framework to a variety of STEM related identities including math, physics, and computer science, as well as collective STEM identity, lending additional validity to the framework itself (Cohen et al., 2020; Cribbs et al., 2015; Hazari et al., 2010; Kane, 2012; Mahadeo et al., 2020). Much of the research on STEM identity has been conducted at the high school and college levels; however, little research has been conducted with elementary school students.

Unlike traditional STEM curriculum that sees the role of educators as the purveyors of knowledge who impart knowledge and skills to children (Bers, 2022), makerspaces are collaborative learning environments specifically designed for tinkering and making. Seymour Papert, a celebrated mathematician, learning theorist, and professor, was considered by many to be the father of the modern maker movement. In 1980, Papert argued for the importance of play, computing, and creation to learning (Martinez & Stager, 2019). After working closely with Jean Piaget for years, Papert developed the theory of constructionism, which, while similar to constructivism, argues that powerful learning comes from the construction of

artifacts (Ackermann, 2001). The Hatch Lab is modeled off this constructionist theory. Throughout every aspect of the curriculum, students are tasked with constructing their own knowledge and understanding by actively making, be it through tinkering, open exploration experiences or engineering design projects.

Universal Design for Learning (UDL) is an integral part of an inclusive makerspace. It considers the learning needs of all. For example, many girls need space for expression through play (Bers, 2022; Resnick, 2017). Students with disabilities need access and assistive technology for genuine, meaningful participation (Zwarych, 2023). UDL considerations are visible throughout the design of both the Hatch Lab and its curriculum.

## Learning in Action

The curriculum developed for the Hatch Lab at Metcalf School prioritizes experiences that capitalize on young children’s natural curiosity of the world and their desire to create. While both state and national engineering and computer science standards inform curricular decisions, assessment practices focus on individualized growth in more holistic areas rather than mastery of any specific engineering skill. These assessment areas include (a) communication, (b) creative thinking, (c) critical thinking, (d) collaboration, and (e) grit. Additionally, our goal was to prioritize learning experiences that empower strong STEM identity in all our learners.

At every grade level, the Hatch Lab curriculum takes students through various units of study focused on different disciplines of engineering. Computer engineering, civil engineering, and electrical engineering are explored every year. Mechanical engineering, structural engineering, and environmental engineering are explored at different grade levels based on student interest and community-based needs and opportunities. Within each unit, The Hatch Lab experience intentionally builds in time for children to play, collaborate, create, and discover/explore their interests, calling on the years of research and expertise of the Lifelong Kindergarten Group out of MIT’s Media Lab on how creative thinkers are developed (Resnick, 2017).

One unit of study in the Hatch Lab is “I am a computer engineer!” This kindergarten unit builds upon preschool experiences where engineers tinkered with a variety of coding robots intended for early childhood learners. The following is a narrative description of a computer science unit that could take place including potential responses from students and teachers followed by the research-backed purpose behind those curricular decisions.

## Introductory Lesson

As kindergarten engineers enter the classroom, each table is set up with different tools to explore – some of which are familiar to engineers who were with us in preschool (Bee-Bots, Coding Critters, and LEGO Coding Express), some of which they are seeing for the first time (KIBO and Sphero Indi). As engineers gather at the carpet, they are asked one question, “What is a computer?” Engineers share examples such as Chromebooks, laptops, and desktops present at home and school. One engineer asks if an iPad counts, and collectively the class agrees that all tablets are examples of computers.

With their prior schema exhausted, the teacher asks a new question, “Is a smartphone a computer?” Hands are slower to go up as engineers need time to consider this. Soon, a lively debate ensues. Half of the class agrees that a smartphone must be a computer because it functions the same as an iPad. The other half disagrees; a smartphone cannot possibly be a computer because it is a phone. This second half is surprised to hear the teacher inform them that yes, a smartphone is a computer. From there, the questions get more obscure, and genuine confusion sets in as each of the engineer’s prior understanding is challenged. “Is a smartwatch a computer?” Yes. “A regular watch?” No. “What about our smart TV?” Yes. A look of understanding comes over one engineer as they stand up to excitedly tell the class, “Guys! If it has smart in the word, it’s a computer!” When the teacher asks that student for another example of a computer, they think for a minute before exclaiming, “A Smartboard!”

The engineers in the class feel confident that they now understand what makes a computer. The teacher then challenges this newfound definition with the question, “Is a Bee-Bot a computer?” The teacher gets several confused looks as some of the engineers laugh. It’s decided quickly that a Bee-Bot cannot possibly be a computer, it’s a robot. When they are told that yes, our Bee-Bot is a computer, the engineers begin asking questions of their own.

**Engineer 1:** So is the LEGO train a computer?

**Teacher:** The LEGO Coding Express is a computer, yes. But not all LEGO trains are computers.

**Engineer 2:** That’s silly... How can a robot be a computer?

**Teacher:** What a great question to think about. If we know a Chromebook is a computer, what is the same about a Chromebook and a robot?

**Engineer 2:** They use electricity!

**Engineer 3:** Our drills use electricity! Are they computers?

**Teacher:** No. Our power drills aren’t computers. They are a different kind of technology.

**Engineer 4:** Well, what’s a computer then?

**Teacher:** That’s a question we’re going to have to think about as computer engineers. We’re going to be exploring different computers today and while we do that, I wonder if we can figure that answer out together!

Engineers are then introduced to the term “computer engineer,” and for many, this is a term they heard in preschool. “That’s where we talk to robots, right?” one engineer asks. Another laughs, “You can’t talk to robots! They don’t know English!” This gets another engineer thinking, “what language do they use?” Ultimately engineers realize that robots use a special language called “code.” The teacher provides some basic instructions for open-exploration time and engineers are sent off to explore.

**Encouraging Inquiry.** In designing a constructionist curriculum that trusts children to construct knowledge through social interaction and experience, it is imperative that knowledge is not treated as something to impart, but rather an experience to cultivate (Ackermann, 2001). Martinez and Stager (2019) state that the power of learning through a makerspace approach stems from questions and impulses within the learner rather than questions imposed on them. Young engineers naturally question, which can be heard through endless strings of them asking “why?” This natural curiosity can be stamped out through instructionist teaching practices that enforce the idea that knowledge comes from educators, but this curiosity can be encouraged through the learning environment (Bers, 2022). Educators should not only validate an engineer’s curiosity but also help them ask more specific, targeted questions to focus their investigations and discoveries. Through questioning techniques, we can activate prior knowledge on a subject, spark curiosity, and scaffold engineer-planned investigations and explorations (Shanmugavelu et al., 2020). As described in the mini lesson above, the teacher guides students to ask questions that lead them to a solution themselves.

**Recognition.** In the Hatch Lab, one of the most common observations made by visitors is the practice of calling students “engineers.” This is intentional. Studies on STEM identity have continually found that one of the most statistically significant

influences on STEM identity is recognition (Carlone & Johnson, 2007; Cribbs et al., 2015; Dou & Cian, 2022; Kane, 2012). While the exact impact that recognition has on our youngest engineers has not yet been explored in research, we assume that such recognition in our early childhood classroom can only have a positive impact. By modeling the use of the term “engineer,” it creates a culture in which children can see and recognize not only themselves as engineers but also their peers. When students tinker, make, and problem solve within the Hatch Lab, they are actively engineering.

**Open Exploration Time.** Once engineers complete the introductory lesson, they are assigned a station with a robotic tool to tinker with. Some of the engineers figure out how to program their robots immediately. They excitedly share this knowledge with peers, teaching them how to program the robot themselves. Together, these engineers work to program increasingly complex sequences as they try out different ideas.

For other engineers, understanding is not immediate, presenting a problem to be solved. For some, this creates an intriguing mystery as they try different ideas, fail, and try again, collaborating in an effort to solve the problem at hand. However, this is not a comfortable process for everyone. Failure is frustrating and scary, which can lead to big displays of emotion and calls for teacher support. When this happens, the teacher reminds the engineer that engineering is hard work. Their feelings are validated, and they are given strategies to calm that frustration, but the solution to their problem is not handed to them. Support comes in the form of questions: “What have you already tried?” “What could you try next?” “Think about another robot you know how to communicate with, does this robot have any similarities?” Through questioning strategies, the engineer figures out how to work their robot, feeling a sense of pride and accomplishment for being able to discover the solution on their own.

Engineers explore their station for the length of time that the teacher is working with a small group, after which, engineers either rotate to their next station or they head back to their classroom. Throughout the next two classes, engineers will spend time at each station, tinkering with different robotics kits as they experience different coding languages.

**Tinkering.** Tinkering, according to Resnick (2017), is the intersection of play and making. It provides space for a rapid iterative process in which one can experience multiple cycles of the design process – asking questions, ideating, creating, and improving – in a short amount of time (Resnick, 2017). Martinez and Stager (2019) consider tinkering to be a mindset, in which one can solve problems through experimentation, iterations, and discovery. This play-based approach builds on theories of learning from Piaget (1936), Dewey (1938), and Vygotsky (1978), who all believed in the importance of play on the development of young minds.

Throughout this period of open-exploration, engineers are regularly encountering failure throughout the iterative process. Failure is a natural part of engineering. It is how strengths and weaknesses within a design are identified as well as opportunities for improvement. However, accepting failure does not come easily to young engineers – or even older ones – and the relatively low-stakes environment created through open-exploration provides a perfect playground to experience failure safely so it can become normalized.

**Flexible Application of Skills.** During collaborative meetings on vertical alignment with Metcalf’s upper elementary, middle school, and high school teams, one of the most common complaints heard was that our students struggle to transfer knowledge from one context to another. Transfer refers to one’s ability to take skills and knowledge mastered in one context and apply it to a different, often novel context (Yale, 2021). While students may master the ability to compare a piece of literature in 4<sup>th</sup> grade, that skill is not generalized to comparing and contrasting in 5<sup>th</sup> grade science. While our 3<sup>rd</sup> and 4<sup>th</sup> graders learned to code using the Wonder Workshop Dash robot, by 6<sup>th</sup> grade, students struggled to code using Scratch. What teachers realized was that students master content specific skills, but they were not developing a flexible application of those skills. Open-exploration centers were implemented to improve transference of knowledge.

In this unit, engineers tinker with a variety of different robotics and coding languages. While engineers might explore how the Bee-Bot uses arrows to code, when they move to the Sphero Indi, they suddenly are using color tiles to code. Successful engineers take the knowledge constructed interacting with one tool and apply that knowledge to new, different contexts. When engineers grow frustrated and/or struggle with that transfer of knowledge, the teacher can use questioning strategies to help make the connections between tools more explicit. As engineers encounter at least four differing stations within every unit, they have multiple opportunities to practice how to use prior knowledge to construct new understandings of the world.

### Small Group Instruction: Meet the Teacher

While other engineers are tinkering with their own robots at stations, the teacher pulls five engineers in for small group instruction, called Meet the Teacher. These five engineers are intentionally grouped together for small group instruction based on their current experience levels with coding. At times, small groups are intentionally grouped to have mixed abilities, but today groups are made based on each student’s current fluency with coding. The teacher introduces the engineers to a new robot named KIBO. The engineers are excited and



immediately begin asking questions about how to communicate with KIBO.

**Teacher:** You know, KIBO is new for me too! Do you think you can help me figure out how to talk to it?

**Engineer 1:** Just say, “Hello! Go!”

**Teacher:** Hello! Go!

(Nothing happens)

**Engineer 2:** You’ve gotta say, “Hola! Vamos!”

**Engineer 3:** No, remember? You have to use the computer language. It’s a computer!

**Teacher:** How do I use computer language with it? It doesn’t have arrow buttons like our Bee-Bots.

**Engineer 4:** (points to the bin the KIBO came in) You need to look in there!

**Teacher:** (pulls the bin into the center so that everyone can see the other materials in the kit.) You think we need to look at what else KIBO came with?

**Engineer 2:** (holds up a blue block with a swirling arrow) This one says go!

**Engineer 5:** No, it says turn around! Look at the picture.

**Teacher:** Let’s sound it out. I see an s-p, that makes the /s/ /p/ sound. What about the I?

**Engineer 4:** Spin! It says spin!

This conversation continues for about five minutes as the group collaborates to get the robot to move. Once they’ve successfully coded a sequence together (using a begin, spin, and end block and scanning the blocks with KIBO’s barcode scanner), engineers are each given their own robot. Engineers work together to problem solve, excitedly showing peers how they use various blocks to get the KIBO to move, sing, and even light up. The teacher encourages this co-construction of knowledge by asking questions to challenge thinking and promote problem solving skills as engineers encounter bugs in

their programming. As concepts are discovered and skills are developed, the teacher helps the engineers attach important vocabulary to their conceptual understandings and processes. The group is not considered done until every student has successfully created at least a 4-step, working sequence. For some groups, this process takes no more than 15 minutes. For other groups, this process can take as long as 30 minutes. The schedule is not rigid and adjusts to meet the differentiated needs of each group of engineers.

**Personalized Learning.** In the educational technology world, personalized learning has come to be associated with modern teaching machines reminiscent of B. F. Skinner (Watters, 2021). Technology subscriptions like MobyMax market themselves to be personalized learning tools due to their ability to go at a student’s own pace. Nonetheless, these behaviorist tools miss the mark on what personalized learning truly should be: learning that is student-led, based on student interests and needs, and uniquely designed for each individual child. Perhaps these learning machines have become so popular within our current education system because of the instructional demand it takes away from overworked teachers working in understaffed schools (Watters, 2021). However, at Metcalf, many educators use small group instruction to provide more genuine, thoughtful personalized learning opportunities.

Within the “Meet the Teacher” station, the teacher focuses on only 4-5 engineers at a time. This increases the opportunities for each engineer to share their ideas as well as improves the capacity for the teacher to meet each engineer’s unique learning needs. Additionally, by doing away with strict time constraints and instructional timelines, the teacher does not have to rotate any station until every engineer within the small group has been given the time and attention necessary to find success and confidence. This structure works because of the play-based nature of open-exploration stations. Compared to the workshop approach, where students may be working on a preset activity with a clear end goal, our station-based open-exploration model does not have to worry about “early finishers” and behavior issues that can arise when children complete their activity and are anxiously waiting around for permission to move onto their next station. When engineers tinker, there is no “end.” Engineers can stay at any given station for as long as the teacher needs and never be “finished.” Likewise, without a predetermined task, when it comes time to rotate stations, there is little academic concern over students who may not have finished their activity, for the tinkering process can be halted at any stage of the iterative process and still hold immense educational value. This being said, it is not uncommon for young engineers to be so engaged in their tinkering that they grow disappointed when it is time to stop work at a given station. This disappointment is mitigated in

two ways. First, we use digital learning portfolios, so young engineers are encouraged to take pictures and videos of their creations so their families can see, and they can pull up their design ideas at any time. Second, there is a culture of trust that builds up over time where engineers know that they will have another opportunity to create, tinker, and explore again.

**Project-Based Learning.** Once engineers have had two full rotations through each station (or the teacher feels that the class has had sufficient exploration time to feel confident in their coding skills), it is time for engineers to show off their creative thinking and computational fluency with a project. The teacher explains that engineers will be placed in groups based on their interests, and they will work together to program a robot for a creative purpose of their choosing. Engineers are informed they will be allowed one robot of their choosing, and they should consider the design features of different robotics to choose a robot that best meets their design needs.

Engineers are then given a survey that communicates their interests so like-minded engineers can be placed together. They record both their design preferences as well as their robotics preferences. Design options include:

- Designing a map of a real or imagined place
- Telling a story
- Creating a dance and/or music
- Solving a problem
- Other (engineers are always given an “other” option for projects to provide additional agency and space for creative thinking)

Once groups are formed, engineers spend the next few class sessions working on their project utilizing an iterative, engineering design process.

As failure is an expected part of any design process, but can cause unique frustrations in young engineers, the teacher intentionally works to normalize failure. As engineers try design ideas and fail, the teacher reacts to those failures with the same degree of enthusiasm as when engineers find success. “It failed? You look frustrated and I would be too. But now you get to try again, and I bet you’ll make something even better!” During this creation process, the classroom is loud and messy. The occasional visitor may comment on how the class feels “chaotic,” but a more careful observer understands the importance of collaboration and experimentation to engineering and will note that every group is actively engaged.

As projects begin to take shape, engineers are encouraged to take breaks from creating to walk around and look at the designs of other groups. During this process, a few engineers naturally become protective over their designs, accusing their classmates of “cheating” or “stealing” their work. The teacher reminds engineers that innovation does not happen in a vacuum, but rather powerful ideas come from allowing

oneself to be inspired by others. Resnick (2017) uses the term “remixing” on his Scratch platform – the idea that engineers are encouraged to take the work of others and build upon it with new ideas, and engineers who have their work remixed are celebrated for their contribution to the programming community. As the teacher creates an environment of collaboration rather than competitiveness, engineers begin sharing exciting discoveries with others as they occur. The excitement in the air is contagious.

After several iterations, the unit ends. Some engineers complain that their project does not feel complete. The teacher reminds them that no design is ever complete; there is always room for improvement. The goal with engineering is not to complete a project, as that would be impossible, but rather to reach a point where their ideas can be clearly seen and shared out, whether those design solutions “work” or not. Engineers spend the last bit of their unit sharing their ideas with others. They show their creations to their peers. They record videos of their projects to share with their families over Seesaw, the Hatch Lab’s digital learning portfolios. They find creative ways to share their work with the school community, through either an open house, visiting other classrooms, or posting evidence of their work in the hallway.

When this unit was implemented, groups of engineers had very unique projects. One group built a city out of cardboard bricks and LEGO bricks and used a KIBO robot to act as Godzilla, stomping through the city. Another group designed a roller coaster out of cardboard based on their favorite ride at Disney and used Sphero Indi to act as the ride cars. Two engineers found a way to make their Bee-Bot hold a paint brush and spell out their names. The last group of engineers had grand plans to make their Bee-Bot dance to the Superman theme song, taking off at the end in flight. It involved the use of a pulley system and strings hanging from the ceiling. While their pulleys continued to fail under the weight of the Bee-Bot, their classmates were nonetheless impressed by their work, and several offered suggestions on how they might improve their idea if they had more time to explore.

Every engineer worked hard, faced challenges, solved problems, and used creative thinking to bring big ideas to life. Regardless of the “success” or “completeness” of their project, every engineer had clear evidence of learning that demonstrates the computational fluency required by the Illinois Computer Science Standards. As the unit ended and students reflected, their teacher asked them a single question, “Who are you?”

“We are computer engineers!” they responded confidently.

**Student-Led Classrooms.** One of the hallmarks of The Hatch Lab is the degree of autonomy and control engineers have over their own learning. While the teacher will always provide ideas to spark inspiration, engineers are empowered to



design their own project to build or solve their own problem. While many projects require the teacher to create a set of criteria and constraints for engineers to follow, mirroring the realistic parameters that working engineers face, the teacher actively works to make sure that those design parameters do not limit creativity as much as possible. The only criteria or constraints placed on design projects are those that exist for safety, ethics, or logistical reasons. This practice ensures that control within the classroom remains in the hands of engineers as much as possible. This student-led approach ensures that our engineers have the space to create in ways that make sense for them, empowering them to construct their own knowledge and understanding about the world (Martinez & Stager, 2019).

**Portfolio Based Assessment.** At Thomas Metcalf, preschool through first grade classrooms as well as all K-8 studio classes (makerspace, music, theater, and art) use an “ungrading” approach. Ungrading is a practice in which traditional grades are not assigned to students, and the focus is on growth rather than grades (Sackerstein, 2022). After several members of the Metcalf staff read *Hacking Assessment: 10 Ways to Go Gradeless in a Traditional Grade School* by Starr Sackerstein (2022) and shared their findings with the Metcalf community, our studio teachers decided that removing the expectation of grades would help foster more creative thinking and risk taking within the classroom. If students do not have to stress about getting the “right” answer, they are less likely to feel the burden of failure, be competitive with each other and themselves, and experience increased positive collaboration and creativity (Sackerstein, 2022).

In the Hatch Lab, instead of formal, traditional assessments, all engineers have a digital learning portfolio using Seesaw. Engineers have agency over the way in which they document their learning, including which creations they choose to upload, as well as how they choose to upload their work (video recordings, photographs, drawings, audio recordings, and/or written notes). This enables the engineers to have more control over the ways they communicate and share their ideas with others and allows space for creativity and student voice. Additionally, Seesaw allows teachers, families, and peers to provide commented feedback through either audio or typed messages. Multiple opportunities for feedback give engineers an additional avenue to collaborate with others. From the informal data we have collected from our families at conferences and through other conversations, families have preferred the digital portfolios over the traditional grades and report cards previously sent home. They have mentioned that they have a more holistic view of who their child is as a learner and are more empowered to help their child grow because the portfolios provide parent-engineer conversation starters.

## Conclusion

While different states have experienced varied levels of success in the implementation of practice-focused curriculums since the release of Common Core State Standards for mathematics and NGSS a decade ago, the reality is that many schools are still struggling on how to move away from knowledge-based, teacher-led classrooms towards process-focused, student-led classrooms (Spencer, 2023; Bers, 2022). Despite years of research supporting play-based, constructivist and constructionist approaches to STEM education, many curriculums struggle to utilize these evidence-based practices (Spencer, 2023). According to EdReports (2023), a nonprofit organization that evaluates K-12 instructional materials, few existing science curriculums align with NGSS.

Despite this institutional failure, there are resources out there for educators looking to improve their STEM education practices. Makerspace and constructionist practices provide a framework for such process-focused, student-led learning (Martinez & Stager, 2019). For early childhood classrooms, there is exciting research coming out of the DevTech Research Group highlighting ways in which schools can develop high quality STEM programs. The research leverages constructionist practices to teach powerful interdisciplinary ideas and supports the development of character strengths and values that will be necessary to engineer a more just and fair world (Bers, 2022; DevTech Research Group, 2023). The MIT Media Lab funds research and development of instructional tools and programming to empower young children to be creative thinkers and problem solvers (Resnick, 2017). Research on STEM identity and the impact of early childhood experiences on the pursuit of majoring in STEM fields and pursuing careers in STEM fields provides insight on experiences and practices that schools can engage in to promote strong STEM identity in all children (Cohen et al., 2021; Dou et al., 2019). Understanding factors that contribute to students’ lack of self-efficacy in STEM, especially for those from traditionally underrepresented groups, helps us understand possible ways in which STEM curricula can better support all learners.

The Hatch Lab continues to be a new concept at Metcalf school, and the plan is to conduct future research on its successes and challenges. The next step is to begin a longitudinal study that tracks STEM identity from one year to the next in early elementary grades and beyond. This research will include case studies and longitudinal quantitative data collection that explores the growth and impact of the Hatch Lab on students’ academic choices. The authors and the school would also like to explore how the Hatch Lab addresses diversity and inclusion in STEM education as students move from one grade to the next. Furthermore, conducting a

comparative analysis with traditional STEM education methods to that provided in the Hatch Lab will show more of the benefits and challenges to such a program.

Educators at Metcalf want to determine if there are practices in which to engage at the early childhood level to capitalize on the natural curiosity, confidence, and engineering skills that many young children possess to prevent the decrease in STEM interest and identity that begins happening in late elementary, middle, and/or high school (Little Bits, 2019). Our hope is not only to grow confident, competent engineers to enter the STEM workforce per federal initiatives, but to grow lifelong creative problem solvers who can be successful in any path they choose in life (Bers, 2022; US Department of Education, 2022).

## References

- Ackermann, E. (2001). *Piaget's Constructivism, Papert's Constructionism: What's the difference?* MIT Media Lab. [https://learning.media.mit.edu/content/publications/EA.Piaget%20\\_%20Papert.pdf](https://learning.media.mit.edu/content/publications/EA.Piaget%20_%20Papert.pdf)
- Bers, M. U. (2022). *Beyond code: How children learn human values through programming*. The MIT Press.
- Carlone, H. B., & Johnson, A. (2007). Understanding the science experiences of successful women of color: Science identity as an analytic lens. *Journal of Research in Science Teaching*, 44(8), 1187-1218. <https://doi.org/10.1002/tea.20237>
- Cohen, S. M., Hazari, Z., Mahadeo, J., Sonnert, G., & Sadler, P. M. (2021). Examining the effect of early STEM experiences as a form of STEM capital and identity capital on STEM identity: A gender study. *Science Education*, 105, 1116-1150. <https://doi.org/10.1002/sci.21670>
- Cribbs, J. D., Hazari, Z., Sonnert, G., & Sadler, P. M. (2015). Establishing an explanatory model for mathematics identity. *Child Development*, 86(4), 1048-1062. <https://doi.org/10.1111/cdev.12363>
- DevTech Research Group (2023). *Papers*. DevTech Research Group. Retrieved October 20, 2023, from <https://sites.bc.edu/devtech/papers/>
- Dewey, J. (1938). *Experience and education*. Collier Books.
- Dou, R., & Cian, H. (2022). Constructing STEM identity: An expanded structural model for STEM identity research. *Journal of Research in Science Teaching*, 59(3), 458-490. <https://doi.org/10.1002/tea.21734>
- Dou, R., Hazari, Z., Dabney, K., Sonnert, G., & Sadler, P. (2019). Early informal STEM experiences and STEM identity: The importance of talking science. *Science Education*, 103, 623-637. <https://doi.org/10.1002/sci.214999>
- EdReports (2023). *Explore reports: Science*. EdReports. Retrieved October 20, 2023, from <https://www.edreports.org/reports/science>
- Havice, W., Havice, P., Wugaman, C., & Walker, K. (2018). Evaluating the effectiveness of integrative STEM education: Teacher and administrator professional development. *Journal of Technology Education*, 29(2), 73-90.
- Hazari, Z., Sonnert, G., Sadler, P. M., & Shanahan, M. (2010). Connecting high school physics experiences, outcome expectations, physics identity, and physics career choice: A gender study. *Journal of Research in Science Teaching*, 47(8), 978-1003. <https://doi.org/10.1002.tea.20363>
- Interagency Working Group on Inclusion in STEM, Federal Coordination in STEM Education Subcommittee, & Committee on STEM Education of the National Science and Technology Council. (2021, September). *Best practices for diversity and inclusion in STEM education and research: A guide by and for federal agencies*. National Science and Technology Council. Retrieved February 10, 2023 from <https://www.whitehouse.gov/wp-content/uploads/2021/09/091621-Best-Practices-for-Diversity-Inclusion-in-STEM.pdf>
- Kane, J. M. (2012). Young African American children constructing academic and disciplinary identities in an urban science classroom. *Science Education*, 96(3), 457-487. <https://doi.org/10.1002/sci.20483>
- Little Bits (2019). Early exposure to STEM and its impact on the future of work. Purdue University. [https://gems.education.purdue.edu/wp-content/uploads/2019/02/STEM\\_in\\_Schools\\_v1.2.pdf](https://gems.education.purdue.edu/wp-content/uploads/2019/02/STEM_in_Schools_v1.2.pdf)
- Mahadeo, J., Hazari, Z., & Potvin, G. (2020). Developing a computing identity framework: Understanding computer science and information technology career choice. *ACM Transactions on Computing Education*, 20(1), 1-14. <https://doi.org/10.1145/3365571>
- Martinez, S. L. & Stager, G. (2019). *Invent to learn: Making, tinkering, and engineering in the classroom* (2nd ed.). Constructing Modern Knowledge Press.
- Papert, S. (1999). Eight big ideas behind constructionist learning lab. CMK Futures. <https://stager.org/articles/8bigideas.pdf>
- Perez, T., Cromley, J. G., & Kaplan, A. (2014). The role of identity development, values, and costs in college STEM retention. *Journal of Educational Psychology*, 106(1), 315-329. <https://doi.org/10.1037/a0034027>
- Piaget, J. (1936). *Origins of intelligence in the child*. Routledge & Kegan Paul.
- Resnick, M. (2017). *Lifelong kindergarten: Cultivating creativity through projects, passion, peers, and play*. The MIT Press.
- Sackerstien, S. (2022). *Hacking assessment: 10 ways to go gradeless in a traditional grades school* (2nd ed.). Times 10 Publications.
- Shanmugavelu, G., Ariffin, K., Vadivelu, M., Mahayudin, Z., & Sundaram, M. A. R. K. (2020). Questioning techniques and teachers' role in the classroom. *International Journal of Education*, 8(4), 45-49. <https://doi.org/10.34293/education.v8i4.3260>
- Simpson, A., & Bouhafa, Y. (2020). Youths' and adults' identity in STEM: A systematic literature review. *Journal for STEM Education Research*, 3, 167-194. <https://doi.org/10.1007/s41979-020-00034-y>
- Spencer, J. (2023, October 18). *Demystifying NGSS: Getting up to speed on current classroom practices in K-12 science education* [Conference Presentation]. ILASCD, Normal, IL, United States.
- U.S. Department of Education. (2022, December 7). *U.S. Department of Education launches new initiative to enhance STEM education for all students*. U.S. Department of Education. <https://www.ed.gov/news/press-releases/us-department-education-launches-new-initiative-enhance-stem-education-all-students>
- Watters, A. (2021). *Teaching machines: The history of personalized learning*. MIT press.
- White House. (2022, December 12). *Fact sheet: Biden-Harris Administration announces bold multi-sector actions to eliminate systemic barriers in STEMM* [Press release]. <https://www.whitehouse.gov/ostp/news-updates/2022/12/12/fact-sheet-biden-harris-administration-announces-bold-multi-sector-actions-to-eliminate-systemic-barriers-in-stemm/#:~:text=This%20new%20Biden%2DHarris%20Administration,career%20readiness%20and%20global%20competitiveness>

- Vygotsky, L. S. (1978). *Mind in society: Development of higher psychological processes*. Harvard University Press. <https://doi.org/10.2307/j.ctvjf9vz4>
- Yale (2021). Transfer of knowledge to new contexts. Yale: Poorvu Center for Teaching and Learning. Retrieved November 2, 2023 from <https://poorvucenter.yale.edu/TransferKnowledge>
- Zwarych, F. (2023). Inclusive education with assistive technology. In R. Power (Ed.), *Technology and the curriculum: Summer 2023*. Pressbooks. <https://pressbooks.pub/techcurr2023/chapter/inclusive-education-with-assistive-technology/>

## Authors' Bios

- Brittney Tarr** is a Faculty Associate at Thomas Metcalf School, a laboratory school of Illinois State University. She serves currently as a PreK-6 STEM Specialist. She is also a doctoral student at Illinois State University. Her research interests include early childhood STEM education, STEM identity, and play-based learning.
- Dr. Barbara Meyer** is an Associate Professor in the School of Teaching & Learning at Illinois State University. She has previously served as Associate Dean in the College of Education and Acting Director of the Illinois State University Laboratory Schools. Her research interests include University Laboratory Schools, Curriculum, and Instructional Methodologies.



# Reading about a Hero of the Holocaust: A Multiple Case Study of Families and Teachers from a Laboratory School

Keely D. Cline<sup>1</sup>, Sierra M. Merritt<sup>1</sup>, Victoria Seeger<sup>2</sup>, Brandy Haughey<sup>3</sup>, & Heather Montenguise<sup>3</sup>

<sup>1</sup> SCHOOL OF HEALTH SCIENCE AND WELLNESS, DIVISION OF BEHAVIORAL SCIENCES, NORTHWEST MISSOURI STATE UNIVERSITY

<sup>2</sup> SCHOOL OF EDUCATION, NORTHWEST MISSOURI STATE UNIVERSITY

<sup>3</sup> HORACE MANN LABORATORY SCHOOL, NORTHWEST MISSOURI STATE UNIVERSITY

*To forget would be not only dangerous but offensive; to forget the dead would be akin to killing them a second time.*

—Elie Wiesel (2006, Preface section)

## Introduction

Research shows that many young adults in the United States have limited knowledge about key events, places, or people of the Holocaust (Bloomfield & Schneider, 2020; Claims Conference, 2021). How can educational practices combat this problem? The United States Holocaust Memorial Museum (n.d.) recommends not teaching about the Holocaust before sixth grade and not introducing the topic with children before they are eight years old because while elementary students may be able to empathize with individual accounts, they may not be able to comprehend the larger historical context (Matthews, 2021). Nonetheless, there are books targeted at younger children that center on the topic of the Holocaust. On their website, the nonprofit organization the Holocaust & Human Rights Education Center (n.d.) has shared a book list about the Holocaust for “young readers.” A relatively recently published book, *Nicky & Vera: A Quiet Hero of the Holocaust and the Children He Rescued* by Peter Sis (2021), is suggested for 6- to 8-year-olds by the publisher. This book has received multiple awards (e.g., an NPR Best Book of 2021, a New York Times Best Children’s Book of 2021, a Washington Post Best Book of 2021). Furthermore, in a book review in *Psychology Today*, developmental psychologist and author Dr. Dona Matthews, suggested that if presented with careful parental guidance, the book can be a developmentally appropriate way to share an inspiring story about standing up to racism (2021).

The study presented in this article was designed with an audience of laboratory school professionals in mind. We know that laboratory schools are committed to assisting “in preparing teachers while delivering quality instructional programs for children in the classroom” and that they have “often

led the way in improving the science and art of teaching” (International Association of Laboratory Schools, n.d., para. 2). We are in unprecedented times as the U.S. population appears to be on the path to collectively “forgetting” key information about the Holocaust. Our study was designed with the overarching goal of uncovering insight that may allow laboratory school professionals to consider if and how they might lead the way in disrupting these troubling trends.

## Forgetting the Holocaust?

In the aftermath of the atrocities of the Holocaust, the United States responded with a promise to “never forget.” As described in an opinion article in *Time Magazine*:

The U.S.—a nation where many Holocaust survivors rebuilt their lives, and that was the home of over 400,000 soldiers who died defeating fascism as well as many veterans who were among the first eyewitnesses to the Holocaust—has made a significant commitment over the decades to Holocaust education. (Bloomfield & Schneider, 2020, para. 2)

However, as the generations who personally experienced and witnessed the horrors of the Holocaust disappear, there are concerns about if the “never forget” promise will be upheld. In a nationally representative sample of Americans, the Pew Research Center (2020) found that teenagers and adults under the age of 65 were less knowledgeable about the Holocaust than adults aged 65 years or older. Furthermore, in another national survey, the Claims Conference (2021) found an alarming lack of knowledge and misconceptions about the Holocaust among young adults who were part of the Millennial and Gen Z generations. Findings included that 36% of respondents grossly underestimated how many Jews were killed, believing it was

no more than two million Jews killed whereas it was actually six million. Nearly half (48%) of respondents could not name a single concentration camp or ghetto, though there were over 40,000 of them. A similar number of respondents (49%) reported seeing Holocaust denial or distortion posts shared online, and 30% reported seeing Nazi symbols in their social media platforms or communities. Finally, and perhaps most disturbing, 11% of respondents endorsed the idea that Jews caused the Holocaust. With these findings in mind, Sara J. Bloomfield, director of the United States Holocaust Memorial Museum, and Greg Schneider, executive vice president of the Conference on Jewish Material Claims Against Germany, called for re-examining approaches to Holocaust education (Bloomberg & Schneider, 2020). Laboratory school professionals, who have traditionally served as leaders in education, may see a unique opportunity to combat these trends through strategically addressing the concerns through teacher education and instructional programming with children.

### **Introducing Children to the Topic of the Holocaust and Holocaust Education**

The United States Holocaust Memorial Museum (n.d.) offers this guidance on age appropriateness of teaching about the Holocaust:

Students in grades six and above demonstrate the ability to empathize with individual eyewitness accounts and to attempt to understand the complexities of Holocaust history, including the scope and scale of the events. While elementary age students are able to empathize with individual accounts, they often have difficulty placing them in a larger historical context.

Such developmental differences have traditionally shaped social studies curricula throughout the country. In most states, students are not introduced to European history and geography—the context of the Holocaust—before middle school. Elementary school can be an ideal place to begin discussing the value of diversity and the danger of bias and prejudice. These critical themes can be addressed through local and national historical events and can be reinforced during later study of the Holocaust.

Schweber (2008) conducted a qualitative case study exploring if a class of third-grade students, led by a skilled and experienced teacher, were emotionally and intellectually ready to engage in instruction about the Holocaust. She asserted that her research, based on observations in the classroom, interviews with the teacher, parents, and children, and a

review of class materials and students' work, confirmed that third grade is too early to focus on the topic as a class. She explained that children varied in their level of understanding of the content and material. Some children could not grasp the magnitude of what had occurred. Schweber included a quotation from the children, "What happened to their pets?" in the title of her article, capturing how these children missed the larger picture of the atrocities. Other children understood the material deeply, but they were overwhelmed by what they had learned.

In reviewing literature to inform our study, we considered Schweber's (2008) assertions in relation to Bilewicz et al.'s (2017) review of theory and research on the topic Holocaust education with teenagers in Germany and Poland. The context of Bilewicz et al.'s research differs from research with American youth in important ways, including that the European youth live in countries where the atrocities occurred. Furthermore, Bilewicz et al. were focused on adolescents while we are specifically focusing on younger children. Nonetheless, Bilewicz et al.'s work provides insight that can still be applicable. Among the Holocaust education approaches they described were empathy-based and moral-exemplar models. They described benefits of these approaches in impacting attitudes, but they noted the importance of being mindful of the psychological reactions the youth may have as they learn about the extreme suffering experienced by victims of the Holocaust.

Despite reservations about introducing children to the Holocaust too early, picture books focused on this topic have been specifically written for young children. As described above, among such books is *Nicky & Vera: A Quiet Hero of the Holocaust and the Children He Rescued* (Sís, 2021). This book shares the stories of Nicholas Wintow, an Englishman who saved 669 Czechoslovakian children by arranging their transport to England during World War II as well as Vera Diamantova, one of the children he rescued. The book has been praised as a way to encourage children to stand up to racism (Matthews, 2021). Children's literature has been recognized as a unique tool for introducing and exploring sensitive topics (e.g., see the issue on "Facilitating Conversations on Difficult Topics in the Classroom: Teachers' Stories of Opening Spaces Using Children's Literature" in the Bank Street Occasional Paper Series, including the introduction by Kruger et al., 2020), and we can consider that, "Placing the right books at the right time in children's hands can make an important impact in developing children's worldview" (Suzuki et al., 2015, p. 54). With the current unprecedented times as a backdrop, we sought to explore the perceptions of teachers and families from one laboratory school as they considered using children's literature to introduce children to the topic of the Holocaust at school and/or at home.

## Context of the Current Study

The Horace Mann Laboratory School and Phyllis and Richard Leet Center for Children and Families are located on the campus of Northwest Missouri State University. Combined, they provide early care and education for children from six weeks of age through sixth grade. Horace Mann and Leet Center's motto, "A Higher Education Begins Here," captures the educational setting's dual focus on serving as a place for learning and teaching for both university teacher education students and children. Our study focused on co-teachers, children, and families from the first and second grade multi-age classroom in the 2022-2023 academic year. The multi-grade class consisted of 29 children (from 27 families); of these children, 18 were first-graders and 11 were second-graders. A co-teaching model was used for the class. The co-teachers Mrs. Haughey and Mrs. Montenguise both had master's degrees. The year that the study took place was their second year of co-teaching together. It was Mrs. Haughey's 10th year and Mrs. Montenguise's second year of teaching at Horace Mann. Mrs. Haughey and Mrs. Montenguise had 16 and 8 years of total teaching experience, respectively.

## Methods

The central research question of our study was: How do parents and teachers of 6- to 8-year-olds view and approach the sharing of the book *Nicky & Vera: A quiet hero of the Holocaust and the children he rescued* with children? Sub-questions considered were:

- Have parents previously talked about the Holocaust with their children? What influenced their decision to, or not to talk with their child about the Holocaust?
- How do parents feel about sharing stories of the Holocaust with their 6- to 8-year-olds through the book *Nicky & Vera: A Quiet Hero of the Holocaust and the Children He Rescued*? Would they be interested in other children's books with similar focus and approach?
- What are the characteristics of the parents' and children's shared reading, including extra-textual talk?
- Would the teachers foresee using this book in their classrooms and/or recommending the book for families, and if they would consider using and/or recommending the book, how would they approach this?
- What themes emerged from observing the dyads read and interviewing the parents and teachers?

- What assertions can we make as we consider the themes in relation to the concepts of developmental/ age appropriateness and empathy, considering the book and families' experiences in relation to recommendations from the United States Holocaust Memorial Museum?
- What assertions can we make as we consider the practical value of the findings for professionals associated with laboratory schools?

## Qualitative Research Design

To address our research questions, we conducted a qualitative multiple case study. According to Creswell and Poth (2018), a multiple case study is one that focuses on multiple cases to illustrate the issue or concern. Consistent with this design, our study focused on five families and their children, as well as two master teachers from a first and second grade multi-age classroom at a laboratory school to illustrate multiple perspectives, thoughts, and ideas (Creswell & Poth, 2018). Cases were considered individually and collectively in forming our themes and assertions.

## Recruitment, Participants, and Data Collection

Our study was planned with the support of the laboratory school administration as well as the classroom co-teachers who are co-authors of this article. After we received IRB approval, the co-teachers assisted in distributing recruitment fliers to families by sending printed copies home and posting an electronic version in the family communication portal. Permissions to participate (including informed consent by adults and assent by children) were obtained prior to data collection.

The two co-teachers participated in individual, semi-structured interviews conducted by the two lead researchers. Interview questions, developed with the study questions in mind, were focused on topics including the co-teachers' reactions to the "Nicky & Vera" book, if they thought the book was appropriate for the age level they taught, and whether (and if so how) they could envision using the book with children and families. The interviews were audiotaped and later transcribed. The co-teachers also completed a demographic survey.

Five families (see Table 1) participated in the study. Four of the families had one parent participate while one family had two parents participate together. Each family met individually with the lead researchers at the laboratory school. At the time of scheduling these meetings, parents received a link to a video of the "Nicky & Vera" book being read aloud. Parents were told they had the option (but were not required) to read the



book in advance, but we requested that they wait to share the book with their child until the meeting. The meetings with the researchers started with the parent-child book reading. The parents and children, seated together on a couch, received a copy of the book and were instructed to read it together as they would do if they were at home. We emphasized that there was no right or wrong way to share the book. The book-reading interactions were videotaped and later transcribed. Parents then participated in semi-structured interviews, with the family with two parents participating being interviewed together. The interview questions, developed with the study questions in mind, focused on topics including the parents' reactions to the book, their perceptions of their book-reading interaction, and their views about and experiences of talking with their child about the Holocaust. The audiotaped interviews were later transcribed. Finally, parents completed a demographic survey about themselves and their families. In this paper, parents and children's actual names have been replaced with pseudonyms to protect privacy.

### Data Analysis and Verification Strategies

The two lead researchers reviewed the transcripts of the interviews and book-reading interactions individually. We read the transcripts line by line, created notes in the margins, used in vivo coding (using the exact wording of the participants) when possible, and generated potential themes and assertions (Creswell & Poth, 2018). We then met together to present our individual analyses and to discuss themes and assertions to consensus. We met frequently, starting with the coding and discussion of a single family case, then moving on to the remaining four family cases, and finally adding the co-teacher cases.

To support the trustworthiness of our data analysis, a third researcher was invited to provide feedback. This decision was influenced by Hill and Knox's (2021) inclusion of auditors as part of research teams in their consensual qualitative research (CQR) method. An auditor's purpose is to help the primary team members move into a deeper comprehension of their data, to add another perspective, and to reduce individual bias and groupthink. In selecting an auditor, we strategically chose an individual who could bring a different perspective to the study. Whereas primary team members (i.e., the two lead researchers) included an associate professor of Developmental Psychology and an undergraduate psychology student, the auditor had a Ph.D. in Curriculum and Instruction and had taught both teacher education students and elementary children (grades 3-6). She used multiple titles about the Holocaust with students in all of the elementary grade levels that she taught. The auditor also had extensive experience with qualitative research.

In our study, the auditor received the transcripts and videos as well as the themes and assertions already generated by the primary team members. She developed notes and codes that were shared back with the primary team members. We used the auditor's notes and codes to do another review of our themes and assertions. We found that there was a high level of consistency in what the primary team members and the auditor identified as significant. However, the auditor's notes and codes afforded us a deeper and more nuanced understanding of some of the themes and prompted us to add new assertions. The auditor also read and provided feedback on our manuscript. To further strengthen the validity of the study, the classroom co-teachers also engaged in member-checking, reviewing the descriptions and claims in the manuscript for accuracy (Creswell & Poth, 2018).

## FINDINGS

Below we have summarized findings related to our research questions and presented three themes that emerged from the data.

### Talking about the Holocaust

Of the five families, only one had specifically discussed the topic of the Holocaust with their child. This was in the context of talking about the child's great grandfather who served in the military during World War II. The other families expressed that they would not have been opposed to discussing the Holocaust with their children if their children had initiated the conversation, but that it was not something that had ever come up. They noted that they had expected their children to first learn about the topic in school. They thought lessons at school may prompt children to bring questions home. Parents expressed varying levels of personal interest in the subject area of history (ranging from someone who viewed it as a least favorite subject to someone with a degree in history). Nonetheless, all of the parents expressed wanting to support their children's understanding of history including the Holocaust.

### Book Reading

Whereas all parents who participated in the study were given the option to access the "Nicky & Vera" book independently online before sharing it with their children in the research meeting, none chose to do so. Families varied in their approaches to the book reading, including those who read the text of the book aloud (in two families the parents did all of the reading while in the other families the children did at least part



of the reading). All families engaged in some dialogue about the story that moved beyond reading the book's text, including talking about the pictures, but the amount of extra-textual talk varied as reflected in the range book-reading interaction lengths (13-28 minutes). Only one family chose to read the biographies of Nicholas Wintow and Vera Diamantova included at the end of the book aloud, though in her interview, one parent reported silently skimming the biographies on her own after finishing reading with the child.

## Themes

### *How to Use This Book*

Unsurprisingly, both the parents and co-teachers from the laboratory school who participated in the study expressed valuing children's literature. Responses to the *Nicky & Vera* book were generally positive. The main criticism, expressed by multiple participants, was that while they found the style used in the book's illustrations (which were complex and layered with symbolism, being described as "whimsical" by one parent) to be beautiful, they also thought it could be confusing (e.g., pictures of maps were artistic but provided limited information on geography). Nonetheless, responses to the book were more positive than negative. With that being noted, a prevalent theme that emerged was that adults should be mindful and intentional in how they use the book. This was observed in both the parent and co-teacher data.

**Parents.** Parents reflected on how children's literature, in a general sense, has the potential to be a powerful tool for introducing and opening up conversations about difficult topics with children. They also reflected on how the *Nicky & Vera* book, specifically, could be an age- and developmentally-appropriate way to broach the subject of the Holocaust. However, this reflection was paired with a concern about sheltering children from overly disturbing details.

The idea that the book could help more gently ease children into considering a complex and emotion-laden topic was captured in this observation offered by Harold's mother about her son's response to part of the story: "I could tell he was very sad about the mom and dad not making it, but I mean it's a nice way to like, ease it in to kids and, and make it real, I guess."

This idea of easing children into the topic of the Holocaust was paired with a concern about how deep to go. As previously noted, no parents opted to read the *Nicky & Vera* book independently before sharing it with their children in the research meeting. This meant that the parents were discovering the story for the first time alongside their children. Suzie's

father expressed how this made him feel apprehensive: "For me personally, it was just the subject matter. I had . . . a bit of trepidation going . . . through that [laughs] because yeah, I'm going from page to page, 'What is going to come up next?'" Similarly, Suzie's mother explained, "I just brace myself. 'Cause I was like, this got deep. We're going to have to go there, wherever, you know? Yeah, and then it didn't."

Parents expressed varying degrees of concern about how deep the book and conversations might go. However, all parents emphasized the importance of being responsive to their children's questions and offering honest answers. When asked how he might answer difficult questions about the Holocaust, Henry's father replied, "As honest as I can without . . . saying anything that might be scary considering his age." Similarly, John's mother explained,

I wouldn't go into, like, tragic detail, but, you know, this is when this happened, this is why it happened. This is what this side believed, this is what the other side believed, why America stayed out, when America got involved and turn it probably more into a historical lesson.

Mason's mother expressed, "I would tell the truth," and also went on to share: "I don't know how deep he'll go into the thinking of this book or not, but if he does then obviously I'll be open to discuss it with him."

Another idea that emerged among parents was that their initial reading of the book with their children might set the stage for additional (and perhaps more in-depth) conversations in the future. Parents reflected on how re-reading the book with their children again could offer the opportunity to further explore the story. Mason's mother explained,

I would probably reread it with him to kind of understand it a little bit more like the first time versus the second time, I think that would be interesting to now have read it to go back and teach them a little bit more.

Parents also expressed wanting to focus more on the complex illustrations. Suzie's mother reflected,

You could do a deep dive just in the illustrations of this book. Because I was noticing . . . [the author] used text as a graphic. I mean, they were very rich. I could have spent more time just looking at them myself. So, I mean, I think that added another layer to it.

**Co-teachers.** Mrs. Montenguisse reflected on the use of children's literature, generally, in the laboratory school classroom by teachers and education students:

You can bring in anything with children's literature and get kids paying attention and engaged . . . children's literature is going to give college students that piece. It's going to really just get them thinking. It's . . . a confidence builder for a lot of people, because kids will listen and when you feel like you don't have control, you pick up a book and read [and] all of a sudden they're with you. And so children's literature is just so important across the board for children, for college students, for teachers, for anybody.

Mrs. Haughey also offered,

it's not just in our ELA [English Language Arts] time but throughout our day bringing in literature and reading books, whether that's social studies, whether that's science, math, art, music. We bring it in for all kinds of things and it really does make a big difference in our day.

Both co-teachers expressed being touched by the stories shared in the *Nicky & Vera* book. They also praised the illustrations. When asked if she could envision using the book *Nicky & Vera* in the classroom Mrs. Haughey reflected,

I could see a lot of things you can unpack with it. Just looking at the way they do the pictures but talking about some context of what a hero is. And that's one that got me. 'Cause we talk a lot about our heroes and things, or important people and what makes a hero. I could see where that would be a good jumping off point for some of this book. But just even some of the geography and talking about maps and like I could see a lot of things that you could bring in with the book.

Mrs. Haughey emphasized that the book did not go into what concentration camps are, something that helped keep it as "a pretty kid friendly level."

While Mrs. Montenguisse was positive about the book in general, she seemed less certain about using it in their first and second grade multi-age classroom. When asked if she could envision using the book in her classroom she initially responded, "I think so." She went on to explain,

I think it's a little heavy for this grade level, but I think it's important. I think it would be good, I would definitely read it [laughs, seeming to question herself], so yes with some reservations.

When thinking more deeply about the laboratory school setting, Mrs. Montenguisse reflected:

I would not give this book to a practicum teacher to read with my kids. As the lead master teacher, I would read this with my kids. I would definitely want observation, practicum [students] to be there to see how the conversation could go because I don't think teachers get enough of seeing that kind of stuff in the pre-service world.

Both Mrs. Haughey and Mrs. Montenguisse said they could envision sharing information about the *Nicky & Vera* book with families, but that it would be on a case-by-case basis when families are looking for a resource on this topic as opposed to a more global recommendation. Mrs. Montenguisse reflected on using the *Nicky & Vera* book at home versus sharing it with families:

there are some families that are going to be completely comfortable with the teachers having that conversation. And then there's some families who are probably going to say like, "Ooh, that's a really heavy conversation that I don't think they should be having at school." So it just kind of depends on the family, but I think a lot of the conversation would be really powerful to come from the families.

### **"What's Prague?"**

Consistent with the Holocaust Museum's assertion that elementary aged children may not be able to comprehend the larger historical context of the Holocaust, there were many instances in our study of children demonstrating that they did not understand the ideas, vocabulary, history, and locations discussed in the book. This is illustrated in this exchange between Suzie and her mother during their family's book reading:

Suzie's mother [closely paraphrasing the text of the book]: Nicky and friends talked about politics and they worried about the situation in Europe.

Suzie: What are “politics” and what’s “the situation in Europe”?

Among the other words that children struggled to read or understand the meaning of included: Prague, German, Czechoslovakia, Poland, Adolf Hitler (pronounced as Alfred Hitler by one child), Nazi, synagogue, refugees, and century. We can consider how this could influence the children’s comprehension of the story and the events.

At the same time, some children showed relevant understanding, including one child who had read about the Holocaust in the *I Survived* book series and another child who spontaneously drew a parallel between the historic events of the Holocaust with the current on-going situation with the Russo-Ukrainian war. Also, encountering the new vocabulary and information in the book opened up opportunities for parents and children to talk about the ideas. Additionally, none of the parents or co-teachers thought that the lack of background knowledge would prevent children from understanding the moral of the story, which was commonly described by participants as doing what was right. As John’s mother explained,

I don’t think that you’d have to know anything about what the Holocaust or World War II was specifically about [to get the moral of the story] . . . You don’t have to know anything about the contextual time period.

## The Queen of Cats

The *Nicky & Vera* book showed that Vera had pet cats and even described her as the “Queen of Cats.” When Vera fled from Czechoslovakia to England, she had to leave behind not only her family, but also her cats. The story tells that when she returned home, “Her father and mother had died in the Nazi camps. Her cousins too. She only found the daughter of one of her old cats” (Sís, 2021, p. 40). Vera’s cats were a very small part of the book, but two of the children (Suzie and Harold) intently focused on them. While this phenomenon did not represent all (or even the majority) of the children in the study, we felt that this theme should be discussed because of how much it stood out in Suzie’s and Harold’s book reading. Additionally, we see it as being similar to Schweber’s (2008) observation of how the third graders in her case study asked, “What happened to their pets?” Suzie shared multiple comments and questions about the cats including asking why there were so many cats, inquiring about what happened to the cats when Vera left for England, pointing out and labeling the

cats in the pictures, and saying she liked the “pretty kitty.” One exchange between Suzie and her mother included:

Suzie: Kitty. Do you know if they hurt animals?  
I don’t think they hurt animals. Do they hurt animals?

Suzie’s mother: Well, they would hurt people.

Suzie: I know they hurt people, but what do you think about animals?

Suzie’s mother: They kind of ignored the animals. They probably didn’t really care very much about the cats.

Suzie’s mother reflected on her daughter’s interest in the cat in her interview:

I’m not a child psychologist, but . . . I almost wonder if it was just more like in her mind, like, “I’m not gonna focus on that really sad thing. I’m gonna think about that cat ‘cause that was a good thing. And then I’m gonna move from there. Yeah. You know, I’m gonna think about that cat. And then we’re gonna continue on with the story.”

Related, Harold’s mother shared,

I remember [Harold] is more into like the kitty cats you know, [laugh] than he’s about [the death of Vera’s parents]. And I’m like, great, great, let’s stay there.

## Discussion, Assertions, and Conclusions

What insight does this study provide for laboratory school professionals seeking to understand how they might lead the way in combating the unprecedented trends of Americans “forgetting” the Holocaust? Our study gave voice to five families and two co-teachers from a first and second grade multi-age classroom in exploring this question. Findings of our study demonstrated that both the families and teachers saw value in using the *Nicky & Vera* book to introduce children to the Holocaust. However, the adults were also sensitive to the “heaviness” of the topic. Co-teacher Mrs. Montenguisse, in particular, was hesitant about using the book in the classroom, wanting to be respectful of individual parents’ preferences and individual children’s readiness in regard to talking about

the topics. Interestingly, Mrs. Montenguisse preferred allowing parents take the lead in deciding when to introduce children to the subject of the Holocaust; at the same time, most of the parents expressed that they would have been open to talking with their children about the Holocaust before the study, but that they were inclined to let the school introduce the topic first (which they expected would prompt questions from their child at home). It is important to emphasize that we should not assume that this observation, based only on the families who participated, would generalize to the other classroom parents. The goal of our study has always been to give voice to the family and co-teacher participants as opposed to making broad generalizations. However, even with that in mind, it is worth noting that while 27 families were given information about the study, only five actually participated. Furthermore, only families with second graders (thus, no first graders) participated. While there may be countless reasons that other eligible families did not participate (e.g., overlooking the flyers, being busy), we cannot rule out the potential of participation bias. Our study may have included the families who felt most comfortable with introducing their children to the Holocaust.

When considering the perspectives offered by the study participants collectively, along with the low response rate of our study, we assert that laboratory school professionals wanting to help address concerns about limitations of Holocaust education work in partnership with families. The families in our study expressed openness to talking with their children about the Holocaust, and they expected school to introduce the topic. However, we did not explicitly ask parents their views on the right time for schools to do this. Therefore, we cannot say with certainty that they viewed first and second as being appropriate grade levels. Additionally, there is the possibility that the parents who participated in the study were more open to this topic being discussed at school with this grade level than other parents from the class. Having open communication with families will allow teachers to understand if the families are comfortable with their children reading books like *Nicky & Vera* at school. If parents and teachers agree particular children are ready, using these kinds of books in a laboratory school classroom certainly has the potential to help children to learn about historical events while developing a sense of empathy for the victims. It could simultaneously offer teacher education students an opportunity to observe how master teachers facilitate discussion of challenging topics.

Teachers can also consider sharing titles of books that tackle difficult topics with families so that the families can decide if and when to introduce the topics at home. While Mrs. Haughey and Mrs. Montenguisse both said they could envision using the *Nicky & Vera* book in their classroom, Mrs. Montenguisse in particular had reservations. Parents in our study were sensitive

to their children's empathic responses to the victims in the story (e.g., feeling sadness about death; using the cats in the story as a distraction from distressing topics). Parents would be expected to know their own children best and to be highly attuned to their children's experiences during book reading. It may be more difficult for a teacher who does not have the same level of shared experience with a child and who may be reading to several children at once to have the same level of attunement. This aligns with the recommendation that Dr. Matthew's (2021) offered in her review of the *Nicky & Vera* book in *Psychology Today* that the story be shared with children with "careful parental guidance" (para. 5). Related, Mrs. Montenguisse suggested, "For [parents] to go through the book themselves, kind of have an idea in mind of what they might wanna talk about on pages." As described in our findings, the parents in our study chose not to read the book independently before sharing it with their children. Already having familiarity with the book may have helped the parents feel more prepared to talk with their children and prevent the "trepidation" some described.

In summary, we assert that laboratory schools, designed to be innovative, can continue to explore how to best support children, families, and teacher education students in unprecedented times of concerns about Holocaust education. As suggested by our study, books like *Nicky & Vera* may be useful tools for schools and families but there are no "one size fits all" recommendations for how to use them.

To conclude our article, it is critical we reflect on how laboratory schools may be uniquely positioned to help cultivate new generations of "heroes" through educational programming for children and teacher education students. Suzie's mother reflected on the description of the school that Nicholas Wintow, the hero of the story, attended as a child. As described in the book:

At Nicky's school, the students were encouraged to follow their interests, whatever they were. Nicky discovered he liked mathematics, stamp collecting, photography, and fencing. The students had all kinds of pets. Nicky raised pigeons. It didn't matter what the students were interested in so long as they were interested in something (Sís, 2021).

Suzie's mother reflected,

He goes to the school where they're . . . letting kids [do] whatever [they're] interested in. That sounds like Horace Mann to me. I mean, that's really interesting to me how even as a kid, he went to a school [like that].

We can consider this reflection in relation to the description of the Horace Mann on the laboratory school's website:

Horace Mann is one of only a small number of laboratory schools in the United States. Horace Mann provides a hands-on, project based learning, individualized approach that is only possible with small class sizes and multiple teachers. Students of all ages make Horace Mann home, from our youngest kindergarten students to University practicum students. Master teachers provide a unique learning environment for all students that include technology, innovative best practices, and exemplary educational experiences. From measuring temperatures and creating data tables at our University Pond, learning about recycling at the on campus recycling center, roller skating and swimming lessons in Physical Education class, and multicultural education from student organizations on campus, Horace Mann provides the best educational experience for your child. (Horace Mann, n.d., para. 1)

This reflection by Suzie's mother suggests that she saw Nicky's innovative educational experiences, which included being able to pursue his own passions, as contributing to him growing into an adult who changed the world. This message has the potential to offer inspiration for laboratory school professionals in these unprecedented times.

## References

- Bilewicz, M., Witkowska, M., Stubig, S., Beneda, M., & Imhoff, R. (2017). How to teach about the Holocaust? Psychological obstacles in historical education in Poland and Germany. In: Psaltis, C., Carretero, M., Čehajić-Clancy, S. (Eds.) *History Education and Conflict Transformation* (pp. 169-197). Palgrave Macmillan. [https://doi.org/10.1007/978-3-319-54681-0\\_7](https://doi.org/10.1007/978-3-319-54681-0_7)
- Bloomfield, S. J., & Schneider, G. (2020, September 18). Many young Americans don't know key facts about the Holocaust. Now is the time to fix the way we teach this history in the U.S. *Time*. <https://time.com/5890444/holocaust-education/>
- Claims Conference. (2021, January 14). *First-ever 50-state survey on Holocaust knowledge of American millennials and Gen Z reveals shocking results*. <https://www.claimscon.org/millennial-study/>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry & research design: Choosing among five approaches* (4<sup>th</sup> ed.). Sage.
- Hill, C. E., & Knox, S. (2021). *Essentials of consensual qualitative research*. American Psychological Association. <https://doi.org/10.1037/0000215-000>
- Holocaust & Human Rights Education Center. (n.d.) *Book list: The Holocaust for young readers*. <https://hhrecny.org/book-list-the-holocaust-for-young-readers-1/>
- Horace Mann. (n.d.) *Welcome*. <https://www.nwmissouri.edu/horacemann/elementary/index.htm>
- International Association of Laboratory Schools. (n.d.) *About Us*. <https://www.ialslaboratoryschools.org/who-we-are>
- Kruger, M. W., Rolander, S., & Stires, S. (2020). Introduction: Facilitating conversations on difficult topics in the classroom: Teachers' stories of opening spaces using children's literature. *Occasional Paper Series*, 2020(44). <https://doi.org/10.58295/2375-3668.1393>
- Matthews, D. (2021, January 26). *Review of a children's book on the Holocaust by Peter Sís: An inspiring book about the importance of standing up to racism*. Psychology Today. <https://www.psychologytoday.com/us/blog/going-beyond-intelligence/202101/review-children-s-book-the-holocaust-peter-sis>
- Pew Research Center. (2020, January 22). *What Americans know about the Holocaust*. <https://www.pewresearch.org/religion/2020/01/22/what-americans-know-about-the-holocaust/>
- Schweber, S. (2008). "What happened to their pets?": Third graders encounter the Holocaust. *Teachers College Record*, 110(10), 2073-2115. <https://doi.org/10.1177/016146810811001001>
- Sis, P. (2021). *Nicky & Vera: A quiet hero of the Holocaust and the children he rescued*. W. W. Norton & Company, Inc.
- Suzuki, T., Huss, J., Fiehn, B., & Spencer, R. M. (2015). Realities of war: Using picture books to teach the social effects of armed conflicts. *Multicultural Education*, 22(3-4), 54-58.
- United States Holocaust Memorial Museum. (n.d.). *Age Appropriateness*. United States Holocaust Memorial Museum. <https://www.ushmm.org/teach/fundamentals/ageappropriateness#:~:text=Students%20in%20grades%20six%20and,%20scale%20of%20the%20events>
- Wiesel, E. (2006). *Night* (M. Wiesel, Trans.). Hill and Wang. (Original work published 1958)
- W.W. Norton. (n.d.). *Nicky & Vera*. <https://wwnorton.com/books/9781324015741>

**Table 1. Family Demographics Table**

Child	Child Age	Child Gender	Child Racial/Ethnic Background	Relationship to Child	Parent Age	Parent Gender
Harold	8	Male	White/Caucasian	Biological Mother	37	Female
Mason	8	Male	White/Caucasian	Biological Mother	43	Female
Henry	8	Male	White/Caucasian	Biological Father	39	Male
Susie	8	Female	White/Caucasian	Biological Father	57	Male
				Biological Mother	45	Female
John	8	Male	White/Caucasian	Biological Mother	38	Female

## Authors' Bios

**Keely D. Cline**, Ph.D. is an associate professor in the Division of Behavioral Sciences in the School of Health Sciences and Wellness at Northwest Missouri State University. Her academic interests include early childhood development, parent-child book reading, home and school settings as contexts for development, and using children's literature in college level education.

**Sierra M. Merritt**, B.S. completed her degree in psychology at Northwest Missouri State University. As a student, in her undergraduate career, she was a research assistant and presented at the Midwestern Psychological Association conference.

**Victoria Seeger**, Ph.D. was an Associate Professor at Northwest Missouri State University in the School of Professional Education. She is retired and continues to serve as an adjunct professor in the Curriculum and Instruction Master's Degree Program and the Reading Master's Degree Program. She supervises residency practicum students and student teachers in the Kansas City metropolitan area. Research interests include effective teacher preparation, classroom action research, and using technology to foster student-family communication. She lives in Lawrence, KS.

**Brandy Haughey**, M.Ed. is a first and second grade multi-age classroom co-teacher at Horace Mann Laboratory School on the campus of Northwest Missouri State University. Her academic interests include facilitating pre-service teachers, along with math and curriculum integration.

**Heather Montenguise**, M.Ed. is a first and second grade multi-age classroom co-teacher at Horace Mann Laboratory School on the campus of Northwest Missouri State University. Her academic interests include facilitating pre-service teachers, along with literacy and science of reading research.

<b>Parent Racial/ Ethnic Background</b>	<b>Parent Level of Education</b>	<b>Parent Employment Status and Job Title</b>	<b>Parent Marital Status</b>	<b>Languages in the Home</b>	<b>Parent Religious Affiliation</b>
White/Caucasian	Master's Degree or Above	Full-Time Daycare Provider	Divorced	Primary – English German	Christian
White/Caucasian	Master's Degree or Above	Full-Time Head Volleyball Coach	Married or With Partner	English	Christian
White/Caucasian	High School Diploma	Full-Time Farmer	Married or With Partner	English	Christian
White/Caucasian	Master's Degree or Above	Full-Time Senior Instructor at NWMSU	Married or With Partner	English	Christian
White/Caucasian	Bachelor's Degree	Full-Time Librarian	Married or With Partner	English	None
White/Caucasian	Bachelor's Degree	Part-Time Administrative Assistant	Married or With Partner	English	Non-denominational Christian





# The Inclusive Education: A Conceptualized Reality or Misapprehension in Postcolonial Guyana

Lidon Lashley

DIRECTOR AT THE UNIVERSITY OF GUYANA EARLY CHILDHOOD CENTRE OF EXCELLENCE UNIVERSITY OF GUYANA

---

## Introduction to Guyana

The Cooperative Republic of Guyana is a developing multicultural, multiracial, and postcolonial country. It is located at the apex of the South American continent. It is bordered on the East by Suriname, South West by Brazil, and West by Venezuela. Guyana also has a territorial border dispute with Venezuela for the Guyana Essequibo Region. Guyana has an area of 83,000 square miles and a population of approximately 740,000 citizens (Guyana Housing and Population Census Preliminary Report, 2012; Bureau of Statistics, Government of Guyana, 2018). Approximately forty-eight thousand, four hundred and nineteen (48,419) persons, about 6.4 percent of the total population, are living with some form of disability (Guyana Housing and Population Census Preliminary Report, 2012; Bureau of Statistics, Government of Guyana, 2018). Guyana was a colony of Great Britain for 152 years. Guyana's education system was inherited from Britain, from whom independence was gained in 1966. As a member of the Commonwealth of Nations, Guyana has an ongoing relationship with Britain. It is also the only English-speaking country in South America as a result of its British colonial heritage and shares educational and trade relationships with other English speaking Caribbean countries through a regional organisation called Caricom.

The country is divided into four geographic regions. The first is the Low Coastal Plain, which consists of the central urban cities and the rural coastlines of Guyana. This is where the majority of the population resides. The study was conducted within the rural parts of this region. The second, the Hilly Sand and Clay Region, consists of scattered hills and is known for its bauxite production. The third is the Forested Highland Region, which is the largest natural region in Guyana. It is also the most productive region with gold, petroleum, and diamond fields. Its population is predominantly native Amerindians who mostly speak their own languages. The final region is the Interior Savannah, which is also referred to as the cattle country.

Guyana has eleven education departments/districts, which are responsible for education provisions within their respective areas. Mainstream education is free and compulsory from

the primary to secondary levels. At the kindergarten level, education is free but not mandatory. To be a professionally certified teacher in Guyana, one needs to attend the nation's only teachers' training college, the Cyril Potter College of Education, for 2 years. The college has a Special Education, Diagnosis and Assimilation Centre, which opened in 2018 and is still in its developmental stages, at its main campus in Turkeyen.

There are seven ethnic groups in Guyana and nine indigenous tribes which constitute the Amerindian ethnic group. While the official language of Guyana is English, Guyanese Creole is mainly spoken and accepted in its various dialects. Each of the nine Amerindian tribes speaks their own language (e.g., Lokono). However, formal education is delivered in English.

## Southern Position

This study reflects Connell's (2007) conception of *Southern Theory*. What Connell calls Southern Theory is not precisely an indigenous knowledge project, nor primarily a critique of Eurocentrism. It is synonymous with the knowledge produced from postcolonial experiences and Connell (2007) emphasised this as central to the idea of Southern Theory. The study is more than a "colonial encounter" (Connell, 2007, p. 104) in the Global South. Therefore, the Global South is not seen as a geographic location but rather a position of knowledge and practices which constitute social and economic development.

Connell suggests that the classification of the world as Global North and South is binary for knowledge stratification and emphasises inequalities among university (knowledge) systems. Being from the side of the division referred to as "the periphery," the accepted practice is to supply data, and later to apply knowledge in the form of technology, theory, and pedagogy from the Global North (Collyer, 2018; Connell, 2011). The North's role is exemplified as collators of data, theory, and producers of pedagogy which can be applied without contextualisation once exported to the periphery.

There is a lack of democratisation in the mainstream schools studied. According to Epstein and Morrell (2012), there needs

to be democratisation and equal recognition of the parts in the whole knowledge system. Provisions for children without SEND dominate the school resources and curriculum, and like theory from the Global South, the provision for children with SEND is the periphery. They are treated as data sources for locals with Global North funding and Global North researchers with Global South interest. This practice further exacerbates the borderlines between the two groups of children in Guyana. Epstein and Morrell (2012) also made clear the importance of addressing forms of inequality, inclusive of race, class, and sexuality. Added to their emphasis, inequalities based on impairment embedded in an ableist society need to be addressed. This could decolonise the experience of children with SEND.

## Research Question

What can be learnt about the realities of inclusive education from the experiences and feelings of children with SEND placed in mainstream schools under the quasi-inclusive education approach in postcolonial Guyana?

## Exploring the Concept of “Inclusive Education”: A Guyanese Cultural Perspective

Consciousness and its products are always, though in variable forms, parts of the material social process itself idealised or illusory (Williams, 1977, p. 67). The government of Guyana frames the placement of children with SEND in mainstream schools as ideal, whereas the mainstream schools, communities, religious bodies, street conversations, and parents of children without an identified SEND frame it as illusory and utopian, because of the dominance in belief and practice of excluding children with SEND from mainstream schools in Guyana (Fraser, 2014, 2017; Lashley, 2017, 2021). They feel the government’s practices and conversations on SEND do not consider past and present conversations and practices in mainstream schools, which form the common understanding of the unsuitability of children with SEND for mainstream school and mainstream schools for them (Lashley, 2021). These two forms of consciousness are in competition in Guyanese society (Lashley, 2017, 2021, 2022, 2023).

The formation of the idea that mainstream schools are unsuitable for children with SEND was formed during Guyana’s colonial history and maintained by postcolonial governments; but the government wants the concept of inclusive education to change without taking the necessary measures to change this conceptualisation in the culture of society (Lashley, 2021, 2022). The concept of inclusive education is generally framed as a problem within mainstream schools by teachers and parents of children who do not have an identified SEND.

The dominant conversation within the communities – that is, villages, churches, marketplaces and other social spaces – is that children with SEND do not belong in mainstream school. This conversation is in competition with the governmental conversation that children with SEND could be placed in mainstream schools.

Due to the fluidity of the concept, whenever reference is made to “society,” it means the interplay of conversations (ways of conceptualising the world) between social agencies (e.g., schools, churches, markets, recreational centres, hospitals, street corners, shops, bus stops) in the areas surrounding the schools. According to Williams (1977), new social relations, and the new kind of activity that are possible through them, may be imagined but cannot be achieved unless the determining limits of a particular mode of production are surpassed in practice, by actual social change. The challenge and resistance arise in Guyana because society, including mainstream teachers, has not imagined mainstream school as a place for children with SEND and thus upholds the previously established limits of mainstream school within its tradition.

Culture is both a tradition and a practice (Williams, 1977). There are three elements of the cultural process: institutions, traditions, and formations. Tradition in practice is the most evident expression of the dominant and hegemonic pressures and limits of power. Inclusion in Guyana has always been contested structurally and culturally for generations from the colonial period to the present day (O’Toole & Maison Halls, 1994; O’Toole & Stout, 1998, as cited in Andrews & Frankel, 2010). During the colonial period, there was marginalisation, discrimination, and exclusion of slaves and natives from some aspects of plantation life. It was the belief that slaves and natives were unsuitable for the aspects of the social structures from which they were excluded. One social structure reserved for the elites was education. For example, when the Europeans arrived, they met the indigenous Amerindians. Instead of cooperating with them, they emphasised colonial practices which marginalised them and caused them to recede deeper into the jungles (i.e., Forested Highland Region), where they are still marginalised today. With colonisation, slavery and the rise of the sugar and tobacco plantations, segregation in society became the dominant culture in Guyana and its residue is presently active within mainstream schools. As a commonsense understanding, Guyanese believe in segregation (O’Toole & Maison Halls, 1994). Further, education in Guyana was denied to working class people, women, as well as indigenous people and those with SEND. Some forms of denying education access to selected groups is still expected now with the continued desire to deny children with SEND from being educated with their peers without an identified SEND, who are classified as the elites suited to mainstream schooling.

The idea of Inclusive Education is emergent in Guyana's culture. It is still nascent and in its metamorphic stages, and there is a long way to go before it can fully emerge or gain dominance from its cocoon as a fully inclusive education system in an inclusive society (Cheong, Kellems, Andersen, Steed, 2018; Fraser, 2014; Lashley, 2017, 2021, 2022, 2023; Mitchell, 2005). Although Guyana has a formal zero-rejection policy when it comes to registering and teaching children within their respective regions, it is not actively practised. On the contrary, children with SEND are often told that the mainstream primary schools in their neighbourhoods cannot mobilise the resources (human and material) to provide them with the necessary opportunities, experiences, and socialisation that they require. Children with SEND are also told that they are unsuitable for mainstream schools (Chouinard, 2012, 2015; Lashley, 2021; O'Toole & Stout, 1998). Chouinard (2012, 2015) and O'Toole and Stout (1998) noted that this form of institutional discrimination is also framed by conceptions of superiority and inferiority among ethnic groups which also leads to marginalisation. Further, Chouinard (2012, 2015) and O'Toole and Stout (1998), who are native Guyanese researchers, found that parents opt to send their children to schools out of the neighbourhood or district through the belief that their children will be more welcomed and valued where the dominant conversation is reflective of their culture and ethnicity. This shows another form of segregation in society.

Booth and Ainscow (2002, 2011) indicated that schools and education districts should be putting inclusive values into action by reducing exclusion, discrimination, and barriers to participation. In Guyana's mainstream education system, these inclusive values could be embraced if, first, the conversation in education were to shift from an individual deficit model of disability to a social model and if, second, mainstream education hierarchy does not perceive this act as an interference to the percentages of children passing regional and national assessments. Mainstream teachers are appraised each school term as required by statute (Laws of Guyana, Education Act, Chapter 39:01). The termly appraisal scores are combined at the end of the school year. There is no section on the appraisal forms for the assessment of inclusive practices, however; a significant proportion of the questionnaire focuses on children's academic performance and achievements in external assessments and is a major aspect of assessing teacher effectiveness. This combined assessment is directly linked to promotion, recognition, and financial remuneration for mainstream teachers. The added pressures on mainstream teachers, which arise from the placement of children with SEND in their classroom, can result in inclusion phobia (Robinson & Goodey, 2018), resistance and negative attitudes, and practices within mainstream schools by mainstream

teachers that negatively affect the experiences of children with SEND.

Multiple structural and institutional inequalities in mainstream schools and in Guyanese society have shaped the present collective consciousness, the dominant conversation on SEND, and the attitudes and practices of mainstream teachers as well as parents. Structural and institutional inequalities have also shaped the experiences of children with SEND and made attempts at inclusive educational practices quasi-inclusive at best or non-inclusive at worst. Disabled people have identified inequalities, due to institutional discrimination, as the problem because of the distinction drawn between the social lives and interests of "able-bodied" and disabled people (Barnes, 1992, 2007). Institutionalised forms of discrimination, direct as well as subtler, contribute to wider marginalisation of children with SEND and damage their sense of self-worth and positive identity (Howarth & Andreouli, 2015).

In Guyana, when children with SEND cannot access the mainstream school in their communities, they have to attend special schools. Special education schools are highly centralised in the towns, and children who reside in rural villages have to travel in some cases hundreds of miles to access such schools. Moreover, most teachers at special education schools have not received specialised training in SEND. In most cases, special school teachers are less qualified than their mainstream counterparts (Chouinard, 2012, 2015; Fraser, 2014; O'Toole & Stout, 1998). Either way, children with SEND are marginalised because of these institutionalised and structural discriminatory barriers. These negative attitudes and discriminatory practices, which effectively deny basic human rights to children with SEND, are ingrained in the education institutional practices and society in Guyana.

Currently, inclusive education in Guyana's mainstream education system means placing children with SEND in mainstream schools without any form of modification being made to the educational culture, discursive practices or structure (Ajodhia-Andrews, 2007; Andrews & Frankel, 2010; Fraser, 2014; Lashley, 2017, 2021, 2023; Mitchell, 2005). Once the child with SEND can access the building and the limited resources therein, he or she is placed in a mainstream school in a quasi-inclusive education practice. Most of Guyana's mainstream school buildings are not disability friendly. Therefore, there is often no independent access for persons with limited mobility. In the schools, the resources are not modified, and the same standardised curriculum is expected to be delivered regardless of the circumstances of individual children. The mainstream teachers do not have any decentralised authority to modify the curriculum, but they are expected to provide meaningful learning and socialisation experiences for children with SEND. This is unfair to the

teachers, as too much is already expected from the overworked mainstream teachers in Guyana. This normalised practice increases the possibility of exclusion and makes it difficult for children with SEND to function in mainstream schools (Lashley 2021, 2023). It is important to note that this practice is not policy driven because, as has been stated previously, Guyana does not have a formally written inclusive education policy or framework.

Further, the conceptualisation of inclusive education in postcolonial Guyana, like other countries in the Global South, has its foundation in the basal framework for understanding inclusive education, which is demarcated in the Salamanca Statement (World Conference on Special Needs Education: Access and Quality, UNESCO, 1994). This created a challenge for inclusive educators and supporters to measure progress which cannot be assessed using the same indicators as developed countries in the metropolitan West and Global North. Thus, the need for inclusive education frameworks that are created within the Global South considering the cultural and knowledge differences emerged.

There are vast differences in the understanding and implementation of inclusive education practices in Guyana. Several researchers on special and inclusive education stated that the application of inclusive education in the South has been very kaleidoscopic because of disparities in beliefs and thinking, practices, and consensus on inclusive practices (Beutel, Tangen & Carrington, 2019; Waitoller & Artiles, 2013). Thinking and conversations on inclusive education need to go beyond the consciousness of marginalisation and take social and cultural diversities into account (Armstrong, Armstrong & Spandagou, 2011; McDonald & Tufue-Dolgoy 2013; Rose, 2010, as cited in Beutel, Tangen & Carrington, 2019; Sharma et al. 2017).

Recent research conducted in Guyana indicates that the vast differences in the understanding and implementation of inclusive education practices could be attributed to the multitude of cultures, subcultures, and geographic structures; the levels of access to education and support resources for both children and teachers; the experiences and philosophies of the regional education officers; and the qualification of the district education officers as well as their perspectives on SEND (Lashley 2021, 2022a, 2023). Another researcher noted that the conception of inclusive education is often significantly different within cultures and education systems (Polat, 2011). Similar variables contributing to the vast variations in inclusive practices and thinking were evident in Nepal, Sri Lanka, and Bangladesh as was documented in 2019 by Beutel, Tangen, and Carrington.

Teacher preparedness for the diversities present in the collection of children in their classroom affects the inclusion

situation created in the school (McDonald & Tufue-Dolgoy, 2013). Teacher collective conscience on inclusive education influences the practices around inclusion in Guyana (Lashley, 2017, 2021). During July 2018 and January 2019, the researcher observed this, which distorted the decade-plus conception as a mainstream teacher and teacher trainer in Guyana. Education districts in Guyana were visited and observed while simultaneously conducting ethnographic studies in two schools in rural Guyana.

In Guyana, the dominance of the medical model thinking around SEND has maintained the traditional status quo that SEND always results from an individual deficit. Inclusion consensus and dominating influences should move beyond individual deficits perspectives and consider the numerous other variables which, in most cases, are unique to cultures and societies across the globe (McDonald & Tufue-Dolgoy, 2013; Rose, 2010; Sharma et al., 2017). The uniqueness of children exists in their differences, and this should result in neither exclusion nor special education needs if teachers are fully prepared to have inclusive classrooms. Within the local education context, Guyana is far from being prepared to cater to the diversities present in its mainstream schools. Children continue to face simple learning barriers and challenges because of the education system's ill-preparedness for their needs. This unpreparedness is not only that of the teachers but more of the lack of resources, support, and dominant negative cultures about disabilities and the deficits they create in individuals.

Deppeler (2012) indicated that creating a platform for sharing knowledge and inclusive practices can support educators in developing countries. The absence of such a platform in Guyana may have contributed to the collective consciences held by mainstream teachers being traditional and not easily influenced by another model of thinking on SEND such as the social model. This can be considered as unsatisfactory progress in education for children with SEND in Guyana. Deficient progress in the conversations on inclusive policies and practices is connected to the dominant conversation and influences in the sphere of inclusive education provisions (Lashley, 2017; Sharma, Loreman, & Macanawai 2016).

## Methodology

### Participants

The population for this study came from Region 5, Mahaica-Berbice. Region 5 is a rural administrative and education district in Guyana. Children with SEND and their teachers from Grades 3 to 6 of the two mainstream primary schools were the

target population. The pupils' ages ranged from six to twelve years old. The group of children consisted of Amerindians, East Indians, Africans, and Mixed Races, which reflected the diversity of children in the two mainstream primary schools. Some of the children with SEND lived in extremely impoverished conditions. The population also included 44 mainstream teachers from the two primary schools.

Children were identified and selected to participate because it was observed that they were knowledgeable about and had subjective experiences in the phenomenon of interest (Creswell, et al., 2011; Etikan & Bala, 2017; Palinkas, et al., 2016; Halej, 2017). While participants were selected, they were made aware of the study and the issue to be discussed. They were told that they were free to choose whether to participate or not.

Thirty-eight children were included; 36 with identified SEND and two without identified SEND who shared similar relational elements in the experiences of children with SEND in the two schools. In ethnographic studies, situatedness of experiences not planned for are revealed in complexities (Corte & Irwin, 2017; Rodgers, 2007). In this study, such situated experiences occurred when parents visited the schools and voluntarily shared their views on the experiences of children with and without SEND. Their voices were added to the conversations because they were part of the situation and social arena. The selection included children with the following impairments/disorders:

- Speech impairment
- Learning disabilities / Learning challenges
- Emotional behaviour disorder
- Dyslexia
- Speech Language and Communication Needs (SLCN)
- Intellectual disabilities
- Attention Deficit Hyperactivity Disorder (ADHD)
- Exceptional intelligence / Giftedness – Exceptional / Giftedness
- Dysgraphia
- Down's Syndrome
- SEND Unknown

## Research Design

Ethnography was the most appropriate research design to facilitate this study because ethnographic research is a process that engages the ethnographer in a “dialogue with the entire social reality encountered” (Corte & Irwin, 2017; Rodgers, 2007). In relation to this, Berry (2011) states that ethnography is the study of the socio-cultural contexts, processes, and meanings within cultural systems. It is a microscopic approach. Rodgers' (2007) and Berry's (2011) conception of ethnography was used because it reveals and analyses the experiences, socialisation, and barriers to full participation faced by

children with SEND in the two mainstream primary schools in their socio-cultural contexts. Ethnography is one way to better understand the contextual (dis)engagement processes and meanings in a population (Corte & Irwin, 2017; Rodgers, 2007). Ethnography was used as a way of being situated in the two primary schools under study and observing, listening to, and gaining an understanding of the experiences of the children with SEND.

The placement of children with SEND in disabling learning environments creates socially context-specific experiences (Iphofren, 2017; Lashley, 2021, 2022b, 2023). Ethnography allowed the researcher to be part of the environment and socially context-specific experiences, which form the research site.

## Unstructured Interviews

Further, being fully situated and embedded allowed the researcher, as a participant, to fully observe and to have the opportunity and time to interview at least one child per week at each school. Each interview with the children lasted for approximately 20 minutes. According to Tisdall (2012) and Wainwright, Marandet and Rizvi (2018), researchers need to respect children's childhood, and so, interview time can be extended in circumstances beneficial to the children while maintaining respect for childhood. For confidentiality, the children were privately interviewed in a room assigned by the head teacher of each school as agreed by the Ministry of Education, Guyana. The exact time for the interview was negotiated with the children with each being interviewed twice. A third interview was necessitated only when either of the first two interviews was interrupted. For example, sometimes children would exhibit overwhelming emotions forcing the interview to be ended earlier than expected.

Interviews enabled interviewees to speak with their own voices and express their thoughts and feelings (Alshenqeti, 2014; Halej, 2017; Palinkas, et al., 2016). Unstructured interviews are a natural extension of participant observation because they so often occur as part of ongoing participant observation (Patton, 2002, as cited in Jones, 2017). Unstructured interviews can expose the researcher to unanticipated themes and help him or her establish a better understanding of the interviewees' social reality from the interviewees' perspectives (Halej, 2017; Jones, 2017). In this study, unstructured interviews were used to gather data on the social reality and perspectives on experiences of children with SEND. The interviews were guided from the observations made. Neither the questions nor the answer categories were predetermined as the categories were determined after the data was generated.



## Participant Observation

Participant observation was also used to gather data about participants' experiences and socialisation (Miles, Huberman & Saldana, 2014; Peticca-Harris et al., 2016; Roulet et al., 2017; Tedlock, 2000). Participant observation can provide access to behaviour or organisations, or parts of organisations, which would otherwise remain inaccessible. However, gaining and maintaining access to such organisations is often a challenging task because the guardians of the organisations may try to control the level of access allowed (Miles, Huberman & Saldana, 2014; Peticca-Harris et al., 2016; Roulet et al., 2017). Overt Participant Observation involves the researcher being open with the group he or she is studying (Shah, 2017), as this allows the aims of study to be shared intimately with the participants.

## Focus Group

Eight focus group discussions altogether with 16 teachers, eight teachers from each of the two participating schools, were facilitated. This meant that four focus group discussions at each school were conducted over the fieldwork period. The Southern Inclusive Framework for Developing Countries (Lashley, 2022), Loreman's Social Model Framework (2009), and Booth and Ainscow's Index for Inclusion (2002, 2011) were used to provide stimuli for these discussions. The research question produced the following four themes which guided the discussion for each of the four focus group discussions at the two participating schools:

- Experiences of children with SEND
- Emotions expressed by children with SEND about their experiences
- Reasonable adjustments and modifications made within the classrooms for children with SEND
- conceptualisation of Inclusive Education

During discussions with reference to the first theme, *Experiences of children with SEND*, some teachers became emotional while sharing their experiences. The emotional reactions of some teachers stimulated responses from their colleagues who were in support of the individual deficit model of disability. The interaction generated data illustrating why children with SEND placed in the two mainstream schools become doubly vulnerable because of their teachers' support of the individual deficit model of disability. The emotional responses also showed the difficulties that some teachers face because they ascribe to an alternative conversation. Some teachers felt limited as they had been unable to provide suitably modified experiences for children with SEND.

## Ethical Considerations

It is the researcher's responsibility to ensure ethical responsibility in all stages of any research. The study involved participants who were extremely vulnerable. It was particularly important to approach the research with sensitivity and with care. Guyana is a very small country with a population of approximately 740,000 (Bureau of Statistics, Government of Guyana, 2018). The two schools studied are located in small tightly knit communities, which made preserving total anonymity very challenging or almost impossible even with the use of pseudonyms. The possibility of being recognised in publications resulting from the study was explained to the teachers and the parents of the children. Stringent efforts to safeguard the identity of all participants were enacted. Precautions to protect the safety of children and their integrity in their learning environment were enforced.

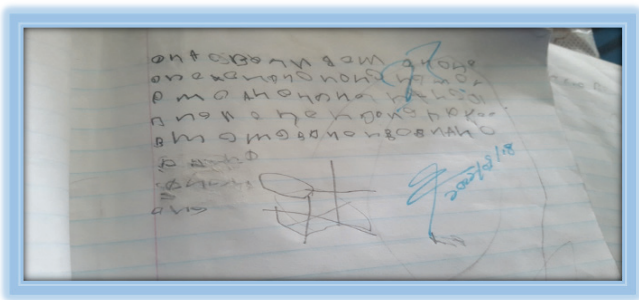
The research complied with the British Educational Research Association's (BERA) Ethical Guidelines for Educational Research (2018), articles 16-21 (Children, Vulnerable Young People and Vulnerable Adults), with additional emphasis on Articles 3 and 12 from the United Nations Convention on the Rights of the Child. Article 3 states that, in all actions concerning children, the best interests of the child need to be the primary consideration. Article 12 states that children who are capable of forming their views need to be granted the right to express their opinions freely in all matters affecting them, commensurate with their age and maturity. All the children with SEND who participated in this study were allowed to form their opinions about their experiences within mainstream primary schools and to express these views freely in all matters affecting them. Teachers' participation in the focus group sessions was voluntary. They were made aware of the study and the topic or issue to be discussed at the beginning of each focus group discussion.

## Discussion

### ***Marginalisation by Normalised Stereotypical Practices and Beliefs***

Normalised stereotypical practices and beliefs cause marginalisation for children with SEND in the two schools. Normalised stereotypical practices and beliefs are maintained through legacies of superiority and inferiority among the cultures in Guyana. For example, an established stereotypical practice does not celebrate the culture of rural fishermen. A lack of cultural celebration was evident when Ravi was told by Miss Nathaniel, his teacher, "Go catch fish that is what you are good at, Ravi." The statement was intended as a reprimand

for inappropriate behaviour, but reinforced Ravi's belief that he was a failure. When a teacher suggests to a child in the classroom that they should go and catch fish because it is what they are good at, the implication is that they cannot manage the classroom work. Furthermore, doing this publicly in the classroom is an exclusionary practice. It is an invitation to the child to leave the class and/or not participate in the learning experience. Miss Nathaniel is, in effect, indicating that he is unteachable. Viewing a child with SEND as unteachable is a legacy maintained by conversations and attitudes, enshrined in society and law, towards children with disabilities. Besides publicly humiliating Ravi, Miss Nathaniel also carried on the legacy of exclusion in his notebook. Without attempting to correct his efforts, she inserted question marks and signed it, which seems to reflect her attitude that he is not fit to be educated.



**Figure 1.** A picture from Ravi's school book

Her attitude seems to reflect a wider held view, as research has found that normalised traditional negative attitudes and stereotypes are prevalent towards children with SEND in the mainstream schools of the developing countries in the Caribbean (Caribbean Development Bank, 2018; Caribbean Human Development Report, 2016; Gayle-Geddes, 2016). Traditional legacies of past conversations and attitudes towards disabilities, enshrined in society and law, negatively influenced Ravi's school experiences. Through these observations, it becomes apparent that introducing the social model of disability conversation is vital to overcome enshrined negative legacies and attitudes that affect children's experiences more than their impairments.

Another demonstration of the negative attitudes described in the paragraph above is Rosemary, a child with developmental delays, who came to school with an unpleasant odour. The teacher, Mrs. Hamilton, shouted at her in the presence of the other children as Miss Nathaniel had done to Ravi. As a result, Rosemary started to cry and the children laughed and were allowed to continue laughing, which deeply embarrassed Rosemary. Being humiliated in this way, coupled with adverse environmental conditions and lack of stimulation, could lead

to a higher risk of neurological and behavioural disorders in vulnerable children (Allen & Kelly, 2015; Edossa et al., 2017; Greenough & Black, 2013 ) Further evidence of the risks of neurological and behavioural disorders in vulnerable children can be found in research by Ali, (2013), Handal et al., (2007), Hendry et al., (2018), Hernandez and Caçola, (2015), Iverson, (2010), Johnson et al., (2016), Levey and Polirstok, (2011), and Wendt et al. (1984). The researcher's awareness about vulnerabilities in children and the risks led the researcher to ask Miss Hamilton about her reaction in the classroom. Miss Hamilton appeared offended.

### October 2018 – Miss Hamilton's Response

**Researcher:** Miss Hamilton, why did you behave the way you did to Rosemary in the presence of the entire class?

**Miss Hamilton:** It is not inhumane. It is one thing for teachers to have to be dealing with these overcrowded classrooms. It is another thing when the overcrowded classes are full of children with SEND and other deficits and little or no support from either parents or community or the education department. It is also frustrating when you are already pressured as a teacher in an open plan school with limited resources and enormous demands. I did not sign up for this when I became a teacher. Then, I have to punish to breathe when children like Rosemary, who are incapable of learning anything, come smelling pungent and looking unsightly. As a teacher, I have to deal with all this. I have nothing personally against Rosemary. It is not her fault she was born into poverty. I go home most days with a headache from the various odours I have to endure. I am sure Rosemary's clothing smells of urine three out of the five days a week. She cannot learn. She has developmental delays I cannot cater for, yet I am expected to, and I am appraised negatively when my class academic percentage decline. I have my resignation typed, and I am just waiting to submit it.

Mrs. Hamilton's response to the question, which begins by stating that her expression was not inhumane, suggests that maybe she is aware that her comments attack on the humanity of children with SEND. Her clarification about the inhumanity in her statement suggests awareness of situations when she does behave inhumanely. It also indicates that she felt it was believed that her response was inhumane, so she was defensive

in her response. Mrs. Hamilton was frustrated, upset, angry and felt betrayed by the education system in which she works. She felt betrayed because she felt the expectations from the education authorities, parents, and even children with SEND as a mere teacher are too high. Mrs. Hamilton further expressed her feelings of betrayal by differentiating overcrowded classes into those without children with SEND and those with children with SEND. This differentiation seems to be supported by Mrs. Hamilton's expectations that teaching children with SEND is more frustrating. Mrs. Hamilton's differentiation is also based on the issue of an overcrowded class of children with SEND. Mrs. Hamilton also attributed her frustration to Rosemary's smell overwhelming her physically. She highlights this when she said, "I have to punish to breathe when children like Rosemary, who are incapable of learning anything, come smelling pungent and looking unsightly." Punishing to breathe indicates the distress Rosemary's smell placed on Mrs. Hamilton's respiratory system.

Mrs. Hamilton associated Rosemary with a particular group of children who are incapable of learning but capable of aggravating her frustration and anger. Mrs. Hamilton also concluded that developmental delays equated to inability to learn. She further associates Rosemary's inability to learn to the education appraisal system, which she perceives as likely to be negative towards her for being unable to cater for Rosemary's needs. Mrs. Hamilton frames resignation as the way to accept defeat from the situation which portrays her as inhumane. She then had to defend her actions to individuals like the researcher (persons whom she perceived to represent the mainstream education hierarchy) who she feels do not understand her plight but are exercising a form of Foucault's gaze.

As noted above by Mrs. Hamilton, teachers are expected to do an almost impossible job in adverse environmental conditions and with limited resources. Mrs. Hamilton's statement above highlights how such conditions emerge through an inclusion conversation without fully acquiring social justice for teachers. As she stated, too much is expected of teachers who are without the necessary support. Also, interestingly, Mrs. Hamilton separated Rosemary from her experiences to justify her reactions. She did this by saying, "I have nothing personally against Rosemary. It is not her fault she was born into poverty." This also reflects Kamenopoulou's (2018) statement that poverty disables children.

While Rosemary was in despair, Pam's experiences highlighted a new dilemma in the same environment. Added to her epileptic condition, Pam was paralyzed in her lower body due to a motor vehicle accident. Research suggests that such injuries are associated with elevated psychological distress that can continue years after the injury (Craig et al., 2016). Because the school facilities were inaccessible to children with

physical impairments, Pam's father supported her. He brought her to school and manually lifted her into the classroom and would also be present to take her to the toilets during break times. Pam told me that her condition was the result of God's punishment for her being rude and disobedient. Such views of impairment as a divine punishment are echoed by the children throughout many of the interviews. It was also echoed in religious conversation that promoted the idea that one could not interfere with God's punishments.

### November 2018 – Interview: Pam after a short period of hospitalisation

**Researcher:** Hello, Pam, it is so good to see you back at school again.

**Pam:** My school is not the best, and the teachers are not always nice, but I have some friends here, and in order for my dreams to come true I need to endure this struggle.

**Researcher:** Is school a big struggle for you?

**Pam:** Life is a struggle. I just came out of the hospital. I cannot walk. Teachers are scared to be natural around me because of my epilepsy. With all the things I go through, school is the littlest of all my struggles, but it is a big struggle. I need to use the washroom. It is another half hour until my father gets here. I hate to beg the teachers for help. Their faces always state their unwillingness, but I cannot access the toilets on my own.

One of the primary arguments here is that some children face obstacles to learning due to the physical environment, pedagogical styles expected of the teachers, normalised stereotypical practices, and limited resources. Pam shows a dilemma of choosing between two evils. She does this by highlighting two negatives about her school. First, her school was not portrayed as the best place for a child with SEND, and second, the teachers were viewed as not always being nice to children with SEND. She expressed that the two negatives do not equate to the two positives she sees in attending mainstream school. The positives she sees in school frame her reasons to persist. First, she has friends at school, and second, her dreams can only be realised by attending school. Pam highlights these limitations in the environment and resources while referring to it as a struggle she needs to endure. Pam echoed the struggles of Ravi and Rosemary. For a child to repeatedly state that school is a struggle suggests the



significant barriers she faces there. It also suggests the mental burden and challenges simply attending school causes. When necessary facilities, such as toilets, are not accessible, physical impairments become major exclusionary struggles for disabled children. Since Pam was not born with the impairment but acquired it recently, the teachers needed to recognise that she had recently fallen on the other side of the inclusion/exclusion coin. Pam's experiences provide insights into two dimensions of the SEND conversation. Her situation had changed from being a child who was not seen as having SEND, despite her epilepsy, to a child perceived as having a SEND facilitated by the combination of epilepsy and physical impairment. It is almost impossible for Mrs. Murphy, Pam's teacher, to cater for every new situation in an environment with limited resources. As reflected in the extract below, the teacher is affected by Pam's experiences and is concerned about Pam's emotional wellbeing. She is also concerned about how her actions might be excluding Pam and the psychological effects of such exclusion. Mrs. Murphy is caught in limbo. If she challenges Pam and tries to build her motivation, she may trigger Pam's seizures but, if she does not challenge her, she negatively affects Pam's self-belief leading to her feeling excluded. Either way, Mrs. Murphy's action causes a negative outcome.

### September 2018 – Mrs. Murphy's Reflection

I was also Pam's teacher in Grade Three before the accident. She was a very aspiring and promising child when the seizures were less frequent. I used to find it rewarding to challenge her. She would always surpass expectations. Since the accident and the frequent seizures, I am scared and uncertain about how to support her. If I simplify them, I feel like I am disrespecting her. If I challenge her too much and a seizure comes, I feel responsible. It is a torturing battle for me. She is one of my favourite children, and I do not want to affect her motivation and self-esteem. That is her strength at the moment.

A child's functioning depends upon emotional factors, and educators and parents need to strive to help the child to overcome these by mobilising and deploying adequate support (Dakwa, 2013; Kinalski et al., 2017). Mrs. Murphy was striving to help Pam and was trying to adequately support her. This was an overwhelming situation for both Pam and Mrs. Murphy and the interplay of challenges and limited resources led to negative experiences for Pam. The argument here is based on the experiences of Pam, Ravi, and Rosemary, and it reflected the normalised practices which led to their exclusion, due partly

to the deficits in an adverse mainstream school environment. The argument presented thus far is that some children are marginalised as disabled in the schools, not because of impairments, but because basic access to the school's facilities and curriculum are hindered by social and attitudinal barriers. For example, legislation did not guarantee the inclusion of an indigenous child from the jungle because the schools do not follow it up as they should. Other children are excluded because the practitioners in the education system are frustrated and feel betrayed. Further, children are marginalised and excluded because of language barriers, poverty, and/or limitations placed upon teachers by the government's organisation of mainstream education. They are also excluded by the government's conceptualisation of inclusion by merely focusing on impairments without emphasis on social justice for children with SEND or their mainstream teachers.

### Conclusions

The conceptualisation of inclusive education in postcolonial Guyana is still in its metamorphic stages and is being influenced strongly by its rigid embrace of the medical model of disability conversation. This limited conceptualisation allows for children with SEND being marginalised, discriminated, excluded, depersonalised, and denied opportunities to develop their aptitude by stereotypical exclusion practices. Despite the introduction of the social model of disability into the conversation in Guyana, inclusive education remains a practice of opening access to mainstream schools without any transformation for children with SEND. Inclusive education encompasses the process of school transformation and a focus on children's entitlement and access to education (Kozleski et al., 2011; Loreman et al., 2011; Mitchell, 2005; Slee, 2011; Smith, 2010; Topping, 2012). Also, the fragmented approach to inclusive education evident in Guyana's eleven education districts needs to be unified to embody an inclusive education system. It requires the collaboration of all professionals and stakeholders in the inclusive education arena sharing knowledge, practices, and perspectives. Multi-professional collaboration requires shared knowledge, goals, and views (Thornberg, 2012, as cited in Van der Bij, Geijsel, Gars & Ten Dam, 2016). This is a basal step to providing socialisation, learning experiences, and opportunities for all children with SEND. Additionally, participation and socialisation for children with SEND in mainstream schools in Guyana are missing SMART indicators for attainment to ensure involvement, achievement, and meaningful experiences for all learners. To compound this issue, mainstream teachers' attitude significantly affects learners' participation and attainment.

## Recommendations

### 1. Adopt a Global South inclusive framework.

Adopt a Global South framework to guide inclusive education practices in Guyana. One such framework is the Southern Inclusive Education Framework for developing countries. The Southern Inclusive Education Framework for developing countries, published by Lashley in 2022, includes thirteen features which articulate a framework for inclusion from the Southern perspective which is fully contextualised to the Global South. It considered the socioeconomic status, cultures, and subcultures; the local social practices, education contexts, diversities, and uniqueness of children with SEND; their mainstream teachers' collective conscience on SEND, and challenged the dominant medical model of disability conversation with the introduction of the social model of disability frameworks. Significant to note, as a variable of importance, is the fact that it was influenced by the voices of children with SEND through sharing their lived experiences. Ownership of the Southern Inclusive Education Framework rests in the hands of the children with SEND in postcolonial Guyana, while its design rests on Lashley, a Global South researcher, in 2022. This creates the embodiment of the framework in the Global South that it is for us, and we created it.

### 2. Review the conceptualisation of inclusion in practice.

The major conceptualisation of inclusive education in postcolonial Guyana centred on mainstreaming school access for children with SEND. It emphasised opening the doors to children with impairments. This simplified the conceptualisation of inclusive education to merely allow access to mainstream schools. This conception of inclusion is more a practice of mainstreaming and qualifies as a barrier to inclusion within mainstream schools in Guyana. This is because of the inaccessibility of mainstream schools for children with physical impairments. Inclusive education may be understood simplistically as the removal of barriers to learning to allow for the participation of all children in schooling, not merely granting physical access to it (Ainscow, 2011).

The tunnelled focus on SEND in many parts of the developing world create barriers for children, like the approach, and limit the opportunities to significantly analyse the depth of cultural and contextual influences/effects on the impact and quality of education for all children (Armstrong, Armstrong, & Spandagou, 2011). Therefore, the mere opening of the access doors to mainstream schools for children with SEND in Guyana without making reasonable adjustments and modifications created significant barriers which prevented the full participation of a substantial proportion of children with

SEND. It challenged their interaction with the curriculum and crippled their socialisation within the mainstream schools. In sum, this made inclusive education appear to be a cruel and inhumane act, when, in reality, that was not the intent.

A significant proportion of children with disabilities in developing countries are denied opportunities to access education than those without disabilities (Christian Blind Mission, 2012). Because of Guyana's cultural, ethnic, geographic, and unachieved consensus of education provision for children with SEND across education districts, significant proportions of children with SEND are denied the opportunities, learning experiences and socialisation needed for a meaningful education. This situation does not vary significantly for children with SEND placed in mainstream schools, special schools, or even those who are excluded and are kept at home away from socialisation in society and any educational institution. This supports the researcher's claim that being in school is a delusion of being included (Lashley, 2021, 2023). The belief that the placement of children with SEND in a school equates with being socially and educationally included is a misapprehension and a delusion (Lashley, 2021). It is a fraudulent and surreptitious form of exclusion (Cooper & Jacobs, 2011), a fashionable education practice (Armstrong, Armstrong, & Spandagou, 2010), and it disguises impractical realities about providing experiences for all children with SEND.

### 3. Widen the approaches for assessing SEND in local school districts.

Approaches and tools for assessing and evaluating SEND in children within Guyana are mostly absent in most education districts, and the few available in centralised education districts are limited and complicated. Also, their drafting was influenced by the medical model of disability conversation. Mainstream teachers indicate that they find it challenging to gather data on children with SEND using the tools available. Like postcolonial Guyana, many developing countries face this challenge. Approaches to determining disability amongst children vary extensively across the Pacific, as they do around the world. In most cases, they may be outdated and have originated using a dominant medical model of disability approach (Forlin, Sharma, Loreman, & Sprunt, 2015).

### 4. Ensure that participation of children with SEND in schools in Guyana is meaningful with SMART education and socialisation outcomes.

Children with SEND, when placed in mainstream education, need meaningful, significant and personalised learning experiences and socialisation necessary for attaining SMART (Specific, Measurable, Attainable, Relevant, Timebound)

education outcomes. Participation means significantly more than attendance and involvement in available, organised learning experiences. It means setting attainment standards and indicators for the children with SEND and their teachers and other key workers. Meaningful participation is acknowledged as the pivotal indicator for inclusion (McKay, Mahon, Donellan, Haracz, Sheldon & Ryan, 2017). Meaningful participation is consensual and should be understood as both attendance and involvement real-life experiences (Imms, Adair, Keen, Ullenhag, Rosenbaum & Granlund, 2016) and must also include attainment which must be SMART (Castroa, Grande & Palikaraa, 2019).

In mainstream schools in Guyana, participation places more emphasis on attendance and seldom sets SMART outcomes tailored for the learner individually. The children with SEND are expected to work toward the general goal of the grade level they are placed. This contributes further to the misapprehension and delusion that mere physical placement in mainstream schools for children with SEND is inclusion. It is just placement without participation that is insignificant and meaningless to the children with SEND. Children with SEND indicated that this is also frustrating for them and their teachers as well who seldom receive any support in the classroom. This situation should not be seen directly as marginalisation or as exclusionary. The socioeconomic status, culture, the dominant medical model of disability conversation, and the absence of clear inclusive education indicators, collaboration, and platforms to share knowledge and practices creates the inclusion misapprehension and delusion in postcolonial Guyana. Participation, in this case, is also challenged by the absence of contextualised inclusive frameworks or utilisation of locally designed inclusive education frameworks. Participation with SMART attainment indicators is needed for children with SEND in Guyana, and it is a requirement of the basal principles of inclusive education in the international education arena long after the Salamanca framework.

### 5. Ensure Teachers Receive Adequate Training in SEND.

Ensure mainstream teachers receive adequate support in the classroom, and stop leaving a single mainstream teacher in classes where children with SEND are placed. The teachers' efficacy will be affected because the demands on the teacher have increased without the support given. Teachers' attitude and effectiveness cannot be manipulated easily (Sharma, Aiello, Pace, Round & Subban, 2018). Teachers' attitude and efficacy can be improved through the level of support and training given (Sharma, Aiello, Pace, Round & Subban, 2018).

## Acknowledgement

I wish to extend gratitude to all the postcolonial Guyanese mainstream children with SEND and their teachers who shared their lived experiences.

## References

- Ainscow, M. (2011). Some lessons from international efforts to foster inclusive education. *Innovación Educativa*, 21, 55–74.
- Ajodhia-Andrews, A. (2007). *Inclusive education in Guyana: Perspectives of policy makers, teachers, and parents of children with special needs* (Paper 446). [Master's thesis, Ryerson University]. Ryerson University Digital Commons.
- Ajodhia-Andrews, A., & Frankel, E. (2010). Inclusive education in Guyana: A call for change. *International Journal of Special Education*, 25(1), 126-144. <https://files.eric.ed.gov/fulltext/EJ890573.pdf>
- Ali, S. (2013). A brief review of risk-factors for growth and developmental delay among preschool children in developing countries. *Advanced Biomedical Research*, 2(91). <https://doi.org/10.4103/2277-9175.122523>
- Allen, L. R., & Kelly, B. (2015). *Transforming the workforce for children birth through age 8: A unifying foundation*. National Academies Press.
- Alshenqeeti, H. (2014). Interviewing as a data collection method: A critical review. *English Linguistics Research*, 3(1), 39-45.
- Armstrong, A. C., Armstrong, D., & Spandagou, I. (2010). *Inclusive Education: International policy and practice*. Sage.
- Armstrong, D., Armstrong, A. C., & Spandagou, I. (2011). Inclusion: By choice or by chance? *International Journal of Inclusive Education*, 15(1), 29–39.
- Barnes, C. (2007). Disability activism and the struggle for change disability, policy, and politics in the UK. *Education, Citizenship and Social Justice*, 2(3), 203-221. <https://journals.sagepub.com/doi/pdf/10.1177/1746197907081259>
- Barnes, C. (1992). Institutional discrimination against disabled people and the campaign for anti-discrimination legislation. *Critical Social Policy*, 12(34), 5–22. <https://doi.org/10.1177/026101839201203401>
- Berry, K. (2011). The ethnographer's choice: Why ethnographers do ethnography. *Cultural Studies: Critical Methodologies*, 11(2), 165-177. <https://doi.org/10.1177/1532708611401335>
- Beutel, D., Tangen, D., & Carrington, S. (2019). Building bridges between global concepts and local contexts: Implications for inclusive education in Nepal, Sri Lanka, and Bangladesh. *International Journal of Inclusive Education*, 23(1), 109-124. <https://doi.org/10.1080/13603116.2018.1514763>
- Booth, T., & Ainscow, M. (2011). *Index for inclusion: Developing learning and participation in schools* (3rd ed.). Centre for Studies in Inclusive Education.
- British Educational Research Association (BERA). (2018). *Ethical guidelines for educational research* (4th ed.). <https://www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2018>
- Bureau of Statistics, A Government of Guyana Agency. (2018). *2012 Population & Housing Census*. <https://statisticsguyana.gov.gy/census.html>
- Caribbean Community (CARICOM). (2013). *Declaration of Pétion Ville*. <https://caricom.org/declaration-of-petion-ville/>

- Caribbean Development Bank. (2018). *Disability mainstreaming in borrowing countries: Disability Survey Report*. Bridgetown, Barbados: Caribbean Development Bank.
- Caribbean Development Bank. (2016). *The changing nature of poverty and inequality in the Caribbean: New issues and solutions*. Bridgetown, Barbados: Caribbean Development Bank.
- Carrington, S., & Duke, J. (2014). Learning about inclusion from developing countries: Using the index for inclusion. In C. Forlin & T. Loreman (Eds.), *Measuring inclusive education* (pp. 189–203). Emerald Group Publishing Ltd.
- Castro, S., Grande, C., & Palikaraa, O. (2019). Evaluating the quality of outcomes defined for children with education health and care plans in England: A local picture with global implications. *Research in Developmental Disabilities, 86*, 41-52.
- Cheong, K. A., Kellems, R. O., Andersen, M. M., & Steed, K. (2018). The education of individuals with disabilities in Guyana: An overview. *Intervention in School and Clinic, 54*(4), 246–250. <https://doi.org.10.1177/1053451218782435>
- Chouinard, V. (2015). Contesting disabling conditions of life in the Global South: Disability activists' and service providers' experiences in Guyana. *Disability & Society, 30*(1), 1-14. <https://doi.org.10.1080/09687599.2014.986565>
- Chouinard, V. (2012). Pushing the boundaries of our understanding of disability and violence: Voices from the Global South (Guyana). *Disability & Society, 27*(6), 777-792. <https://doi.org.10.1080/09687599.2012.686880>
- Christian Blind Mission. (2012). *Inclusion made easy: A quick program guide to disability in development*. CBM Australia.
- Collyer, F. M. (2018). Global patterns in the publishing of academic knowledge: Global North, Global South. *Current Sociology, 66*(1), 56-73. <https://doi.org.10.1177/0011392116680020>
- Connell, R. (2011). *Confronting equality: Gender, knowledge and global change*. Allen & Unwin.
- Connell, R. (2007). *Southern theory: The global dynamics of knowledge in social science*. Allen & Unwin.
- Cooper, P., & Jacobs, B. (2011). *From inclusion to engagement*. Wiley-Blackwell.
- Corte, U., & Irwin, K. (2017). The form and flow of teaching ethnographic knowledge: Hands-on approaches for learning epistemology. *Teaching Sociology, 45*(3), 209–219. <https://doi.org.10.1177/0092055X17697771>
- Craig, A., Tran, Y., Guest, R., Gopinath, B., Jagnoor, J., Bryant, R., Collie, A., Tate R., Kenardy, J., Middleton, J., & Cameron, I. (2016). Psychological impact of injuries sustained in motor vehicle crashes: Systematic review and meta-analysis. *BMJ Open, 6*(9). <https://doi.org.10.1136/bmjopen-2016-011993>
- Cresswell, J., & Plano-Clark, V. (2011). *Designing and conducting mixed method research* (2nd ed.). Sage Pub.
- Dakwa, F. (2013). Impact of epilepsy on children's academic performance. *International Journal of Academic Research in Progressive Education and Development, 2*(1), 359-366.
- Deppeler, J. (2012). Developing inclusive practices: Innovation through collaboration. In C. Boyle & K. Topping (Eds.), *What works in inclusion* (pp. 125–138). Open University Press.
- Edossa, A., Schroeders, U., Weinert, S., & Artelt, C. (2017). The development of emotional and behavioural self-regulation and their effects on academic achievement in childhood. *International Journal of Behaviour Management, 42*(2), 192–202. <https://doi.org.10.1177/0165025416687412>
- Epstein, D., & Morrell, R. (2012). Approaching Southern theory: Explorations of gender in South African education. *Gender and Education, 24*(5), 469-482. <https://doi.org/10.1080/09540253.2012.711036>
- Etikan, I., & Bala, K. (2017). Sampling and sampling methods. *Biometric & Biostatistics International Journal, 5*(6). <https://doi.org.10.15406/bbij.2017.05.00149>
- Forlin, C., Sharma, U., Loreman, T., & Sprunt, B. (2015). Developing disability-inclusive indicators in the Pacific Islands. *Prospects, 45*, 197–211. <https://doi.org/10.1007/s11125-015-9345-2>
- Fraser, S. (2017). The path to inclusion for children with learning disabilities in Guyana: Challenges and future considerations. *Journal of International Special Needs Education, 20*(2), 79-89. <https://doi.org/10.9782/2159-4341-20.2.79>
- Fraser, S. (2014). Removing the hurdles: A brief highlight of inclusion challenges in Guyana. *Journal of the International Association of Special Education, 15*(2), 48-55.
- Gayle-Geddes, A. (2016). A situational analysis of persons with disabilities in Jamaica and Trinidad and Tobago: Education and employment policy imperatives. In P. Block, D. Kasnitz, A. Nishida, & N. Pollard (Eds.), *Occupying disability: Critical approaches to community, justice and decolonising disability* (pp. 127-144). Springer.
- Greenough, W., & Black, J. (2013). Induction of brain structure by experience: Substrates for cognitive development. In M. Gunnar & C. Nelson (Eds.), *The Minnesota symposia on child psychology, Volume 24* (pp.155-200). Routledge.
- Guyana Disability Act No.11 (2010). *Persons with Disabilities Act 2010*. People's Constitution of Guyana.
- Guyana Education Act 39: 01 (1980). Ministry of Education, Guyana. <https://education.gov.gy/web2/index.php/other-resources/other-files/policy-documents/704-education-act-cap-3901>
- Halej, J. (2017). *Ethics in primary research (focus groups, interviews and surveys)*. Equality Challenge Unit. [https://warwick.ac.uk/fac/cross\\_fac/ias/funding/wirl/wirlresources/ecu\\_research\\_ethics.pdf](https://warwick.ac.uk/fac/cross_fac/ias/funding/wirl/wirlresources/ecu_research_ethics.pdf)
- Handal, A., Lozoff, B., Breilh, J., & Harlow, S. (2007). Sociodemographic and nutritional correlates of neurobehavioral development: A study of young children in a rural region of Ecuador. *Pan American Journal of Public Health, 21*(5), 292–300. <https://doi.org/10.1590/S1020-49892007000400004>
- Hendry, A., Jones, E., Bedford, R., Gliga, T., Charman, T., & Johnson, M. (2018). Developmental change in look durations predicts later effortful control in toddlers at familial risk for ASD. *Journal of Neurodevelopmental Disorders, 10*(3). <https://doi.org/10.1186/s11689-017-9219-4>
- Hernandez, A., & Caçola, P. (2015). Motor proficiency predicts cognitive ability in four-year-olds. *European Early Childhood Education Research Journal, 23*(4), 573–584. <https://doi.org/10.1080/1350293X.2014.991094>
- Hornby, G. (2015). Inclusive special education: Development of a new theory for the education of children with special educational needs and disabilities. *British Journal of Special Education. https://doi.org/10.11.11/1467-8578.12101*



- Howarth, C., & Andreouli, E. (2015). 'Changing the context': Tackling discrimination at school and in society. *International Journal of Educational Development*, 41(3), 184-191. <http://eprints.lse.ac.uk/61759/>
- Imms, C., Adair, B., Keen, D., Ullenhag, A., Rosenbaum, P., & Granlund, M. (2016). 'Participation': A systematic review of the language, definitions, and constructs used in intervention research with children with disabilities. *Developmental Medicine and Child Neurology*, 58(1), 29–38.
- Iphofen, R. (Ed.). (2017). *Finding common ground: Consensus in research ethics across the Social Sciences*. Emerald Publishing.
- Iverson, J. (2010). Developing language in a developing body: The relationship between motor development and language development. *Journal of Child Language*, 37(2), 229–261. <https://doi.org/10.1017/S0305000909990432>
- Johnson, S., Riis, J., & Noble, K. (2016). State of the art review: Poverty and the developing brain. *Pediatrics*, 137(4). <https://doi.org/10.1542/peds.2015-3075>
- Jones, T. (2017). *Varieties of methods: Interviews, focus groups and participation observation*. [PowerPoint slides]. <https://researchtoolkit.library.curtin.edu.au/searching/health-sciences-resources/qualitative-research>
- Kamenopoulou, L. (2018). Inclusive education in the Global South? A Colombian perspective: 'When you look towards the past, you see children with disabilities, and if you look towards the future, what you see is diverse learners.' *Disability and the Global South*, 5(1), 1192-1214. <https://disabilityglobalsouth.files.wordpress.com/2018/02/dgs-05-01-01.pdf>
- Kinalski D., De Paula, C., Padoin, S., Neves, E., Kleinubing, R., & Cortes, L. (2017). Focus group on qualitative research: Experience report. *Revista Brasileira Enfermagem*, 70(2), 424-429. <https://doi.org/10.1590/0034-7167-2016-0091>
- Kozleski, E., Artiles, A., & Waitoller, F. (2011). Equity in inclusive education: Historical trajectories and theoretical commitments. In A. J. Artiles, E. B. Kozleski, & F. R. Waitoller (Eds.), *Inclusive Education*. Harvard University Press.
- Lashley, L. (2023). The curious gap in the experiences of children with exceptionalities in two mainstream primary schools in postcolonial Guyana. *International Journal of Inclusive Education*, 1-23. <https://doi.org/10.1080/13603116.2023.2248119>
- Lashley, L. (2023). Marginalized by social inequalities in two mainstream primary schools in postcolonial Guyana. *Global Journal of Human-Social Science* 23(1), 55-71. <https://socialscienceresearch.org/index.php/GJHSS/article/view/103628>
- Lashley, L. (2023). Positioning a southern inclusive framework embedded in the social model of disability theory contextualized for Guyana. *World Academy of Science, Engineering and Technology, Open Science Index 193, International Journal of Educational and Pedagogical Sciences*, 17(1), 1-9. <https://publications.waset.org/10012881/positioning-a-southern-inclusive-framework-embedded-in-the-social-model-of-disability-theory-contextualized-for-guyana>
- Lashley, L. (2022a). Abuse, racial, religious and cultural interferences experienced by neurodivergent children. *Caribbean Journal of Psychology*, 15(2), 75-97. <https://doi.org/10.37234/CJP.2022.1502.A003>
- Lashley, L. (2022b). The experiences of children with exceptionalities in two mainstream primary schools in postcolonial Guyana. *European Journal of Education and Pedagogy*, 3(6), 166–173. <https://doi.org/10.24018/ejedu.2022.3.6.466>
- Lashley, L. (2022c). The experiences of children with SEN/D in two mainstream primary schools in postcolonial Guyana. *Athens Journal Education*. [https://www.researchgate.net/publication/362270003\\_The\\_Experiences\\_of\\_Children\\_with\\_SEN\\_in\\_Two\\_Mainstream\\_Primary\\_Schools\\_in\\_Postcolonial\\_Guyana](https://www.researchgate.net/publication/362270003_The_Experiences_of_Children_with_SEN_in_Two_Mainstream_Primary_Schools_in_Postcolonial_Guyana)
- Lashley, L. (2021). Stay in your lane: Experiences of children with special education needs and/or disabilities in two mainstream primary schools in Guyana. *International Journal of Inclusive Education*. <https://doi.org/10.1080/13603116.2021.1879952>
- Lashley, L. (2019). A reflective analysis of the selection and production of instructional material for curriculum delivery at the primary level in postcolonial Guyana. *Sage Open*, 9(2). <https://doi.org/10.1177/2158244019858445>
- Lashley, L. (2017). School culture and teachers' perspectives on special education needs and disabilities within Guyana's mainstream elementary school system. *Social Science Learning Education Journal*, 2(8). <http://innovativejournal.in/index.php/sslej/issue/view/370>
- Levey, S., & Polirstok, S. (2011). *Language development: Understanding language diversity in the classroom*. Sage.
- Loreman, T. (2009). Straight talk about inclusive education. *The CASS Connection*, 43-47. <https://concordia.ab.ca/wp-content/uploads/2017/04/CASS-connections-article.pdf>
- Loreman, T., Deppeler, J., & Harvey, D. (2011). *Inclusive education: Supporting diversity in the classroom* (2nd ed.). Routledge.
- McDonald, L., & Tufue-Dolgoy, R. (2013). Moving forward, sideways or backwards? Inclusive education in Samoa. *International Journal of Disability, Development and Education*, 60(3), 270–284.
- McKay, E., Mahon, D., Donellan, G., Haracz, K., Sheldon, S., & Ryan, S. (2017). Participation and inclusion: Mental health service users' lived experience (an international study). In A. H. Eide, S. Josephsson, & K. Vik (Eds.), *Participation in health and welfare services: Professional concepts and lived experience*. Routledge.
- Miles, M., Huberman, A., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Sage.
- Mitchell, H. (2005). *Raising the profile of disability in Guyana: An agenda for action*. Georgetown, Guyana: National Commission on Disability.
- Oliver, M. (2013). The social model of disability: Thirty years on. *Disability & Society*, 28(7), 1024–1026. <https://doi.org/10.1080/09687599.2013.818773>
- Oliver, M. (2009). *Understanding disability: From theory to practice* (2nd ed.). Red Globe Press.
- Oliver, M. (1990, July 23). *The individual and social models of disability* [Paper presentation]. Joint Workshop of the Living Options Group and the Research Unit of the Royal College of Physicians.
- O'Toole, B., & Maison-Halls, G. (1994). Community-based rehabilitation and development: Disabled children in Guyana. *Development in Practice*, 4(1), 23-34.
- O'Toole, B., & Stout, S. (1998). Hopeful steps in the Rupununi: Our response to meeting the challenge of special needs in the interior of Guyana. In L. Evan, M. Ilfeld, & E. Hanssen (Eds.), *Inclusion. Inclusive ECCD: A fair start for all children* (pp. 28-35). Consultative Group on Early Childhood Care and Development.

- Palinkas, L., Horwitz, S., Green, C., Wisdom, J., Duan, N., & Hoagwood, K. (2016). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *HHS Public Access Journal*, 42(5), 533-544. <https://dx.doi.org/10.1007%2Fs10488-013-0528-y>
- Peticca-Harris, A., deGama, N., Elias, S. R. S. T. A. (2016). A dynamic process model for finding informants and gaining access in qualitative research. *Organizational Research Methods*, 19(3), 376-401. <https://doi.org/10.1177/1094428116629218>
- Polat, F. (2011). Inclusion in education: A step towards social justice. *International Journal of Educational Development*, 31(1), 50-58.
- Robinson, D., & Goodey, C. (2018). Agency in the darkness: 'Fear of the unknown', learning disability and teacher education for inclusion. *International Journal of Inclusive Education*, 22(4), 426-440. <https://doi.org/10.1080/13603116.2017.1370738>
- Rodgers, D. (2007). Joining the gang and becoming a broder: The violence of ethnography in contemporary Nicaragua. *Bulletin of Latin American Research*, 26(4), 444-461. <http://www.jstor.org/stable/27733963>
- Rose, R. (Ed.). (2010). *Confronting Obstacles to Inclusion: International Responses to Developing Inclusive Education*. Routledge.
- Roulet, T., Gill, M., Stenger, S., & Gill, D. (2017). Reconsidering the value of covert research: The role of ambiguous consent in participant observation. *Organisational Research Methods*, 20(3), 487-517. <http://eprints.nottingham.ac.uk/41131/1/Roulet%20et%20al%20ORM%202017.pdf>
- Shah, A. (2017). Ethnography? Participant observation, a potentially revolutionary praxis. *Journal of Ethnographic Theory*, 7(1), 45-59. [http://eprints.lse.ac.uk/83714/1/Ethnography%2C%20participant%20observations\\_Final.pdf](http://eprints.lse.ac.uk/83714/1/Ethnography%2C%20participant%20observations_Final.pdf)
- Sharma, U., Aiello, P., Pace, E., Round, P., & Subban, P. (2018). In-service teachers' attitudes, concerns, efficacy and intentions to teach in inclusive classrooms: An international comparison of Australian and Italian teachers. *European Journal of Special Needs Education*, 33(3), 437-446. <https://doi.org/10.1080/08856257.2017.1361139>
- Sharma, U., Forlin, C., Deppeler, J., & Guang-xue, Y. (2013). Reforming teacher education for inclusion in developing countries in the Asia-Pacific region. *Asian Journal of Inclusive Education*, 1(1), 3-16.
- Sharma, U., Forlin, C., Marella, M., & Jitoko, F. (2017). Using indicators as a catalyst for inclusive education in the Pacific Islands. *International Journal of Inclusive Education*, 21(7), 730-746.
- Sharma, U., Jitoko, F., Macanawai, S. & Forlin, C. (2018). How do we measure implementation of inclusive education in the Pacific Islands? A process for developing and validating disability-inclusive indicators. *International Journal of Disability, Development and Education*, 65(6), 614-630. <https://doi.org/10.1080/1034912X.2018.1430751>
- Sharma, U., Loreman, T., & Macanawai, S. (2016). Factors contributing to the implementation of inclusive education in Pacific Island Countries. *International Journal of Inclusive Education*, 20(4), 397-412.
- Slee, R. (2011). *The irregular school: Exclusion, schooling and inclusive education*. Routledge.
- Smith, P. (Ed.). (2010). *Whatever happened to inclusion? The place of students with intellectual disabilities in general education classrooms*. Peter Lang.
- Srivastava, M., de Boer, A., & Pijl, S. J. (2013). Inclusive education in developing countries: a closer look at its implementation in the last 10 years. *Educational Review*, 67(2), 179-195. <https://doi.org/10.1080/00131911.2013.847061>
- Taylor, S. J., Bogdan, R., & DeVault, M. (2015). *Introduction to qualitative research methods: A guidebook and resource*. John Wiley & Sons.
- Thornberg, R. (2012). A grounded theory of collaborative synchronizing in relation to challenging students. *Urban Education*, 47(1), 312-342. <https://doi.org/10.1177/0042085911427735>
- Tisdall, E. (2012a). The challenge and challenging of childhood studies? Learning from disability studies and research with disabled children. *Children & society*, 26(3), 181-191. <https://doi.org/10.1111/j.1099-0860.2012.00431.x>
- Tisdall, E. (2012b). Taking forward children and young people's participation. In M. Hill, G. Head, A. Lockyer, B. Reid, & R. Taylor (Eds.), *Children's services: Working together* (pp. 151-162). Routledge.
- Topping, K. (2012). Conceptions of inclusion: Widening ideas. In C. Boyle & K. Topping (Eds.), *What Works in Inclusion?* Open University Press.
- Tracy, S. J. (2013). *Qualitative research methods: Collecting evidence, crafting analysis, communicating impact*. John Wiley & Sons.
- UNESCO. (1994). *The Salamanca statement and framework for action on special needs education*. [http://www.unesco.org/education/pdf/SALAMA\\_E.PDF](http://www.unesco.org/education/pdf/SALAMA_E.PDF)
- Van der Bij, T., Geijsel, F., Gars, G., & Ten Dam, G. (2016). Modelling inclusive special needs education: Insights from Dutch secondary schools. *European Journal of Special Needs Education*, 31(2), 220-235. <https://doi.org/10.1080/08856257.2016.1141509>
- Wainwright, E., Marandet, E., & Rizvi, S. (2018). The body-space relations of research(ed) on bodies: The experiences of becoming participant researchers. *Area*, 50(2), 283-290. <https://doi.org/10.1111/area.12367>
- Waitoller, F. R., & Artiles, A. J. (2013). A decade of professional development research or inclusive education: A critical review and notes for a research program. *Review of Educational Research*, 83(3), 319-356. <https://doi.org/10.3102/0034654313483905>
- Wendt, L., Mäkinen, H., & Rantakallio, P. (1984). Psychomotor development in the first year and mental retardation: A prospective study. *Journal of Intellectual Disability Research*, 28(3), 219-225. <https://doi.org/10.1111/j.1365-788.1984.tb01013.x>
- Williams, R. (1977). *Marxism and literature*. Oxford University Press.

## Author's Bio

**Dr. Lidon Lashley** is Director at the University of Guyana Early Childhood Centre of Excellence. He is also a Lecturer in Special Needs Education, Faculty of Education and Humanities, University of Guyana.

# Bridges over Troubled Waters: Anchoring Values and Democratic Education, Fostering Civic Skills and International Mindedness

Pascale Haag

LAB SCHOOL PARIS, EHES

Monika Votava Mandelíčková

LABYRINTH LABORATORY SCHOOL (CZECH REPUBLIC)

## Introduction

Educating young people in the contemporary world, marked by global crises, climate change, and other environmental sustainability crises, brings about new challenges. Not only do we need to foster academic knowledge but also social, emotional and civic skills to ensure school success and to help students thrive in a fast-changing world (Cross Francis et al., 2019; Brush et al., 2022; Cipriano et al., 2023).

One way of doing this is to give students opportunities to discover the world and to meet students from various parts of the world in order to increase awareness of the similarities and differences between cultures and societies and work on values at individual and community levels. The European Erasmus+ Agency supports education in Europe and promotes international exchange programmes for both teachers and students.

The current project was born from several years of dialogue between the authors of this paper, who were involved in the foundation of two European lab schools, created approximately at the same time in the Czech Republic (2016) and in France (2017). Both schools had a lot in common: both the Labyrinth Laboratory School and Lab School Paris consider democratic approaches and civic education to be key areas in education. Both schools work with the original ideas of John Dewey and emphasize them in their philosophical approach. They emphasize value education that is important for shaping each child on his or her path to lifelong learning. If the school succeeds in helping students build these solid foundations, they then become confident, grounded, open, and engaged individuals and, above all, independent learners. We also feel that, in order to build this value base, it is important to go beyond school boundaries, to develop new types of cooperation, to learn about cultural differences, and to develop international mindedness.

We first got a chance to collaborate in the framework of the Erasmus+ project LabSchoolsEurope (2019-2022), coordinated by Bielefeld University, which brought together ten institutions

from five countries across Europe: Austria (University College of Teacher Education Vienna, Praxisvolksschule Vienna, Praxismittelschule Vienna), the Czech Republic (Labyrinth Laboratory School, Masaryk University), France (Lab School Paris, École des hautes études en sciences sociales), Germany (Laborschule Bielefeld, Bielefeld University), and the United Kingdom (University of Cambridge Primary School). The project focused on participatory research for democratic education, involving visits to all the different lab schools by a team of teachers and researchers. Anticipating the end of the project, we then looked for a way to prolong this enriching experience and to share it with our students.

In this paper, now that the project is drawing to a close, we propose to share our experience, in the approach of a reflective practitioner, seeking to provide elements that might be useful to other teachers wishing to carry out a similar project in the future. In the first part, we will describe the project's aim and its structure throughout the school year 2022-2023. In the second part, we will present the main theoretical frameworks that inspired and guided us, and in the last part, we will share the main lessons we have learned from this project.

It is to be noted that this project was not conceived as a scientific study with a specific and replicable protocol to be followed; it was rather a concrete pedagogical experience through a collaboration between two laboratory schools aiming at promoting students' awareness about values and cultural diversity. Research was used as a compass all along to help us reflect about the process, with the idea of grounding the conceptions of activities and their implementation in sound theoretical frameworks.

## **The Bridges over Troubled Waters Project**

### ***Aims of the Project***

Inspiration from the three-year project of European laboratory schools on democratic education and seeing the



impact of mutual cooperation led Labyrinth school and Lab School Paris to decide to go on with content-based cooperation. The Erasmus+ project, Small-Scale Partnership (project number: 2021-2-CZ01-KA210-SCH-000051068), titled “*Bridges over troubled waters: Values in the Czech and French environment as a bridge to active citizenship*,” aimed to anchor values and democratic education, strengthen students’ civic competencies, and activate children for communication, collaboration, and proactive behavior based on historical and contemporary stories about values. It was also focused on creating metaphorical bridges for mutual understanding.

More broadly, this project can be considered as belonging to the field of *value education*, which Zajda (2020) defines as:

a multifaceted process of socialization in schools that transmits dominant values in order to provide and legitimate the necessary link between the individual, the group and society. Values education is a structured process of instilling desirable aspects of moral education, ethical traits and standards. (p. 108)

We are aware that, although values education is a key aspect of pedagogy, it is a complex and contested topic, especially as it can be subject to changes in fashion. One of the specific goals of the project was thus to raise awareness of the normative dimension of cultures and societies, following the trend of value education that focuses on the “enhancement of civic mindedness” (Zajda, 2020) through practical activities.

### **Organization of the Project**

The project was focused on active involvement of the students and teachers of both schools. It consisted of four phases, including two project weeks conducted independently by each school in their respective countries and two joint project weeks, one in Brno and one in Paris. The project was implemented in the school year 2022-2023 (from September 2022 to June 2023).

The schools started with parallel lessons provoking critical thinking about values, uncovering the content of the word value, defining their personal values and their role in their lives. Later, the students focused on values around us (within the school, historical context, community/society or country). Thanks to these themes, the students were able to perform “mini research projects” and experienced the scientific process: stating a hypothesis, formulating research questions, gathering data, and processing data.

The first phase of the project was followed by a face-to-face meeting of all participating students in Labyrinth School, Brno in December 2022. The students shared their findings about values and transformed them into practical activities. They had a chance to work with local artists on murals at school and enhance the school environment.

The third phase of the project was focused on the theme of communicating values. A deeper understanding of values enabled the students to think about concrete steps or activities that could be done to promote values and take action on behalf of the community.

Through the implemented activities, both schools created conditions for values to become lived values for students, contributing to the improvement of the well-being of individuals and the entire learning community. Key competencies, especially civic, communicative, social, and problem-solving skills, were developed. The Labyrinth students went on with enriching the school environment by creating relaxing zones for their schoolmates. Lab School students focused on transformation of values into original songs, composed and performed by a school band created within the framework of the project.

The final meeting of both schools in Paris in May 2023 was a celebration of project achievements (see Appendix). A deeper understanding of values built metaphorical “bridges” between schools, nations, and generations, helping change ingrained stereotypes and reinforcing selected values. Ultimately, it led to active involvement and addressing societal issues.

All the activities were published in the “methodology,” which includes lessons for teachers that are available both in printed and online versions<sup>1</sup>. The meaning of the word “methodology” in this context is different from what researchers usually expect. In this case, it refers to a pedagogical guide that contains a description of the sequences as we implemented them, for other educators to be able to draw inspiration from them and adapt them to their own learning environments, in the same way as we did in the broader context of the LabSchoolsEurope project for democratic practices<sup>2</sup>. It is unlikely that any sequence will be replicated exactly as we did in our schools, and it is thus quite different from the methodology of a research protocol that aims at enabling other researchers to replicate or to judge the validity of a study.

The lessons are clustered in four chapters: What are the values?, Values around us, How we communicate values, and Values and Active Citizenship. They offer concrete activities for individual lessons or for complex programmes focused on values.

<sup>1</sup> The lessons are available under this link: <https://www.labschool.fr/ressources>

<sup>2</sup> <https://www.labschoolseurope.eu/democratic-practices/>

## A Research-Driven Project

As lab school members, we naturally looked for theoretical frameworks that could guide us to conduct the project. Besides Dewey's general framework of hands-on learning, which does not need to be described in detail in this paper, as it is a common ground for many lab schools in the world, we chose to refer to Schwartz's model of universal values and to take into account the practical implications of values in the students' daily lives: what are the relationships between values, life skills, civic engagement, and well-being?

## Schwartz's Model of Basic Human Values

Schwartz's model of basic human values, developed by psychologist Shalom H. Schwartz (cf. Schwartz & Bilsky, 1987), is a theoretical framework that seeks to identify and organize the common values that underlie human motivation and behavior across cultures. The model is based on the idea that individuals and societies prioritize a set of core values, and these values influence attitudes, behaviors, and social interactions.

It identifies ten basic human values, organized into four higher-order categories, each representing a different dimension of human motivation:

### *Self-transcendence*

- Universalism – Understanding, appreciation, tolerance, and protection for the welfare of all people and for nature
- Benevolence – Preserving and enhancing the welfare of those with whom one is in frequent personal contact

### *Conservation*

- Conformity/Tradition – Restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms
- Security – Safety, harmony, and stability of society, relationships, and self

### *Self-enhancement*

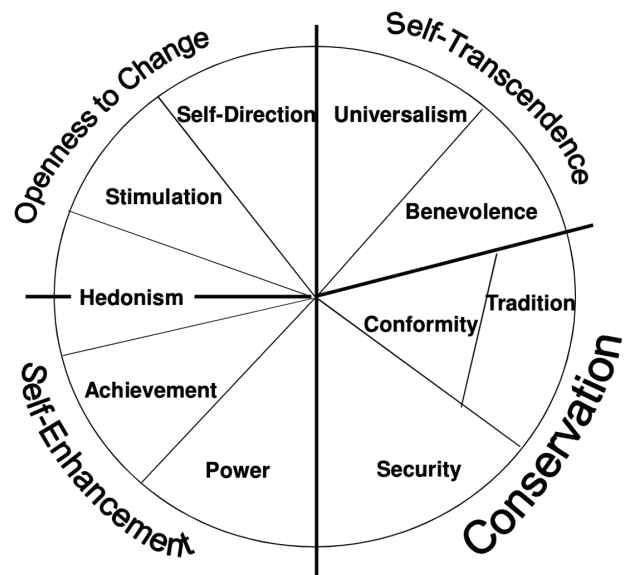
- Power – Social status and control over others
- Achievement – Personal success through demonstrating competence
- Hedonism – Pleasure, sensuous gratification (shared with Openness to change)

### *Openness to change*

- Hedonism – Pleasure, sensuous gratification (shared with Self-enhancement)
- Stimulation – Excitement, novelty, and challenge
- Self-Direction – Independent thought and action

These values are positioned in a circular structure,

emphasizing their interdependence and potential conflicts (see Figure 1, below). The model suggests that individuals and cultures may prioritize certain values over others, leading to variations in behavior and social dynamics.



**Figure 1.** Theoretical model of relations among ten motivational types of value (Schwartz, 2012)

## Values, Life Skills, Civic Engagement and School Well-Being

One of the school's roles, besides the transmission of academic knowledge, is to help students become citizens, by promoting civic engagement to sustain democratic societies (Ata, 2019; Biesta & Lawy, 2006; Kahne & Sporte, 2008; Metzger et al., 2018). Schools always impart values, whether explicitly or not. In the framework of this project, we expected not only to raise awareness about values, but also to open up possibilities for the development of emotional, civic, and social skills, leading to prosocial behaviors and civic engagement, while promoting well-being at school (Hart et al., 2014).

We made the deliberate choice to emphasize these dimensions, going somewhat against the tide. Bauml et al. (2022) point out the lack of emphasis on civics in schools, suggesting that it may partly be caused by the "increased pressure schools face from standardized testing and neoliberal policies." Moreover, they observe that "teachers, for a variety of reasons, often opt for value-neutral approaches to the curriculum and avoid discussing controversial issues."

Values education cannot be a theoretical subject: values are also taught by giving the younger generation the opportunity to feel that they are part of society. As suggested by Lenzi et

al. (2014), the level of adolescent civic responsibility is linked with a positive and democratic school climate (i.e., “responsive, challenging, empowering, equitable, and engaging” schools that “scaffold students’ identity journey” and “represent a microcosm of society where democratic principles are in action and can be learned by students”). Civic discussions and perceived fairness within the school are two important indicators of a democratic school climate. This study indicates that adolescents who exhibit greater civic responsibility are also more likely to express a stronger intention to participate in civic activities in the future. As a continuation of the LabSchoolsEurope project, which already focused on democratic practices in schools, our intention was to place greater emphasis on children’s participation and give them opportunities to make their voices heard, even if the project had initially been designed by adults.

Social and emotional skills are the foundation on which civic commitment and engagement is based. There are various classifications of these skills but no fixed list. The Collaborative for Academic, Social, and Emotional Learning (CASEL) recognizes five core social and emotional competencies, which are broad, interrelated areas that support learning and development: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making. Developing these competencies is crucial for individuals to navigate social situations, work collaboratively, and cope with challenges in a healthy and constructive manner.

The exchange program also aimed at increasing students’ social awareness, relationship skills and their international mindedness (Metli & Lane, 2020) through collaborative activities and comparison between their respective backgrounds. We expected to help them understand and appreciate diverse perspectives and values, to be able to communicate effectively in different languages, to adapt to different communication styles and norms, to promote mutual respect and understanding, to apprehend the interconnectedness of the world, and to encourage a positive, open-minded and adaptable mindset<sup>3</sup>.

## Lessons Learned

Through the implemented activities, both schools created conditions for values to become lived values for students, contributing to the improvement of the well-being

of individuals and the entire learning community. Key competencies, especially civic, communicative, social, and problem-solving skills, were developed. The language skills of students were naturally strengthened throughout the project. A deeper understanding of values built metaphorical “bridges” between schools, nations, and generations, helping change ingrained stereotypes and reinforcing selected values. Ultimately, it led to active involvement in the societal issues being addressed.

At the end of the project, students were invited to give some feedback to the teachers about the project by answering an anonymous online survey with open-ended questions such as:

- What did you learn about your personal values?
- What did you learn about your school’s values?
- Which activities seemed most meaningful to you with regard to the project’s goal
- To what extent has (or will) this project made a difference to the way you think about or live according to your values?

Here are the main elements of the student’s feedback:

Both schools devoted one of the project days to reflecting upon the main values of their respective schools and casting a vote. In Labyrinth school, the students defined these as respect, harmony and friendship/kindness; in Lab School Paris, it was respect, equity and solidarity. One of the students also offered a comment about how the values can be put into practice: “The values are practiced by cooperating on projects and helping people in areas in which you are capable and they are not as much.”

About personal values, the students were invited to share individual answers, reflecting upon their personal attitudes. Respect, for themselves and for others, was frequently mentioned, as well as health (physical and mental) and taking care of their own health, relations (family, friends), and solidarity (helping others and making sure they are fine). Some students elaborated upon their personal values:

- “Love, health and freedom. Love represents my family, friends and my pet. Health – physical and mental – is important for me, so I can do all my daily work with happiness and without pain. Freedom so I can be who I am and express myself.”
- “Honor because without it I would be a bad person. Friendship because without it I would be lonely. Intelligence because without it I would be useless.”

3 The concept of ‘international mindedness’ is particularly relevant in the context of the International Baccalaureate®. In this respect, it is to be noted that Paris Lab School is a *candidate school*\* for the Diploma Programme. This school is pursuing authorization as an IB World School. IB World Schools share a common philosophy- a commitment to high-quality, challenging, international education- that we believe is important for our students.

\* Only schools authorized by the IB Organization can offer any of its four academic programmes: the Primary Years Programme (PYP), the Middle Years Programme (MYP), the Diploma Programme (DP), or the Career-related Programme (CP). Candidate status gives no guarantee that authorization will be granted.

- “Respect, friendship and kindness. I personally think it’s very important to respect people and their personal space because I would like other people to do the same to me. I feel like I always try to apply these three values in my everyday life but sometimes I might not because of my bad mood.”

One of the aims of the project was to foster openness to different cultures, to communicate in diverse languages and to nurture students’ international mindedness. The students mainly appreciated discovering a different country, and learning about its culture, nature, and values. On the linguistic side, it was interesting to note that some of the French students started to learn Czech online – at least a few words – whereas the Czech students already had some knowledge of French. Many of them liked to learn “how to talk to other people,” realizing “that we are all humans, but depending on where we’re from or our backgrounds, we could be different and find some things normal and others not as much.” One important activity in this respect was a song-writing activity in three languages, English, French, Czech, that they performed together afterwards. Some students underlined in their feedback that they better understood values perceived through different eyes such as songwriting together (as well as working on the ladder of personal values).

Answering the last question about the difference this project will make for them in the future, some students explained how important it has been for them:

- “I personally never even thought about values but now after this project, I feel like I am more aware of values important to me. This makes it easier to find the right friends.”
- “It will help me include people who might not know the same things I do, or who don’t find them normal, and teach them. And also for me to learn about other people’s hobbies and things they like to do.”
- “I realized how important and awesome sharing art is, and that not even a language barrier can change that.”

Although the learning experience process within international contexts is known to be “difficult to describe, interpret, and conceptualize” (Erichsen, 2011), and despite the fact that it is difficult to know how participants are impacted over time (Sustarsic & Cheng, 2022), those reflections align with the “transformative potential” reported by slightly older students involved in higher education international exchange programs: developing intercultural competences, improving communication skills in the local language, increased tolerance and acceptance of other values and cultures, better self-confidence, and personal growth (Nada & Legutko, 2022). As noted by Nada and Legutko (2022), “short-term international

study experiences not only favor the acquisition of discipline-based knowledge, but also the acquisition of intangible personal characteristics or soft skills.”

Similarly, evaluating the short and long term benefits for the organizers and the teachers who participated in the elaboration of the program and the activities was not an easy task! Their feedback was mostly centered on the impact of the project on the children. One Czech teacher noted, for instance:

I think the most meaningful activity was contact and communication with French friends – pupils of Labschool Paris. The next was thinking about and researching the values of our school and practical realization of activities to support it. Connecting the project with our history lessons was very innovative and beneficial.

However, the project gave all the participants an incredible opportunity to observe and experiment in a natural setting with different approaches to pedagogy and teacher-student interactions. The need for teachers to become “agents of change” in the context of internationalizing teacher education has been underlined in research since the 1990s (Baily & Holmarsdottir, 2019). This type of exchange program nurtures teachers’ professional development, supports learning communities, helps build peer networks, and opens new doors to learning from across countries and cultures.

## Conclusion

In addition to enabling students to get to know themselves better by reflecting on the issue of values, this project also aimed to foster the development of their emotional, social, and civic skills. Since the beginning of the millennium, there has been an increased scholarly interest in the domain of social and emotional skills. They can be defined as a cohesive and interrelated set of psychological abilities encompassing specific knowledge, intra-psychological processes, and attitudes. They facilitate individuals’ autonomy and empowerment, contribute to psychological well-being and optimal functioning, and to the development of constructive social interactions (Lambooy et al., 2022).

Cultivating these skills represents a major concern in public health, education, and social action today. School climate and pedagogical practices contribute to developing a wide variety of skills among pupils and students, such as self-efficacy, problem-solving acumen, cognitive flexibility, divergent thinking, creativity, and social and emotional competencies (Haag et al., 2023). Addressing real-world problems has proven successful in fostering motivation and engagement in young people (Jacquez

et al., 2020). This project aimed at supporting students' self-determined motivation, self-efficacy, and engagement, aligning with research indicating that positive civic outcomes are encouraged by educational contexts that promote supportive environments for identity exploration while offering critical and analytical awareness of societal issues (Adams & Fitch, 1983; Denney, 2022).

The timetable chosen for this project, with several months between the final exchanges of the students and the final results, gave us time for reflective analysis of what had worked well, what could be improved and what we would like to change in a future project. We reflected upon the importance of giving students the chance to make their voices heard. One of the main dimensions we wanted to develop was thus the participation of the young people, which we wanted to strengthen by giving them the opportunity to contribute to the design of a project and its management from the outset to the end.

In Europe, the Erasmus program has become the most important European cooperation program in the field of education and in the promotion of mobility (Martínez-Usarralde et al., 2017). We therefore invited the students to join us in the preparatory phase of a new Erasmus project call. Two representative students (aged 15) and one or two teachers of each school met in Munich (Germany) – halfway between Brno and Paris – for two days at the beginning of 2024 to brainstorm for the next project, which will be submitted to the Erasmus Agency in early March 2024. The student delegates will present the results of this brainstorming to their peers, and the teachers to their colleagues, in order to involve the whole community as much as possible in the development of the project, and to encourage everyone's commitment in the future if the project is accepted.

Work on civic engagement, on the development of social, emotional and civic skills, and on openness to other cultures, languages and societies is not something that happens overnight, but it needs to be pursued, in a variety of ways, throughout schooling – and even throughout life! Our hope is to pave the way for the students' and the school's wider community to feel empowered and equipped to face the societal and environmental challenges inherited from previous generations and to contribute to a better world.

## References

- Adams, G. R., & Fitch, S. A. (1983). Psychological environments of university departments: Effects on college students' identity status and ego stage development. *Journal of Personality and Social Psychology*, 44(6), 1266–1275. <https://doi.org/10.1037/0022-3514.44.6.1266>
- Ata, A. (2019). Fostering students' civic skills: Education for sustainable democracy. *Georgia Educational Researcher*, 16(1), 74. <https://doi.org/10.20429/ger.2019.160107>
- Baily, S., & Holmarsdottir, H. B. (2019). Fostering teachers' global competencies: Bridging utopian expectations for internationalization through exchange. *Forum for International Research in Education*, 5(2). <https://doi.org/10.32865/fire201952162>
- Bauml, M., Davis Smith, V., & Blevins, B. (2022). "Who cares?": Young adolescents' perceived barriers to civic action. *RMLE Online*, 45(3), 1–20. <https://doi.org/10.1080/19404476.2022.2033069>
- Biesta, G., & Lawy, R. (2006). From teaching citizenship to learning democracy: Overcoming individualism in research, policy and practice. *Cambridge Journal of Education*, 36(1), 63–79. <https://doi.org/10.1080/03057640500490981>
- Brush, K. E., Jones, S. M., Bailey, R., Nelson, B., Raisch, N., & Meland, E. (2022). Social and emotional learning: From conceptualization to practical application in a global context. In J. DeJaeghere & E. Murphy-Graham (Eds.), *Life Skills Education for Youth: Critical Perspectives* (pp. 43–71). Springer International Publishing. [https://doi.org/10.1007/978-3-030-85214-6\\_3](https://doi.org/10.1007/978-3-030-85214-6_3)
- Cipriano, C., Strambler, M. J., Naples, L. H., Ha, C., Kirk, M., Wood, M., Sehgal, K., Zieher, A. K., Eveleigh, A., McCarthy, M., Funaro, M., Ponnock, A., Chow, J. C., & Durlak, J. (2023). The state of evidence for social and emotional learning: A contemporary meta-analysis of universal school-based SEL interventions. *Child Development*, 94(5), 1181–1204. <https://doi.org/10.1111/cdev.13968>
- Cross Francis, D., Liu, J., Bharaj, P. K., & Eker, A. (2019). Integrating social-emotional and academic development in teachers' approaches to educating students. *Policy Insights from the Behavioral and Brain Sciences*, 6(2), 138–146. <https://doi.org/10.1177/2372732219864375>
- Denney, S. M. (2022). Student perceptions of support for civic identity development and identity exploration in a discussion-based U.S. government course. *The Journal of Social Studies Research*, 46(3), 279–291. <https://doi.org/10.1016/j.jssr.2021.06.003>
- Erichsen, E. A. (2011). Learning for change: Transforming international experience as Identity Work. *Journal of Transformative Education*, 9(2), 109–133. <https://doi.org/10.1177/1541344611428227>
- Haag, P., Berra, U., Potters, L., Ragazzi, L., & Shelsky, C. (2023). Students as co-researchers: A participative action research on the construction of identity during adolescence. *Doing Democratic Education in School and University*, 4, 29–39. <https://doi.org/10.52038.9783643511324>
- Hart, D., Matsuba, K., & Atkins, R. (2014). Civic Engagement and Child and Adolescent Well-Being. In A. Ben-Arieh, F. Casas, I. Frones, & J. E. Korbin (Eds.), *Handbook of Child Well-Being: Theories, Methods and Policies in Global Perspective* (pp. 957–975). Springer Netherlands. [https://doi.org/10.1007/978-90-481-9063-8\\_33](https://doi.org/10.1007/978-90-481-9063-8_33)
- Jacquez, F., Vaughn, L., Boards, A., Wells, J., & Maynard, K. (2020). Creating a culture of youth as co-researchers: The kickoff of a year-long STEM pipeline program. *Journal of STEM Outreach*, 3(1), 1–11. <https://doi.org/10.15695/jstem/v3i1.02>
- Kahne, J. E., & Sporte, S. E. (2008). Developing Citizens: The impact of civic learning opportunities on students' commitment to civic participation. *American Educational Research Journal*, 45(3), 738–766. <https://doi.org/10.3102/0002831208316951>



- Lamboy, B., Beck, F., Tessier, D., Williamson, M.-O., Fréry, N., Turgon, R., Tassie, J.-M., Barrois, J., Bessa, Z., & Shankland, R. (2022). The key role of psychosocial competencies in evidence-based youth mental health promotion: Academic support in consolidating a national strategy in France. *International Journal of Environmental Research and Public Health*, *19*(24), <https://doi.org/10.3390/ijerph192416641>
- Lenzi, M., Vieno, A., Sharkey, J., Mayworm, A., Scacchi, L., Pastore, M., & Santinello, M. (2014). How school can teach civic engagement besides civic education: The role of democratic school climate. *American Journal of Community Psychology*, *54*(3), 251–261. <https://doi.org/10.1007/s10464-014-9669-8>
- Martínez-Usarralde, M.-J., Pausá, J. M., & García-López, R. (2017). The ERASMUS experience and its capacitating potential: Analysis of adaptive capabilities. *International Journal of Educational Development*, *53*, 101–109. <https://doi.org/10.1016/j.ijedudev.2017.01.001>
- Metli, A., & Lane, J. F. (2020). International mindedness: A revised conceptual framework. *Journal of Research in International Education*, *19*(3), 202–219. <https://doi.org/10.1177/1475240920976229>
- Metzger, A., Alvis, L. M., Oosterhoff, B., Babskie, E., Syvertsen, A., & Wray-Lake, L. (2018). The intersection of emotional and sociocognitive competencies with civic engagement in middle childhood and adolescence. *Journal of Youth and Adolescence*, *47*(8), 1663–1683. <https://doi.org/10.1007/s10964-018-0842-5>
- Nada, C. I., & Legutko, J. (2022). “Maybe we did not learn that much academically, but we learn more from experience”: Erasmus mobility and its potential for ‘transformative learning. *International Journal of Intercultural Relations*, *87*, 183–192. <https://doi.org/10.1016/j.ijintrel.2022.03.002>
- Schwartz, S.H. (2012). An overview of the Schwartz theory of basic values. *Online Readings in Psychology and Culture*, *2*(1). <https://doi.org/10.9707/2307-0919.1116>
- Schwartz, S. H., & Bilsky, W. (1987). Toward a universal psychological structure of human values. *Journal of Personality and Social Psychology*, *53*(3), 550–562. <https://doi.org/10.1037/0022-3514.53.3.550>
- Sustarsic, M., & Cheng, B. (2022). Public diplomacy and exchange programs at a secondary school level: Alumni experiences. *International Journal of Intercultural Relations*, *87*, 119–130. <https://doi.org/10.1016/j.ijintrel.2022.01.012>
- Zajda, J. (2020). Globalisation and current research on teaching values education. In J. Zajda (Ed.), *Globalisation, Ideology and Education Reforms: Emerging Paradigms* (pp. 107–124). Springer Netherlands. [https://doi.org/10.1007/978-94-024-1743-2\\_7](https://doi.org/10.1007/978-94-024-1743-2_7)

## Appendix

### Group activities



## Authors' Bios

**Pascale Haag** is a psychologist and Assistant Professor at the École des hautes études en sciences sociales (Paris). She initiated the creation of the Lab School Network, which aims to put research at the service of educational success and to promote exchanges between all the actors of the educational ecosystem (teachers, researchers, parents, students, companies, public authorities).

**Monika Votava Mandelíčková** is a Labyrinth Laboratory School teacher and a researcher. She has been working in Labyrinth laboratory school Brno since its founding in 2016. Recently she is focusing on school democratic principles and children's participation, coordinating a school council and a group of regional School Councils within the Local Action Plans for Education (MAP). She is responsible for coordinating EU projects in Labyrinth School.



**Co-funded by  
the European Union**

Bridges Over Troubled Waters (The Erasmus+, Small Scale  
Project: 2021-2-CZ01-KA210-SCH-000051068)

---



# Oral Language and Literacy Skills Development

Meenakshi Dahal, PhD

ASSOCIATE PROFESSOR, KATHMANDU UNIVERSITY SCHOOL OF EDUCATION

---

## Introduction

Literacy is a social practice as it emerges in the process of social interactions. It is always embedded in socially constructed epistemological principles (Street, 2003). A child's potential does not develop in isolation, but rather in interaction with the surrounding world. The experience of the diverse learning environments and the images formed within the environment are used to construct other images or understanding. This is done through sensations, feelings, interactions, problems, and exchange of ideas. Language is one of the tools in this process.

The significance of oral language and vocabulary of the children and its impact in learning is acknowledged by the government of Nepal. Everyday learning is influenced by the home and preschool environments. Hence, the role of language and culture in everyday learning activities of the children has been addressed through the provisions of local curriculum and the mother tongue-based teaching and learning approaches. This article is based on how home and preschool environments either support or hinder children's language and literacy learning skills. The development of children's early literacy, reading, writing, and learning skills is embedded in a larger family support system. Research shows that children with greater word knowledge tend to have better learning skills (Silverman & Hartranft, 2015). They have fewer behavioral problems and better academic outcomes. Vocabulary is given priority in schools because of the strong connection between vocabulary and reading. Reading requires the mastery, integration, and application of numerous skills and knowledge. Reading or learning how to read is a combination of all these skills. They are interconnected yet interdependent of one another, which makes it difficult to teach them in isolation. Without the knowledge of words and their meaning, no child can read fluently. This paper discusses the findings of a research conducted with children in Nepal who have problems in developing literacy skills at the preschool level.

## Methodology

This research followed a qualitative design to represent the view, narratives, and perspectives of the people (Yin, 2011). A

qualitative approach supports exploration of meaning, covering the contextual conditions within the people's lives and provides insight to explain humans' behavior. In-depth interviews and observations were applied for data collection in natural social settings. In this process, multiple sources of evidence were used rather than relying on a single source to explore the real situation. Parents' and teachers' roles and perceptions regarding oral language competency and the ways parents and teachers support children's early literacy were explored using ethnographic research methods.

Ethnography is a distinct type of research process through which knowledge is produced from extensive fieldwork (Christensen, 2004). It incorporates multiple perspectives and deals with social, cultural, and psychological aspects of a community. Ethnography is not only a method of data collection, but also a methodology based on direct observation in the field. It allows "multiple interpretation" of realities and "alternative interpretations" of data through the study (Alvesson & Skoldberg, 2009, p. 86). The study area was selected purposely from two districts (i.e., Banke and Lalitpur) where culturally and socially diverse populations reside. Six preschool/early childhood development (ECD) teachers and eight parents were interviewed.

Ethnography is an important methodology to use when conducting research with children, as it allows the researcher to spend time with them, provide them with recognition, and develop relationships (O'Really, Ronzoni, & Dogra, 2013). There were 90 children in the research preschools and ECD centers. Among them, eight children were closely observed at their respective preschools as well as at their homes. However, the researcher interacted with all the children in these selected preschools in one way or another. The quality of data and the trustworthiness of the data collection and data analysis procedures were followed in a systematic way by following the university IRB guidelines for ethical considerations.

## Findings and Discussion

Many positive changes have occurred in the perceptions and participation of the people regarding early learning and literacy within the last 15-16 years in Nepal. Reading skills are

honed through everyday experiences and interactions in the environment; however, learning how to read requires smooth transitions from home to preschools. Vygotsky (1978) suggests that learning is a process that occurs anytime in everyday life and not just an external phenomenon. Children learn all the time from the people who are more capable of carrying out a specific kind of action. Therefore, learning becomes an essential process and is necessary for development (Vygotsky, 1978).

Oral language is the prerequisite for success in many aspects of reading and writing (Shiel et al., 2012). Research supports that young kids with better oral language skills have an easier time learning how to read (Brown, 2014). Conversely, children who have difficulties with listening and speaking tend to have difficulty learning to read and write. Most children follow a similar sequence and pattern when it comes to reading processes as they learn how to read: from appreciation for and awareness of print, to phonological and phonemic awareness to phonics and word recognition. Without developing a foundation on oral language and vocabulary, children cannot follow the pattern towards gaining literacy mentioned above. However, children can learn many languages at a time and their engagement, intelligence, and participation affects their learning. Disciplinary frameworks, rote learning approaches, and the pressures of textbook-based learning can limit language learning. Moreover, when teachers are stressed, they are unable to address children's as well as parents' expectations towards the acquisition of literacy skills. Teachers' limited capability to approach teaching and learning in a collaborative way as well as the lack of external support may hinder this process.

There are two contrasting environments at home and preschool in the context of children's early literacy and oral language learning. Nevertheless, over the course of time, these two environments are interrelated and complementary to each other. Family and teachers with whom children interact every day facilitate children learning. One of the research participants, Pratigya's mother, was supportive towards her daughter's education. She shared, "Though I can't support her in reading and writing, I do tell her stories and encourage her to read and write at home." When I asked about Pratigya's studies, both the mother and the child's teacher shared that, "Pratigya is very curious, she keeps asking questions." Children who are often talked to at home are more expressive than others. According to Vygotsky (1986), children learn from spontaneous everyday activities within human culture and from experiences outside of the academic setting (van Veer & Valsiner, 1991; van der Veer, 1994; Gelman, 2009).

Literacy skills are foundational skills that children typically develop in the early ages, and they are important because they serve as the base for later competence and proficiency in the school setting. They are the building blocks that children

employ to develop subsequent, higher-level skills and increase their proficiency in literacy skills (Pandey, 2012). Children's learning is also influenced by the scientific concepts (Vygotsky, 1986) that are acquired in an educational setting through mediation and interaction with the environment and in communal activities with others such as peers and teachers (Samaras, 2002; Gay, 2018; Darling-Hammond, Flook, Cook-Harvey, Barron, & Osher, 2019).

It is believed that the home environment is key to foster literacy readiness and is dependent on the parents' literacy skills. The research participants from different language backgrounds were struggling to learn a second language at preschool. All parents wanted their children to be fluent in English rather than Nepali or their home language (in one of the research sites it was Banke). One of the mothers in the study area shared: "My neighbor doesn't speak Awadhi with their children at home. He speaks Nepali and English. Because of this their children are good in school, and they understand Nepali as well." But in many cases, this was only for grade one and above. All the parents thought that ECD centers and preschools prepared their children for later formal schools through habit formation. They were sending their children to become familiarized with the future school environment, rather than to learn and develop. According to Street (2003), literacy and school readiness comes autonomously and affects other social and cognitive practices.. However, literacy varies from one context to another and from one culture to another and is affected by the broader cultural backgrounds of the teachers and the children (Hull & Moje, 2012).

Literacy is a social practice, not a simple technical skill that is always embedded in socially constructed epistemological principles (Street, 2003). Learning occurs through active participation in social community, which leads to educational experiences as opposed to "non-educative and mis-educative experience" (Dewey 1987, p.51). Literacy is about gaining knowledge and the ways in which children address reading, writing, and vocabulary acquisition. Thus, the effects of learning literacy skills are dependent on those particular contexts where children are growing up.

### **Status of Children's Oral Language and Vocabulary**

The oral language that children bring from their homes is the basis of learning other languages. Children learn the new language by comparing its pattern and sounds with the language they know. The children who participated in this study are learning Nepali and English with the help of their own language, Awadhi. Language acquisition is related to children's cognitive and social domains (Kuhl, 2011; Nelson, 2021). Having differences in language of communication (at home) and

instruction (at school) confuses children and makes them unable to relate the new language with their everyday communication.

Listening, speaking, reading, and writing are all necessary skills to obtain at (pre)school. However, children who come to preschools (ECD centers) with language backgrounds other than the language of instruction and communication have difficulties in making effective interactions with teachers and preschool environments. This study found that children were using the two languages (language used at home and at school) simultaneously. One of the preschools in Banke, where the research took place, was using both Awadhi (their first language) and Nepali simultaneously in the classroom.

A teacher's role is very important for children who have difficulty with language to support their oral expression, rather than teaching them letters (the alphabet) and numeracy. The researcher observed that, most of the time, teachers were giving emphasis to teaching alphabets and memorizing letters rather than supporting the children's communication (expression). However, in one of the preschools in Banke, the teacher shared that she explains words and the meaning of words both in Nepali and Awadhi so that children understand that both words have the same meaning. This not only helps children to understand new words, but also allows them to build their confidence in oral language for communication.

Oral language is the ability to speak and listen and it provides the foundation to learn how to read and write (Roskos et al., 2009). When children come to preschool at the age of 3 to 4 years, each child has some word knowledge and understanding of oral language, even if their oral language acquisition might not be extensive. Some children lisp (speak in baby tongue and are not able to pronounce some sounds clearly), some speak very slowly, and some do not talk at all. Their oral language proficiency, vocabulary knowledge, and knowledge of the words are the basic skills that children bring from home to preschools. Preschool experiences with words and pictures aid children in constructing their own understanding in a unique way.

The extensive use of oral language enables children to learn literacy skills along with many other areas (Munro, 2009). It includes listening, speaking, reading, and writing skills (Kirkland & Patterson, 2005). If a child has a strong grasp of language skills, they are able to question, converse, investigate, and initiate meaning-making inside and outside the classroom. However, most of the children in the study area are from low socioeconomic and diverse language backgrounds, and they did not get ample opportunities to interact with their parents. As their parents were busy at their daily jobs from early in the morning until late in the evening, conversations between parents and children were limited. As a result, these children have a lack of confidence when communicating and limited

vocabulary knowledge, hindering their oral language skills development.

A child's language cannot be understood in isolation of its cultural context and the socioeconomic conditions of the parents (Jenkins, 2002). Children come to preschools (ECD centers) with different levels of language competency. Their language acquisition varies with the frequency of interactions at home. The child's knowledge of letters and sound-symbol relationships is neither extensive nor complete (Strickland & Schickedanz, 2009) before they have oral language development and fluency in speaking and communication. The role of adults (parents and teachers) is to support children to scaffold their language learning potential. Although participating children did not have a literacy-rich environment at home, they are confident in their use of language and are able to express themselves. Teachers can be instrumental in facilitating language rich experiences to students who struggle with a language deficit and further encourage those who are more expressive. Children play a major role in constructing their knowledge of oral language, while teachers are the facilitators who seldom instruct children in oral language.

Children learn new words (vocabulary) from listening to others and from printed symbols or signs. In the area where this research was conducted, children can tell the name of objects by looking at the pictures but can't read the written name of the object. They can decode the pictures before understanding the alphabets. In such cases, children have developed the concept of print without recognizing the alphabet, a process that entails understanding symbols and is the primary stage of reading.

In his Social Learning Theory, Bandura (1977) emphasized the importance of observing and modeling the behaviors, attitudes, and emotional reactions of children in everyday activities to support them in the learning process. Bandura states that modeling is one of the best tools to learn. Teachers help children to understand the relation between oral language and written language by exposing them to signs and symbols and modeling them in everyday conversations to help them develop print awareness. While developing print awareness, young children begin to understand that each word is separate and that words are separated by a space within each sentence (Southwest Educational Development Laboratory, 2008). Though the teachers in this study did not develop lesson plans, they followed similar everyday activities that help children learn by following the teachers' modeling.

The activities conducted by the teachers who participated in this research have increased and expanded children's language understanding. Teachers created an engaging classroom environment that motivated children to learn alphabets, words, and sentences. Most people learn by observing others, and

children do the same. A preschool teacher who participated in this study told a story about a hungry bird and asked children to play the role based on that story. Children started to act like a bird, flying here and there looking for food while chirping and sharing that they were hungry. Social Learning Theory explains human behavior in terms of continuous reciprocal interaction between cognitive, behavioral, and environmental influence (Schunk, 2012). Teachers are role models for literacy activities as they provide opportunities for developmentally appropriate practices. Teachers help children improve their language skills by allowing them an opportunity to connect all the elements for language development (Snow, 2013).

### **Role of Parents in the Literacy Development of Their Children**

Home is the first learning institution for children where they are born and raised. Mothers and fathers, along with other family members (adults and children), can play a vital role in developing the vocabulary and literacy skills of children. A large variety of sounds and words are used during daily interactions at home. As part of the observations for this study, it was found that children's understanding of print knowledge begins from home as varieties of packaged food are available in the kitchen.

Children get plenty of opportunities to explore the environment by roaming around the community in the research area. There were plenty of learning materials and contents at their disposal at home and in the social context. The learning materials available at home were mostly the print materials easily found in the market. Food packaging, biscuits, noodles (chowchow), and newspapers are examples of printed items used in their houses. As constructivism promotes contextual curriculum and student's prior knowledge, both parents and teachers could use these materials as teaching and learning activities which are familiar to the children and are readily available (Rennie, 2006). Bandura and Walters (1977) promoted the fact that children learn from observing contextual contents. Thus, parents can support their child's vocabulary and enhance their literacy skills using these contextual materials and language.

It has been proven that reading storybooks to children is not the only way that parents can increase their children's literacy skills. Moreover, children need more didactic activities such as singing rhymes (poems), listening to stories, playing outdoor and indoor games (e.g., word games and finding objects games such as I spy), which allow parents to teach children the alphabet or letter sounds and sharpen children's early decoding ability (Evans & Shaw, 2008). It was found that only a few parents have time to play with their children, as almost all parents in the study area were working full time. There was also the practice of sharing religious stories and singing religious

songs (Bhajana) together with the children in the community. Furthermore, the practice of creating drama (role play) from religious stories helped children develop their literacy skills along with vocabulary development.

Activities at home during preschool years scaffold children's early learning skills and develop their oral language. These early activities support them in developing the foundation of literacy skills and reading comprehension. This natural nurturing process strengthens their conceptual understanding towards learning and motivates children to read independently in the later years. Children who are exposed to a literacy-rich environment and to literacy related materials at home and preschool have a high level of oral language development (Sim, 2012). These children were found to be confident in communication, to be good with vocabulary, and to understand written words independently. They could name foods as per their label, recognize the value of money, and purchase the things they require. In this regard, they have a good understanding of printed materials and can succeed in primary schools.

Parents' engagement with children in extra-textual talk during everyday household chores contributes towards children's understanding of words and their contextual uses. However, limited interactions between parents and their children occur in some families. Though some children get little time with parents, there are plenty of opportunities to interact with friends and other community members from the study area. This contributed to supporting children's oral language. Quality parent-child interaction is one of the best ways to support children's language skills (Reinnie, 2006). Shared reading (storybooks) between parents and siblings, and also with other children's siblings, boosted their language and literacy skills. Storybook reading at home does not only foster children's vocabulary, but also other domains of oral language.

### **Oral Language Development and Its Influence on Literacy**

Oral language development influences children's reading, writing, and numeracy skills later in their life and allows them to access more learning materials and expand the amount of sources they can read (e.g., stories, picture books) and increase the frequency of their reading habits. It is the "dialectical constructivism" where the generation of knowledge depends on the amount of interaction between the person and the environment (Schunk, 2012). Children interact with the environment and with the adults surrounding them and develop their language and literacy skills.

In the study area, children have their own mother language (first language), and their first language is not the medium of instruction in preschools. Therefore, the language and

literacy skills of these children depend mostly on the external environment, the teaching and learning methods (instructional designs), and the teacher's role. There are also variables related to the parents' background, including their levels of education, and their socioeconomic conditions. These factors were also indicators of quality of home environments in terms of promoting home literacy. It is important for teachers to know about the literacy environment of children at home so that they can assist children accordingly. Teachers who have used children's home language during teaching and learning activities have created a better learning environment for them. These children were found to be more confident with language and communication than other children.

Teachers have to interact with families and communities and provide resources to enhance children's language literacy experiences at home. Further, the use of their first language during class instruction and communication facilitates adaptation, prepares them to learn, and helps them develop reading and writing skills. When teachers instructed children without knowing their language background, students had difficulties understanding the instructions and following them. To ameliorate this, teachers had to identify the zone of proximal development of an individual child's potential and establish what a child can do on her or his own and what the child can do with the help of teachers or adults (Vygotsky, 1978; John-Seiner & Mahn, 1996; Schunk, 2012). Without understanding an individual's potential, it is difficult for the teacher to create a better learning environment and help them accordingly.

Children learn much of their vocabulary from natural interactions with parents, caregivers, and others. They also learn from television, books, and other incidental exposures and interactions with the environments without any instructions. Vocabulary acquisition depends on the number of core skills they learned or acquired. The core skills required for literacy skills are phonological awareness, oral expression skills, and listening comprehension (Pandey, 2012; Silverman & Hartranft, 2015). Children develop their core skills from parents, community members, friends, and teachers. To accomplish this, "children need to be able to hear, see, and attend to caregivers to adequately perceive the input they need to learn new words" (Silverman & Hartranft, 2015).

Knowledge of the alphabet and phonological awareness are both strong predictors of literacy skills (reading and writing). Phonological awareness is the ability to recognize the variety of sound units in words. Reciting rhymes and singing songs and the national anthem everyday are some examples of how children develop their phonemic awareness. Exposure to a variety of sounds and sound patterns makes children aware of phonology and allows them to identify the sound patterns and units from which words are made up. Teachers and/or

parents engaging children in language and word play help children learn to recognize patterns among words and use this knowledge to read and build words.

There are systematic relationships between letters and sounds; written words are composed of letter patterns representing the sounds of spoken words, which helps in recognizing words quickly and accurately (Pandey, 2012). The teachers who participated in this study helped children to recite letters and words without knowing the letter-word relationships. However, they found it helpful to recognize familiar words automatically and decode or sound out new words (Silverman & Hartranft, 2015). Children can read fluently the words they have recited with letters (e.g., "a" for apple, "b" for ball) both in English and Nepali. Reading fluency leads children to oral language proficiency.

There are some foundational areas of literacy development which the children in my study area were found to be developing: alphabet letter knowledge/letter recognition, phonological (including phonemic) awareness, letter-sound correspondence (phonics), concepts about printed materials and books, and oral comprehension and vocabulary (listening and speaking, receptive and expressive language). Teachers encouraged children to develop oral language in the classroom interactions asking questions and answering their queries, as well as providing opportunities to express their thoughts and practice telling and retelling stories. These activities were found to be supportive to develop children's oral language skills and confidence on language use.

### **Teacher's Role in Oral Language and Literacy Skills Development**

Teachers can support children in practicing word learning skills. They can develop strategies for independent word learning with different instructional activities. The researcher observed that teachers often demonstrated word pronunciation and accent to the students in the classroom. While reciting the alphabet or the objects in a picture (words), the teacher has to be very careful about the phonemic awareness of the children. Phonemic and visual awareness are basic language skills that develop simultaneously. Nonetheless, in my study area, teachers were not preparing class activities that focused on these skills; instead, they were following a traditional teaching learning approach.

The Nepali school system still follows some of the traditional (ancient) teaching and learning practices; it mostly focuses on word recitation. According to one of the teachers who was interviewed, it is believed that learning can only be done by recitation and repetition. Therefore, teachers in the preschools that are part of this study emphasized on recitation of letters and



words. In Eastern practices, *shravana* refers to actively listening to the text through a teacher. Therefore, teachers took the lead in class, and children were listening to them for the most part instead of creating activities based on teaching and learning approaches. Also, on occasion, one of the children would stand in front and shout the alphabet words (e.g., “a” for apple, “b” for ball....) or the picture-words while other children followed him or her. This approach also reflects the process of “cognitive modeling,” in which the teacher instructs the children during the activities, but instead of letting them experiment, the teachers themselves perform the task (Schunk, 2012).

The activities followed by the teachers were dependent on the teacher’s sociocultural background. According to Vygotsky (1978), “culture teaches children both what to think and how to think.” Therefore, the teacher’s cultural background influenced the teaching learning approaches. Teachers were transferring knowledge through language as it is a primary form of interaction. Language, thus, represented the culture of both the teachers and the children. From Bourdieu’s (1977) standpoint, each agent is equipped with a habitus, shaped in formative years of home culture, that bears affinity to a larger referential group/class habitus (Lizardo, 2009; Strong, 2018). The teaching learning approaches were dominated by the teachers’ social construction rather than children’s basic need to develop oral language skills. However, the oral language development of the children is not carried out in a vacuum; the activities carried out by the teachers are the result of a social construct. They have their own social origins and habitus. Teachers used some of the children’s basic oral language skills, phonemic awareness, vocabulary, and comprehension without any prior preparation. The teachers’ limited awareness on how to develop these abilities in children results in slower learning of oral language skills.

The teacher, as an agency, can control or suppress a child’s learning progress. One can interpret this as an act of “symbolic violence” which, according to Bourdieu, is the imposition of systems of symbolism and meaning (culture) by the dominant group or classes (Jenkins, 2002, p. 104). The sociocultural background of the teachers always supports the reproduction of traditional teaching and learning approaches. During observations in the classroom, the researcher found that teachers were trying to influence learning patterns through their preconceived notions and were not providing space for children to bring their ideas. According to Jenkins,

the symbolic action of any pedagogic agency - its capacity successfully to inculcate meaning- is a function of its ‘weight’ in the structure of power relations. Pedagogic action, in reproducing culture in all arbitrariness, also reproduces the peer relations which underwrite its own (2002, p. 105).

## Linkage Between Oral Language and Early Literacy

In the study area, children enter preschools from diverse backgrounds and bring a variety of language, skills, and behaviors with them to the centers. Children whose home language differs from the language of instruction were seeking additional support to build their oral language skills. Oral language is the foundation for children to learn, and for these children, literacy skills developed in one language are often transferred to a second language (from Awadhi to Nepali and/or Nepali to Awadhi). The teachers’ appropriate instruction helped preschool children develop many of the foundational skills they need to learn to read, and children in dual language programs (as in the study area) were no exception. According to Bandura (1971), learning not only takes place by mediation, but also it happens from reinforced responses and modeling from adults. As children continued to interact in their home language, they developed oral language and literacy skills in their first language. Continuous reinforcement and use of home language scaffold these skills in their second language, as was found in these preschools.

During the early years, oral language development occurs through meaningful interactions with others, such as instructional conversations and collaboration with peers. To meet the challenge of teaching in both languages, teachers in the study area were recruited from the local community. It is the teacher’s role to bridge the home language and the second language used in the preschools. Though the teachers were not properly trained to develop children’s oral language, vocabulary, and literacy skills, they were providing opportunities to listen to and share the new words that children learned every day. Children were also learning both Nepali and English along with their home language (e.g., Awadhi) when they were provided with opportunities to listen and share words in all languages simultaneously. However, these learning experiences are not connected with their home and community contexts in the areas of study.

It is important to make learning applicable to every aspect of home as well as the community. For this, teachers can provide some tasks to children to remember and associate the meaning of new words to their use in daily life. But such exercise was not observed in the participating preschools. Teachers simply followed the alphabet pattern, encouraged memorization, or told children to memorize the picture word chart without any creative activities. Projects that invite children to share the words they use at home in particular situations are effective for learning vocabulary. Such activities support children to bring new words from home to school and vice versa. However, the teachers’ capabilities to bridge home language to preschools and linking it to oral language and literacy skills were rather limited in the study area.

It was found that parent's involvement in children's learning varies from one community to another. It was noted that children from lower socioeconomic backgrounds have a lower academic achievement (Hamilton, 1990; Van Steensel, 2006). Some families in the area of study were living in especially harsh circumstances and had fewer resources, such as access to books and opportunities for involvement. Other parents, even though poor economically, had become involved and participated in the programs and supported children in language and literacy skills. Sometimes these parents helped the child regularly, visited the preschools, assisted teachers, and shared stories with children. And in many cases, older siblings were the "designated" reader for smaller children and assisted them, by means of shared reading, as he or she tried to read by themselves. No parents in the study area were involved in supporting reading to the children. This might be because of their limited time to stay at home with children or because of their lower confidence towards their own literacy skills. It is understood that children's language and literacy skills develop simultaneously with the help of adults, both teachers and caregivers (parents). All these are interrelated and, without appropriate support in one area, development in other areas will be affected. The teacher's role is important to support parents and help them attain the children's holistic learning.

There are five foundational skills that function as predictors of language and literacy skills: concepts about print, letter word recognition, phonological awareness, letter sound correspondence, and oral comprehension and vocabulary (Silverman & Hartranft, 2015). These predictors are relevant to both teachers and parents in order to create literacy-rich learning environments. These five skills are often integrated with core standards of literacy: reading, writing, speaking, listening, and language. None of the teachers from the participating preschools was aware of the predictors for literacy skills development.

Children demonstrated these skills at a moderate level in the study area. They were practicing skills such as letter word recognition, phonological awareness, and concepts about print in preschools. By reciting letters and words and participating in formal reading and writing activities in the classroom they demonstrated these basic skills. However, some children demonstrated lower mastery in letter-word recognition and letter-sound correspondence. These children had good phonological awareness in their first language (Awadhi) but limited awareness in Nepali. Also, these children had limited concepts about print as they did not use print materials at preschools or at home.

Cultural practices are reflected in everyday activities at home. As Social Cognitive Theory states, children learn from modeling; most of the participating parents were the

role models for child's literacy learning in the study areas. Due to the difference in language and culture at home and at preschool, children show diverse behaviors and learning patterns at school. Developing an appropriate learning environment is the responsibility of both parents and teachers, as the social standpoint of children affects their learning potential. Additionally, children from poor and working family backgrounds have lower levels of confidence, limited vocabularies, and exhibit irregularities that may affect their learning. However, they do not reflect the cultural hegemony and the institutionalized discrimination between different cultural groups.

### **The Influence of the Home Language in Second Language Acquisition**

A child's language is the reflection of their home culture. Children who speak a mother language at home that is different from the language of instruction lag behind in oral communications in the second language. However, it is believed that fluency and literacy in the mother tongue lays a cognitive and linguistic foundation to learn additional languages (Pandey, 2012). Children who use their home language at school have confidence in their learning. These children gradually learn a second language and can easily transition to formal academic learning in primary schools.

This study found that opportunities to use first language skills from an early age in preschools help children to further develop their first language skills in high school. It also helps them to learn a second language and become bilingual or even multilingual. If, however, children are forced to switch abruptly or transition too soon from learning in their first language (mother tongue) to schooling in a second language, their first language acquisition may be attenuated or even lost (Dahlgren, 2008; Pandey, 2012). It also declines a child's self-confidence as learners and their interest in class activities. It may also result in demotivation towards learning, hesitation to go to preschool, failure, and dropout from school.

Preschool education plays a critical and significant role in promoting literacy, preventing reading difficulties, and preparing young children for further schooling. Teachers need to apply various approaches to communicate with children, including motivation and gaining knowledge about their students' background. In preschools, children are expected to demonstrate their oral language skills with fluency in communication, motivation to learn, ability to demonstrate their background knowledge, and express their ideas. However, the preschool setting (ECD centers) may not always provide a positive environment for children to meet such expectations, which was true for the study participants. Children were able



to comprehend what they observed and express it in their own language when literacy was aligned with the reading, writing, speaking, listening, and language standards. Moreover, teachers in the study area focused more on reading and writing than speaking and listening skills. This limited children's vocabulary and oral language development. The teacher's role is important to support children by demonstrating or role modeling from books, stories, and sociocultural contexts (Smith & Berge, 2009). However, in the studied preschools, teachers were using available charts and print materials to create learning environments. They were teaching letters and words during their interactions through limited pictures and print materials. There was not a wide variety of texts in the classrooms that were observed, and teachers were not interested in using a lot of texts. As a result, children in preschools had limited understanding of print. They were not familiar with the organization of letters and words to create sentences and not able to demonstrate the basic features of print.

It was found that children have poorly developed foundational skills for language, literacy, and reading in the studied preschools. These foundational skills include three elements: phonemic awareness, knowledge of high-frequency sight words, and the ability to decode words. Children were not able to demonstrate:

- Phonemic awareness - it encompasses the awareness that spoken words are made up of individual sounds (phonemes) and the ability to manipulate these sounds.
- Knowledge of high-frequency sight words - it is the ability that children have to read the most common words quickly and automatically.
- Ability to decode words - it is the capacity to translate a word from print to speech (e. g., using known sound-symbol correspondences to sound a word out and decode it (NICHD, 2000).

Lack of foundational skills is a major cause of poor performance in struggling readers (Zorfass & Urbano, 2008). The children in the studied preschools were struggling readers. Foundational skills in children are developed at home and the community and are later enhanced at preschools (ECD centers). However, because of the limited opportunities provided at home and preschool to explore oral language and literacy-related activities, these children were entering primary schools without strong foundational skills. The researcher found that students showed difficulty to understand and comprehend texts in a second language (especially in Nepali and English) in social studies, science, and math (Zorfass & Urbano, 2008).

A high-quality early education is critical to develop children's foundational skills as it ensures their long term academic success. Children learn to use their knowledge and skills along

with their holistic development through active engagement in the various activities at home and school. They also learn to decode and comprehend printed materials with active involvement in the reading process. Though adult's support is important and necessary in this stage, it was found that teachers and the parents have limited skills to support these children in the learning process. However, these skills can be enhanced in their home environments by encouraging a culture of interaction and sharing as a family. As Eastern philosophy holds, listening (*shruti*) is a primary step for learning.

All children can develop a strong foundation for literacy and reading skills when they are given opportunities to engage in purposeful and meaningful language and early print activities. Reading is an ongoing process that builds upon a wide range of developing skills. A print rich environment at home and everyday engagement in reading activities supports children's reading development at their own pace.

Observing children in preschools and at their home revealed a number of important findings for early language and literacy students (researchers and practitioners). First, based on the researcher's observations, it was clear that all the children learn from their environment and from their teacher's (caregiver's) support. Children show more interest in play than sitting idly and listening to teachers and/or adults. Their interest and curiosity towards play later helps in the development of reading and literacy-related skills. Second, it was found that teachers can provide high-quality instruction at preschools (ECD centers), despite the poor conditions of the physical space. The teaching and learning activities and instructional methods are important when creating a language and literacy-rich environment. These centers, therefore, can provide a print-rich environment for children who might not have access to print and opportunities for engagement. And third, the study also recognized the learning differences between monolingual and bilingual children. Also, this study revealed that the home environment and socioeconomic situation of families are related to children's language and literacy skills development.

Over the course of this study, variations in the contexts and environments available to children from the studied communities were found. The data shows that the literacy activities that supported children from home were not adequate in all the study areas. Similarly, the literacy activities in preschools were found equally inadequate because of the teachers' understanding regarding the literacy skills. In all the studied areas, where children have their first language (mother tongue), the dominance of the Nepali language impacted the children's language learning process.

The teachers had difficulties in addressing the needs of children whose home language was other than Nepali. All the children were learning the Nepali language though they

had their own (mother) language. Moreover, all the parents emphasized the need to learn Nepali and English, as it was understood that these subjects were important for further school education. This made learning more complicated for the bilingual children in terms of socioemotional well-being, confidence, reading and writing, and comprehension. Because of the dominance of Nepali and the parents' aspiration for children to acquire English, the use of children's home language was in decline.

Literacy skills are interdependent with oral language skills. There is a strong link between oral language, word knowledge, and reading skills (Silverman & Hartranft, 2015; Snow, 2013; Pandey, 2012; Dahlgren, 2008). Home and school activities help children to develop their oral language. However, children whose first language is not Nepali have a "home talk" that is different from their "school talk," and sometimes they face difficulties in understanding and using Nepali.

## Conclusions

Children develop their oral language and literacy skills within their environment by interacting with their parents and the teachers. Their literacy in their mother tongues is developed before they enter preschool. Parents and siblings play important roles to support children's oral language and literacy skills development as they are involved in everyday interactions and communication activities at home.

The relationship between home and preschool helps children boost their confidence, educational achievement, and ability to learn. Parents and teachers bridge the gap between the home language and language of instruction at preschool. However, the transition between home and school for young children is not receiving the attention it requires as teachers and parents have limited communication regarding children's everyday activities.

There are differences in language learning (phonology) between the preschool and the home environment. Children's socioemotional well-being and socio-cultural contexts are not considered as part of the regular study area in the school context. Children follow systematic and clear instructions. While children follow the teacher's instructions in a different language, they do not necessarily relate the meaning to their own home language. Many times, the children simply imitate the teacher and other students. At times, this creates confusion in children, and in some extreme cases, they start to believe that one language is correct and the other is wrong. The differences in instructional methods highly influences the language and vocabulary competencies of the children. Children's level of confidence on expression, interaction, and other activities is directly related to the teacher's level of competency.

This study reveals that parents were unaware of available opportunities to create a conducive learning environment for language and literacy practices at home. In the home environment of a low socioeconomic background, parents had limited time and resources to create children's foundation of literacy skills; however, they were not using the opportunities available to them. The preschool environment supports culturally privileged children, those whose mother tongue is the same as the instructional language in the learning process, since the curriculum and curricular materials are in Nepali. When the child's mother tongue is different from Nepali, the language of instruction is not ideal for those children. Thus, preschools have been contributing to the reproduction of social differentiation. Those who speak different languages and belong to different cultural backgrounds fall behind because of ineffective teaching-learning processes adopted by the teachers, who are unaware of a child's temperament, limited interactions at home, limited communications between families and teachers, among other factors.

The teaching and learning approach used at school is also a contributing factor in the children's learning process. Activity-based teaching supports children to be confident in oral language. Children's language and literacy skills were also found to be affected by their home environment. There were limited opportunities for teachers in pre- and in-service training to experience linguistic and cultural diversity and become familiarized with principles of first and second language acquisition. All the teachers in the study area require training in language and literacy skills. Preschool teachers use both active teaching and learning methods and conventional teaching at their schools. Those teachers who follow conventional teaching methods instead of active teaching and learning emphasize reading and writing using recitation and dictation of alphabets as the core elements of literacy skills. On the other hand, teachers who interact with children in their own language and who teach using the mother tongue, have better results than others because they encourage children to speak and process in their mother tongue.

Literacy skills are not necessarily developed inside a classroom with a set curriculum. Children develop their skills from the moment they start listening to adults (parents and teachers). They catch the words in every conversation and instruction, and start imitating them and building on their vocabulary. For children whose home language and language of instruction at the preschool is the same, they have a single base and they build on it linearly. Bilingual children, on the other hand, have separate home language bases and school language bases and that may create confusion in them. Preschools play a vital role bridging this gap.

Activity-based learning over curriculum-based learning

helps children develop their oral language and literacy skills in context. As such, everything can be used as learning materials. For instance, food packages, hoarding boards, signs, and symbols can also teach new words the same way storybooks and textbooks can. Children learn effectively when the classroom environment is interactive and child-friendly, which further boosts their confidence while speaking and sharing their thoughts. Oral language and literacy skills developed in preschool (early age) support them to develop their reading and writing skills in primary grades and beyond. Thus, teachers and parents play a key role in creating an environment that is conducive for developing oral language and literacy skills.

## Implications

The implications of this study are broadly divided into two distinct categories:

### 1. Practice

Preschool teachers are responsible for creating an enabling environment for children's learning and development by addressing issues related to their language and culture. The teacher's role is important for the use of multilingual materials, storytelling, and retelling in the children's language, and creating shared learning environments in the classroom. Support with reading materials and positive interactions at home and preschools creates an enabling environment for the children to develop oral language, vocabulary and literacy skills, and strengthens the skills they need to bridge the gaps between home and preschool.

### 2. Policy

Children's learning is directly related to their home literacy environment, socioeconomic condition of the parents, home language, and the quality of the preschool's teaching and learning approaches. Educational policies must address these issues, including child-friendly learning approaches and the inclusion of culturally diverse children in mainstream formal education. It is necessary to amend the current educational policies in Nepal, especially in the early childhood and (pre) primary levels. The government must focus on developing language, literacy, and vocabulary skills in early childhood/preschool children.

## Future Research

This study opens a learning space for researchers who are interested in oral language, vocabulary, and literacy skills of children in rural and urban regions. There is a need for further research in the foundation of language, early experiences, home

environment, and family attitudes, since they all contribute to the growth of language and literacy in young children. The findings in this study highlight the need to revise current educational policies in Nepal, especially in early childhood education and preschools. This study opens the avenues to explore the reasons behind poor literacy skills and poor reading comprehension of children in grades one, two, three, and above.

## References

- Bandura, A. (1971). *Social learning theory*. Prentice Hall.
- Bandura, A., & Walters, R.H. (1963). *Social learning and personality development*. Holt Rinehart and Winston.
- Belsky, J., Friedman, S. L., & Hsieh, K. (2001). Testing a core emotion-regulation prediction: Does attentional persistence moderate the effect of infant negative emotionality on later development? *Child Development, 72*, 123-133.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge University Press.
- Brown, C.S. (2014). Language and literacy development in the early years: Foundational skills that support emergent readers. *Language and Literacy Spectrum Journal, 24*, 35-49.
- Christensen, P. H. (2004). Children's participation in ethnographic research: Issues of power and representation. *Children and Society, 18*(2), 165-176.
- Creswell, J. W. (2013). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd. ed.). Sage.
- Dahlgren, M. (2008). *Oral language and vocabulary development kindergarten & first grade*. [PowerPoint slides] <http://www2.ed.gov/programs/readingfirst/2008conferences/language.pdf>
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2019). Implications for educational practice of the science of learning and development. *Applied Developmental Science, 24*(2), 97-140. <https://doi.org/10.1080/10888691.2018.1537791>
- Denzin, N. K., & Lincoln, Y. S. (2005). The discipline and practice of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The handbook of qualitative research* (pp. 1-32). Sage.
- Dewey, J. (1897). My pedagogic creed. *School Journal, 54*, 77-80.
- Evans, M. A., & Shaw, D. (2008). Home grown for reading: Parental contributions to young children's emergent literacy and word recognition. *Canadian Psychology/Psychologie Canadienne, 49*(2), 89-95. <https://doi.org/10.1037/0708-5591.49.2.89>
- Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice*. Teachers College Press.
- Gelman, S. A. (2009). Learning from others: Children's construction of concepts. *Annual review of psychology, 60*, 115-140. <https://doi.org/10.1146/annurev.psych.59.103006.093659>
- Hamilton, D. (1990). *Learning about education: An unfinished curriculum*. Open University Press.
- Hammersley, M., & Atkinson, P. (1995). *Ethnography, principles in practice*. Routledge.

- Hull, G. A., & Moje, E. B. (2012). What is the development of literacy the development of? In K. Hakuta, & M. Santos (Eds.). *Understanding language: Language, literacy, and learning in the content areas* (pp. 52-63). Stanford University.
- Jenkins, J. (2002). A sociolinguistically based, empirically researched pronunciation syllabus for English as an international language. *Applied linguistics*, 23(1), 83-103.
- John-Seiner, V., & Mahn, H. (1996). Sociocultural approaches to learning and development: A Vygotskian framework. *Educational Psychologist*, 31(3/4), 191-206.
- Kirkland, L. D., & Patterson, J. (2005). Developing oral language in primary classrooms. *Early Childhood Education Journal*, 32(6), 391-395.
- Kuhl, P. K. (2011). Early language learning and literacy: Neuroscience implications for education. *Mind, brain, and education*, 5(3), 128-142.
- Lichtman, M. (2013). *Qualitative research in education: A user's guide*. Sage.
- Lizardo, O. (2009). Formalism, behavioral realism and the interdisciplinary challenge in sociological theory. *Journal for the Theory of Social Behaviour*, 39(1), 39-79.
- Munro, J.K. (2009). Language support program, professional learning guide. East Melbourne: Department of Education and Early Childhood Development.
- National Institute of Child Health and Human Development (NICHD). (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups* (NIH Publication No. 00-4754). Washington, DC: U.S. Government Printing Office.
- Nelson, K. E. (2021). Some observations from the perspective of the rare event cognitive comparison theory of language acquisition. In *Children's language* (pp. 289-331). Psychology Press.
- Pandey, A. (2012). *Language building blocks: Essential linguistics for early childhood educators*. Teachers College Press.
- Rennie, J. (2006). Meeting kids at the school gate: The literacy and numeracy practices of a remote indigenous community. *The Australian Educational Researcher*, 33(3), 123-140.
- Roskos, K., Tabors, P., & Lenhart, L. (2009). *Oral language and early literacy in preschool: Talking, reading, and writing*. International Reading Association.
- Samaras, A. P. (2002). *Self-study for teacher educators: Crafting a pedagogy for educational change*. Peter Lang.
- Schunk, D. H. (2012). *Learning theories* (6th ed.). Pearson.
- Shiel, G., Cregan, Á., McGough, A., & Archer, P. (2012). *Oral language in early childhood and primary education (3-8 years)*. National Council for Curriculum and Assessment. [https://www.erc.ie/documents/oral\\_language\\_in\\_early\\_childhood\\_and\\_primary\\_education\\_3-8\\_years\\_.pdf](https://www.erc.ie/documents/oral_language_in_early_childhood_and_primary_education_3-8_years_.pdf)
- Shrivastava, K.K. (2003). *Philosophical foundations of education*. Kamishka Publishers.
- Silverman, R. D., & Hartranft, A. M. (2015). *Developing vocabulary and oral language in young children*. The Guilford Press.
- Sim, S. H. (2012). Supporting children's language and literacy skills: The effectiveness of shared book reading intervention strategies with parents (Doctoral dissertation). Queensland University of Technology, Queensland.
- Smith, M., & Berge, Z. L. (2009). Social learning in second life. *Journal of Online Learning and Teaching*, 5(2), 439-447.
- Snow, S. O. (2013). *Oral language development in title I preschools in central Alabama: A multi-case study* [Doctoral dissertation, The University of Alabama at Birmingham]. UAB Digital Commons. <https://digitalcommons.library.uab.edu/cgi/viewcontent.cgi?article=3996&context=etd-collection>
- Southwest Educational Development Laboratory (SEDL). (2008). *Jazzin' it up: A medley of notes for creating a culture that supports English language learners*. Retrieved March 25, 2013, from <https://sedl.org/pubs/catalog/items/language101.html>
- Street, B. (2003). What's "new" in new literacy studies? Critical approaches to literacy in theory and practice. *Comparative Education*, 5(2) 77-91.
- Strickland, D. S., & Schickedanz, J. A. (2009). Phonemic awareness: Moving from oral language to beginning links with print. *Learning about print in preschool*, 45-66.
- Strong, R. C. (2018). *Habitus beyond Bourdieu: Incorporating technological, interhuman, & ecological entanglements into the foundations of social ontology* [Doctoral dissertation, Villanova University]. Villanova University ProQuest Dissertation & Theses. <https://www.proquest.com/openview/50cec547ed0684c5a1608b91370321d9/1?pq-origsite=gscholar&cbl=18750&diss=y>
- Van der Veer, R. (1994). The concept of development and the development of concepts: Education and development in Vygotsky's thinking. *European Journal of Psychology of Education*, 9(4), 293-300.
- Van der Veer, R., & Valsiner, J. (1991). *Understanding Vygotsky: A quest for synthesis*. Blackwell Publishing.
- Van Steensel, R. (2006). Relations between socio-cultural factors, the home literacy environment and children's literacy development in the first years of primary education. *Journal of Research in Reading*, 29(4), 367-382.
- Vygotsky, L.S. (1987). *The collected works of L.S. Vygotsky* (R.W. Rieber & A.S. Carton, Eds.; N. Minick, J. E. Knox, & C. B. Stevens, Trans.). Plenum Press.
- Vygotsky, L.S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.
- Zorfass, J., & Urbano, C. (2008). *A description of foundation skills interventions for struggling middle-grade readers in four urban northeast and islands region school districts*. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Northeast & Islands. [https://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/REL\\_2008042\\_sum.pdf](https://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/REL_2008042_sum.pdf)

## Author's Bio

**Meenakshi Dahal, PhD**, is Associate Professor at Kathmandu University School of Education and a Free Lance consultant (Education/ Early Child development) from Nepal. She is a policy researcher, early child development expert, and child rights advocate. Her research interests focus on child rights, child development, trauma and resilience, instructional design, and quality of education. She has written a book, chapters in various books, and articles in national and international journals. She has received recognition as an "Emerging Leader."



# The Neurodiverse Explorers' Farming Adventures

Lidon Lashley

DIRECTOR AT THE UNIVERSITY OF GUYANA EARLY CHILDHOOD CENTRE OF EXCELLENCE  
UNIVERSITY OF GUYANA

Michelle Semple-McBean

HEAD OF RESEARCH, TEACHER TRAINING AND PROFESSIONAL DEVELOPMENT  
UNIVERSITY OF GUYANA EARLY CHILDHOOD CENTRE OF EXCELLENCE (UG-ECCE)

---

## Introduction

At the University of Guyana Early Childhood Centre of Excellence (UG-ECCE), three to five-year-old neurodivergent and neurotypical children participate in exploration adventures to the University of Guyana, Faculty of Agriculture and Forestry's Farm as part of their learning activities. This discussion focuses on how UG-ECCE embraces an inquiry-based, diverse pedagogical tool kit to cater to the multifaceted needs of neurodiverse and neurotypical children, and how utilizing a constructivist approach to learning gives them control over their learning and socialization experiences. Lessons demonstrating high-quality inquiry-based teaching are modeled so that others can observe instructional strategies shown to positively impact children's holistic development and achieve desirable learning outcomes. The farming adventure was fostered through UG-ECCE collaborations with the different Academic Programmes, Faculties, and Units at the University of Guyana (UG) to offer robust and meaningful learning experiences to the children of the Centre, in addition to shaping pedagogical practices, research, and early childhood exploration within Guyana.

## Background

According to Lashley (2021), all children, whether neurodiverse or neurotypical, deserve learning and socialization experiences tailored to their unique diversities. Lashley went on to state that catering to children with diverse needs extends the reach of instruction and support to a wider group of neurotypical children. Lashley (2022a) reminded us that children have contextual learning and socialization needs, which must be conceptualized when catering to their learning preferences and varied intelligence. Providing opportunities suited to these preferences as well as intelligences is the epitome of individualized learning and socialization (Lashley, 2021, 2022a). At the UG-ECCE, children with impairments

(neurodiversities) such as autism, dyslexia, dyscalculia, attention deficit hyperactivity disorder (ADHD), and obsessive-compulsive disorder (OCD) are catered for. These impairments are not isolated sometimes in a neurodiverse child but are accompanied by comorbid challenges. As a result, these children often struggle with soft skills, especially ones that apply to social interactions.

These struggles frame the need for a pedagogical approach that is dynamic, flexible, adaptive, and fun with an integrated play-based approach. Also, unwarranted temper/behavioral tantrums, which sometimes endanger the safety of the child as well as other children sharing the learning and socializing sphere, frame the need for the pedagogical approach described above. These behaviors interrupt the learning and socialization of the group within a pedagogical approach that is not adaptable to interruptions. However, while they interrupt planned experiences and opportunities, they open the avenue to learn and be adaptable as educators in an ever-evolving educational atmosphere. These experiences and opportunities at UG-ECCE are seizing and catapulting to meet the needs of our neurodiverse group of children.

The other side of this equation is the neurotypical children who are educated alongside their neurodiverse peers at UG-ECCE. We recognize that very young children who display typical intellectual and cognitive development can be easily frustrated by the actions of neurodiverse children. For example, a tantrum or robotic response from children with autism or sudden hyper behaviors from children with ADHD. Children are sociodramatic beings (Semple-McBean & Lashley, 2021), and learning through sociodramatic play is critical to their development. Children at work or play band together harmoniously in a supportive and enabling social environment (Semple-McBean & Lashley, 2021). At the UG-ECCE, this form of play is embraced as an approach to cater to all children (neurodiverse and neurotypical) and facilitate their social interaction, inclusive of their interaction with and exploration of nature and natural outdoor spaces. The staff at UG-ECCE



acknowledge that neurotypical children acquire physical, verbal, intellectual, and social skills at a specific pace and meet standardly accepted developmental milestones. However, they also acknowledge that if neurodiverse children share the environment, neurotypical children exceed standardly accepted milestones for development.

Further, children at the UG-ECCE, whether neurotypical or neurodiverse, are supported in our constructivist play-based pedagogical support to navigate complex social situations, have good communication skills, and establish social connections with peers. They are supported and nurtured to function effectively in distracting or stimulating settings without becoming overloaded by stimuli. And if they become overloaded, they are expected to release the loaded burden of overstimulation. The staff at UG-ECCE have seen the overlap in what is considered neurodiverse and neurotypical, such as difficulty comprehending math but a typical or even precocious ability with language. This overlap is described as the opportunity to shape the best situation for contextualized learning (Lashley, 2022a). Lashley further echoed that the Guyanese culture and natural landscape create a panoramic opportunity to truly reflect an inclusive learning environment for children to learn, play, and strive beyond what is envisioned.

### **Agriculture and UG-ECCE's Vision**

The farming project grew out of the UG-ECCE's vision to give nature and natural outdoor experiences a place to thrive as a daily part of the children's experience. Recent research in Guyana by Semple-McBean et al. (in press) shows the importance of nature experience for children's overall health and well-being during the early years and how deprivation of such experiences could lead to "nature deficit disorder," as identified by Louv (2005; 2011). Semple-McBean et al. (in press) have agreed with arguments put forward by Wojciechowski and Ernst (2018) that experiences with nature allow children's creative thinking to flourish when they see themselves and act out roles as natural scientists. Other key arguments put forward by Semple-McBean et al. (2023) in support of nature experiences are: (1) Non-traditional pathways to learning become possible, especially for children who are sensitive to noise and cluster (e.g., children who are autistic); (2) Reducing incidences of childhood obesity; (3) Suitable environment for healthy risk-taking and problem-solving (how do I get the cherries from the top branches?); and (4) Development of resilience. When children engage in nature-based experiences, their imagination is stretched beyond the required limits for sustaining curiosity dampened by adverse experiences: abuse, disaster, illness, migration, neglect, poverty, and violence (Duron-Ramos et al., 2021; Semple-McBean et al., in press;

Sjöblom & Svens, 2019; Tuuling et al., 2019; Wilson, 2012; Zamani, 2016).

### **Agriculture and Guyana**

The President of the Cooperative Republic of Guyana, Dr. Irfaan Ali, has signaled his intention to make agriculture in Guyana more youth-oriented as part of his government's plan to develop the sector further and maintain food security and the food ecosystem (Ministry of Agriculture – Guyana, 2013-2020 Strategic Plan; Government of Guyana Press Release, July 18, 2023). Further, Guyana's Minister of Agriculture emphasized that the Government of Guyana has aligned the country's National Development Pathway to focus on priority areas such as food security, climate change, and agriculture financing as it works towards achieving the United Nations Sustainable Development Goal (SDG 2) of "Zero Hunger." The interpretation of this initiative is left to those implementing it. At UG-ECCE, we see all our children capable of participating in the country's agriculture initiatives.

Agriculture is a major export earner for Guyana, employing roughly 17% of the labor force. In 2021, the agriculture sector contributed approximately 19 percent to non-oil GDP. Our neurodiverse population includes children who have the aptitude to develop agricultural skills. These children show interest and excitement about farming adventures. We believe that exciting the neurodiverse population through farming adventures can significantly increase agriculture's contribution to Guyana's GDP. While the Government of Guyana views agriculture as necessary for the diversification of the economy, we at UG-ECCE extend that vision to include agriculture as a way to practice inclusive education.

Our children are very curious. They love to explore the outdoors. The UG-ECCE has the land and space to fuel farming exploration and adventures. We intend to capitalize on Guyana's tropical climate and topography, which allow the production of crops that differ mainly from those grown in the cooler climates of the North. We intend to use farming adventures as a therapeutic activity for our neurodiverse children while teaching patriotism.

### **Managing Beyond Farming**

Guyana has an abundance of natural resources, and the location of UG-ECCE is a nature-based environment. Embracing nature as a resource for learning is upheld, as suggested by Zamani (2016) and Tuuling et al. (2019). Nature and the natural outdoor spaces surrounding the UG-ECCE offer ample possibilities and opportunities for the children of UG-ECCE to learn about nature and use natural materials as they



explore farming. Also, nature activities provided in the safety of the compound of UG-ECCE enable our ECD (Early Childhood Development) practitioners to facilitate the children's curiosity, experimentation, and investigation in problem-solving. Dowdell et al. (2011) and Vartiainen et al. (2018) support the use of nature by ECD practitioners to mediate children's learning and inquiry. The outdoor learning environment, like the University of Guyana's Farm or the natural spaces around UG-ECCE, provides an informal environment based on authentic experiences. An informal environment with authentic experiences increases children's opportunities to feel, smell, see, hear, and taste (Duron-Ramos et al., 2021; Sjöblom & Svens, 2019; Wilson, 2012). Providing an informal environment with authentic experiences also works as a support for emotion and behavior management for our children with neurodiversities at UG-ECCE.

Moreover, outdoor natural learning environments transform learning experiences through nature, play, and imagination, thus rendering learning experiences more meaningful and significant to children (Lindfors et al., 2021; Roslund et al., 2020). Outdoor natural learning environments enable children to use their own experiences, knowledge, and observations while completing learning experiences (Aerila et al., 2019). According to Aerila et al. (2019), children's thinking processes, designing, and hands-on making form a new perception of technology via self-made solutions for learning experiences, assignments, and tasks. Facilitating the development and extension of the thinking processes and processing skills through problem-solving agricultural issues, specifically farming, is an aspiration for the ECD practitioners at UG-ECCE.

In Guyana, the word "agriculture" is used synonymously with "farming." Farming includes both growing and harvesting crops as well as raising animals or livestock. Agriculture provides the food and many raw materials that humans need to survive. These sentiments are echoed in our agriculture theme for learning in the Nursery Level 1 and 2 classes. Children of UG-ECCE are given hands-on opportunities to grow and harvest crops. They visit the Faculty of Agriculture and Forestry to receive extended experiences and to learn about farming animals or livestock. Having an agricultural plot on the Centre's ground allows for daily inquiry and exploration. Our little scientific minds get support from visiting academics in the field. They get to be actively involved in practical farming while learning and understanding the principles of farming.

The children of UG-ECCE maintain the garden plot on the Centre's grounds. While it engages them in inquiry-based learning, it is simultaneously used as therapeutic behavior management activities for our children with challenging behaviors and/or anxieties. The garden plot provides relaxation in an open, natural outdoor space. For example, several of our

children with autism and ADHD control their manic/meltdown episodes in the garden. Sometimes, they independently recognize when they are getting anxious, agitated, or frustrated and request to be allowed to go outside to the garden or the courtyard. In the courtyard, they play with the roses, shrubs, and other calming plants. They even share their emotional experiences. One of our most fulfilling observations is that many children actively engage in sociodramatic play in the courtyard. Even if two children from different levels are taken out for anxiety, mental relaxation, manic behaviors, or tantrums, they calmly engage in sociodramatic play after a short time in the courtyard. Our courtyard is in the center of our compound, equidistant to each classroom. This allows for easy supervision at all times.



**Figure 1.** UG-ECCE Courtyard and Rose Garden



**Figure 2.** Children of UG-ECCE harvesting their crops grown at the Centre

## Exploring Agricultural Concepts

Through play and exploratory activities, children seek information about themselves and the phenomena of the world around them (Bodrova & Leong, 2015) and enhance their ability and understanding of technological phenomena to find solutions to various problems of interest (Sundqvist & Nilsson, 2018). Children at the early childhood level learn by playing, moving, exploring, working on different assignments, expressing themselves, and through versatile activities (FNBE, 2016). Children learn about the world around them better through what they experience, not through what they are told (Semple-McBean & Lashley, 2023; Rönkkö et al., 2016). They are typically interested in small-scale observations and investigations such as nature phenomena (e.g., animals and water), observing real-world technological solutions and their functionality, examining phenomena related to nature and technology, and making artifacts because of their experiences (Rönkkö et al., 2021). Playful exploration is inherent in young children's activities (Semple-McBean & Lashley, 2023; Stylianidou et al., 2018).

The commencement of the discussion on farming in the classroom was done through playful exploration which emphasized that the products of agriculture that people eat come from both plants and animals. Discussions with complementary exploratory activities of natural objects are focused on agriculture products indigenous to Guyana, especially plant foods such as fruits, vegetables, and grains. Samples of these are brought into the classroom to stimulate the discussion. The discussion is then used as a pivot to guide the children to develop questions they are eager to answer. The classroom exploration of the concepts continues with the constructed questions as the guide beacon. Children begin to own their learning at this point. We guide the UG-ECCE children in checking their answers and rechecking. As part of the learning process, the children are then allowed to share any discoveries and new learning. They communicate both vertically to the teachers and horizontally to their peers. The teachers/facilitators then step back, and the vertical and horizontal lines of communication run parallel for a while, and then they intersect. At the intersection, the children get further engrossed in the concepts. After a moment of deep learning, we follow up with reflection time and another session of sharing what they have learned. All this is still classroom preparation/activities, which is then followed up by actual farming adventures and exploration.



**Figure 3.** Farming adventures and exploration following a classroom activity

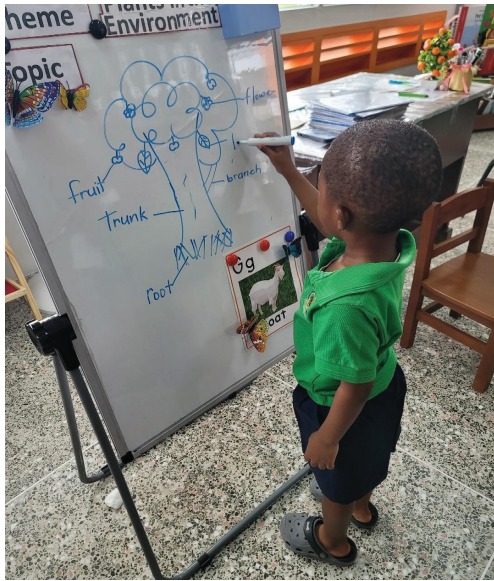


**Figure 4.** Growing seedlings to transfer as trees in the Centre's Garden Plot

Following on from the growing of the seedlings is developing the understanding that they can get lumber from the trees we grow and those in Guyana's forest. Therefore, preserving and growing trees is another important agricultural job the children actively engage in on the Centre grounds. One initial conversation was framed from an answer given by a child during in-class communication about their learning that trees are "alive." Other children gave their input and continued to shape the trajectory of the lesson. The most challenging part here is that the teachers must be prepared to take the children where they want to go as they explore the concept. If the teachers are not prepared to take the journey with the children,



both parties can get frustrated, and opportunities for key learning are missed. In order to make the most of journey-ready moments, our teachers participate in continuous developmental sessions to be flexible and dynamic in their responses as they recognize journey-ready moments. It is at this moment that our understanding that children learn about the world and their place in it through their interactions with materials and other people is challenged. Importantly, these moments are not always serious; this is where we integrate a variety of opportunities for children to engage in sociodramatic play together. They are allowed to explore in these teachable moments.



**Figure 5.** Extending the discussion on Trees in the classroom (Teachable Moment)

Because of another teachable moment, the discussion is extended to show that the trees, whether from farms or forests, are used to make buildings, furniture, boats, and many other things. Since many of the children actively celebrate Christmas, they grew a Christmas tree with the understanding that Christmas trees often come from tree farms, too. The teachers' preparedness to transition from indoor to outdoor activities with the children as they try to answer their constructed questions is key again here. The inquiry never truly ends but shapes future inquiry for extended learning. UG-ECCE practitioners are expected to be always open to the children's quest and not ever to turn off the beacon of inquiry.



**Figure 6.** Being amazed that his Christmas Tree comes from a seedling grown on a farm

### Another Question Is Constructed

One bright, sunny Guyanese Monday in January 2023, a curious neurodiverse child asks the first author if he is only allowed to do farming at the UG-ECCE. After posing his question, he explained that his yard at home is covered with concrete and trees are not growing in it. This became a great teachable moment for the entire class, who witnessed the conversation and watched on eagerly. The exploration was guided by a video on different farming locations and techniques. After the video, the child was allowed to try answering his questions. The class was then allowed to try and were encouraged to observe the plants growing in the sandy courtyard and those growing in the clayey and loam garden plot. Again, the first author facilitated as the children tried to answer the question posed. After they framed their answer, the first author participated in the discussion at a parallel level and explained that people practice agriculture/farming on farms, in their gardens at home, on ranches, in savannahs, pastures, riverbanks, in orchards, and potted containers in their homes all over the world. The curious, neurodiverse group of children was told that farmers raise crops and livestock in every climate and in all kinds of different soils. After an engaging classroom session, they were taken to the University's farm, which is immediately behind the Centre, to see that trees can grow in improvised conditions and situations without available landform on the ground.



**Figure 7.** Curious children of UG-ECCE observing trees growing without soil

The conversation continued to show that plants and livestock need air, water, and nourishment to stay alive. If a plant does not have the kind of nourishment it needs, it may die. So, even without soil, there must be an alternative way to nourish the growing trees. The Faculty of Agriculture and Forestry academic staff was captivated by the children's curiosity and questions. In the discussion with the children, the faculty staff suggested ideas for them to practice when they return to the classroom and their homes. The children's minds were blown when they were shown that fishes (e.g., tilapia and tambaqui), are grown in the water tanks used to nourish the trees. At this point, the neurodiverse group began to see the connection in the lives of plants and animals. This also became a lesson within a lesson (another teachable moment). Teachable moments kept popping up to fuel their curiosity and natural quest for knowledge and understanding of the world around them.

Although not intentional or planned, recycling became a concept that was also introduced. A neurodiverse child with exceptional intelligence highlighted it. The child explained, "It is recycling. We are reusing the water all the time. It comes from the fish tank with nutrients for the plants." After pausing and observing for about one minute, she continued, "It is then filtered through the bed of the plants and returned to the fish tanks." She shouted happily, "It goes on all the time." It was a happy moment to see how easily the child connected her learning and transferred the learning to a new situation without an adult introducing the concept. Her friends were amazed and began asking her questions instead of the agriculture academic present. She answered confidently; the academic only made additions. The children were now leading the lesson, and the adults participated—the true essence of inquiry-based learning.



**Figure 8.** Touching the tilapia from the water tank



**Figure 9.** Learning how the fish contribute to the growth of plants





**Figure 10.** Seeing the differences in growing trees and fueling curiosity



**Figure 11.** Pondering on the explanation of plant growth

When the children handed the lesson back to the adults present, we continued to guide their farming adventure but with a different perspective, which the children shaped. The academic was impressed that he asked the children of UG-ECCE a question about the water in the tank shared by the tilapia, tambaqui, and lettuce. Our brilliant minds explained that it was natural water in an artificial process. “It looks natural, though, but it is artificial,” explained an Autistic Child (Level One Autism – Exceptional Intelligence). This was his first statement in the entire process, which he observed intently. The academic continued by stating that both plants and animals need to have a suitable climate and the right food to survive. Farmers try to raise the kinds of livestock and plants that will do well in their region. If they do not have perfect natural conditions, they try to create the best conditions possible. For example, many farmers in dry areas use irrigation or artificial watering as we do at the University of Guyana with our tilapia, tambaqui, and lettuce.



**Figure 12.** Talking about weather and climate and farming



**Figure 13.** Curiously measuring the rainfall for the day around the UG-ECCE

### Crop Protection in Farming Adventures

In response to another question posed by the neurodiverse explorers on their farming adventures, we learned that farmers also protect their crops by practicing crop rotation. The same crop should not be planted in the same fields year after year. Planting the same fields year after year can destroy the soil. Certain plants will use up all of the nutrients in the soil, but some plants add necessary nutrients. For example, nitrogen is essential for plant growth. Certain crops, such as clover and soybeans, add nitrogen to the soil. After they are allowed to grow and add nitrogen to the soil, other crops that need nitrogen can be planted next year.





**Figure 14.** Viewing the crop rotation process



**Figure 15.** Vegetables sometimes grow without human help

After a day filled with adventures at the farm, the children of UG-ECCE returned to the classroom to continue their hands-on learning about farming.

### Back in the Classroom

Vygotsky’s Zone of Proximal Development indicates that learning is social and the basis of constructivism. At the UG-ECCE, learning is accompanied by active socialization. The neurodiverse children learn through collaboration with their neurotypical peers, which is the epitome of inclusive education (Lashley, 2022b, 2023). Collaboratively, the children explore, invent, and discover through active learning and socialization. The constructivist approach embraces exploration (inquiry), invention, and discovery (Yoon et al., 2012). We thought the adventures on the farm would have quelled the curiosity about farming and allowed for a smooth classroom interaction. We were wrong. The children’s curiosity continued to rock the boat of learning. The things they discovered as they explored the farm now boost their need to learn more. We embrace this stimulation at the UG-ECCE.



**Figure 16.** Back in the classroom to experiment with our new learning



**Figure 17.** The classroom experimenting continues



**Figure 18.** Exploring germination and sunlight



## Discussion

Facilitating an inquiry-based approach to learning and socialization promotes learning effortlessly, as demonstrated by the UG-ECCE neurodiverse and neurotypical children's collaborative farming adventures at the Centre, in the classroom, and at the Faculty of Agriculture and Forestry Farm. This all-inclusive environment of the University of Guyana promotes inquiry-based learning at the UG-ECCE. Constructivists believe an individual gains knowledge by constructing reality through experiences (Yoon et al., 2012). This was demonstrated on the farm as even autistic and other neurodiverse children constructed their reality of artificial and natural farming techniques through owning the farming experiences. Active experiences allow learners below the average level of performance to improve their learning by constructing meaningful experiences (Lashley, 2017, 2023). The depth of participation and meaning added to the experiences, even children who are otherwise easily distracted (those with intellectual disabilities and ADHD), were fully engrossed in the farming experiences. They contributed actively to the discussion and created the farming reality for the children of UG-ECCE.

Inquiry-based learning starts by posing questions, problems, or scenarios rather than simply presenting established facts or portraying a smooth path to knowledge. The farming adventure started with children asking questions and creating their own scenario, which the adult then helped them frame as a problem they needed to find the solution to. This led to the farm's exploration to discover and acquire knowledge and skills to frame their solution to the problem. The researcher acted as the facilitator along with the teachers. However, we excitedly stepped further back as children stepped up and facilitated their peers' learning at different intervals. Our inquirers identified and researched issues and posed questions to develop their knowledge and/or solutions. They actively engaged in problem-solving, which made their learning fun and rewarding without frustration for the neurodiverse children whose learning preferences were met effortlessly. Ban Chi and Bell (2008), Lindfors et al. (2021), Roslund et al. (2020), and Semple-McBean and Lashley (2023) supported the process we embraced by indicating that inquiry learning involves developing questions; making observations; doing research to find out what information is already recorded; developing methods for experiments; developing instruments for data collection; collecting, analyzing and interpreting data; and outlining possible explanations and creating predictions for future study. When the children returned to the classroom to continue their learning, they inferred and predicted unanticipated future explorations.

## Developmentally Appropriate Socialization and Learning Experiences of the Farm Visit for Children:

- Explore the principles and practices of basic farming: soil preparation, seasonal crops
- Appreciate the country's agriculture agenda: The Grow More Campaign
- Foster patriotism: Appreciate locally grown foods
- Conduct scientific inquiry and experimentation: monitoring the growth of plants
- Learn the structure and functions of plants: the roots absorb water and nutrients, and the leaves conduct photosynthesis and respiration
- Learn about food production: where some food comes from
- Develop responsibility: caring for plants, plants need water and food to grow and stay healthy
- Understand cause and effect: plants die without water, weeds compete with plants
- Cultivate love of nature: a chance to get fresh air and appreciate the beauty of nature
- Encourage reasoning and discovery: learning about the science of plants (for example, worms soften and separate the soil for the plants, the life cycle of plants)
- Overcome fears: usefulness of certain worms and bugs to plants helps to reduce fear
- Promote healthy nutrition: the importance of eating fresh and healthy foods, the nutritional value of different types of produce
- Develop patience and focus: they need to be patient and wait for their plants to grow

## Conclusion

Learning that is good for children evokes the idea of experiential learning, the cornerstone of the constructivist theory of learning, and its relevance to the current 21st century learning (Lashley, 2017, 2019; Wilhelm & Wilhelm, 2010; Zajda, 2022). This form of learning caters to exceptional children with all forms of neurodiversity. The population of UG-ECCE is neurodiverse, and catering to their varying learning and socialization needs is critical to laying the foundations of learning in the early years, and more critical as we extend opportunities for learning and play at the UG-ECCE. Further, embracing nature as a resource for learning, as was suggested by Zamani (2016) and Tuuling et al. (2019), is critical in contributing to meaningful learning experiences for the children at UG-ECCE. Enhancing children's learning experiences and socialization through play in natural spaces indeed facilitates the development and extension of the

thinking processes and processing skills through problem-solving, as posited before by Aerila et al. (2019). Our neurodiverse children celebrate the opportunities to design and have hands-on experiences outdoors when completing developmentally appropriate learning tasks facilitated by ECD practitioners at UG-ECCE. Farming adventures were one of many outdoor and nature adventures that facilitated children to have meaningful experiences without experiencing sensory overload or being overwhelmed indoors all day.

## References

- Aerila, J. A., Rönkkö, M. L. & Grönman, S. (2019). Arts-based activities and stories convey children's learning experiences. In K.J. Kerry-Moran & J. A. Aerila (Eds.) *Story in Children's Lives: Contributions of the Narrative Mode to Early Childhood Development, Literacy, and Learning* (pp. 333-354). Springer.
- Ban Chi, H., & Bell, R. (2008). The many levels of inquiry. *Science and Children*, 46(2), 26-29.
- Bodrova, E. & Leong, D. J., (2015). Vygotskian and post-Vygotskian views on children's play. *American Journal of Play*, 7(3), 371-388.
- Dowdell, K., Gray, T. & Malone, K. (2011). Nature and its influence on children's outdoor play. *Journal of Outdoor and Environmental Education*, 15, 24–35. <https://doi.org/10.1007/BF03400925>
- Duron-Ramos, M.F., Collado, S., García-Vázquez, F.I. & Bello-Echeverria, M. (2021). The role of urban/rural environments on Mexican children's connection to nature and pro-environmental behavior. In S. Pirchio, B.S. Fraijo-Sing, Y. Passiatore (Eds.) *Where to raise happy and skilled children: How environment shapes human development and education* (67–72). Frontiers Media SA. <https://doi.org/10.3389/9782-88966-391-0>
- The Finnish National Board of Education. (2016). *National core curriculum for early childhood education and care*. <https://www.oph.fi/sites/default/files/documents/National%20core%20curriculum%20for%20ECEC%202022.pdf>
- Government of Guyana, Ministry of Agriculture (2023, July 18). *Guyana's national development pathway aligned to focus on food security, climate change, agriculture financing*. [Press release]. <https://agriculture.gov.gy/2023/07/18/guyanas-national-development-pathway-aligned-to-focus-on-food-security-climate-change-agriculture-financing-min-mustapha/>
- Lashley, L. (2023). The curious gap in the experiences of children with exceptionalities in two mainstream primary schools in postcolonial Guyana. *International Journal of Inclusive Education*, 1-23. <https://doi.org/10.1080/13603116.2023.2248119>
- Lashley, L. (2022a). The experiences of children with exceptionalities in two mainstream primary schools in postcolonial Guyana. *European Journal of Education and Pedagogy*, 3(6), 166–173. <https://doi.org/10.24018/ejedu.2022.3.6.466>
- Lashley, L. (2022b). The experiences of children with SEN/D in two mainstream primary schools in postcolonial Guyana. *Athens Journal of Education*. [https://www.researchgate.net/publication/362270003\\_The\\_Experiences\\_of\\_Children\\_with\\_SEN\\_D\\_in\\_Two\\_Mainstream\\_Primary\\_Schools\\_in\\_Postcolonial\\_Guyana](https://www.researchgate.net/publication/362270003_The_Experiences_of_Children_with_SEN_D_in_Two_Mainstream_Primary_Schools_in_Postcolonial_Guyana)
- Lashley, L. (2021). Stay in your lane: Experiences of children with special education needs and/or disabilities in two mainstream primary schools in Guyana. *International Journal of Inclusive Education*. <https://doi.org/10.1080/13603116.2021.1879952>
- Lashley, L. (2019). A reflective analysis of the selection and production of instructional material for curriculum delivery at the primary level in postcolonial Guyana. *Sage Open*, 9(2). <https://doi.org/10.1177/2158244019858445>
- Lashley, L. (2017). The effects of computer aided instruction in mathematics on the performance of grade four pupils. *Sage Open*, 7(3). <http://journals.sagepub.com/doi/full/10.1177/2158244017712775>
- Lindfors, E., Rönkkö, M., Kiviranta, L., Yliveronon, V., Tanhuanpää, S., & Grönman, S. (2021). Outdoor learning in early childhood education: A narrative review. *Technology Education in Early Childhood*, 156-165.
- Louv, R. R. (2011). Battling the nature deficit with nature play: An interview with Richard Louv and Cheryl Charles. *American Journal of Play* 4, 137-149.
- Louv, R. R. (2005). *Last child in the woods: Saving our children from nature-deficit disorder*. Algonquin Books.
- Ministry of Agriculture, Guyana. (2013). *A national strategy for agriculture in Guyana 2013-2020*. [https://caricom.org/documents/11264-moa\\_agriculture\\_strategy\\_2013-2020\\_-\\_cd.pdf](https://caricom.org/documents/11264-moa_agriculture_strategy_2013-2020_-_cd.pdf)
- Rönkkö, M. L., Aerila, J. A. & Grönman, S. (2016). Creative inspiration for preschoolers from museums. *International Journal of Early Childhood*, 48(1), 17–32. <https://doi.org/10.1007/s13158-016-0159-z>
- Roslund, M. L., Puhakka, R., Grönroos, M., Nurminen, N., Oikarinen, S., Gazali, A. M., Cinek, O., Kramná, L., Siter, N., Vari, H. K., Soinen, L., Parajuli, A., Rajaniemi, J., Kinnunen, T., Laitinen, O. H., Hyöty, H., Sinkkonen, A. & ADELE research group. (2020). Biodiversity intervention enhances immune regulation and health-associated commensal microbiota among daycare children. *Science Advanced*, 6(42). <https://doi.org/10.1126/sciadv.aba2578>
- Semple-McBean, M., & Lashley, L. (2023). Making meaning of parents' stories: Interpreting quality at the University of Guyana Early Childhood Centre of Excellence. *International Association of Laboratory Schools Journal*, 13(1), 25-34. <https://app.glueup.com/resources/protected/edm/193782/3594c440-3238-4d79-bd8d-fef24fe3eb08.pdf>
- Semple-McBean, M., & Lashley, L. (2021). *The state of socio-dramatics in Guyanese Early Childhood settings, with stories from Barbados, Jamaica, Trinidad and Tobago*. LMH Publishing Limited.
- Semple-McBean, M., Wintz, G., & Lashley, L. (in press). The status of nature play in Guyanese early childhood settings. *American Journal of Play*.
- Sjöblom, P., & Svens, M. (2019). Learning in the Finnish outdoor classroom: Pupils' views. *Journal of Adventure Education and Outdoor Learning*, 19(4), 301–314. <https://doi.org/10.1080/14729679.2018.1531042>
- Stylianiidou, F., Glaert, E., Rossis, D., Compton, A., Cremin, T., Craft, A., & Havu-Nuutinen, S. (2018). Fostering inquiry and creativity in early years STEM education: Policy recommendations from the Creative Little Scientists Project. *European Journal of STEM Education*, 3(3), 15. <https://doi.org/10.20897/ejsteme/3875>
- Sundqvist, P., & Nilsson, T. (2018). Technology education in preschool: Providing opportunities for children to use artifacts and to create. *International Journal of Technology and Design Education*, 28(1), 29–51.

- Tuuling, L., Õun, T., & Ugaste, A. (2019). Teachers' opinions on utilizing outdoor learning in the preschools of Estonia. *Journal of Adventure Education and Outdoor Learning*, 19(4), 358-370. <https://doi.org/10.1080/14729679.2018.1553722>
- Vartiainen, H., Nissinen, S., Pöllänen, S., & Vanninen, P. (2018). Teacher's insights into connected learning networks: Emerging activities and forms of participation. *AERA Open*, 2(3), 1-17.
- Wilhelm, J. G., & Wilhelm, P. J. (2010). Inquiring minds learn to read, write, and think: Reaching all learners through inquiry. *Middle School Journal*, 39-46.
- Wilson, R. (2012). *Nature and young children: encouraging creative play and learning in natural environments*. Routledge.
- Wojciechowski, M., & Ernst, J. (2018). Creative by nature: Investigating the impact of nature preschools on young children's creative thinking. *The International Journal of Early Childhood Environmental Education*, 6(1), 3-20.
- Yoon, H., Joung, Y. J., & Kim, M. (2012). The challenges of science inquiry teaching for pre-service teachers in elementary classrooms: Difficulties on and under the scene. *Research in Science & Technological Education*, 42(3), 589-608.
- Vygotsky, L. (1978). *Mind in society*. Harvard University Press.
- Zajda, J. (2022). *Discourses of globalisation and education reforms: Overcoming discrimination* (pp. 89-103). Springer.
- Zamani, Z. (2016). 'The woods is a more free space for children to be creative, their imagination kind of sparks out there': Exploring young children's cognitive play opportunities in natural, manufactured and mixed outdoor preschool zones. *Journal of Adventure Education and Outdoor Learning*, 16(2), 172-189. <https://doi.org/10.1080/14729679.2015.1122538>

## Authors' Bios

**Dr. Lidon Lashley** is the Director of the University of Guyana Early Childhood Centre of Excellence. He is also a Lecturer in Special Needs Education at the Faculty of Education and Humanities, University of Guyana.

**Dr. Michelle Semple-McBean** is Head of Research, Teacher Training and Professional Development at the University of Guyana Early Childhood Centre of Excellence. She is also a Lecturer in Early Childhood Development at the Faculty of Education and Humanities, University of Guyana.



# The Coping Skills of Laboratory School Directors and the Influence on Job Engagement

Maria Senerchia, MS

Sue K. Adams, PhD

Nilton Porto, MBA, PhD

UNIVERSITY OF RHODE ISLAND

## Introduction

Teaching and leadership in early childhood is a stressful job. It is necessary for all those in this field to learn successful coping strategies in order to meet the needs of their position. Burnout is a global health problem among teachers (García-Arroyo et al., 2019). Over the past few decades, researchers have investigated the association between teachers' psychological well-being and the impact of their quality of teaching (Bjørndal et al., 2021). It is well documented that teaching is a high-stress profession leading to many teachers experiencing serious emotional problems related to the stress of their job (Eaton et al., 1990; Montgomery & Rupp, 2005; Herman et al., 2018).

The multifaceted requirements of being a teacher increase the complexity of the felt stress in this profession. Laboratory schools, specifically, differ from other schools in a few unique ways. Although there are many positive aspects of laboratory schools, there are also additional stressors that occur for directors and require adherence to specific guidelines and criteria imposed by the affiliated university. The central purpose of laboratory schools is to conduct research, service, and training related to children and families (Whitman, 2020; Wilcox-Herzog & McLaren, 2012). In order to accomplish this purpose, laboratory schools train pre-service teachers through providing an environment which models exemplary instructional practices for children based in research theory. Directors support such abilities through meeting university course demands and expectations to support the needs of the adult learners while also ensuring an environment which balances the high quality teaching of young children. Due to the importance and purpose that laboratory schools serve for their affiliated university, directors have a continuous pressure to elevate the laboratory school's visibility during a time when schools are closing nationally due to the high cost of programs (Whitman, 2020). These unique characteristics vary greatly in comparison to the expectations of non-laboratory school directors, where their sole purpose is to meet the needs of the enrolled children and families.

## Coping Skills

Although many teachers find their work to be joyous and fulfilling, teaching is also considered to be one of the most stressful and emotionally taxing careers (Kyriacou, 1987; Stoeber & Rennert, 2008; Bjørndal et al., 2021). Teacher stress is often defined in relation to the experience of unpleasant emotions as a result of expectations and workload (Kyriacou, 2001; Bjørndal et al., 2021). Extensive research has been conducted to investigate the coping strategies of teachers. Coping is defined as "efforts to master a problem in the person-environment relationship" (Admiraal et al., 2000; Lindqvist, 2019, p. 541). As teachers experience life or work related stressors, they employ coping strategies to help support themselves in managing stress.

Psychological research recognizes three general categories of coping: emotion coping, problem coping, and avoidant coping. When employing emotion-focused coping strategies, behavioral and cognitive strategies are utilized to change or avoid the negative emotions that one experiences during stressful situations (Bjørndal et al., 2021). This is mostly characterized by aspects such as venting, use of emotional support, humor, acceptance, self-blame, and religion (Buchanan, 2021).

Problem-focused coping refers to techniques that focus on solving problems which are aimed directly at the person-situation relationship (Bjørndal et al., 2021). These practices may include changing environmental conditions, seeking practical help, or employing personal actions such as lowering one's ambitions, acquiring knowledge, and improving existing skills or learning new ones (Bjørndal et al., 2021).

Avoidant coping can be characterized by aspects of self-distraction, denial, substance use, and behavioral disengagement (Buchanan, 2021). Avoidance can encompass emotional or problem-focused avoidant behavior. Problem-focused avoidant strategies aim to escape the situation by avoiding thinking or acting about the stressful event (problem avoidance) or hoping for it to somehow resolve itself. Emotion-focused avoidance entails strategies that focus on the emotional withdrawal from the stressful situation through use of self-

criticizing, blame or social withdrawal (Wang et al., 2022).

In general, a teacher's use of coping strategies when encountering a variety of stressors is significant for their mental well-being and adjustment (MacIntyre et al., 2020; Nazari et al., 2022). The use of problem-focused coping can reduce the number of psychological or behavioral problems one experiences (Bjørndal et al., 2021). Additionally, a goal-oriented approach, as seen with problem-focused coping, has been found to be adaptive whereas strategies which utilized disengagement (avoidance) proved more detrimental (Wang et al., 2022) because the avoidance of the problem increases stress and emotional exhaustion (Antoniou et al., 2013). Although, initially, avoidant coping could provide relief, when this coping strategy continues to be utilized, there can be long-term negative implications. For example, avoidant strategies which focus on emotions can lead to higher levels of substance abuse (Bjørndal et al., 2021). Emotion-focused coping strategies have also been shown to be utilized to cope with the stress and strain deriving from work (Aulén et al., 2021; Bjørndal et al., 2021). Existing research suggests that problem-focused engagement is the most adaptive strategy for teachers, whereas emotion-focused engagement has shown to have mixed effects. However, avoidant or disengagement approaches are consistently connected with maladaptive outcomes (Wang et al., 2022). When coping strategies fail, people may feel anxious (MacIntyre et al., 2020; Nazari et al., 2022). However, when effective coping strategies are utilized, teachers may have the capacity to solve problems, access social support, and develop capacities for teaching in order to enhance their effectiveness at work (Issakah et al., 2021).

## Job Engagement

Job Engagement can be defined in a variety of ways and encompasses aspects of inspiration, immersion, and motivation. Other studies have used different measures to discuss work engagement, but similar qualities can be found in a variety of definitions. Greenier et al. define job engagement as being emotionally, cognitively, and physically involved in one's job (2021). It can also be conceptualized as an individual's attitude toward their job which directly affects their psychological presence and engagement during the role performance (Greenier et al., 2021).

Job engagement is a positive element of work life, which favorably influences people and organizations. Teachers who are more engaged with their work are often more energetic, dedicated, and passionate about their job. They are able to encounter challenging situations and remain focused on the job at hand (Greenier et al., 2021). High levels of work engagement (WE) tend to result in positive outcomes for both individuals

and organizations. This includes better mental and emotional health, improved role performance, higher commitment to occupational goals, and more pleasant emotions (Bakker & Demerouti, 2008; Ouweneel et al., 2012; Greenier et al., 2021). It has been understood that these characteristics are what comprise quality education (Žvegljč Mihelič et al., 2022).

Self-determination Theory (SDT) is a theory of human motivation. SDT aims to understand what supports people's behavior and perpetuates action, as well as how their behavior is regulated in the many areas of their lives (Deci & Ryan, 2015). It assumes humans are actively working to integrate new material into their own sense of self. Researchers have considered how the various motivations (intrinsic, extrinsic, and altruistic) for entering the teaching field may play a factor in the engagement experienced (Bergmark et al., 2018). Intrinsic motivations include factors such as enjoyment of teaching, job satisfaction, creativity, and an interest in the teaching subject. Extrinsic motivations can include the aspects that are not characteristic of the immediate work. For example, this would include salary, status, and working conditions. Altruistic motives encompass the perception of teaching as a valuable and important profession and the desire to support children's development and to make a difference in society (Žvegljč Mihelič et al., 2022). Although altruistic and intrinsic reasons are beneficial for teacher retention, others have argued that student-teachers who enter the field based on altruistic and intrinsic motives may leave the occupation when they encounter a reality that does not match their perceptions of the profession (either in terms of the demanding profession or collegial support). This can contribute to teacher dissatisfaction, burnout, and leaving the profession (Žvegljč Mihelič et al., 2022).

In accounting for the influence of job engagement qualities on teacher success and retention, it is necessary to explore the director's dedication, motivation, and passion for their role in education as well. So much of what we know about coping and job engagement in the field of early childhood education and care is from the perspective of the classroom teachers. However, directors play an essential role in setting the tone and culture of the center through their dedication, passion, and motivation for their role. There is a lack of published research in Early Childhood Education and Care directors, and more specifically laboratory school directors. Additionally, there has been little investigation on how coping styles impact their job engagement.

## The Current Study

To date, little to no research has investigated the impact of school administrators' ability to cope with stress. Given the significant implications that have been found in relation to



teacher stress, classroom outcomes, job retention, and well-being, it seems equally important that there is an increased understanding of the director's experience. Furthermore, the director helps to create and perpetuate the culture of the school environment and therefore impacts the teachers and system within the school (Nalle et al., 2018). Thus, it is important for research to further investigate how the director's experience and management of stress through various coping strategies impacts their ability to experience positive job engagement. The current study examines the association between laboratory school directors' coping skills and the subsequent influence on job engagement. Self-determination theory explains the connection between an individual's behavior and their ability to perpetuate action or be motivated (Deci & Ryan, 2015). Based on what we know about self-determination theory, it is hypothesized that: (H1) directors with higher problem-focused coping would lead to higher job engagement, (H2) directors with higher emotion-focused coping would lead to higher job engagement, (H3) directors with higher avoidant coping skills would lead to lower job engagement.

Therefore, the current study will explore the gap in the literature as related to how the directors' engagement and motivation in their role may be influenced by their coping skills. Gaining greater insight on this will allow for increased understanding in how directors can buffer the impact of stress and increase positive experiences of job engagement. It was hypothesized that for laboratory-school directors: (H1) higher problem-focused coping would be associated with higher job engagement, (H2) higher emotion-focused coping would be associated with higher job engagement, and (H3) higher avoidant coping skills would be associated with lower job engagement.

## Method

### Participants

The present study utilized data collected from a larger study titled "The Impact of COVID-19 on Laboratory School Directors and Staff Well-being" (Adams et al., 2022) which was conducted through The University of Rhode Island. The project was supported by a grant from the International Association of Laboratory Schools (IALS). In 2022, laboratory school directors in the United States and around the world were recruited through the International Association of Laboratory School and via direct emails. Participants were asked to complete a one-time survey assessing their patterns in health and well-being during the COVID-19 pandemic. Of the total of 114 laboratory

school directors initially contacted, 44 individuals began the survey, but only 27 of them fully participated in the present study. Participants received a \$50 gift card at the end of the study and were entered into a raffle for a larger gift card.

## Measures

**Demographic Variables.** Demographic information was collected including gender, race, marital status, household income, and head of household. Additional information related to participants' employment was collected including job position, job length, and degree. Participant age was mistakenly omitted from the survey. Race was recorded to group participants into white or non-white categories.

**Coping Styles.** The current study used coping styles as the independent variable. The Brief-COPE measuring instrument was used to collect information about participants' coping behaviors. The scale can determine someone's primary coping styles with scores on the following three subscales: problem-focused coping, emotion-focused coping, and avoidant coping (Buchanan, 2021). Answer choices for all questions consisted of a Likert scale including, 1 (*I haven't been doing this at all*) to 4 (*I have been doing this a lot*). Scores are presented for three overarching coping styles as average scores, indicating the degree to which the respondent has been engaging in that coping style. The internal consistency of the BRIEF-COPE in this sample is high at a = 0.827.

Problem-focused score consists of eight criteria such as, "I've been concentrating my efforts on doing something about the situation I'm in; I've been getting help and advice from other people," for a total average score. Emotion-focused coping consists of twelve responses such as, "I've been criticizing myself; I've been getting comfort and understanding from someone," for a total average score. Avoidant coping consists of eight statement responses such as, "I've been turning to work or other activities to take my mind off things; I've been using alcohol or other drugs to make myself feel better," for the total average score.

**Job Engagement.** The current study used Job Engagement as the dependent variable. Job engagement was assessed using The National Institute for Occupational Safety and Health Worker Well-Being Questionnaire (NIOSH WellBQ). This tool provides an integrated assessment of worker well-being across multiple spheres, including individuals' quality of working life, circumstances outside of work, and physical and mental health status (NIOSH, 2021). Internal consistency is not available for the original NIOSH measure.

Items in this questionnaire are selected strategically based on relevance regarding the five domains of worker well-being. Topics covered by the questionnaire involve 5 sections:

1. Work evaluation and experience
2. Workplace policies and culture
3. Workplace physical environment and safety climate
4. Health status
5. Home, community, and society.

The NIOSH WellBQ score for Job Engagement was coded for a total average engagement score. The job engagement average consists of three questions: “*My work inspires me; I am immersed in my work;* and *When I get up in the morning, I feel like going to work*”. The participants were asked to scale them

from 1 (*Never*) to 7 (*Always/every day*). The internal consistency of job engagement in this sample was high at  $\alpha = 0.824$ .

## Procedure

Data analyses were completed using Statistical Practice for Social Science (SPSS) version 28. Univariate analyses, including frequency and descriptive statistics, were explored to determine sample size, as well as means, ranges, standard deviations, and variances of demographic and primary study variables. Two participants were identified as from a laboratory school which does not serve children in the early childhood years. Due to the initially small sample size, these participants were included in this analysis so as not to reduce the sample size further. Next, an examination of missing data was conducted. Three coping

**Table 1.** Demographic Descriptives and Frequencies

Characteristic	N	%	M	Range	SD
Job			1.04	1-2	.192
Full-time (1)	26	96.3			
Part-time (2)	1	3.7			
Job Length			3.41	1-5	1.185
Less than 1 year (1)	2	7.4			
1-5 years (2)	5	18.5			
6-10 years (3)	4	14.8			
10-20 years (4)	12	44.4			
More than 20 years (5)	4	14.8			
Gender			1.96	1-2	.192
Male (1)	1	3.7			
Female (2)	26	96.3			
Race			1.33	1-8	1.359
White (1)	24	88.9			
Black or African American (2)	2	7.4			
Do not wish to answer (8)	1	3.7			
Marital Status			1.33	1-5	.920
Married (1)	23	85.2			
Widowed (2)	1	3.7			
Divorced (3)	2	7.4			
Never Married (5)	1	3.7			
Degree			5.93	5-6	.267
Bachelor degree (5)	2	7.4			
Graduate degree (6)	25	92.6			
Income			6.00	2-8	1.240
\$20,000 to \$34,999 (2)	1	3.7			
\$50,000 to \$74,999 (4)	1	3.7			
\$75,000 to \$99,999 (5)	5	18.5			
\$100,000 to \$149,999 (6)	11	40.7			
\$150,000 to \$199,999 (7)	7	25.9			
\$200,000 or more (8)	2	7.4			
Head of House			.48	0-1	.509
No (0)	14	51.9			
Yes (1)	13	48.1			

**Table 2.** Primary Study Variables Descriptives and Frequencies

	<i>N</i>	<i>M</i>	Range	<i>SD</i>
Problem-Focused Coping Subscale	27	14.6000	1.00-32.00	4.79583
Emotion-Focused Coping Subscale	27	13.7200	1.00-48.00	4.16506
Avoidant Coping Subscale	27	5.1600	1.00-32.00	2.91785
Job Engagement Subscale	27	4.7407	1.00-21.00	1.03912

**Table 3.** Pearson Product- Moment Correlations for Demographics and Primary Variables

Variable	1	2	3	4	6	7	8	9	10	11	12	13
1. Job	-											
2. Job Length	.100	-										
3. Gender	.038	-.100	-									
4. Race	-.049	.127	.049	-								
5. Marital Status	-.072	.153	.072	.462**	-							
6. Degree	.055	-.023	-.055	.071	.104	-						
7. Income	.322	.288	.000	-.183	-.202	.000	-					
8. Head of House	-.189	.236	.189	.204	.383**	-.010	-.061	-				
9. Job Engagement Subscale	-.078	-.078	.014	-.354*	-.188	-.072	-.020	-.191	-			
10. Problem- Focused Coping Subscale	-.025	-.058	.192	-.126	.101	-.024	-.209	-.035	-.101	-		
11. Emotion-Focused Coping Subscale	-.131	-.319	-.013	-.200	.136	.188	-.300	-.139	-.219	.649***	-	
12. Avoidant Coping Subscale	-.079	-.120	.216	-.024	-.178	-.034	-.051	.235	-.413**	.037	.181	-

$p < .1^*$ ,  $p < .05^{**}$ ,  $p < .001^{***}$

strategies data points were missing and were replaced via mean substitution. Bivariate and multivariate analyses, including Pearson Product-Moment Correlations and Linear Regression, were conducted to explore the association among variables and the strength and direction of the association. Demographic variables that significantly correlated with outcome variables were controlled for the simple linear regressions.

## Results

### Sample

A total of 27 laboratory school directors or administrators participated in this study, 96.3% female and 90% white. 96.3% of participants were full-time employees, 92.6% had graduate degrees, and 44.4% have worked in their job for 10-20

years. Over 70% of participants are from households earning more than \$100,000/year. Please see Table 1 for additional demographic information.

Information on identified coping skills and job engagement variables of the survey participants are found in Table 2. In this sample, it was found that participants were most likely to engage in problem-focused coping strategies ( $M=14.6$ ) and least likely to engage in avoidant coping strategies ( $M=5.16$ ). On average, participants rated their job engagement as moderate or *sometimes* engaged ( $M=4.74$ ).

Correlations among demographic variables and the primary study variable were examined through Pearson's Product-Moment Correlation Analysis (Table 3) to determine if any demographic variables needed to be controlled for. Given the small sample size, the significance level increased from 0.05 to 0.1. Race was found to be correlated with participant's job engagement and therefore will be controlled for in the

regression analyses. The outcome, job engagement, was significantly related to one of the predictor variables (avoidant coping). Of note, emotion-focused coping was significantly related to problem-focused coping. Please see Table 3 for additional correlation information.

A linear regression was conducted to determine the strength of the effect that coping skills have on job engagement while controlling for race. Results from the regression show that race alone explains 12.5% of the variation of job engagement while the full model that includes coping strategies explains 35% of the variation in job engagement. Findings show a significant negative relationship between race and job engagement. This revealed that minority racial status was related to lower job engagement. Additionally, findings show a significant negative relationship between avoidant coping and job engagement, such that higher avoidant coping was significantly related to lower job engagement. Please see Table 4 for additional regression information.

## Discussion

The current study explored the association between coping strategies and job engagement in a sample of laboratory school directors. In a series of regression analyses, findings suggested that after controlling for race, higher levels of avoidant coping significantly predicted lower job engagement. Additionally it was found that minority race is a predictor of lower job engagement. Hypotheses 1 and 2 were not supported as evidence by a lack of significant findings in relation to problem-focused coping and emotion-focused coping predicting job engagement. However, the hypothesis (H3) that established that directors with higher avoidant coping skills would lead to lower job engagement was confirmed. This study helps to begin to fill the gap in literature to better understand coping

skills, job engagement, and the director's experience during the pandemic.

This primary study was conducted to understand directors' experience during the COVID-19 pandemic. Therefore, it is important to keep in mind that this data is also reflective of the unique experience of living through the pandemic. The International Association of Laboratory Schools had requested the initial study to collect data during the pandemic to learn more about the experience of directors. Understanding the context in which this data was collected is necessary to understand the lived experiences of these participants. During the height of the pandemic, individuals were being told to actively avoid, in order to follow the guidelines for health and safety. In essence, the message to the public was that, in order to survive, people must avoid all potential dangers. The general public adapted to a coping style of avoidance to maintain survival. In addition to this, there are a variety of stressors that heightened the impact individuals had with their personal experience of COVID. For example, individuals with past trauma or underlying mental health conditions may have had an increased challenge in utilizing coping skills during this time.

Additionally, it is important to consider the implications for those of minority races during the pandemic. Although this variable is labeled as race, in actuality it is referring to the culture of race. The initial measure for job engagement stems from the understanding of job engagement in a dominant race, by creation. It is important to consider how this may be limiting our understanding of the ways individuals demonstrate engagement through a larger lens. Learned cultural behavior or cultural expectations may result in differing expressions of job engagement. When these results are considered under the lens of the pandemic, those of minority race may have experienced differing family or household needs during this time, which could have contributed to these results. In general, many

**Table 4.** Linear Regression of Coping Strategies and Job Engagement with Race as Control

Predictor Variable	Model 1				
	B	SE	$\beta$	df	R <sup>2</sup>
Model1				1	.125
Race	-.271	.1483	-.354		
Model2				4	.353
Race	-.313	.134	-.410*		
Problem-focused coping subscale	.004	.049	.021		
Emotion-focused coping subscale	-.061	.058	-.246		
Avoidant coping subscale	-.135	.062	-.379*		

*p* < .05\*

individuals were challenged to meet the needs of their personal or extended family during COVID-19, while also exhibiting high levels of job engagement. Therefore, it is necessary to examine the cultural aspects of race and job engagement, while also acknowledging the limitation of the small sample size in this study.

Laboratory schools had unique circumstances which required adaptation throughout the pandemic. During this time, laboratory schools continued to be guided by a multifaceted mission of serving children, families, and college students. This meant that in addition to the increased health and safety guidelines regarding sanitation and health screenings for staff, children, and families, laboratory schools were asked to follow additional protocols and guidelines instated by the university with which they were associated. These factors have the potential to negatively impact an individual's effective coping strategies as well as influence their level of job engagement. Feelings of overwhelm could occur due to the increased management needs in response to new or changing expectations which could decrease engagement. In addition, increased engagement may occur for some because of the additional expectations to pivot the variety of support offered to students, children, and families during this time.

Due to their university association, many laboratory schools were ineligible to apply for direct COVID relief funds in the United States, or were not prioritized to receive funding through their university. These additional responsibilities, accompanied by the lack of additional funds, often increased the challenge for directors in guiding their schools with assurance within the uncertainty felt during this time. Although there were additional factors associated with increased stress, many teachers and directors in laboratory schools continued to have high paying jobs in comparison to other child care centers. Ability to retain their paid positions throughout the pandemic has the potential to provide a buffering effect on the stress felt and has potential to contribute to more effective coping strategies and higher job engagement in comparison to other child care centers who experienced job loss.

The findings suggested that avoidant coping had a negative association with job engagement. As humans encounter potential stressors, it is a natural first response to want to avoid the perceived stress. The role of this avoidant behavior is often protection from the physical and/or emotional responses to stress. In its essence, avoidance coping has been described as an active coping strategy in which an individual seeks to escape from a stressor (Allen, 2021; Folkman & Lazarus, 1988). However, in an educational setting, the use of this coping strategy negatively impacts the system as a whole. Teachers and directors encounter a variety of stressful circumstances throughout their daily interactions. They experience stress

through the management of multifaceted tasks, adherence to ever-changing policies and regulations, meeting individual needs of all children and families, supporting the variety of emotional and behavioral needs of children, while also managing their own anxieties, frustrations, or anger. Often, teachers and directors are called upon to make many decisions moment to moment that require flexible thinking and creative problem solving. Utilizing an avoidant coping strategy produces an ineffective response to the many demands required to be successful in these positions. If teachers or directors are unable to effectively cope with these stressors, they are more likely to become discouraged, overwhelmed, experience burnout, and leave the profession (Pavlidou et. al., 2022).

Directors reported experiencing moderate levels of job engagement, as noted in the findings of this study. It is important to understand the co-occurring factors which may be related to this. Self-Determination Theory (SDT) reminds us of the important interplay between the individual, their experiences, and the environment. When we consider the current findings through the lens of SDT, we can begin to understand how a director's motivation or engagement with their job may be impacted by their ability to effectively cope. The way an individual actively engages in their environment is interrelated with their ability to regulate and effectively manage stressors, which may lead to increased feelings of autonomy, competence, and relatedness.

Directors set the tone for the entire school. This aids in the school's ability to function as a community and as a system. If directors struggle to engage in their role due to ineffective coping strategies, their ability to exemplify the qualities of an engaged, motivated, and passionate educator are challenged. This has the potential to negatively impact teachers' perceptions of work related stress as well as their own abilities to effectively engage in coping strategies. As each member within this school community demonstrates poor job engagement, there is a ripple effect that can occur. Additionally, as teachers exhibit low levels of job engagement, this in turn will be transferred to their interactions with children and possibly negatively affect the teaching strategies and approaches utilized to meet the needs of a variety of children.

In general, there is a lack of additional studies to compare director's levels of job engagement. Future research in this area would allow for a better understanding of how and why directors reported moderate engagement in this current study. Although these findings provide insight into potential influences on the director, they should be interpreted with caution due to data collection occurring during the pandemic. Given that there is no additional research to aid in our understanding of the director's job engagement level, it is possible that the rating of moderate is largely due to the particular circumstances of the pandemic.

## Limitations and Future Directions

Although this research study contributes novel information to the field's knowledge of the experience of lab school directors, a few key limitations should be noted. First, one of the main limitations of this study is the small sample size. The lack of diverse gender representation is another area which limits this study. Additionally, increasing the sample size would provide more potential opportunities to see a balanced representation of gender and allow for the potential of a larger diversity in race to be reported. Age was not collected in the primary data and would be a helpful component to understanding the implications for coping skills and job engagement. Due to the utilization of cross-sectional data, we can not infer causation, and all findings should be interpreted as bidirectional. Therefore, we must also consider the potential of low job engagement leading to more avoidant coping. Lastly, it is necessary to consider how the health crisis of COVID-19 impacted the results obtained by participants in this study. Given that the primary data was collected to focus on the impacts of COVID-19, it is important to consider how an individual's utilization of or proclivity towards a specific coping skill may have been impacted. Likewise, an individual's ability to engage in their job would also be affected by the immense stress experienced during the pandemic.

Future studies should continue to explore the association between coping skills and job engagement. This is a key factor in understanding the potential influences of director retention. In focusing research towards this area, we will be better able to support laboratory school directors and increase their ability to positively engage in their job. By supporting one aspect within this system, we can better understand, support, and positively influence the entire system.

The findings of the current study provide insight to the importance of education and self-awareness surrounding coping styles and strategies. Coping styles are learned but are also malleable. If people are taught how to cope with demands of their job early on, there would be increased opportunity for success within the education field, therefore increasing retention rates. The earlier these skills are taught, the more likely they are to carry these skills as they progress in the field and climb the ladder of positions within education. Effective coping skills are necessary pre-service skills for teachers to learn during teacher preparation education or prior. Continued assessment of coping strategies is also important as new stressors arrive for individuals within the field. When coping strategies can be identified accurately, programs and individuals within these programs can address these skills and positively intervene prior to their impact on job engagement. This kind of proactive and supportive approach would provide programs

with a strategy to increase retention.

Future researchers may also consider how age and experience within the field may influence individuals coping skills and job engagement as well. Almost half of this current sample of laboratory school directors were highly experienced teachers who have been in the field for over 10 years. Understanding how longevity and lived experience impacts the coping skills developed will aid in the understanding of where education and support must be allocated. Additionally, age and maturation may play a key factor in the development of positive coping skills. This may aid in understanding the experiences of individuals who enter the field at a further stage in their working career or how as teachers and directors age, their ability to utilize positive coping strategies may change over time.

Moreover, it is important for future researchers to continue to explore the association between race (culture) and job engagement. As more information is collected regarding the different ways job engagement is exhibited by a more diverse population, it will increase the accuracy in developing appropriate support for teachers and directors, leading to increased retention as well as increasing diversity of racial representation in these roles.

## Conclusion

Individuals in the field of education pour themselves into the relationships they have with their students and families to foster connection and learning. In order to do so effectively, teachers and directors must be positively engaging with their job. These feelings of positive job engagement are aided in the individual's ability to positively cope with a variety of stressors. As teachers and directors increase their understanding and self-awareness of coping strategies, the hope is that they will be more engaged in their job. As job engagement increases, we would also hope to see lasting residual effects across multiple domains. Increased job retention and longevity in the field of education would be a target goal, as well as improved educational and social-emotional outcomes for the children who fill early childhood classrooms and centers with their joy, light, and laughter.

## References

- Adams, S. K., Porto, N., MacLeod, J. L., Naguib, M., & Behm, S. (2022). The impact of COVID-19 on laboratory school directors and staff well-being. *International Association of Laboratory Schools, 12*(2), 24–34.
- Admiraal, W. F., Korthagen, F. A. J., & Wubbels, T. (2000). Effects of student teachers' coping behaviour. *British Journal of Educational Psychology, 70*(1), 33–52. <https://doi.org/10.1348/000709900157958>



- Allen M. T. (2021). Explorations of avoidance and approach coping and perceived stress with a computer-based avatar task: Detrimental effects of resignation and withdrawal. *PeerJ*, 9, e11265. <https://doi.org/10.7717/peerj.11265>
- Antoniou, A.-S., Ploumpi, A., & Ntalla, M. (2013). Occupational stress and professional burnout in teachers of primary and secondary education: The role of coping strategies. *Psychology*, 4(03), 349–355. <https://doi.org/10.4236/psych.2013.43a051>
- Aulén, A.-M., Pakarinen, E., Feldt, T., & Lerkkanen, M.-K. (2021). Teacher coping profiles in relation to teacher well-being: A mixed method approach. *Teaching and Teacher Education*, 102, 103323. <https://doi.org/10.1016/j.tate.2021.103323>
- Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *The Career Development International*, 13(3), 209–223. <https://doi.org/10.1108/13620430810870476>
- Bergmark, U., Lundström, S., Manderstedt, L., & Palo, A. (2018). Why become a teacher? Student teachers' perceptions of the teaching profession and motives for career choice. *European Journal of Teacher Education*, 41(3), 266–281. <https://doi.org/10.1080/02619768.2018.1448784>
- Bjørndal, K. E., Antonsen, Y., & Jakhelln, R. (2021). Stress-coping strategies amongst newly qualified primary and lower secondary school teachers with a master's degree in Norway. *Scandinavian Journal of Educational Research*, 1–16. <https://doi.org/10.1080/00313831.2021.1983647>
- Buchanan, B. (2021, August 10). *Coping orientation to problems experienced inventory (Brief-Cope)*. NovoPsych. Retrieved September 18, 2022, from <https://novopsych.com.au/assessments/formulation/brief-cope/>
- Deci, E. L., & Ryan, R. M. (2015). Self-determination theory. *International Encyclopedia of the Social & Behavioral Sciences*, 486–491. <https://doi.org/10.1016/b978-0-08-097086-8.26036-4>
- Eaton W. W., Anthony J. C., Mandel W., & Garrison R. (1990). Occupations and the prevalence of major depressive disorder. *Journal of Occupational and Environmental Medicine*, 32, 1079–1087.
- Folkman S., & Lazarus R.S. (1988). Coping as a mediator of emotion. *Journal of Personality and Social Psychology*, 54, 466–475. <https://doi.org/10.1037/0022-3514.54.3.466>
- Gagné, M., & Deci, E. L. (2005). Self-determination theory and work motivation. *Journal of Organizational Behavior*, 26(4), 331–362. <https://doi.org/10.1002/job.322>
- García-Arroyo, J. A., Osca Segovia, A., & Peiró, J. M. (2019). Meta-analytical review of teacher burnout across 36 societies: The role of national learning assessments and gender egalitarianism. *Psychology & Health*, 34(6), 733–753. <https://doi.org/10.1080/08870446.2019.1568013>
- Greenier, V., Derakhshan, A., & Fathi, J. (2021). Emotion regulation and psychological well-being in teacher work engagement: A case of British and Iranian English language teachers. *System*, 97, 102446. <https://doi.org/10.1016/j.system.2020.102446>
- Herman, K. C., Hickmon-Rosa, J., & Reinke, W. M. (2018). Empirically derived profiles of teacher stress, burnout, self-efficacy, and coping and associated student outcomes. *Journal of Positive Behavior Interventions*, 20(2), 90–100. <https://doi.org/10.1177/1098300717732066>
- Issakah, A. C., Nyame, I., & Abu, F. I. (2021). Perceived stress and coping mechanisms among teachers in three special schools in the northern parts of Ghana. *Universal Journal of Psychology*, 9(2), 9–22. <https://doi.org/10.13189/ujp.2021.090201>
- Kyriacou, C. (2001). Teacher stress: Directions for future research. *Educational Review*, 53(1), 27–35. <https://doi.org/10.1080/00131910120033628>
- Kyriacou, C. (1987). Teacher stress and burnout: An international review. *Educational Studies*, 29(2), 146–152. <https://doi.org/10.1080/0013188870290207>
- Lindqvist, H. (2019). Strategies to cope with emotionally challenging situations in teacher education. *Journal of Education for Teaching*, 45(5), 540–552. <https://doi.org/10.1080/02607476.2019.1674565>
- MacIntyre, P. D., Gregersen, T., & Mercer, S. (2020). Language teachers' coping strategies during the COVID-19 conversion to online teaching: Correlations with stress, wellbeing and negative emotions. *System*, 94, 102352. <https://doi.org/10.1016/j.system.2020.102352>
- Montgomery, C., & Rupp, A. A. (2005). A meta-analysis for exploring the diverse causes and effects of stress in teachers. *Canadian Journal of Education / Revue Canadienne De L'éducation*, 28(3), 458. <https://doi.org/10.2307/4126479>
- Nalle, E. S., Sogen, A. N., & Tamunu, L. M. (2018). Role of parents, schools, and society in building a civic society at SMA Negeri in Kupang. *Proceedings of the Annual Conference on Social Sciences and Humanities*. <https://doi.org/10.5220/0007414300100017>
- National Institute for Occupational Safety and Health. (2021). *NIOSH worker well-being questionnaire (WellBQ)*. By Chari, R., Chang, C.C., Sauter, S.L., Petrun Sayers, E.L., Huang, W., Fisher, G.G. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH). Publication No. 2021-110. <https://doi.org/10.26616/NIOSH PUB2021110revised52021>
- Nazari, F., Ghanizadeh, A., & Mirzaee, S. (2022). EFL teachers' coping strategies amidst the COVID-19 virtual education and their association with work engagement and teacher apprehension. *Educational Research for Policy and Practice*. <https://doi.org/10.1007/s10671-022-09317-0>
- Ouweneel, E., Le Blanc, P. M., Schaufeli, W. B., & van Wijhe, C. I. (2012). Good morning, good day: A diary study on positive emotions, hope, and work engagement. *Human Relations*, 65(9), 1129e1154.
- Pavlidou, K., Alevriadou, A., & Antoniou, A.S. (2020). Professional burnout in general and special education teachers: The role of interpersonal coping strategies. *European Journal of Special Needs Education*, 37(2), 191–205. <https://doi.org/10.1080/08856257.2020.1857931>
- Stoeber, J., & Rennert, D. (2008). Perfectionism in school teachers: Relations with stress appraisals, coping styles, and burnout. *Anxiety, Stress, & Coping*, 21(1), 37–53. <https://doi.org/10.1080/10615800701742461>
- Wang, H., Lee, S. Y., & Hall, N. C. (2022). Coping profiles among teachers: Implications for emotions, job satisfaction, burnout, and quitting intentions. *Contemporary Educational Psychology*, 68, 102030. <https://doi.org/10.1016/j.cedpsych.2021.102030>
- Whitman, G. M. (2020). Lab schools: Past, present, and possibility. *International Association of Laboratory Schools*, 10(1), 21–28.
- Wilcox-Herzog, A. S., & McLaren, M. S. (2012). Lessons learned: Building a better laboratory school. *National Association of Laboratory Schools Journal*, 4(1), 1-8. <http://digitalcommons.ric.edu/nals/vol4/iss1/3/>
- Žvegljić Mihelić, M., Stančić Nosonjin, M., Gojkov Rajić, A., & Valenčić Zuljan, M. (2022). Motivations for choosing a career and the expectations of Serbian and Slovenian preschool teachers of their own career development. *International Journal of Cognitive Research in Science, Engineering and Education*, 10(1), 71–91. <https://doi.org/10.23947/2334-8496-2022-10-1-71-91>

## Authors' Bios

**Maria Senerchia, MS**, is a Laboratory Preschool Teacher at the University of Rhode Island Child Development Center. She is a lead teacher at the University of Rhode Island's Child Development Center which is an IALS affiliated school. She has presented in training workshops around the state on areas such as practicing peace in the preschool classroom and therapeutic play for children and families.

**Sue K. Adams, PhD.**, is Professor of Human Development and Family Science at the University of Rhode Island. Dr. Adams's research interests include the physical health and well-being of children and adolescents, with a focus on sleep and anxiety management. She has been funded as principal investigator on community based research in early childhood education and care. Dr. Adams is also a Licensed Psychologist and Co-owner of the New England Center for Anxiety in Rhode Island.

**Nilton Porto, MBA/PhD**, is Associate Professor of Consumer Finance, Human Development and Family Science at the College of Health Sciences at the University of Rhode Island. His research interests include financial decision-making, consumer behavior issues, and financial well-being. He is a research affiliate for the Center for Financial Security, UW - Madison and faculty affiliate for the Social Policy Institute, Washington University in St. Louis. His research has received support from the National Endowment for Financial Education, NIFA, and Real Jobs RI.

## Book Review

Elizabeth Morley

PRINCIPAL EMERITA OF THE DR. ERIC JACKMAN INSTITUTE OF CHILD STUDY LABORATORY SCHOOL  
AT THE UNIVERSITY OF TORONTO

---

### ***LabSchoolsEurope: Participatory Research for Democratic Education***

*Benedict Kurz and Christian Timo Zenke (Eds.),  
Klinkhardt, Bad Heilbrunn, 2023*

The verve and focus of LabSchoolsEurope have already been unusually invigorating and inviting to other university-based schools across the globe. This much-anticipated new book, *LabSchoolsEurope: Participatory Research for Democratic Education*, ably captures the experiences and findings of this new network of schools and heralds the unique contexts of lab schools. In its relatively short years as a gathering of university-affiliated schools, LabSchoolsEurope has accomplished a remarkable feat of collaboration among schools in Bielefeld, Germany; Brno, Czech Republic; Cambridge, UK; Paris, France; and Vienna, Austria. This volume tells, in warmly drawn, detailed and immensely readable accounts, the story of each founding school and its purpose, pedagogies, and focused research findings. The messages are hopeful – not only because the schools involved are strong exemplars of commitment to educational excellence for their own students – but also because, with a compelling mix of humility and urgency, they take up the possibility and mission of improving schools for all students by exploring how lab schools can contribute to societal good.

This volume can be seen as a benchmark for all lab schools. First, it is an example of shared work among colleagues who have a university mandate to explore education's best practices. Second, this book delves deeply into foundational principles of democratic education in ways that could have meaningful curricular impact on any schools. And third, this content and these authentic voices create possibilities for meaningful conversations among educators now and in the future.

Representing a multi-year exploration of democratic education in lab schools, the book is the capstone of a shared project but also a gateway into the next steps for expanding connections with schools, teachers, administrators, researchers, and professors. In *LabSchoolsEurope: Participatory Research for Democratic Education* we are offered a glimpse of what it

means to be a learning lab and how making research outcomes visible in classrooms within one school can influence others well beyond its walls. As a new network, LabSchoolsEurope has created a needed opportunity to listen to and learn from each other, making the job of Lab Schools less lonely and more collegial, less uncertain in the hard times and more celebratory and surer in the best of times. We know from experience that connections matter.

As the International Association of Laboratory Schools has found across its 65+-year history, we are stronger and more likely to have impact when we gather, build friendships, hear each other's stories, and share experiences. This book welcomes readers from newer schools, celebrates the originals, and brings voice to the realities, obstacles, and joys of the complex schools that lab school educators come from. Each chapter includes an origin story so that we can better understand the foundations and beliefs that gave each school its life and purpose. As one reads these, it is reassuring to hear where and how others are meeting expectations of their universities. Knowing that we are not alone has value.

*LabSchoolsEurope: Participatory Research for Democratic Education* honours the multiple origins of its schools and provides clarity that there are many ways to be a lab school by acknowledging in its introduction the five long-standing tenets of lab school practice: teacher education, curriculum development, research, professional development, and experimental education. Lab School leaders all know their institution's fundamental *raison d'être* – what makes them a lab school and not just another good school – but sometimes the daily business of running a school can blur or obscure how we can and must add value for our universities. Contributions to all five missions are not necessary to be a lab school, of course, but together, our networks work across all of them. Thanks are due to the editors and authors of this book for elucidating within each school's chapter a range of ways to contribute, ideally becoming an indispensable asset to educational betterment for all in the process.

It is rare to have such a candid and helpful look at the founding years of new lab schools as is offered in several places in this book, and there are lessons to learn from each. Detailing

how a new school comes to life highlights complexities that are unique to university-affiliated schools.

The reach of lab schools into policy, practice, and research continues to shape education today, and this book joins a tradition of taking a research lens to our work to enable others to profit from the unique perspectives of university-based schools. These authors remind us that those in lab schools are often in the privileged position to take action, to dig deeper, to encourage new ideas, and to disseminate knowledge. This volume makes it clear – LabSchoolsEurope is hard at work doing exactly that.

*Download free e-book through open access  
at: [https://www.klinkhardt.de/newsite/  
media/20231212\\_ZenkeKurz\\_LabSchools.pdf](https://www.klinkhardt.de/newsite/media/20231212_ZenkeKurz_LabSchools.pdf)*

## **Author's Bio**

**Elizabeth Morley** is Principal Emerita of the Dr. Eric Jackman Institute of Child Study Laboratory School at the Ontario Institute for Studies in Education, University of Toronto. She serves as Chair of the International Connections Committee of the International Association of Laboratory Schools. She is a visiting scholar at Kobe Shinwa University in Japan where she has been involved in the education of teachers and in researching Lesson Study.

## INFORMATION FOR CONTRIBUTORS

### Call for Papers—IALS Journal 2025

#### Information for Contributors

The *IALS Journal*, a refereed journal, publishes articles that contribute to the knowledge and understanding of laboratory and university affiliated schools and other significant educational issues. Most articles focus on research, innovation, or opinion. The subjects most often addressed are teaching techniques; administrative concerns; functions, history, and the future of laboratory schools; innovations in curriculum and program; teacher education; student growth and development; and philosophical topics. Rebuttals, responses, and book reviews are also considered for publication. We also welcome articles outlining innovative teaching practices in laboratory schools and columns celebrating exceptional laboratory schools or laboratory school educators. Unsolicited manuscripts are additionally encouraged for consideration, though preference is given to articles that link explicitly to laboratory schools. The Journal is published once a year.

#### Submission Requirements

##### Length

The maximum acceptance length is twenty-five pages, including all references and supplemental material.

##### Format

The *IALS Journal* uses the most recent edition of the American Psychological Association (APA) *Publications Manual*, for style format. It is vital that all manuscripts submitted for publication conform precisely to this APA style. In addition, manuscripts should be submitted as google docs. This allows for easy sharing with our reviewers.

##### Submission

Send your submission electronically to the editor of the journal at [roberto.olmedal@upr.edu](mailto:roberto.olmedal@upr.edu). Please submit your manuscript as an editable Google doc link. Submissions should **also include author's titles and affiliations, mailing addresses, and a 2-5 sentence author biography**. For consideration in the Spring 2025 volume of the journal, please submit by **January 31, 2025**.

##### Editing

The *IALS Journal* reserves the right to make editorial changes in all manuscripts to improve clarity, to conform to style, to correct grammar, and to meet space requirements. All submitted articles are reviewed by the Editors to determine acceptability for publication in the *IALS Journal*. During the revision phase, authors should include information concerning their title, position, laboratory school, university name, location, etc. A brief author biography and school overview will be included at the conclusion of each article.

For further information: Questions can be directed to the editor. The editor welcomes suggestions from IALS members concerning ways in which the *IALS Journal* may be improved.











