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THE DO'S AND DON'TS OF PEDAGOGICAL DOCUMENTATION

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This issue of the *Abacus* is inspired by Dr. Heather Bourrie's dissertation, *Teachers' Perspectives and Pedagogical Documentation in Early Years Mathematics: Tensions and Possibilities* (2024). The study involved 11 Kindergarten teachers, who participated in the study by attending a focus group once a week for ten weeks. Dr. Bourrie's research challenges us to think about pedagogical documentation—and mathematics education—not just as a practice, but as a way of being with children. This perspective invites educators to move beyond assessments or checklists, instead prioritizing connection, exploration, and collaboration with children in their learning journeys.

The Kindergarten Program (Ontario Ministry of Education, 2016) defines pedagogical documentation as "the process of gathering and analyzing a wide range of evidence of a child's thinking and learning over time, and using the insights gained to make the child's thinking and learning visible to the child and the child's family" (p. 36). Simply put, it's about making learning visible—not just to educators, but to children themselves. This process involves gathering evidence (notes, photos, videos, work samples, and conversations), analyzing it with children, and using the insights gained to guide the next steps. Pedagogical documentation embraces an "asset model" (Bath, 2012), creating an environment where children's ideas are valued and expanded upon.

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Dr. Bourrie's work highlights the transformative potential of documentation to support children's mathematical reasoning and sense making. Pedagogical documentation involves materials, spaces, and objects as active participants in learning. When children reflect on their own work or that of their peers, they propose ideas, test theories, and learn from others' perspectives (Rinaldi, 2004). Documentation, then, becomes more than a record of learning—it's part of the learning process itself, boosting self-awareness and confidence.

Of course, embracing this practice can feel daunting. As Wien et al. (2011) note, it requires educators to embrace uncertainty, reflect deeply, and take on the role of co-learners with children. But with practice, documentation becomes a powerful tool for transforming learning into a shared, dynamic process.

In this issue, we'll dive into the "do's and don'ts" of pedagogical documentation, offering practical strategies and insights inspired by Dr. Bourrie's work.

PEDAGOGICAL DOCUMENTATION LIES IN A BED OF DEMOCRATIC EDUCATION

Dr. Heather Bourrie

Pedagogical documentation is well known in education as a way to document what students are doing.

But is pedagogical documentation simply picking up a pen and paper and writing what you see?

Let me tell you a story first…

Pedagogical documentation originally comes from a little town in Italy called "Reggio Emilia." Just after World War 2, the parents in the community of Reggio Emilia were discouraged and uncomfortable with the principles of fascism (like the rule of a dictatorship and a positive view of violence as a way to control society) in their public schools (Moss, 2016). So, the parents in the community found a man, Loris Malaguzzi, an educator and philosopher in the area. Malaguzzi helped the parents develop an education for their children that would respect and value the children, was grounded in community, and offered meaningful experiences for learning.

Malaguzzi offered the parents a different way to think about education. Malaguzzi based his beliefs and pedagogy on democratic education (Cagliari et al., 2016). In democratic education, children are seen as rich in resources, powerful, competent, and capable of finding out about their world through interactions with others (Edwards, 1995; Malaguzzi, 1993). This child is not one who needs to be filled with knowledge, but is one who is capable of having thoughts and ideas of their own. The image of this child is one who is beautiful, strong, intelligent, and has "very ambitious desires and requests" (Malaguzzi, 1993, p. 56).

So, educators in Reggio Emilia schools, led by Malaguzzi, share learning with the child; they do not simply tell children what or how to think. These educators cultivate relationships between people, things, thoughts, and environments (Malaguzzi, 1993).

This adult is a researcher, a learner, a prompter, and a listener. This adult shares the space, time, and learning WITH the child.

But what does this have to do with math?

We can see connections between the ideas in a Reggio approach to education in mathematics education, too.

For example:

Mathematics is grounded in problem solving and deliberation. This means:

- Students share, compare, and analyze one another's mathematics ideas.
- Alternative ways to interpret or represent a solution, or even a different path to a solution,

are valued (Ball, Goffney, & Bass, 2005).

The mathematics classroom is a rich opportunity for students to engage in mathematical discourse. This means:

- The classroom community of learners includes the teacher in the role of learning, and this disrupts traditional roles of power and authority.
- The mathematics classroom engages and fosters democratic practices, like using questions that offer multiple entry points, encouraging multiple-solution strategies, encouraging students to make sense of problems in ways that are meaningful to them, and discourse is valued and encouraged among students and teachers.
- Students learn to listen carefully to others, consider the viewpoints (/solution strategies) of others, value the ideas of others, and respectfully dialogue to resolve misunderstandings and differing opinions.

Then what really is pedagogical documentation?

PEDAGOGICAL DOCUMENTATION	
IS…	**IS NOT…**
• …a way of being • …viewing the child as caring, competent, capable • …a specific attitude about life • …part of a specific approach to education, where school is a place of democratic political practice • …including hermeneutic listing • …involving the construction of a relationship of respect, reciprocity, and responsibility • …prioritizing collaborative learning with students and with educators • …involving an emergent curriculum	• …just a tool; it's not another tool in your "toolkit" • …child observation • …assessing children according to predetermined categories of development or academic outcomes

Pedagogical Documentation

The term "pedagogical documentation" refers to both a **process** and t**o the materials the process creates**.

The materials created could include: *handwritten notes of what children say and do, audio recordings, video recordings, still photos, and children's work that are collected during the learning event.*

Pedagogical documentation plays a part in making children's ideas and theories visible, and emerges from the context of the individuals participating in the meaning making at that moment in time.

MYTH BUSTING

Myth #1: In order to keep control, I need to be the boss of my classroom, and I need to tell students what to do before they do it.

Instead: Consider how capable your students actually are. You can follow students' ideas. Children have lots of great ideas that they bring to the classroom! It's really important to draw upon children's thinking in order to make the learning meaningful for them. Be a co-researcher and co-learner! Rethink the hierarchical relationships in your classroom, and consider relationships in

favour of partnerships, where educators and children co-create meaning together.

Myth #2: "Child-centred" means the teacher does nothing. We just need to always follow the student.

Instead: It's true we can allow the student to lead, but we also have an important role in participating in the learning. In fact, the learning depends on the relationship with the child! Every encounter we have with children is an ethical act, which means we are required to be open, attentive, and willing to be transformed. If a student offers an idea, it is the teacher's job to consider how math might be investigated. The teacher could ask questions or offer materials that would provoke the children to think about the mathematics. Children have great ideas, that is true, and the teacher can participate in generating more ideas to provoke further thinking.

Myth #3: "But I have to teach the curriculum!"

Instead: We do need to address the curriculum, but really we are teaching students. We are not technicians just following some recipe of teaching. Each student is unique! We can use pedagogical documentation in a way that helps us focus on the relationships with students and not just the content. Pedagogical documentation helps us know our students and respond to students' mathematical ideas in the moment. While the government curriculum provides a structured framework, the emergent learning that arises through pedagogical documentation is shaped by children's unique inquiries and discoveries. Students and teachers are happier, and more interested in their learning, and this makes for better learning overall.

Myth #4: "But I have to follow the steps!"

Instead: Sadly, suggesting that teaching is merely a series of steps implies a deficit view of the teacher. This suggests that the teacher can only teach when they follow a set of predetermined steps. Pedagogical documentation can release us from that "procedure" (or the predetermined method) to capture something new, fresh, and unique. It allows us to be present and in the moment with children and their ideas. Teaching is far more than just following steps. By building relationships in this way, students and teachers learn together!

Myth #5: "I know what pedagogical documentation is; I write what students say and do!"



Instead: Pedagogical documentation is so much more than simply capturing what students are saying and doing. Pedagogical documentation is about being present with students and listening without having a predetermined goal. Pedagogical documentation is about looking for opportunities to engage with students and provoke ideas and thinking. Once some ideas are captured, pedagogical documentation allows us to revisit the learning with the child to see what other ideas are provoked.

Myth #6: Pedagogical documentation IS assessment.

Instead: In its inception, pedagogical documentation was intended to be a discursive practice that allowed teachers to be with students in a way where new ideas and new directions in learning were built. Pedagogical documentation was not evaluated against predetermined outcomes. Pedagogical documentation made children's thinking visible and

offered an opportunity for discussions and other ideas to be revealed. Pedagogical documentation was always intended to be a practice rooted in discussions that allowed teachers and students to build relationships while learning about new things. It's about building a love of learning, fostering curiosity, and letting students see their teacher as a partner in their learning.

Unfortunately, the Ontario curriculum has led many teachers to take up pedagogical documentation as a tool for assessment. In doing so, pedagogical documentation has become a missed opportunity for teachers to be with students in deeply meaningful and relational ways. We can use pedagogical documentation to really know our students and help them build onto their own ideas. This can help students see themselves as learners, as thinkers, and as creators—all things that support mathematical success!

SO, HOW CAN I ENGAGE WITH PEDAGOGICAL DOCUMENTATION?

Here's an example:

A Kindergarten class decided that they wanted to create a movie theatre in the classroom. Note that it is important that not the teacher has decided, but the class has decided. The teacher may have offered a few ideas, and the students may have offered a few ideas, and then collectively (maybe even through a vote) the decision was made to create a movie theatre. They knew there had to be chairs and a screen. The children decided that they would create the "movies" to be shown.

So, how did math happen?

Planning and building the theatre:

- Children may work together to decide how to arrange chairs for the audience, considering rows and spacing. They might count chairs, compare groupings, or estimate how many more they need.
- As the teacher engages with the children, **the teacher may ask,** *"How many chairs do we need?"* or *"How can we arrange the chairs so everyone can see?" "How many chairs can we fit in this space?"*
- The teacher may then document what the children are saying and doing, being open to the ideas the children have because the teacher does not have a preconceived notion of what should be said or done.

Designing tickets:

- Children might design tickets for the movie event, suggesting how the tickets could be numbered (e.g., seat numbers, ticket prices) and/or how to distribute the tickets.
- The teacher will continue to engage with the students,

HOW DO YOU LISTEN?

RESEARCHERS (E.G., DAVIS, 1997) HAVE IDENTIFIED THREE DIFFERENT WAYS THAT TEACHERS CAN LISTEN TO STUDENTS.

How we listen is an important aspect of pedagogical documentation

EVALUATIVE LISTENING:

- The teacher looks for an "answer" or has a statement in mind when they are listening.
- The teacher is listening to student responses for "correct" or "incorrect" answers.



INTERPRETIVE LISTENING:

- The teacher is listening for the purpose of making sense of what the student is saying.
- The teacher does not take charge of the discussion; however, they do direct the conversation by means of the questions and prompts they ask.



HERMENEUTIC LISTENING:

- The teacher listens without evaluation or judgment.
- This type of listening attempts to understand in far more nuanced ways than simply what the educator hears.
- This listening involves listening to the actions and words that are occurring in the moment, but also listening to all that has made that moment what it is.
- The listener is drawn into the very being of the other; the thoughts of the listener, and the speaker become interwoven.
- It is not an act of listening, but a state into which people enter—a state of listening.
- This listening is not something people do, but a space they occupy.



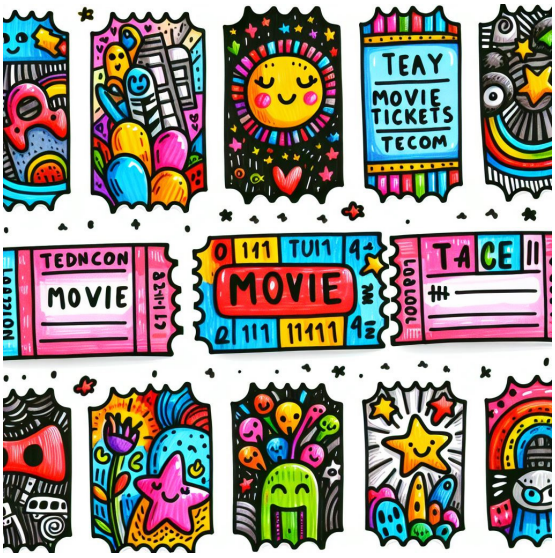
When we engage with pedagogical documentation, we engage with hermeneutic listening.

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picking up opportunities to encourage children to think about numbers.

- **The teacher might say,** *"What is important to have on each ticket?,"* again being open to whatever students suggest for ticket design.
- The teacher could photograph their ticket designs and note the students' conversations.



Snacks:

- The children could survey their classmates to determine what kinds of snacks they would have at the theatre. A small group may decide on a few kinds of snacks and then survey their friends.
- Children may decide to make a menu of items with prices. The children could decide what the prices may be, and may even decide what kind of currency to use.
- The teacher may document the students' problem-solving strategies.
- The teacher may also witness the students interacting with the pretend money or other currency. It is important that the students are allowed to share their ideas, even if the ideas do not represent what true values are of currency or the reasonableness of prices. These ideas, even when fictitious, are important to entertain.

Creating a movie schedule:

- Students could work together to make a schedule for the movie showing, discussing times and durations.
- This might be an opportunity for the teacher to provoke student thinking.
- To get students to think about a schedule, **the teacher could ask:** *"What time will the movie start? How long will it last?"* The teacher could then observe and listen to students, capturing the students' thinking, using notes, videos, or photos to document their ideas.

Making movie posters:

- Students may design posters to advertise their movie event, working with shapes and patterns to create their messages.
- This could be another opportunity for the teacher to provoke student thinking. **The teacher might ask:** *"How will you fit all the words and pictures on your poster?" "What shapes will you use?"*
- The posters may become pedagogical documentation, offering an opportunity to revisit learning.
- Part of the process of pedagogical documentation includes offering students pedagogical documentation to revisit and reconsider ideas.



REVISITING DOCUMENTATION

Revisiting documentation with students is a powerful way to deepen their learning, encourage reflection, and refine their ideas. Revisiting documentation is an important part of relationship building and seeing new possibilities for emergent learning to be created. It's about offering opportunities for teachers and students to reflect on what's been captured, consider new or developing ideas, and what might happen next. This cycle supports deeper engagement and growth, both for the learners and educators.

For example:

The seating arrangement:

- The teacher could share a photo or drawing of the seating arrangement the students created.
- **The teacher could prompt a conversation by asking:** *"What do you think of our arrangement of the chairs? Did it work well? What could be changed?"*



Documentation panels or interactive displays:

- The teacher could create a wall or board featuring photos, children's work featuring photos, children's work (e.g., tickets, posters), and teacher notes or diagrams.
- For example, **the teacher could bring a small group to the document panel and ask:** *"How could we find out what snacks people like for another event? Should we ask different questions?"*

Learning stories:

- The teacher and/or students may create learning stories about their creation of the theatre and their learning. These stories could be read or displayed with students. The teacher could invite student feedback.
- For example: A story might describe how students debated the best way to organize the snacks and how they used counting to solve the problem.

If you want to know more about the Reggio Emilia approach, go to:
www.reggiochildren.it/en/reggio-emilia-approach/
www.ontarioreggioassociation.ca/
www.reggiochildren.it/

The Hundred Languages of Children: The Reggio Emilia Experience in Transformation
by Lella Gandini, George Forman, Carolyn Edwards

CONCLUSION

Dr. Bourrie's contribution has inspired us (the Editors) to concentrate on a range of practical ideas. Reflecting on the principles of democratic education, we understand the importance of making decisions collaboratively with students, rather than for students, about how to move forward in the classroom. This process involves engaging students in choosing areas of interest or investigation, such as selecting a movie theatre, deciding on snacks, or organizing seating. One of the key aspects of pedagogical documentation is recognizing students' ideas as a valuable resource. For example, students might conduct surveys to gather data and use it to make informed decisions about which snacks to offer. Additionally, revisiting students' ideas—whether about seating arrangements or problem-solving strategies—allows refinement, allowing for adjustments that enhance the original approach/strategy/(or snack offerings). We invite readers to explore the ideas presented here on pedagogical documentation and share their own experiences with us. We're eager to hear how you use pedagogical documentation in your classroom and what you consider most important in its application.

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