Beyond "Learning Loss:" Literacy Teacher Noticing in a Post-Pandemic World

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Abstract

A resounding emphasis on *learning loss* has pervaded popular discourse and academic research as children return to in-person instruction after COVID-related schooling interruptions, most notably including remote schooling. This paper examines how this emphasis links to persistent deficit-oriented views of children as lacking literacy and language. It proposes an expanded, anti-deficit conception of *teacher noticing* based upon four domains that deserve more visibility especially at this time in the literacy classroom: children's emotions, children's funds of knowledge, children's relationships, and children's purposes. It provides examples of how teachers might adopt deliberate noticing practices that attend to these domains.

"It's 'Alarming': Children Are Severely Behind in Reading." (Goldstein, 2022)

This *New York Times* headline from March 2022 aligns with many pandemic learning loss narratives in the press (e.g., Guidry et al., 2021; Reed, 2021). The throughline is that pandemic-era children who have experienced disruption in their schooling are behind academically and at risk of permanent failure. The learning loss narrative looms equally large in recent educational research literature, with 398 hits for "learning loss" in peer reviewed academic journals in the two-year period between May 2020 and April 2022, nearly double the number of pre-pandemic "learning loss" hits (216) for the equivalent two-year period between 2017 and 2019 (source: EBSCO host, Education Research Complete). Some emerging research reinforces this narrative. For example, within the domain of literacy, studies have noted both declines on global reading measures (Lewis et al., 2021; Pier, 2021) and drops in specific skills like reading fluency (Domingue et al., 2021).

However, such learning loss narratives over-simplify the story of children's experiences and learning during the pandemic. For example, some research has found little evidence of learning loss in reading (Gore et al., 2021), while other research suggests that reading outcomes for different populations are affected in varied ways (Lewis & Kuhfeld, 2021; Pier, 2021). Researchers such as Ho (2021) have suggested that the term "learning lag" may be more appropriate; with support, students often make strong gains when they again have opportunities to learn what they may have missed.

A deeper problem is that fetishizing "learning loss" primes educators to notice student deficiencies (Whitley et al., 2021; Zhao, 2021) rather than the understandings and capacities they bring to their learning – what Moll et al. (1992) called "funds of knowledge." As such, it represents the newest instantiation of deficit thinking, which frames students – particularly those from under-resourced communities of color – as not being enough, knowing enough, or doing enough to measure up (Dudley-Marling & Lucas, 2009; Dyson, 2015; Ellison & Solomon, 2019; Shapiro, 2014). As the educator Paul Emerich France (2021) tweeted:

> It's incredibly challenging to counter the learning loss narrative as an ed leader. I want to respect people's worries, but also am fiercely defending equity and asset-based thinking in schools.... I guess I just keep coming back to: what's the rush? And why does it matter that they're in a different place according to academic measures that we know are harmful?

As literacy researchers, we accept that the pandemic has had profound effects that matter for children's literacy learning, but argue for a richer view by inviting teachers to engage in deliberate *noticing* of children, guided by four domains that matter for their students as literacy learners, particularly in this pandemic/post-pandemic era. These domains include children's emotions, children's funds of knowledge, children's relationships, and children's purposes. These domains are particularly salient given children's pandemic experiences, but as this paper ultimately argues, we believe they provide a much-needed blueprint for educators to challenge broader deficit narratives about children. Before elaborating on these domains, we describe what we mean by teacher *noticing* and elaborate on how learning loss narratives obscure teachers' view of their students, of classroom interactions, and of possibilities for humanizing literacy pedagogy.

Beyond Deficit-Driven Teacher Noticing

What Is Noticing?

Noticing frameworks were first developed as a way of understanding how teachers make sense of students' thinking, particularly in mathematics (van Es & Sherin, 2002). The idea has only recently been applied to literacy and language arts classrooms (Patterson Williams et al., 2020; Simpson, 2019), but we see connections to Goodman's (1985) concept of *kidwatching* to support children's language development via informal, naturalistic observation.

Noticing matters because in-the-moment instruction offers teachers a dizzying array of information to process; it is perhaps unsurprising that teachers attend to certain aspects of what students say and do over others (Sherin et al., 2011; Sherin & van Es, 2009). Moreover, noticing can be shaped by personal and professional factors, leading to significant variation between how two teachers (or even a single teacher at different points in time) make instructional decisions in response to what they perceive.

Van Es and Sherin (2002) initially proposed two key dimensions of teacher noticing. The first, *attending,* involves focusing on certain aspects of classroom interactions and letting others go. For example, a teacher observing a text discussion might

purposefully attend to the way children support their assertions with evidence. In this case, certain moments would have more salience for that teacher, like when students use personal examples rather than textual evidence to defend their thinking. Other potential noticings may get filtered out, such as the way one student participates more than others during discussion or how another student never speaks.

The second dimension of noticing, *interpreting,* involves reasoning about classroom interaction (van Es & Sherin, 2002). By analyzing and ascribing meaning to what is observed, interpreting goes beyond simply describing. For example, the teacher in the above example may notice a child, Ana, defending her point by citing a time she went grocery shopping with her abuelita. The teacher might interpret this to mean that Ana is not sure how to use textual evidence, or they may instead wonder if Ana's relationship with her abuelita is a useful resource for Ana in making sense of this text.

While attending and interpreting are widely recognized dimensions of noticing, some scholars, notably Jacobs and their colleagues (2011), have also included *responding* as a component of teacher noticing. Responding involves making, and acting on, a decision based on what has been attended to and interpreted. For example, Ana's teacher might feel the need to model and explicitly teach Ana's group how to draw on textual evidence, then move on with the discussion.

In more recent work, van Es and Sherin (2021) have likewise added a third component to their noticing framework but, rather than including *responding*, they rely on the construct of *shaping*. Shaping "involves the creation of interactions for the purpose of gaining access to additional information... which can then become the object of further attending and interpreting" (van Es & Sherin, 2021, p. 24). In our example, the teacher may seek more information about Ana's understanding of textual evidence, and ask "Ana, can you find a moment from the text that supports your argument?" Alternatively, the teacher may be curious about why Ana is connecting the text to a memory of her grandmother, and ask, "Ana, can you say more about that time you went grocery shopping?" In both instances, Ana's reply will likely offer more for the teacher to attend to and interpret.

While *responding* and *shaping* are closely linked and may co-occur, van Es and Sherin (2021) distinguish between them. A teacher's *responding* comes after attending to and interpreting previous interaction; responding is the follow-up course of action based on what is *already* understood about a student. *Shaping* is a more emergent course of action in which a teacher centrally seeks to deepen their understanding of the child as they engage in ongoing interaction with that student; it lays the groundwork for subsequent attending and interpreting even as it builds on the attending and interpreting that has gone on thus far. Shaping is done from a deliberate stance of curiosity: the teacher seeks to learn *as well as* to teach. In our foregrounding of *shaping,* we also align ourselves with the ethical and epistemic commitments in Davies's concept of *emergent listening* (Davies, 2014), where she reflects upon listening as "the continual openness to the not-yet-known":

> What we usually think of as listening, particularly as adults listening to children, is most closely aligned with...fit[ting] what we hear into what we already know...Emergent listening might begin with what is known, but it is open to creatively evolving into something new. Emergent listening opens up the

possibility of new ways of knowing and new ways of being, both for those who listen and those who are listened to. (p. 21-22)

Shaping is thus part and parcel of noticing, interwoven with attending and interpreting. Taken together, they offer an important way of understanding the deliberate thinking that goes into moment-by-moment teaching. We see this tripartite framework as fruitful for devising ways of pushing past the settled, fixed narrative of *responding* to learning loss that appears in so many education-related pandemic narratives. For this reason, and in the interest of space, we will highlight attending, interpreting, and shaping in our framework, though we acknowledge that teachers will also at times primarily be responding to what they have noticed.

Contingency

Instead of settled, fixed narratives, deeply informed noticing demands teaching built upon contingency (Boyd & Rubin, 2006). That is, teacher decision-making is not predetermined by set learning objectives, curriculum, or even pedagogy, but rather emerges from what is observed through a stance of inquiry and curiosity about children's thinking. Of course, this work of noticing is complex, in part because teachers experience profound tensions in both their noticings and in their subsequent decision-making (Johnson, 2017). A teacher can be pulled in different directions as they navigate different noticings about the same child or group of children.

Precisely because it is so complex, noticing is not, or should not be, something that "just happens." Rather, noticing should be disciplined (Mason, 2002), shaped by intentionality and curiosity that enables deliberateness. Even as the pandemic casts doubt on what students are capable of, high-level noticing empowers teachers to attend to situational aspects of teaching and has the potential to contribute to teachers' capacities for adaptive and responsive teaching (Parsons et al., 2018; Philip, 2019).

The Limitations of Deficit Noticing

Given our critical stance towards the learning loss narrative, we are also drawn to scholars who place noticing in a sociopolitical context. Louie et al. (2021) identify the dangers of what they describe as "deficit noticing,"

wherein teachers attend almost obsessively to the errors and shortcomings of students of color; interpret errors and shortcomings as evidence of deficiencies in students, their families, or their cultures; erase students' assets; and disregard schooling practices and social structures that limit students' opportunities to learn and thrive. (p. 95)

Deficit noticing emerges from an understanding of literacy as fixed and measurable, and of students as receivers of this knowledge. Learning loss narratives, including both pandemic narratives and narratives of summer break learning loss that have been around for more than a century (Thiel, 2019), are excellent examples. Such narratives provide an interpretive angle framing how teachers attend to, interpret, and respond to their students work with texts, e.g., "I see my kids are having trouble using textual evidence; my kids last

year could mostly do this; I interpret this as learning loss." Other potential noticings may be crowded from view.

Moreover, learning loss narratives tend to be static, broad, and largely acontextual. Although they might feel applicable to some students more than to others (i.e., some students have "lost" more), they do little to invite teachers into seeing particularity in students that would enable contingent in-the-moment decision-making. Reframing post-pandemic noticing returns the focus to concrete, real interactions with children, and to the highly contingent nature of what different children bring to their literacy learning.

Foregrounding daily interactions with children also helps push past the ways *asset-based* lenses are often positioned in binary relationship to *deficit* ones. Recognizing that all children bring resources that can be assets into their learning is important, but children's ways of being should not be separated into discrete "deficits" on the one hand and "assets" on the other. Our noticing commitments need to go beyond focusing only on things in the "right" pile. We are drawn toward Louie et al. (2021)'s term *anti-deficit noticing*, which "goes beyond a blanket commitment to seeing the assets that all students bring to learning" (p 100). Actively challenging deficit discourses means attending to the full complexity of instructional interactions in ways that defy the easy tendency to evaluate.

Re-Centering Noticing

We extend an invitation to teachers to re-center their noticing practices for a further reason as well. Russ (2018) has noted that most research literature on teacher noticing characterizes noticing solely from the teacher's perspective, rather than considering how students sense patterns in teachers' attention. Students often notice what their teachers notice, and subsequently build an understanding of what matters that connects to what they see. For example, teachers who value getting to correct answers in text discussions convey that understanding to students, while teachers who value student interpretations create classroom contexts where students are more likely to take on those learning epistemologies (Aukerman & Chambers Schuldt, 2015; Johnston et al., 2001). In short, what teachers notice suggests to their students what counts as literacy.

If teachers convey that students need to "catch up" as literacy learners, this is arguably what they will learn (Louie et al., 2021), and it may have powerful instructional consequences. In pre-pandemic research, Adair et al. (2017) found that early childhood teachers and administrators who worked with emergent bilingual populations often focused on the "word gap" argument (Hart & Risley, 1995) that their students were behind in vocabulary. Moreover, it was this framing that educators typically drew upon to explain why they did not feel their students were ready for agentive learning opportunities such as self-selecting learning activities, things that arguably should have had little to do with vocabulary at all.

If deficit noticing predominates in post-pandemic classrooms, students may similarly lose out on opportunities, whether because their teachers double down on teaching what students are missing, or because students are assumed to be un-ready for other kinds of classroom experiences. Furthermore, when students are primed to compare their literacy performance with others and/or an expected standard, they may become more likely to see themselves as poor readers (Aukerman & Chambers Schuldt, 2015), which in

turn may affect their subsequent ways of engaging with classroom activities (Hall, 2012). It is arguably vital, then, that noticing take a broader, more constructive view.

The Disciplinary Roots of the Teacher Noticing Tradition

Although we draw upon scholarship around teacher noticing, our approach takes a somewhat different tack from much of that scholarship, which typically highlights student disciplinary or content-area thinking (Chan et al., 2021). Within disciplinary noticing frameworks, for example, teachers might notice how a child interprets a word problem (math), the process of photosynthesis (science), or a short story (language arts). Such insights, centered in the cognitive domain, are useful: they have enabled educators to pay attention to more than just whether an idea is "right," highlighting thinking processes. While we believe in the power of such noticing, there is already important existing scholarship that can guide teacher conversations about such noticing, and we see fewer places where the pandemic is substantially reshaping those conversations (see Ferdinandsen et al., 2022, for a notable exception).

Instead, we highlight four dimensions of teacher noticing that have received less attention within and outside literacy education. These dimensions certainly merited attention in pre-pandemic times, but are newly salient in a world shaped by COVID. Most extend beyond the realm of the cognitive: children's emotional worlds; children's funds of knowledge; children's relationships with those around them; and the purposes children bring to and take from engagement with literacy in school. We do not see any hierarchy in these proposed dimensions, nor do we intend that teachers follow them in some sequence, nor do we believe they should displace noticing focused on disciplinary thinking. Rather, our goal is to invite literacy teachers into deeper and more well-rounded noticing.

Four Dimensions to Enrich Teacher Noticing

Noticing Children's Emotion

The mental health effects of the pandemic have been considerable. As of February, 2022, over 5 million children worldwide had lost a parent to COVID-19 (Unwin et al., 2022). More than 1 in every 200 children in New York City lost a caregiver, with children of color particularly likely to have experienced such a loss (Treglia et al., 2021). And, of course, many children lost other people who were close to them.

But understanding the trauma caused by the pandemic goes well beyond those children who have been directly affected by death in their circle. Children who themselves have had COVID-19 face greater rates of depression and other psychological challenges (Ahmed et al., 2021; Cost et al., 2022; Racine et al., 2021). Isolation as a consequence of schools closing and of general quarantine also affected many children; one study found that around two thirds of children living under quarantine reported feelings of worry, helplessness, and fear (Saurabh & Ranjan, 2020), and another found that roughly the same percentage were experiencing substantial boredom, according to parents (Jones, 2020).

At the same time, some children, including many with social anxiety, saw improvement in their mental health when they no longer needed to attend in-person school (Bussières et al., 2021; Cost et al., 2022). Some students of color reported feeling more at ease during virtual school, contending less with bigotry and judgment for their in-class

behavior (Miller, 2021); as one Black student put it early in the pandemic, "You're out of your mind if you think I'm ever going back to school" (Anderson, 2020). Early in the pandemic, in fact, about half of children in one survey reported feeling *more* calm than they were in regular school (Gray, 2020), and a large majority of parents in another (88%) reported that their children – despite being out of in-person school – were happy for much of the day, with overarching negative emotions such as anger and loneliness affecting a substantially smaller proportion of children (20-26%) on a daily basis (Jones, 2020).

Returning to school, of course, does not simply drop students back into their pre-pandemic lives. Not only do children continue to process emotional experiences from their pandemic lives, additional emotions and emotional experiences may bubble to the surface. In some cases, those newer emotions may be excitement and relief (Burry et al., 2020). But the act of return may itself spur anxiety, in some cases because of fear of COVID-19 itself (Burry et al., 2020; Mekouar, 2021), in other cases because of newly registered grief over missed friendships, milestones, and academic content (Alphonso, 2022; Stauffer, 2020; Subramanian, 2020).

In short, children are navigating complex emotional landscapes as COVID-19 moves from pandemic to endemic. While teachers cannot and arguably should not know these landscapes in full, noticing children's varied emotional lives enables them to teach intentionally with these lives in mind. This intentionality lies at the heart of trauma-informed teaching, a cluster of approaches that emphasize building trust, safety, and attunement (Crosby, 2015; Minahan, 2019).

The emotional stakes are high in the work that literacy teachers do. Literacy itself can be deeply connected with emotion, and literacy practices can generate strongly affective responses related both to the textual content itself and to feelings about engaging in such practices (Dutro, 2017). For example, there is research indicating that, even during non-COVID times, children may have anxiety and hopelessness about reading, particularly if they find it difficult (Sainio et al., 2019); a return to reading in the classroom among peers might exacerbate such feelings.

Precisely because children have different experiences of pandemic loss, quarantine, and return, foregrounding emotion in teacher noticing enables responsiveness to different ways in which students are grounded in (and sometimes grounded by) emotion. Some children may thrive in the return to school, while others flounder. Some children may need opportunities to share about pandemic experiences, while for others such opportunities provoke stress, and still others are simply ready to move on. And a book that is cathartic for one student may be triggering for a classmate. Unless teachers feel authorized to notice for emotion, they are likely to miss these nuances.

Of course, noticing emotions requires some delicacy and observational skill; not every child wants to be an emotional open book, and it can be dangerous to make assumptions about children's emotional lives on the basis of limited information. The three dimensions of attending, interpreting, and shaping can help teachers integrate noticing for emotion in sensitive and observation-driven ways. Table 1 provides a sampling of teacher actions connected with each dimension in the service of noticing child emotion. Important here is that these acts of noticing do not treat emotion as a barrier to learning, but as integral to it.

Table 1

Noticing Actions for Children's Emotions

Noticing Dimension	Sample Actions
Attending	*Treat what children say and do as a window into how they are feeling, not just into what they know. *Notice children's embodiments of emotion: how they carry themselves, facial expressions, tone of voice, etc. *Observe patterns and changes in how emotions and context (activity, other students, etc.) are intertwined. *Look for signs of children's emotions around masking, social distancing, and other safety measures.
Interpreting	*Consider hypotheses about children's emotions, including how history and context may play a role. *Use caution in labeling children's emotions; questions may be more helpful; avoid evaluative terms (e.g., "defiant"). *Attend to the possibility that emotions are not always transparent (e.g., a sad child may *appear* happy). *Be aware of how culture, peer relationships, and other experiences shape expression of emotion. *Consider how your emotions affect what emotions you are able to see.
Shaping	*Make the classroom a safe place for expressing emotion by eliciting and accepting emotional responses. When children bring up emotion, consider follow-up questions. *Use texts, prompts, and discussions that invite conversation about emotion. Select literature and activities with sensitivity to what might be triggering, but also with opportunities to work through hard stuff. *Where you anticipate or observe that a topic is highly emotional, consider giving advance notice and/or alternate activities. *Encourage children to explore emotion in fictional and autobiographical writing. *Pose questions that attend to emotional well-being through informal dialogue and/or through surveys for caregivers and students. *Allow children to work through emotion in drama and pretend play. *Discuss rich vocabulary for emotions (e.g., "furious", "blissful", "apprehensive"); observe how children take these up. *Imagine and work to create contexts that can facilitate children's joy. *Solicit (and revisit) children's preferences for what COVID-19 protocols make them feel able to learn.

Noticing Children's Funds of Knowledge

Several decades ago, Moll et al. (1992) proposed the idea of funds of knowledge, referring to "historically accumulated and culturally developed bodies of knowledge" that children use to support their lives and well-being (p. 133). Children are active participants in lives and worlds outside of school, and this active participation enables an assembled repertoire of understandings, perspectives, and skills. Moll and his colleagues noted that, while children always have such a repertoire, schools rarely engage deeply with those funds of knowledge.

Consider, now, the pandemic – a historical moment when children have had long stretches of time outside of formal schooling in which to develop what they know and can do. In a survey of children aged 8-13 during April/May 2020, nearly three quarters of them reported that their parents were letting them do more on their own, and nearly two thirds reported figuring out more stuff on their own (Gray, 2020). Some examples include putting on musical and theatrical performances on their front porches; sewing masks; writing extended-family newspapers together; and starting gardens. Of course, not all funds of knowledge are idyllic ones that children freely choose. During the pandemic, children have been enlisted as primary caretakers of siblings while their parents worked; they navigated food scarcity, witnessed violence, and saw relatives lose jobs.

Children's circumstances differ wildly, but all children will have had experiences during the pandemic that shaped who they are and their funds of knowledge. Such experiences develop propositional knowledge (understanding how the world works, "how-to" knowledge (skills and strategies to act on the world), perspectival knowledge (opinions and beliefs about the world), and identity (how one sees oneself in the world), among much else. Time out of school also developed specialized linguistic capacities in home dialects and languages; one study found that children showed greater home language development during COVID than in pre-pandemic times (Sheng et al., 2021). These kinds of repertoires are all part of children's funds of knowledge, shaped by culture and family life and a range of experiences.

We hold, then, that children come to school with enormous competencies, now and always. There is considerable irony that, precisely in times when children have developed such rich funds of knowledge, they may be slapped with a label that acknowledges only loss. Amidst the rhetoric about learning *loss*, their learning *gain* – children's newly developed and still-developing repertoires of understandings, skills, perspectives, identities, and languages – are at risk of remaining invisible.

Arguably, then, literacy teachers have an obligation to make children's funds of knowledge not only visible, but pivotal in children's classroom experiences. Here again, children may have different levels of comfort with bringing their out-of-school worlds into school, and it can be important to respect children's signals that they want privacy over some aspects of their lives. However, because every child has a broad repertoire of experience, it is often possible to find aspects of children's funds of knowledge that they are comfortable sharing.

Teachers can ask children to speak, write, and read in ways that tap into their repertoires of strength, including drawing on children's home languages. Equally important, teachers should attend to not just what children know, but how they act on their worlds, given what they know. Different children, for example, have different styles of

relating to text – some prefer to make connections, some to pose questions, and so on (Santori, 2008). Thinking about children's preferred forms of textual engagement as funds of knowledge allows teachers to honor forms of engagement that may not match a traditional "good student" stereotype. Table 2 provides a sampling of teacher actions connected with noticing children's funds of knowledge.

Table 2

Noticing Actions for Children's Funds of Knowledge

Noticing Dimension	Sample Actions
Attending	*Look for what children do beyond traditional academic skills. *Look for what children find important about what is talked about; watch for (dis)engagement. *Look for signals of identity and interests (e.g., soccer T-shirt, manga doodling). *Listen to what children say about their out-of-school lives. *Attend to cultural and linguistic differences. *Listen for translanguaging and situations where children rely on home languages and dialects (Martínez, 2010). *Look for aspects of out-of-school experience students bring into their classroom literacy (e.g., what they write about). *Listen to what parents tell you about children's out-of-school lives. *Remember that funds of knowledge involve more than just the "what," and extend into how children engage with the world – seek to notice both.
Interpreting	*Especially for young children and emergent bilingual students, be aware that they may have funds of knowledge that they are not yet able to verbally express in English. *When children flourish in activities, consider how their funds of knowledge play a role. When they flounder, consider how the activity, reconceived, could better draw on funds of knowledge. *When children engage with texts and tasks in unexpected ways, consider how their funds of knowledge might have enabled those ways of engaging. *Avoid assumptions about children's funds of knowledge based on characteristics like gender and race. *Reconsider what you value when students discuss and write about text; rather than privileging only *text-centric* commentary, allow students' *lived experiences* to enter textual conversations as food for thought and as evidence for claims. *Be aware that funds of knowledge, including identities, can change; remain tentative and open-minded.

Shaping	*Pose questions of children and parents that provide windows into children's lives and interests. *Ask follow-up questions to learn more when a child spontaneously references their funds of knowledge. *Create opportunities for children to draw upon and share their funds of knowledge in literacy activities. *Teach in ways that are culturally and linguistically responsive to what you observe. *Provide opportunities for students to use and encounter home languages and dialects. *Encourage ways of expressing knowledge that go beyond speaking/writing (invite drawings, gestures, etc.). *Invite children to explore texts that relate to their funds of knowledge; attend to whether and how these function as "mirrors" (Bishop, 1990) of out-of-school lives. *Ask students to make text-to-self and text-to-world connections (Keene & Zimmermann, 2007). *Pose authentic questions without single "right" answers that seek to elicit children's own ideas about texts.

Noticing Children's Relationships

The pandemic increased social isolation for many children, and a predictable consequence was that many children strongly missed social contact (Egan et al., 2021; Larsen et al., 2021). Indeed, one study of elementary-aged children during pandemic-related school closure found that the majority looked forward to returning to school "first and foremost to see their friends" (Larivière-Bastien et al., 2022, p. 8; see also Gray, 2020), and a third also reported missing contact with teachers. These children often also reported that online schooling was a pale substitute for interactions they found meaningful during in-person school, pointing out that there was less space for spontaneous interaction and for physical closeness. One twelve-year-old girl described her online school experience this way: "we laugh less, now that we are not in person" (Larivière-Bastien et al., 2022, p. 8). In short, the loss as keenly experienced by many children was not an academic loss, but a social one.

Of course, not seeing friends and teachers at school is only one dimension of pandemic-related social challenges children have faced. Playgrounds and other public venues for children's socializing were often shut down. Restrictions on private gatherings prohibited children from socializing with people outside their family (e.g., Torrens et al., 2020). Some children have been frank about the cumulative effects of the pandemic on their peer relationships. As one teen put it, "the pandemic completely destroyed my social life" (The Learning Network, 2020).

Children and their families often looked for ways to combat the social isolation of the pandemic, both during school closures and as schools reopened. Some attempted solutions took place digitally. Virtual play dates sprang up (Runn, 2021). Older children reported maintaining friends online and actually finding new friends via online

communities, in some cases even feeling more connected to peers than they were pre-pandemic (The Learning Network, 2020).

Some families continued to have indoor playdates because there were no formal restrictions where they lived, or did so despite pandemic restrictions. Other children were able to see one another so long as it was outdoors. And then, as pandemic restrictions eased, some groups of parents formed "friendship bubbles," allowing their children to socialize with a stable set of others within the same bubble (Touma, 2021). Whatever the measures taken to maintain peer relationships, whether virtual or in person, the evidence suggests that those children who were able to maintain contact with friends during the pandemic fared better overall in terms of their sense of well-being than children who could not (Mitra et al., 2021).

Navigating social relationships upon return to school, while eagerly anticipated by many, has also not been easy. Coupled with all the usual social complexity of classroom spaces, there are new layers: children who have been around peers less need to figure out how to be with one another again, how to navigate conflicts and social possibilities. At the same time, they are figuring out how to adjust to social norms and changing health mandates. Here are just two examples:

> Parents are urging children to continue to take health measures, such as wearing masks, but the children feel that this makes them not fit in with non-mask-wearing peers.

> Children fear asking their teachers a question about an assignment because they or family members are immunocompromised and they do not want their unmasked teachers to get too close.

In both these examples, familiar concerns about belonging, trusting, and seeking help are complicated by issues stemming from the pandemic. Of course, not all social complexities will be tied to pandemic-related concerns. Regardless, rather than allowing deficit noticing concerns to predominate – that students *aren't* interacting in ways teachers expect, or *aren't* turning to teachers for help when they need – we encourage teachers to notice and inquire into what seems to matter for children in their relationships.

Attending to and interpreting children's relationships may also add a new layer to how students are understood as readers. For example, in texts such as *Last Stop on Market Street* (Peña, 2017), *The One and Only Ivan* (Applegate, 2012), and *The Giver* (Lowry, 1993), characters interact with one another in ways that can surface rich themes of safety, privacy, protection, and responsibility. Offering children opportunities to make sense of such themes in light of their pandemic experiences may offer new insights into children's own social worlds.

How literacy instruction occurs can also orient to students' relational priorities. Offering children opportunities to talk with one another about texts can reveal patterns in whose ideas get taken up by peers, whose ideas hold most sway, and whose voices remain quiet. Discussion-based teaching can be a rich forum for noticing student relationships, especially if teachers consider how students in these settings are reading the social context as much as the text at hand. Lessons learned from remote teaching can also foster rich

noticing as teachers attend to the nature of students' participation with digital media that fosters interaction – such as chat boards and online discussion groups – translated into use in in-person classrooms.

Just as in pre-pandemic times, invitations to participate in learning with highly interactive social interactions should be seen as just that, as *invitations,* and children should be given space to accept or reject these invitations on their terms. Even if certain students shy away from small group text discussions or remain quieter when class-wide discussion is underway, these may be fascinating points of inquiry into what matters as these students build relationships with peers, teachers, and texts in their own ways. Table 3 provides a sampling of teacher actions connected with noticing children's relationships.

Table 3

Noticing Actions for Children's Relationships

Noticing Dimension	Sample Actions
Attending	*Treat children's relationships to one another as a window into their social interests and capacities. Pay close attention to the relationships children are seeking to build. *Attend to a variety of spaces where children's relationships play out (e.g., before and after class). If applicable, observe how relationships play out in online interactions. *Look out for students who seem to have fewer strong relationships with others. Do they appear to want such relationships? What might hold them back? *Consider how characteristics such as race, gender, and LGBTQIA identity might factor into children's relationships.
Interpreting	*Use caution in labeling children's social skills and relationships; questions may be more helpful. *Reconsider treating peer interaction as "off task" behavior. *As students make sense of relationships among characters portrayed in classroom texts, consider how these interpretations could reflect students' own efforts to navigate relationships. *Consider how one's own experiences with relationships may be affecting how one interprets children's relationships. *Look for ways that belonging, trust, loss, and safety might play out in new ways for relationships in a post-pandemic world.
Shaping	*Create literacy activities centered on peer talk. *Pose questions and follow-up questions that elicit children's thoughts on their relationships. *Where it feels supportive to do so, ask students to connect ideas with what another student has said. *Use texts, prompts, discussions, and even whole units that invite conversations about relationships.

	*Include texts that reveal rich, positive, and multidimensional aspects of different cultures, life experiences, and identities. **Consider adapting remote teaching's participatory digital pedagogies (e.g., group chats) to make in-person literacy learning more social. *Allow children to reflect on how ways of engaging with others in the classroom may have been altered by the pandemic. *Develop practices supporting belonging and relationship development rather than competition. Encourage student invention of joint rituals (Boyd, 2016; Boyd et al., 2018). *Create supported opportunities for students whose social networks are less strong to connect with others.

Noticing Children's Purposes

In 2020, the National Literacy Trust in England conducted a study about children's reading habits (Clark & Picton, 2020). Among other things, it compared survey results from children aged 9-18 just before the pandemic and just after it started, during lockdown. One finding was that a third of children reported reading more for pleasure after schools shut down. These results were not unique to England; similar results were found in a Singaporean study (Sun et al., 2021). Among those who had already liked reading in the English study (Clark & Picton, 2020), 38.3% reported enjoying reading more during lockdown (compared with only 7.5% who liked it less), but among those who already didn't enjoy reading, only 13.9% did (compared with 20.4% who actually liked it even less than before).

Several aspects of these findings illuminate the importance of children's purposes. First, children who dislike reading will not necessarily suddenly gravitate toward it when given more time to do so. This finding suggests that schools can do more to nurture children's engagement in reading (and other aspects of literacy) so that, when unbound by the strictures of schooling (not just during pandemic closures, but otherwise in life), children may be more likely to recognize authentic purposes for engaging in literacy.

Second, there may be something within traditional schooling itself that works against children reading as *they* would wish. Some of this, of course, is due to time. Many students reported having more time to read during the pandemic than before (Clark & Picton, 2020). But another prominent theme identified by the study's authors was greater literacy autonomy during lockdown. As one study participant put it, "At home I can be myself and read, write and listen to what I want and need to" (Clark & Picton, 2020, p. 7). In other words, as often carried out, school can stymie children's literacy purposes.

While engaging in literacy for enjoyment is one important dimension of children's purposes, it is also important to recognize that children's literacy purposes during the pandemic (and otherwise) are much more multi-faceted than only enjoyment. For example, the first author's current research suggests that, during the pandemic, adolescents often read COVID-related media online in order to inform themselves; and they shared links for others to read in order to commiserate with others, to help others by informing them about the pandemic, and to prove a point in COVID-related disagreements (Burwell et al., 2022).

Even preschoolers show interest in being informed about COVID (Pascal & Bertram, 2021). Other authentic literacy purposes for children assuming special salience during the pandemic could be participating in group chats to stay in touch with friends and writing letters to loved ones they are separated from.

Yet taking children's purposes seriously as an educator ultimately also means refusing to build a teacherly fence around purposes ordinarily connected with traditional school literacy practices like reading and/or writing. After all, children may not, from their perspective, have "literacy purposes." They have purposes, period – things that they do because those things matter to them that may or may not involve anything "literacy." One of the tasks of a literacy teacher is to help children consider when and if literacy might enable them to meet purposes important to them – even when (and perhaps especially if) those purposes are not on the face of things "literacy" purposes. As Dyson (1993) put it, literacy curricula should be made permeable to children's intentions. Of course, honoring children's purposes may mean recognizing that not every child's purpose can or should be tied to a literacy task that will be meaningful to that child: a child may love Minecraft but find no authentic purpose in writing or reading about Minecraft.

Children's purposes can be related to emotion (e.g., finding something funny or moving), to funds of knowledge (e.g., pursuing an interest in knitting, archery, or dinosaurs), and to relationships (e.g., making other kids laugh or affiliating with a friend's point of view). As such, noticing children's purposes can mean highlighting any of the three dimensions already described above, and even bringing them together. But, of course, children's purposes extend beyond these things as well, including everything from wanting to learn something they are curious about to wanting to right an injustice. Teachers may encounter very limited opportunities to effectively notice children's purposes unless the children in their care have meaningful opportunities for agency, that is, for "being able to influence and make decisions about what and how something is learned in order to expand capabilities" (Adair et al., 2017). Highlighting choice and voice is at the heart of shaping in the service of noticing children's purposes.

It is also worth noting that taking children's purposes seriously as teachers also should mean seeing children's play as integral to their school experience. Rogers (2022) has argued that a defining aspect of children's purposes is agentive, child-driven play, and has documented that this urge to play remains in middle and latter childhood. During the pandemic, children have often had more time to play (Gray, 2020; Rogers, 2022), and play has helped them work through difficult ideas through activities such as what might seem like morbid self-developed "death games" exploring the demise of a parent (Pascal & Bertram, 2021). At the same time, children have also had some unusual constraints on their play (e.g., trying to play dolls via Zoom with a friend).

As children return to school, their learning opportunities should centrally include child-led social and pretend play, and literacy classrooms may be a particularly natural fit for such opportunities. Children deserve to make up for lost time playing with peers, and they will need opportunities to use play to work through what they have experienced and are continuing to experience related to the pandemic itself. Even where play is not fully child-led, teachers can attend to how children are responding to play-inspired learning opportunities by "weaving in elements of subject knowledge deemed desirable by society at appropriate moments... without disrupting the play to such an extent that it loses its

playful qualities" (Rogers, 2022, p. 497). To do any of this well, noticing what counts as play for children, as well as noticing other purposes salient to children, is vital. Table 4 provides a sampling of noticing actions for children's purposes.

Table 4

Noticing Actions for Children's Purposes

Noticing Dimension	Sample Actions
Attending	*Consider what kinds of texts, authors, and reading experiences draw particular children in. *Attend to what kinds of writing opportunities elicit more voluntary engagement (sometimes visible through writing more, or more vividly).
Attending	*Consider what kinds of play does a child engage in. *Listen for when a student may talk about their reasons for doing things, or for not doing things, at home and at school.
Interpreting	*Inquire into what social, intellectual, and emotional purposes appear salient to the child during literacy activities. *Be aware that children can hold multiple purposes simultaneously. *Consider that children's purposes can change, both in the moment and across longer stretches of time. *Reflect on what ideas, especially difficult ones, children seem to be working through in their play, reading, and writing. Look beyond the "what" to consider deeper themes. *Consider how one's own preferences might be shaping what purposes are privileged; shake that dynamic up. *When students resist activities, interpret that in light of possible purposes rather than as misbehavior.
Shaping	*Offer choice in text and activity and make literacy prompts open-ended; what do different children do? *Consider provocations that encourage social and pretend play. *Consider an emergent curriculum shaped by student interests. *Consider tying literacy activities to real-life purposes (e.g., writing real letters); see how students take these up. *Integrate opportunities for the students to engage in purposes that might be less typical for school (e.g., preparing a meal together). *When children introduce an unexpected purpose into a planned activity, consider rolling with it. *Ask students their opinions and ideas, and allow these to shape what happens next.

Toward Post-Pandemic Noticing that Honors Children

Above, we have outlined four dimensions of teacher noticing that we believe should have an integral place in the literacy classroom: noticing children's emotions, noticing their funds of knowledge, noticing their relationships, and noticing their purposes. Each dimension has special poignancy as children return to school after a wide range of experiences during the pandemic, but each is equally important for how it can enrich teaching in ways not directly tied to the pandemic. Whether one year or one hundred years "post-pandemic," children will bring emotions, funds of knowledge, relationships, and purposes into what they do at school, and teachers would do well to notice how different children are doing so in different ways.

In addition, of course, literacy teachers should engage with what might be seen as more traditional disciplinary noticing. They should be observing how students are engaging with literacy in ways that link to literacy goals like developing decoding proficiency, comprehending text, being able to use texts to accomplish things, and engaging in critical literacy, as well as writing and oral language development (Aukerman & Chambers Schuldt, 2021; Luke & Freebody, 1999).

To engage with where children have been during the height of the pandemic/quarantine and with what is important for them after their return to regular in-person settings, instruction should be meaningfully contingent on what is noticed in all of these domains, both in moment-to-moment interaction and as instruction unfolds across a school year. Rather than being slotted into a one-size-fits-all learning loss narrative, each child will have a different pandemic and post-pandemic story that teachers can learn from, engage with, and help further develop. Done well, each child and each class of children will look different from others, and literacy teaching should engage with those differences with developmentally appropriate and carefully tailored teaching, assuming a stance of curiosity and respect toward who children are and what they bring.

Such work may feel ambitious: there is nothing simple about noticing, and even less that is simple about noticing children with curiosity and respect amidst a continuous swirl of learning loss narratives. Yet, navigating that complexity, even in inevitably imperfect ways, is something teachers arguably owe to the emotional, competent, social, and purposeful children with whom they have the honor of engaging in the play and work of literacy together.

Author Note

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Liam Aiello is a postdoctoral scholar for the Teachers as Learners Project at the University of California, Davis, where he studies how teachers develop equitable approaches to classroom talk with diverse learners. Liam is a former fifth grade teacher, and more recently has taught education courses at Mills College and provided professional development through Stanford's Center to Support Excellence in Teaching. His scholarship investigates the tensions that teachers navigate when facilitating class discussion; the ways inclusive pedagogy is received by youth; and the affordances that teacher noticing frameworks hold for inquiry-based teacher education. His work has been published in the Harvard Educational Review and English Journal. He can be reached at ltaiello@ucdavis.edu.