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Welcome to the oops club!: Varied patterns of mistake responses in a veteran teacher's classroom

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This study explores the range of distinct mistake responses that one veteran public school teacher employs with her class of 20 Kindergarten students during daily learning and teaching. Relying on more than 60 h of classroom observations and using a grounded theory approach, a micro-level, qualitative analysis of the teacher's responses to each child's mistakes was conducted, attending to words and actions during instructional interactions captured in fieldnotes and video recordings. Data analysis of observed teaching practices revealed five distinct patterns that the teacher used to help children correct academic and/or behavioral mistakes. The amount and type of teacher involvement ranged from little engagement with mistakes for students who rarely made any, to heavy-handed supports for children who routinely struggled to obtain right answers.

KEYWORDS

young children, teacher response, individualized instruction, error correction, qualitative research, teacher-student relationship, mistake

Introduction

Research has borne out time and again that mistakes and feedback are expected and necessary components of learning and teaching (Hattie and Timperley, 2007; Winstone et al., 2017). While engaged in learning activities, students ideally should develop and hold positive beliefs about errors because it encourages more adaptive responses to mistakes (Tulis et al., 2018). When it comes to fostering these beliefs, children construct their conceptions of failure and mistakes in the context of moment-to-moment instructional interactions (DeLiema, 2017). This means that we want classroom teachers to promote eager and engaged student participation in new learning challenges and to support intellectual risk-taking. Teachers should strive to foster growth mindsets in which their students are resilient in the face of failures and view effort as a means of improving their abilities (Dweck, 2006). Because children's attitudes toward learning are shaped by the attitudes of people in their social worlds (Vygotsky, 1980), the nature of teacher feedback about children's mistakes is of critical importance. Children's perceptions of feedback can shape their affective and motivational responses to mistakes (Zentall and Morris, 2010); so, to the fullest extent possible, teachers should make every effort to encourage positive perspectives of errors and feedback among children.

Teachers enact specific instructional strategies when students make mistakes in the classroom, which can include—whether intentionally or unintentionally—a range of responses (e.g., Champagne, 2019; Donaldson, 2021). Also, how students receive and react to feedback plays a key role in how they learn (Winstone et al., 2017). Teachers often attempt to tailor their instruction to each learner, so they can address the particular needs of individual students (Donaldson, 2019a). With that in mind, we would expect that teachers do not uniformly respond

to mistakes in the same way at all times for all people, instead adapting to each child's needs and the particulars of a given learning situation.

Decades of controlled studies allow us to distill decontextualized best practices and rule-of-thumb principles about the best way to provide feedback. However, teaching does not occur in a vacuum. Teachers are constrained by district policies and expectations, school cultures, classroom dynamics, and resource availability—all of which can impact how they instruct, support, and respond to students on a day-to-day basis. In the pursuit of translational and applied insights that connect theory and practice, researchers should more frequently explore how instructional practices play out for teachers and children in real-world classroom settings. It would be wise to further consider the complexity of day-to-day mistake-related interactions, expanding the literature to include more descriptive, qualitative studies that reflect how teachers vary their mistake responses to different children *in practice* within a single classroom community.

In light of the need for more research, this qualitative study examines how one veteran teacher—“Anna”—responds to the 20 individual students in her Kindergarten class during mistake-related, instructional interactions. The aim of the analysis is to identify and then clearly articulate the mistake response patterns that this teacher employs with various students within a single classroom community. Specifically, I have chosen to focus on micro-level interactions in Anna's classroom; these include small-scale, back-and-forth exchanges during class discussions or practice activities, brief one-on-one feedback conversations, and other small moments of engagement between Anna and individual students. Through close looking in one classroom, this study provides a nuanced illustrative example of the habits and patterns of mistake response that a teacher may—at times, unknowingly—default to during instruction.

Responding to mistakes during learning and teaching

Opportunities for students to make mistakes and to receive subsequent feedback are a critical part of effective classroom teaching. The specific wording of praise or feedback provided by teachers can influence a child's motivation (Cimpian, 2010) and future responses to academic challenges (Zentall and Morris, 2010); ideally it is specific, prompt, and actionable (Hattie and Timperley, 2007).

During classroom lessons, teacher responses to mistakes influence student orientations, motivations, and behavioral tendencies. Learning is socially constructed (Vygotsky, 1980), and teacher-student relationships can have a sizable impact on children (Pianta et al., 2003; Palermo et al., 2007). Teachers help shape mindsets about mistakes, particularly whether their students believe it is possible to expand one's own capabilities and—through effort—to overcome missteps and failures (Dweck, 2006). In subtle micro-level interactions with children, teachers model expected responses to mistakes and convey their values about student performance during instruction. When they prioritize process over product and attend to their students' emotional responses to errors, teachers help to support critical thinking and encourage learners to push through their frustrations (Hennessy Elliott et al., 2023).

Over time, patterns of teacher-led, mistake-related classroom norms, communications, and instructional practices comprise what some have termed an “error climate” (Steuer and Dresel, 2015). This

is shaped by three main dimensions: teacher behaviors (e.g., tolerance for errors; support after mistakes), student behaviors (e.g., classmate reactions to errors; confidence taking risks), and social processes of learning (e.g., communication about errors) (Steuer and Dresel, 2015). The types of mistake-response strategies that teachers utilize impact their students' perceptions of the classroom error climate (Soncini et al., 2021). Feasibly, these dimensions could vary by teacher, or even within the same teacher across different circumstances. As a complement to the range of mistake responses demonstrated by students, teachers provide a host of different instructional supports as learners navigate intellectual challenges (Flood et al., 2022; DeLiema et al., 2023). The way a teacher structures a classroom environment has the potential to increase children's willingness to admit their mistakes during the learning process (Porter et al., 2022), better positioning them to learn from previous errors and accompanying feedback.

Some international researchers have reported that teacher responses to mistakes vary depending on the country, with drastic cross-cultural differences (e.g., Eriksson et al., 2020). To date, only a small number of studies have looked specifically at U.S. elementary teacher responses to mistakes during daily instruction, inquiring into how error climates manifest in American classroom contexts. While we know that U.S. elementary teachers consider mistakes an important and expected part of learning (Donaldson, 2019a), they also can hold fairly negative views of failure and mistakes (Lottero-Perdue and Parry, 2017) and tend to be less direct in their corrections, compared to teachers in other countries (Santagata, 2005; Schleppebach et al., 2007). However, some studies report striking differences among U.S. elementary teachers within the same school or region (Bray, 2011; Donaldson, 2021), demonstrating that behaviors are not uniform within this subset. Additionally, U.S. elementary teachers strive to individualize instruction within their classrooms by tailoring their responses to mistakes to each child's personality and academic need (Donaldson, 2019a).

The literature would benefit greatly from more work that demonstrates the nuance and range of micro-level interactional patterns that American elementary teachers employ in response to young children's mistakes in a class of students with diverse needs. To that end, the research questions guiding this study of one Kindergarten teacher's instructional practices are: How does the teacher tailor responses to children's mistakes during instruction? What patterns emerge when examining child-level variations in teacher responses over time?

Methods

Study context

This analysis of teacher interactions with individual children leverages observational data in Anna's classroom that were previously collected as part of a broader portraiture study documenting day-to-day teacher responses to mistakes during instruction in several Kindergarten classrooms (Donaldson, 2021). Portraiture is a phenomenological approach that, like ethnography, allows researchers to inquire into the lives and experiences of particular people and places over time, affording an in-depth understanding of individuals, social norms, relationships, and other nuanced contextual factors

(Lawrence-Lightfoot and Davis, 1997). The data collected for the portraits yielded richly detailed fieldnotes and transcriptions that have been re-analyzed for the current study—a thematic analysis of observed teacher responses to individual children’s mistakes in Anna’s classroom.

Anna was the most experienced of the participating teachers in the portraiture study. At the time of data collection, she had been teaching for nearly 25 years—20 of which were in the public school, Kindergarten setting where she was observed. Her school is in a small suburban town located within a major metropolitan area of the Northeast United States.

In her well-funded district, Anna benefits from a wealth of resources, including physical teaching materials (e.g., books, manipulatives, and games) she has amassed over the decades, substantial personnel support (e.g., a nearly full-time classroom aide; daily parent volunteers), a beautiful sun-lit classroom with ample space, nearby access to a bathroom and a private playground, and a moderate amount of instructional autonomy as she teaches the district-prescribed curriculum. During instruction, she engages students in a mix of whole-group activities and discussions, individual seatwork, and small-group targeted interventions. Anna’s affect tends to be positive in her daily interactions with students. She is especially eager when students make mistakes, taking time to draw attention to their errors to help clarify common misunderstandings and confusions for everyone, while enthusiastically cheering children for their contributions. Due to her decades of teaching experience, her established interest in learning from mistakes, a well-supported school context, and the full participation of all children in the study, Anna’s classroom is particularly suited to a closer analysis of teacher-child, mistake-related interactions.

Data collection

Anna and her 20 Kindergarten students were observed for a total of 60 h, spread out over a six-week period. All instruction was recorded on a handheld digital video camera attached to a small, easily-movable tabletop tripod. To capture video and audio of interactions with children to the fullest extent possible, I closely tracked the teacher and adjusted the placement of the recording device based on her movements in the room. As needed, small digital audio recorders were placed near the teacher to supplement audio in the video recordings, particularly during one-on-one teacher-student interactions and during noisier classroom activities. Recorded activities included lessons, discussions, small group activities, seatwork, and one-on-one instruction. As is standard in U.S. Kindergarten classrooms, Anna instructed students in all major subjects—including language arts, writing, math, social studies, and science—so the observations included mistakes made in the context of a broad range of academic content. I took detailed fieldnotes during in-class observations, carefully noting the video timestamp when a potential mistake or misunderstanding occurred, as well as other potentially relevant and noteworthy occurrences during instruction.

Broadly speaking, the word *mistake*¹ can be defined as a “misunderstanding” or “a wrong action or statement proceeding from faulty judgment, inadequate knowledge, or inattention” (Merriam-Webster, 2023). There are many mistakes that align with

this definition but are also developmentally appropriate and expected in an early childhood classroom (e.g., invented spelling; letter print errors). I sought to keep an open mind and capture as many instances as possible, as indicated by the words and actions of the teacher and the children. My identification of mistakes in Kindergarten was focused on times in which the child did not seem to meet an expectation (academic or social/behavioral) or did not provide the target answer, performance, or behavior, as well as any explicit statements by children or the teacher that were related to mistakes. However, it bears noting that my identification of mistakes was informed by prior professional experiences as a lead teacher in preschool and Kindergarten classrooms and an extensive review of relevant research literature on learning from errors and feedback. In a related interview study, I found that Kindergarten teachers reported three common types of mistakes: “content-specific misunderstandings,” “process mistakes” related to inattention or not following directions, and “behavioral/social infractions” (Donaldson, 2019b). These categories align with the types of student mistakes I observed during my time in Anna’s class. Specific examples of mistakes Anna responded to include: wrong information provided, hesitations when responding, admissions of not knowing, incomplete answers, being off task, incorrectly following provided steps, calling out during discussions, and being unkind or distracting to peers.

After each day of data collection, I wrote an Impressionistic Record (Lawrence-Lightfoot and Davis, 1997) outlining major events, potential emergent trends, questions of interest, and things I wished to ask or attend to in subsequent visits to the class. Immediately after completing fieldwork, I closely reviewed the video recordings and returned to each individual timestamp to prepare selected transcriptions of Anna’s instruction, capturing the sequence of each mistake-related interaction previously identified in the fieldnotes. Details in the fieldnotes primarily focus on dialogue, but also include facial expressions, physical movement around the room, and other non-verbal behaviors (child or teacher), as relevant. The resulting 124 single-spaced pages of transcriptions serve as the data source for the purposes of this child-level analysis of teacher-child interactions. In preparation for the present study—a thematic analysis of the prior data—I considered the 20 students, one-by-one, compiling all instances in which a child was mentioned in the transcriptions. Each of the resulting 20 datasets include all of that individual child’s micro-level, mistake-related interactions with Anna that I observed and transcribed during my time in their classroom.

Analytic process

While several key studies of teacher responses to mistakes have systematically coded videos or transcriptions in order to tabulate frequencies of various mistake-related events (e.g., Schleppenbach et al., 2007; Tulis, 2013; Champagne, 2019), I opted for a phenomenological approach to develop descriptions of teacher and child behavior. The fine-grained details captured in the observational data illuminate the lived experiences of children and teachers as they are embedded in their classroom community. The transcriptions reflect the multi-faceted nature of micro-level, mistake-related instructional interactions and allow for comparisons across many instances over time. Throughout this process, I was open to seeing how Anna’s responses to mistakes manifested in different ways,

¹ In this article, the terms *error* and *wrong/incorrect answer* are used as synonyms for the term *mistake*.

examining potential variations within and across interactions with each student.

For this study, I employed a grounded theory approach; rather than apply predetermined categories to the data, I developed categories from the data themselves (Strauss and Corbin, 1994). Leveraging the observations and recordings from the portraiture study, I was able to carefully consider the classroom processes that reflect the day-to-day life experiences of the 20 children and the teacher. The child-level fieldnotes—i.e., moment-by-moment transcriptions of speech, gesture, and action for all mistake-related occurrences observed—were analyzed through emergent, instance-by-instance, open coding (Charmaz, 2006) in the qualitative analysis software program MaxQDA. The goal of this first cycle of coding (Saldaña, 2013) was to characterize the patterns of teacher-student interaction experienced by an individual child. Open coding allows researchers to “break down qualitative data into discrete parts, closely examining them, and comparing them for similarities and differences” (Saldaña, 2013, p. 100). In this study, I utilized process or action coding, which employs gerunds (“-ing” words) to highlight the action reflected in the data (Charmaz, 2006; Saldaña, 2013). With this approach, I went one instance at a time, “splitting” the dense transcriptions into small sections, each labeled with an active, descriptive code.

In a second cycle of coding (Saldaña, 2013), I engaged in iterative review of the previously assigned emergent codes, during which time I could triangulate across instances to develop and refine the themes—drawing them directly from the data (Strauss and Corbin, 1994). Through pattern coding, I was able to “collect similarly coded passages from the data corpus” (Saldaña, 2013, p. 212), thereby preparing a detailed memo for that child that included articulations of themes with multiple supporting excerpts from the transcript placed immediately below. This full process of first and second cycle coding was repeated for the remaining 19 children—one by one—such that each individual had a detailed memo containing evidence and descriptions of the mistake-related patterns observed during instruction in Anna’s classroom.

Once the coding and memo-writing were completed for all 20 children, I engaged in another round of pattern coding to identify what, if any, clusters of interaction patterns emerged across the class. To do so, I iteratively reviewed the 20 child-level memos, seeking distinct differences and similarities in the themes that I had previously developed to categorize the mistake-related interactions each individual had with the teacher. Based on this process, I grouped the children into clusters. Children were placed in the same cluster based on similarities in the themes and types of instances identified during the individual child-level analysis. In a thematic memo, I took additional notes on these common characteristics, capturing similarities and differences in instructional moves, tone, affect, and other attributes of the teacher’s interactions, along with relevant child behaviors and dispositions observed across instances.

Results

Analysis of the observational data from Anna’s classroom yielded five distinctive patterns of how this experienced teacher interacted with these 20 young children in practice, as it relates to mistakes and learning during instruction:

1. Confirm as correct
2. Check & correct
3. Affirm & support
4. Redirect behaviors
5. Combination (Check & correct + Redirect behaviors).

The specific attributes of each mistake response pattern reveal ways that Anna individualized her interactions according to different children’s needs and behaviors. Below I describe each identified pattern of teacher responses and child behaviors/needs, along with relevant examples that illustrate what the mistake-related, teacher-child interactions looked like. Note that all teacher and student names have been replaced with pseudonyms in order to protect the identities of the participants.

Confirm as correct

Four of the 20 children in Anna’s classroom rarely made mistakes on written work or during class discussions. These children were the top performers who consistently and independently completed their work correctly and adhered to class norms at virtually all times. Because they correctly and diligently completed work on their own, stayed on task, and followed the rules, they made almost no mistakes and had few, if any, mistake-related interactions with the teacher.

Anna tended to check their independent work—which typically had no mistakes—without much fanfare. For instance, when Stephania had made short work of a small practice activity prior to the morning meeting, Anna looked at it, affirmed that she “got it” right, and then softly said to the child, “Do not show anyone. Go put it in your chair pocket. You get another one tomorrow.” Interactions like this were matter of fact and did not contain much emotion from Anna. The children simply received a quick affirmation from the teacher that the job was completed and that they should move on to the next task. On the rare occasion that one of these students made a mistake, Anna addressed it directly and promptly. In another example, Rachel was checking in one-on-one with the teacher after working independently to come up with word families for the *-ug* suffix. Anna noted that Rachel had written her *j* backward on the whiteboard. “Fantastic,” said Anna. Then, with a swipe of her finger, she smudged away the *j* and explained, “Only thing is ‘Turn around, you rascal *j*.’ This is fantastic,” writing a smiley face at the top of the chart before directing her to “Erase it, stand up, and move on to another card.” In this and other infrequent moments of mistakes, I did not witness much of an outward reaction from these children; they just took Anna’s correction and moved on.

Anna also tended to hold up these four students as models to others. She positioned them as reliable sources peers could turn to if unclear on how to complete a task, or if they needed a reminder of how to sit or behave. On one particular occasion, Anna was asking the class questions to see whether they could restate her instructions. With each question, Maggie provided the right answer when others could not. Anna urged the rest of the children to keep trying, saying “Raise your hand if you are ready to help our Maggie do some of the work around here.” She said this to the children in many ways; the fact that Maggie kept getting the answers right was a model she wanted others to aspire to so they could “share her job” and also get the answers right. In another instance, Stephania kept getting the answers

right when recounting the steps they should follow to get themselves ready to start the day. When Stephania stated them perfectly as a refresher for the class, Anna exclaimed, “Wow, Stephania! If I’m ever out sick, you could be me!” Further, one day she actually assigned Liam and Stephania as her “teaching assistants,” checking student homework and adding stickers and date stamps to ensure that their peers’ worksheets were completed properly. I watched the pair as they sat at a table reviewing work while the teacher directed the other students to settle on the rug and begin the morning meeting.

With these four children, Anna utilized a *Confirm as Correct* strategy. Their social status in the classroom community was positive and their teacher framed them as achievers and leaders. Because the work came easily to them, they had a much lower incidence of making mistakes. While good in some respects, it also means that they missed out on some highly valuable learning experiences, like wrestling with a challenge, troubleshooting when stumped or confused, and building emotional resilience in the face of mistakes. However, lack of the children’s emotional response in the few times Anna confronted them with their mistakes may indicate that, although they rarely experienced personal challenges, these children were open to feedback—at least in this particular classroom context.

Check & correct

With seven of the Kindergarteners—about one-third of her class—I observed that Anna typically began mistake-related interactions with a brief moment of guidance about how the child could correct themselves, before sending them off to fix their mistakes independently. This *Check & Correct* mistake-response pattern was the most commonly employed in Anna’s classroom. Like the children in the previously detailed *Confirm as Correct* category, the children in the *Check & Correct* teacher-child interaction pattern also consistently followed class rules and norms. The key differences between these two groups are that the *Check & Correct* children (1) were not often held as models for peers to emulate, and (2) more regularly had instructional interactions with Anna about mistakes they made in their academic work.

When one of these students made an academic mistake, Anna provided the information or strategy needed to fix it (check) and then gave the child an opportunity to go self-correct independently (correct). As an example, Samantha was filling in the weather chart during the morning meeting and said that it was a very windy day when it was actually calm and still outdoors. In response, Anna invited her to take a fellow student with her to go open the back door of the classroom and check the weather. The girls walked to the door together and, shortly afterward, returned to report their observations, adjusting Samantha’s previous response to be more accurate. At another moment, when Melissa was doing writing for the day, Anna offered her a reminder to “Check yourself for neat handwriting, snap words...” after which I saw Melissa reviewing her work on her own as her teacher walked away. I also observed that occasionally, for very minor errors, Anna sidestepped the hints and just directly fixed errors for the child. This could be simply telling them to reverse a “rascal” letter that they had written incorrectly (e.g., confusing letters *b* and *d*; scribing the mirror image of the letter *j*). Or, in another instance, when Ryan provided a partially correct answer during a whole-group activity, she asked, “Can I help

you finish fixing that?” and went on to make a slight adjustment to ensure the fully correct answer was on the board for the class to reference.

I also noticed that Anna often looked over the shoulders of her students to check their progress and make corrections along the way, as they worked. As Ashley practiced a new letter form the teacher had just demonstrated, Anna asked, “Can I watch you?” and observed as Ashley tried out the technique. As Rory practiced handwriting on a different day, she brought over her completely covered whiteboard to check with the teacher. When presented with the finished handwriting exercise, Anna said, “I cannot just look at the end results; I have to see you do it.” The teacher’s interest was in observing the process by which Rory produced the letter, not simply that it was formed properly on the whiteboard.

By observing their work and providing concrete directions and hints on how to correct mistakes, the teacher helped these seven children make their way to right answers. With the *Check & Correct* group, Anna varied the amount of support she offered when mistakes were made—ranging from asking the child a probing question, to giving a direct instruction of what to do next, to providing the right answer. She also checked in to make sure they could complete the tasks independently. Because they presented few, if any, behavioral issues, these interactions typically went smoothly. Also, along the way, the teacher praised and affirmed each child’s work, cheering successes, partially right answers, and even mistakes made during valiant but unsuccessful attempts. The one-on-one discussions with their teacher helped the children know specifically how to improve their work. I watched as these students seemed willing to take intellectual risks and responded promptly and positively to Anna’s feedback.

Affirm & support

In Anna’s class, there was one child who had almost no lapses in focus, consistently followed the rules, and worked very hard, but—despite his best efforts—struggled to correctly answer academic-related questions. Lionel was an eager participant in the class and was willing to attempt an answer despite repeatedly being wrong. However, because most of his responses were incorrect and since he typically did not know how to correct his own mistakes, Anna could not send him off to do work on his own—a go-to directive for the children who experienced her *Check & Correct* responses. Instead, with Lionel she took an *Affirm & Support* approach, eagerly encouraging his participation—even when wrong—but also frequently engaging with him in lengthy help sessions so that she could guide him to complete tasks, step by step with extensive teacher support.

Anna’s responses to Lionel consistently began with affirmation and cheering. She was quick to say “wow” when he moved toward providing an answer, or to call out a “great oops” that he made. Also, she often—with a hint of excitement and enthusiasm—enlisted the classroom community of peers to help this Kindergartener fix his publicly aired mistakes. For example, during a shared reading, the constructs of *past*, *present*, and *future* came up. When Lionel incorrectly defined the future as “a long time ago,” Anna orchestrated a visual demonstration for him, recruiting Luke, Rachel, and Kelsey to play out the roles of these three concepts as she took a couple of minutes to explain in depth what each word means and how the definitions relate to each other.

Anna provided frequent, targeted help so that Lionel could try to correct his own mistakes when possible. First, she often gave him multiple chances to try to self-correct, followed by a substantial investment of time in one-on-one check-ins with the teacher. During one of these meetings, Anna and Lionel were reviewing sight words, foundational for his Kindergarten reading and writing. While looking at the written word *of*, Lionel incorrectly guessed it was the word *for*. Anna replied, “It does look like *for*. This is *of*.” This was an initial mistake, after which Anna spent additional time with Lionel reviewing the other sight words *can*, *see*, and *you*. In an attempt to help him learn how to identify these words, Anna offered clues, songs, sign language, and other reminders that he could hopefully rely on in the future.

Both Anna and Lionel exhibited positive attitudes toward each other throughout these interactions. Lionel rarely, if ever, hesitated to offer an answer when prompted, while Anna never hesitated to correct and gently support Lionel’s learning from mistakes. They had frequent communication about errors, which was costly to Anna in terms of the remaining time she had to devote to the other 19 children in the class. During the duration of my observations of the class, Lionel definitely appeared to receive more individual attention from Anna than most of her other students.

Redirect behaviors

For four of her students, Anna gave quite frequent feedback about behavior, particularly during whole-group instructional discussions. When these students made an occasional academic-related mistake, Anna interacted with them in the same way as the *Check & Correct* group. However, the bulk of Anna’s mistake-related interactions with these four children centered on addressing their lack of focus or curtailing disruptions during class time. When these types of social mistakes occurred, her *Redirect Behaviors* interventions reminded the children to employ concrete strategies to get themselves back on task and plugged into the class activity.

To help them recenter, these children were frequently offered what Anna called “focus tools,” which included clipboards with paper and pencil to write notes, fidget spinners, weighted blankets, special chairs or pillows, and more. Anna would direct the child to take a moment to select a tool and then get repositioned with it, so that the student could channel any frenetic energy during class. For instance, one day Russ was talking while Anna was in the middle of a lesson. She paused and said, “Russ, my friend, remember to write on your idea clipboard – that’s what it’s for. You’ve got great ideas; they just cannot come out right away sometimes.” For Drew, Anna would often direct him to take a seat in a special chair to help him focus his thoughts: “Drew, I’m gonna ask you to find your listening look. If you want a cushion from under my desk, help yourself.”

Another way I regularly observed Anna *Redirect Behaviors* was by having these children temporarily separate from the class. They could try to regroup, either by taking a walk with an aide, or by heading to the calm corner—a small section of the room with a mirror and some posters about facial expressions. When Anna prompted these moments away from the rest of the class, she provided an opportunity for the children to self-assess whether or not they were ready to engage in learning. For example, after sending Kelsey to the calm corner, she asked, “Look yourself in the mirror and see do I have a ‘I’m ready to work’ face”—urging her to take a few moments to prepare for in-class

learning. One morning when Will was making noise after Anna rang a bell to get the class’s attention, she told him, “Will, I’m gonna ask you to start your day in the calm corner. Watch your body in the mirror.” These prompts for the children to go observe themselves were an attempt to help them develop a sense of how their facial expressions and body posture relate to their mood and focus level. Time away from the other children also gave them a chance to collect their thoughts and/or emotions, so that they would be better prepared to engage in the learning activities.

Compared to their peers, the children who predominantly received classroom-management-related feedback from Anna tended to have a much higher number of mistake-related interactions. During these behavior-related exchanges, Anna was even but firm in her tone, insisting that they either refocus right away or take time away from the group until they were ready to sit quietly and/or engage with the activity at hand. By comparison to other groups, the children getting behavioral redirections displayed more emotional responses during their interactions with Anna.

Combination (Check & correct + Redirect behaviors)

Anna interacted with four additional children in a hybrid way, engaging them in a blend of mistake-response patterns. Over time, I observed that she offered these students a mix of both academic-related feedback and redirections related to being off-task. In either instance, Anna used some strategies similar to the other patterns described above—e.g., sending to the calm corner as she did in her *Redirect Behaviors* strategy; and commenting on their work or answers in real time as in the *Check & Correct* approach. I did notice one difference: Anna was more hands-on with helping correct academic mistakes made by children in this *Combination* response pattern, as compared to those in the *Check & Correct* group, who were urged to fix their mistakes more independently. It is worth noting that, overall, this final group did not have a large number of mistake-related interactions with their teacher—the children were present but mostly flew below the radar screen in the class, while other classmates drew more attention. The one exception was Felix, who made an extraordinarily high number of mistakes. Out of the 20 children in the class, he was one of the students with the highest number of instances, rivaling the level of academic support provided to Lionel (*Affirm & Support*).

It seemed that Anna felt Felix required a very sizable number of interventions to keep him focused and able to complete assignments throughout the day. Felix was learning English as a second language and received extensive one-on-one support each day (primarily from the class aide or an adult volunteer in the room), so that he could complete academic tasks. Anna would extend frequent praise for Felix’s successes when doing something hard (“So impressed!”) and also did not hesitate to call out when he needed corrections for his behavioral choices (“Felix—what was my direction, buddy?”).

Discussion

Given the power of feedback in learning (Hattie and Timperley, 2007), it is important to develop more refined models of how

U.S. teachers interact with children when they make mistakes, get confused, or demonstrate misconceptions in real-world instructional contexts. This study shows how Anna largely maintained a positive affect in her communication with the children, devoted substantial time to addressing both academic and behavioral mistakes, and integrated children's errors into the flow of classroom instruction. Qualitative analysis of mistake-related interactions over the course of several weeks revealed five distinct child-level patterns, demonstrating the range of ways that Anna provided individualized responses to children's errors in practice.

The development of these distinct approaches and accompanying descriptions is of great importance because many prior studies tend to characterize general, rather than specific, tendencies of U.S. teachers in their responses to students' mistakes. For example, [Schleppenbach et al. \(2007\)](#) compared responses to errors in U.S. and Chinese elementary math lessons. They reported that students made a similar volume of mistakes in each context, but U.S. teachers tended to frequently make direct statements about the students' errors, as compared to Chinese teachers who more often asked the students questions in response. In another study that examined middle school instruction in the U.S. and Italy, [Santagata \(2005\)](#) found that U.S. teachers were three times more likely to move to another student after an error was made, compared to Italian teachers, who more often stayed with the original respondent.

In both of these studies, clear patterns were identified and the teaching approaches were characterized as distinctive within each country. However, after observing Anna's classroom over time, I could see that she does not respond the same way to all 20 of the children in her class. For instance, a hallmark of Anna's instruction is drawing attention to the "great oopses" her students make. On many occasions, I watched her stick with the same student when a public mistake was made, much like the Italian teachers in the Santagata study. However, depending on the circumstances and the personality of the student, Anna might elect to take a completely different approach. Sometimes, I watched her provide a student with additional think time, requiring other students to remain silent while the child independently puzzled through to a correct answer. In other moments, I saw her invite a child who made an error to promptly ask for assistance from a peer, while at times, she would just provide the right answer herself. These sorts of variations mirror work by [DeLiema et al. \(2023\)](#), who observed that teachers employed multiple approaches when learners made mistakes, at times electing to give students the right answer and at other occasions giving them strategies to correct themselves.

The present study demonstrated that, rather than provide a fixed error response in all circumstances, Anna was not uniform in her approach. Her observed patterns of mistake responses fluctuated widely depending on the particular child with whom she was interacting. For example, for a third of the children in the class, she used a *Check & Correct* strategy, providing support to help them understand their mistakes but then pushing them to independently fix errors for themselves. By comparison, when taking an *Affirm & Support* approach with Lionel, she did not typically send him on his own to self-correct. Instead, a more intensive, heavy-handed interaction was necessary to address his mistakes because he was so often wrong or confused. In further contrast, for a child for whom Anna would *Confirm as Correct*, there were few, if any, mistake-related interactions with their teacher because the child was almost always right and was instead held as an example for peers. This wide variation in strategies

within a single classroom illustrates this teacher's adaptiveness as she strives to individualize her responses based on the children's performance, learning needs, and behaviors—often an explicit goal of Kindergarten teachers ([Donaldson, 2019a](#)). Instructional variations like these have been illustrated in other work (e.g., [Bray, 2011](#); [Donaldson, 2021](#); [DeLiema et al., 2023](#)) but are not always the main focus of research on feedback and learning from mistakes.

The study findings matter for many reasons. First, it is feasible that how a particular child engages with mistakes could be impacted by both the affective and substantive quality of the teacher-child interaction, as well as the child's observation of qualitatively different patterns that the teacher employs with fellow classmates. The study of Anna's teaching practices suggests that the differences in approach can be sizable and illustrates that they are often enacted publicly, for all children in the classroom community to observe. This is an important consideration due to the fact that teaching and learning are socially situated ([Vygotsky, 1980](#)). How students rationalize their mistakes can vary greatly from one teacher-child dyad to the next ([DeLiema, 2017](#)). Also, young children may adapt their behavior to manage their reputation among peers, desiring to be perceived as smarter and more capable in the eyes of other students ([Hicks and Liu, 2017](#)). Bearing these social factors in mind, an important takeaway is that when teachers individualize their mistake responses, they also need to consider the ways students will perceive these variations in social interactions, and how that might affect a child's view of mistakes and learning more broadly.

Second, this study offers a means by which to examine and discuss day-to-day, mistake-related teaching practices and interventions that are both context- and person-specific. One could interpret Anna's enthusiasm about mistakes as a positive contribution to the error climate in her class that had the potential to promote an adaptive perspective on mistakes among students ([Tulis et al., 2018](#); [Soncini et al., 2021](#)), particularly for those who experienced Anna's *Check & Correct* or *Affirm & Support* responses. Meanwhile, the children who experienced the *Confirm as Correct* or *Redirect Behaviors* mistake-responses had few opportunities to engage with their teacher about academic mistakes, and may have a different perception of mistakes and feedback than their peers. Crafting a detailed image of the range of individualized approaches that feed into a classroom error climate can help U.S. pre-service and in-service teachers visualize their own default strategies. This study can prompt educators to be self-reflective about their instructional practices and to gain a deeper awareness of how even fleeting interactions impact the social, interpersonal, and relational aspects of their own classrooms. The teachers' words and actions used during mistake-related interactions can impact children's mindsets about their ability to learn, as well as their motivation ([Dweck, 2006](#); [Cimpian, 2010](#)). In Anna's case, observations of this veteran teacher revealed that, when it comes to responses to children's mistakes, one size does not fit all.

It is critical to note that this study is observational and descriptive; it is not meant to assess the quality of Anna's responses to mistakes, nor does it provide a generalizable typology or set of "best practices" that others should necessarily aspire to emulate. Rather, the insights from this work can serve as an impetus for other teachers to think concretely about the range of student-specific responses to mistakes made during their own instruction and—importantly—carefully probe why they choose to utilize certain strategies with particular children. It could also prompt teachers to use methods like journaling, video

recording, or peer observation to deepen their understanding of their own approaches and to identify areas needing refinement or ways to mitigate potential bias. This can help them become even more intentional about how they enact mistake-related teaching practices, bearing in mind that variations in approach can and should be continually refined and individualized when shifting from one child to the next.

A limitation of the present study is that the findings are necessarily idiosyncratic to Anna and her students. However, by being tailored and specific in this analysis, we are able to observe the “universal in the particular” (Lawrence-Lightfoot and Davis, 1997, p. 14–15), thereby gaining a glimpse of the ways practicing teachers engage within a real-world classroom of children with diverse learning needs. Donaldson (2021) and Bray (2011) offered extended, qualitative case studies that carefully describe, contrast, and juxtapose the mistake responses of U.S. elementary teachers. These studies draw attention to the ways that teachers tailor responses based on the needs and attributes of the children in their classrooms and the differing school environments in which they are situated. Studies like this, as well as the present analysis, provide an impetus for additional close-up, qualitative reviews of mistake-related, teacher-child interactions that are captured over time, to help researchers better discern fluctuations in instructional patterns within day-to-day learning and teaching. Another limitation of this study relates to the tracking of students over time. The findings convey the heterogeneity of Anna’s mistake responses for each cluster of children, but there is likely more to unpack about the heterogeneity of the individual student experience. In a bustling classroom of 20 students, it was logistically impossible to capture and closely analyze every single teacher-child interaction that occurred over the course of 60 h of instruction. However, future investigations could narrow the number of students tracked and perhaps also track over an even longer observation period so that it is possible to look more closely at the ebb and flow of a single child’s experience with their teacher’s mistake responses. Going forward, it is important to continue to look more holistically at classroom learning communities over time, taking into consideration the local culture of and relationships among teachers and children.

Conclusion

In this study, I engaged in a close observation of one veteran Kindergarten teacher’s responses to children’s mistakes, with the goal of articulating the variety of approaches that were employed within a single classroom. Through open coding of detailed fieldnotes and videos representing 60 h of instruction, I was able to discern the patterns of how Anna reacts to mistakes on a child-by-child basis. With further analysis, I have identified five distinct approaches that children experienced in her classroom, ranging from no corrections due to the child’s consistently perfect performance, to urging autonomous self-correction with a measure of teacher guidance, to complete support for nearly every mistake made. Understanding Anna’s patterns of mistake responses with each of her 20 Kindergarten children extends the existing literature by illustrating the nuanced ways that American educators individualize instruction within their classrooms, based on their own internal assessment of child-level characteristics and needs. Future research can explore the extent to which these and other

patterns of teacher mistake responses are utilized by elementary educators in a range of real-world contexts, as well as assess their impact on children’s classroom learning and social experiences. Awareness of these categories can also help practicing teachers reflect on their pedagogy and continually refine how they respond to mistakes and how they frame feedback during instruction. This intentionality will help them foster a positive error climate that promotes student engagement and considers individual children’s needs and tendencies.

Data availability statement

The datasets presented in this article are not readily available because the identities of the teacher and all children must be protected. According to the consent of participants, the dataset is not permitted to be shared with others. Inquiries regarding access to the datasets should be directed to mdonaldson@smith.edu.

Ethics statement

The studies involving humans were approved by Smith College IRB & Harvard University IRB. The studies were conducted in accordance with the local legislation and institutional requirements. Written informed consent for participation in this study was provided by the adult participant and the minor participants’ legal guardians/next of kin.

Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

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Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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