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I, Laura E Kelley, hereby submit this original work as part of the requirements for the degree of Doctor of Philosophy in Educational Studies.

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Beginning Education Students’ Mindsets and Beliefs about Praise: A Mixed Methods Study

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Beginning Education Students’ Mindsets and Beliefs about Praise:

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Abstract

Adults’ language has important implications for how children conduct themselves in learning environments and how they approach learning tasks. To prepare preservice teachers to use language that promotes intrinsic motivation and adaptive dispositions, a need exists to better understand factors that affect the language they will use with children. It is unclear whether and how adults’ own mindsets affect the praise they give learners, and scarce research has investigated preservice teachers’ own mindsets and conceptions of praise. Further complicating the topic, praise not a straightforward issue in early childhood education, with different perspectives’ guidance ranging from directions on what to praise to cautions to avoid praise altogether.

This mixed methods study examined beginning education students’ mindsets and beliefs about positive feedback, and how those beliefs changed during a semester course, Foundations in Early Childhood Education, that included both class time and a field experience in the university’s lab preschool. A quantitative measure of students’ mindset, quantitative ratings of feedback examples, and qualitative responses to questionnaire scenarios were collected at the beginning and the end of the semester. Five written reflections were also collected throughout the semester. Data were analyzed separately and integrated to measure change in students’ beliefs and mindsets, to gain deeper understanding of students’ beliefs and experiences, and to document changes over the semester.

Findings show that most students’ mindsets were moderately growth-oriented, and that there was no significant change in mindset during the semester. Students decreased their ratings and use of generic and trait feedback, and increased their ratings and use effort and process feedback. Their open-ended responses were multifaceted, and students progressed toward more
specific and supportive responses at the end of the semester. Students’ written reflections showed how they worked to make sense of what was a new and surprising concept for them. Students shared what experiences helped them to understand more effective feedback, and they described their own struggles as they became more aware and intentional with their language. Integration of the findings showed that there might be a connection between students’ mindsets and their beliefs about the four types of feedback as well as how their responses developed from January to April.

The mixed methods approach illuminated a nuanced picture of students’ beliefs about praise at the beginning of the course and how they evolved by the end of the term. Students’ responses to the types of feedback discussed, as well as the differences in how they responded to various scenarios, can be used to inform instruction on these topics. More explicitly leading a conversation with beginning education students about their beliefs about intelligence and effort may facilitate more growth-oriented language toward children; such a conversation may also support the students’ own learning as they experience uncertainty in new classroom environments and work to develop their own teaching skills. It may be valuable to teach about dimensions of feedback, such as specificity and evaluation, rather than categories, such as encouragement versus praise, to better support students’ understanding.

*Keywords: beginning education students, preservice teachers, early childhood, mindset, praise, encouragement*
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“If you could only sense how important you are to the lives of those you meet;
how important you can be to the people you may never even dream of.
There is something of yourself that you leave at every meeting with another person.”
– Fred Rogers

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Chapter 1: Introduction

Part of early childhood educators’ role is to help children feel good about themselves and their work. An important vehicle for these messages is through the language teachers use in response to children’s activities. Consider the following scenarios: Frances, who is enthusiastic about building, shows her structure to her teacher. What does the teacher say? Perhaps she congratulates Frances: “Good job, Frances! What a great tower.” Perhaps she compliments her: “You are such a great builder!” She might comment on her effort and process: “You have really been working on this. It looks like you stabilized the bottom so you could make it even taller!” Early childhood teachers aim to help children feel confident and competent, to know that they are valued and their contributions are appreciated.

While positive support from adults is a necessary component in quality early learning environments, not all feedback is equally effective in promoting adaptive dispositions—and some may have unintended adverse effects (Brummelman, Crocker, & Bushman, 2016). Creative endeavors, such as Frances’s block structure, do not require an external evaluation. After all, is there an incorrect structure? And, while complimenting a product or trait may feel good in the moment, might that feeling change when a future attempt is less successful—is the “good writer” status contingent on good writing? Educators must consider the implicit messages in their language and intentionally respond in ways that support children’s intrinsic motivation, persistence, and resilience.

Children need a positive verbal environment for optimal early learning (Meece & Soderman, 2010). Adults’ language is known to be influence children’s behavior (Brophy, 1981; Jenkins, Floress, & Reinke, 2015), motivation (Henderlong & Lepper, 2002), and learning dispositions (Dweck, 1999; 2006). In other words, adults’ language has important implications
for how children conduct themselves in learning environments and how they approach learning tasks. Thus, preparing teachers to use language more intentionally is an important focus for teacher educators.

Effective positive language can build children’s intrinsic motivation (Henderlong & Lepper, 2002); facilitate the belief that ability can be improved through effort (Dweck, 2006); and increase resilience following setbacks (Kamins & Dweck, 1999). The right types of positive support from adults can promote adaptive dispositions. However, adults’ naturally occurring language may not reflect the most appropriate and effective types of praise (Gunderson et al., 2013). Further, novice teachers may be unprepared to deploy appropriate and effective positive language in the classroom (Jenkins et al., 2015).

Problem Statement

To prepare preservice teachers to use language that promotes intrinsic motivation and adaptive dispositions, a need exists to better understand factors that affect the language they will use with children. It is unclear whether and how adults’ own mindsets affect the praise they give learners (Gunderson et al., 2013; Rattan, Good, & Dweck, 2011). Scarce research has investigated preservice teachers’ own mindsets and conceptions of praise (Jones, Bryant, Snyder, & Malone, 2012; Jonsson & Beach, 2012).

Further complicating research on the topic, and indeed preservice teachers’ learning, is that praise is far from a straightforward issue in early childhood education (Bayat, 2010). Research focusing on feedback to learning tasks demonstrates that praising process and effort, rather than personal traits, encourages incremental theories of intelligence and increases resilience (e.g., Dweck, 2006). This research is related to, but distinct from, the large body of literature on praise related to classroom management and children’s behavior. From this line of
inquiry, it is known that specific, contingent praise helps children develop self-management skills (e.g., Jenkins et al., 2015; Perle, 2016). This focus, while supporting important skills for teachers, does not address how language may affect learning dispositions. However, other sources may caution against the use of praise at all. For example, praise of intrinsically motivated activity may decrease motivation (Deci, Koestner, & Ryan, 1999; Henderlong & Lepper, 2002). Many early childhood experts suggest reflective or encouraging statements rather than praise (Gartrell, 1997). Therefore, effectiveness and appropriateness varies with purpose and context, and is a nuanced topic that preservice teachers must learn. Each of these topics will be discussed in more detail in the Theoretical Perspectives section below.

**Purpose and Research Questions**

The purpose of this mixed methods study is to examine beginning education students’ implicit theories of intelligence (mindsets) and beliefs about positive feedback, and how these beliefs may change over the course of a semester-long field experience, course participation, and written reflections. A concurrent mixed methods design is used, in which both quantitative and qualitative data are collected and analyzed in parallel, and then integrated (Plano Clark & Ivankova, 2016). In this study, students’ mindset assessment profile scores and quantitative ratings of different types of positive feedback were used to understand their implicit beliefs and to gauge associations between students’ mindset scores and ratings of feedback types. Students’ written reflections and responses to open-ended items on the feedback questionnaire and instructor field notes comprised the qualitative data used to explore students’ initial and changing beliefs about types of feedback. Quantitative and qualitative data were combined to measure change in students’ beliefs and mindsets, to gain deeper understanding of students’ beliefs and experiences, to inform instruction, and to document changes over the course of the semester.
Results were integrated to determine whether students’ theories of intelligence were meaningfully related to initial beliefs about praise, beliefs about praise at the end of the course, or patterns of change during the semester. Using both quantitative and qualitative data sources brings greater insight into students’ learning than either data type alone would provide.

**Research questions.** Below, the quantitative, qualitative, and mixed methods research questions are listed.

**Quantitative questions.** The following quantitative questions were addressed:

- What are beginning education students’ mindsets, or implicit theories of intelligence, as measured by the Mindset Assessment tool?
- When presented with classroom-based scenarios, to what degree do students endorse certain types of positive feedback?
- What associations exist between students’ mindsets and positive feedback beliefs?

**Qualitative questions.** The following qualitative questions were addressed:

- When presented with classroom-based scenarios, what types of feedback statements do students provide?
- What are students’ beliefs about praise and positive language?
- How do students interrogate these beliefs through field experience, course participation, and written reflections?
- How do students’ beliefs change over the course of the semester?

**Integration question.** Quantitative and qualitative data and results were compared to address the following research question:
• Are students’ mindsets meaningfully related to their beliefs about positive feedback? If yes, what are the relationships and do they change as a result of course participation?

Together, these research questions build on extant literature and practice. Prior research has demonstrated a relationship between adults’ language and children’s mindsets, but very little research has explored the relationship between adults’ own mindsets and the language they use. This study examined students’ responses to a Mindset Assessment questionnaire (MindsetWorks, 2012b), their responses to a researcher-designed questionnaire about praise beliefs, and their written and verbal participation in course activities. This research quantitatively explored these relationships in beginning education students at the beginning of the term and after they completed a semester-long course. The qualitative aspects of the study deepened the understanding of these relationships, and illuminated the process of learning during the semester.

Significance

A deeper understanding of beginning education students’ mindsets and conceptions of positive language benefits multiple stakeholder groups. Primarily, this knowledge helps teacher educators better prepare effective teachers. By identifying preconceived notions, potential misconceptions, and key experiences that shape understanding, this research helps educators tailor courses and field experiences to optimize learning. This knowledge also builds on theoretical understandings of how mindsets are molded and communicated through language. Finally, this research benefitted the preservice teachers themselves and the children with whom they work. By illuminating the beginning education students’ beliefs, the course supported their learning and helped them develop more effective practices with young children.

Definition of Key Terms
Consistency in terminology is a challenge both within and across fields. To best ensure clarity, terms frequently used in this review are defined below.

**Beginning education students.** In this study, *beginning education students* (BESs or students) refers to typically first- and second-year college students, enrolled in education coursework prior to application to the teaching cohort. To clarify references to related groups of people, beginning education students are contrasted from teacher candidates, teachers, and children. The teaching cohort is a two-year series of courses, practicum experiences, and student-teaching internship, typically taken in the third and fourth years of the program. Once in the cohort, students are referred to as *teacher candidates*. Practicing professionals, such as those the students observed in their field experience, are referred to as *teachers*. *Students* refer to college students, whereas the term *children* is used with regard to the children who attend the preschool classrooms in which the college students completed their field experience.

**Positive feedback.** In this study, *positive feedback* is considered a broad term encompassing both praise and encouragement (defined below). Because the term *praise* has different connotations in everyday language than in certain research literature, which is discussed in the literature review, the term can prove troublesome in educational contexts.

**Praise.** Language meant to “commend the worth of or to express approval or admiration” for a person, behavior, or product is classified as *praise* (Brophy, 1981, p. 5). Specific praise, in addition to conveying positive affect, also provides information about the target and its value. This evaluative aspect of praise is what distinguishes it from encouragement.

**Encouragement.** Language that “focuses on children judging their own actions and the process of trying” is classified as *encouragement* (Wolfgang, 2004, p. 7). Encouragement attends
to the child’s process and effort, rather than to an end product, and invites self-reflection rather than providing external evaluation.

**Mindset/Theory of Intelligence.** A *mindset*, also referred to as an implicit theory, is a mental model of a quality or phenomenon. Mindsets influence the interpretation of experiences involving that quality or phenomenon. Used here, mindset will typically refer to a set of implicit theories of intelligence, and associated beliefs about effort and ability; however, mindsets can also apply to domains such as social relationships (Dweck, 1999; 2006). Mindsets may also be associated with tendencies toward learning behaviors, or dispositions (Claxton & Carr, 2004), such as task selection and persistence (see below).

**Fixed mindset.** A fixed mindset, also referred to as an entity theory of intelligence, is the belief that intelligence is a static trait that cannot be increased (Dweck, 2006). Learners with a fixed mindset may interpret difficulty and effort as insufficient ability. They may exhibit less adaptive learning behaviors, such as the disposition to avoid situations that make them feel or appear lacking ability.

**Growth mindset.** A growth mindset, also referred to as an incremental theory of intelligence, is the belief that intelligence is a malleable trait that can be increased through effort (Dweck, 2006). Learners with a growth mindset may exhibit more adaptive learning behaviors, such as the disposition to seek and persist through challenge.

**Mixed methods research.** Mixed methods research (MMR) is “research in which the investigator collects and analyzes data, integrates the findings, and draws inferences using both quantitative and qualitative approaches or methods in a single study or a program of inquiry” (Tashakkori & Creswell, 2007, p. 4). Creswell and Plano Clark (2011) consider mixed methods designs in terms of where and when quantitative and qualitative methods interface (level of
integration), which methods are given greater importance (priority), the sequence and timing of research activities (timing), and how quantitative and qualitative methods are explicitly interrelated (mixing).

**Theoretical Perspectives**

Each individual’s unique set of experiences shapes how that person sees the world. As researchers, we bring this worldview—whether implicitly or explicitly—to our work. In our studies, it is important to consider what information is deemed valid and valued, and how our assumptions shape our academic endeavors. Our worldview influences the decisions we make as researchers at every level of study, from what we choose to investigate, to the approach we take, and how we interpret data. Greene (2007) calls this worldview, or set of assumptions, our mental model. Greene and Hall (2010) contend that “mindfulness of the contours of one’s own philosophical assumptions and mental model makes for better social inquiry” (p. 124). This mental model is present for all researchers. Particular outlooks may be, but are not necessarily, linked with particular methods and designs. Researchers may implicitly utilize certain worldviews when employing different methods. Therefore, it may be even more important in mixed methods research to be cognizant and explicit about our mental models (Greene & Hall, 2010). In the following sections, I outline how my philosophical orientation of pragmatism, sociocultural theory, and the mindset literature frame my approach to this study.

**Pragmatism.** Pragmatism is a philosophical orientation that emphasizes the research problem rather than epistemology; its focus is “on problem solving and outcomes,” and uses philosophy “in service of the inquiry problem at hand” (Greene & Hall, 2010, p. 131). It is an attractive paradigm for applied research, as it considers the relationship between research and practice to be bidirectionally informative. Pragmatists judge the utility of a theory in terms of
how well it works in practice (Creswell & Plano Clark, 2011). Pragmatism is well suited for the dynamic nature of learning experiences, as beliefs drive actions and actions have consequences which inform beliefs.

**Sociocultural theory.** The language adults use with children during learning activities—not just the specific words, but behaviors adults encourage and the aspects of activities to which adults attend—influences not only children’s ability to solve the problem at hand but also how they will approach future problems. Language is a critical tool used to organize and direct thought and actions, especially when one faced with a challenging goal (Vygotsky, 1978). Adults use strategic suggestions and questions to stimulate and guide children’s thinking; additionally, they also respond to children’s statements and questions. The language children hear and use in social interactions is gradually directed inward, becoming egocentric and ultimately inner speech. This progression from social to internal speech is the foundation of self-regulated learning, the ability to direct one’s own learning: "Instead of appealing to the adult, children appeal to themselves" (Vygotsky, 1978, p. 27). Vygotsky observed that children’s language use increases with the complexity of the problem; additionally, children often use the words and even the tone they have heard from adults when regulating their own behavior with egocentric speech (Karpov, 2014; Vygotsky, 1978).

Through this lens, it is clear that teachers’ language use while scaffolding learning is essential to developing not only children’s skills but also their relationship with challenge. Subtle linguistic cues from adults may have important influences on children’s behaviors and beliefs (Dweck, 1999). Children’s appeals for assistance are opportunities for adults to support the development of efficacy and autonomy.
Mindset theory. Quality early learning environments offer numerous opportunities to encounter, struggle with, and solve practical, social, and complex problems (Katz, 2007). Problem solving builds the cognitive and emotional regulatory skills crucial to school readiness and early achievement (Ursache, Blair, & Raver, 2012). Not all children are equally willing to tackle problems, however. In their early work examining how students respond to challenge, Smiley and Dweck (1994) noticed two distinct patterns: some children displayed negative affect and helpless behaviors, while others displayed proactive strategies and mastery behavior.

Social psychologists have investigated these mindsets associated with learners’ approaches to and experiences with challenge (Yeager & Dweck, 2012). A mindset is a suite of related implicit theories and beliefs that shape how an individual perceives and interprets experiences (Crum & Lyddy, 2014; Dweck, 2006). To understand a learner’s behaviors and experiences, it is necessary to understand the belief system underlying those behaviors and experiences. This motivational framework uses a meaning system approach, based on the premise that learners are constantly attempting to make meaning of experiences and interpreting those experiences through a mental model (Dweck, 1999; Hong et al., 1999). That is, learners are simultaneously building and using a motivational framework to understand experience.

This framework consists of implicit theories of traits as fixed (called an entity theory, or fixed mindset) or malleable (called an incremental theory or growth mindset) and performance or learning goal orientations. Further, proponents of this framework argue that a learner’s implicit theory influences how he or she perceives performance or learning tasks: whether the task measures existing ability only, or if it is indicative of future ability as well (Hong et al., 1999; Dweck, 2006). These perceptions also likely influence the cognitive and emotional experience of the task, as those with performance goals and entity theories are more likely to exhibit concerns
related to looking or feeling smart. Importantly, these beliefs about intelligence may also be related to beliefs about effort. Hong and colleagues’ (1999) data indicated that, for entity theorists, there exists a negative relationship between effort and ability: increased effort signaled diminished ability. Conversely, incremental theorists seemed to believe the opposite: to increase ability, one should increase effort.

An individual’s mindset, sometimes called a lay theory, informs the meaning of experiences and thus behavior (Molden & Dweck, 2006). Ongoing interactions between biological, psychological, and social systems may influence the development of these beliefs (Kinlaw & Kurtz-Costes, 2003). Mindsets may influence both academic and social pursuits, in adaptive or in maladaptive ways—in ways that keep learners stagnant or anxious, or ways that help learners grow and flourish. Although people can have mindsets about numerous traits or phenomena and may hold distinct mindsets in different domains (Dweck, 2006; Yeager & Dweck, 2012), I will primarily concern myself with mindsets about intelligence here.

Children may not develop a coherent theory of intelligence until later in childhood, between the ages of 8-12, though there is evidence that children as young as first grade may already have established beliefs about ability and achievement that affect their behavior (Kinlaw & Kurtz-Costes, 2003). In Smiley and Dweck’s (1994) study, children who exhibited a performance goal orientation showed more concern for performance and disengaged responses in their self-talk during the insoluble task, and their post-task self-ratings were significantly lower than before the “failure.” Goal confidence seems to play an important role in this evaluative process. Children with performance goals and high goal confidence may demonstrate an “attenuated mastery” pattern (p. 1733). However, if children with performance goals experience low confidence, they are more likely to experience negative affect and more helpless patterns.
Therefore, as goal confidence is informed by previous experience and performance-oriented children’s self-ability ratings suffered following a challenging experience, this research provides evidence that children’s goal orientation may play a key role in children’s resilience to challenge and setbacks in the learning process. Further research demonstrated that younger children experiencing higher poverty risk and attention problems alongside an entity theory of intelligence demonstrated diminished persistence on the construed tasks (Brown, 2009).

Implicit theories that personal traits are fixed can lead students to interpret challenge as indicative of a lack of ability, and may make students more inclined to avoid situations that make them feel or appear lacking. Conversely, incremental or growth theories can support resilient behavior in the face of adversity, such that challenges can be interpreted as opportunities for development (Yeager & Dweck, 2012). Thus, a growth mindset may be associated with the disposition to take on and persevere through challenge. Given the potential influence on students’ choices, experiences, and success, educators have taken a particular interest in understanding how mindsets develop. The following sections discuss research on how classroom environments, adults’ feedback, and targeted interventions may influence students’ mindsets.

**Influence of language.** An important theme in mindset research is the role of adults’ language. Positive support from adults is critically important in a child’s development and learning; however, certain types of praise may not effectively encourage a growth mindset in children. Indeed, some feedback may even be counterproductive or backfire (Brummelman et al., 2016).

**Person versus process praise.** Praise can refer to personal attributes, such as intelligence, or to learning processes, such as effort. Students praised for intelligence may be more likely to endorse performance goals rather than learning goals, and to perceive intelligence
as a fixed rather than malleable trait. Moreover, they may be less likely to persist after failure, and be prone to lower enjoyment, low-ability attributions, and impaired task performance (Mueller & Dweck, 1998). Praise oriented toward learning processes may elicit more positive and resilient responses than feedback, even praise, oriented toward personal traits. Although person praise can seem helpful, it seems to foster a sense of that positive image being contingent upon success. Thus, when children face setbacks, they are more likely to display helpless responses (Kamins & Dweck, 1999).

*Specificity and proportions of praise types.* The degree of specificity in feedback may also impact self-assessments and persistence. Cimpian and colleagues (2007) offered generic feedback (e.g., “You’re a good drawer” or “John is friendly”) and non-generic feedback (e.g., “You did a good job at drawing” or “John was friendly at the party”) following a role-play task. Both generic and non-generic praise seemed satisfying when trials were successful, but significant differences emerged following mistakes. Children who received generic praise displayed more helpless behaviors, less positive self-assessments, and less persistence, as indicated on their response to questions.

Recognizing that children are likely to receive a mixture of generic and non-generic praise in natural settings, Zentall and Morris (2010) investigated whether praise types would have differential effects on self-evaluations and persistence. Although non-generic praise was positively correlated with both self-evaluations and persistence, the proportions at which these outcomes were affected differed such that more non-generic praise (75%) was needed to affect persistence than to increase self-evaluations (25%). The authors interpreted these results as indicating self-evaluations and persistence are related but distinct outcomes with regard to praise types. Praise ratio conditions were also associated with different profiles of relationships.
between persistence and self-evaluations. The authors indicated that while generic praise carries more “weight,” non-generic praise affects both self-evaluations and persistence positively. Further, they suggested that self-evaluations are more sensitive to these effects, such that children need to hear more non-generic praise in order to increase persistence.

Praise of others. In a social context, such as a classroom, children are also exposed to information about others’ accomplishments as well as their own. In a series of three studies, Heyman (2008) demonstrated how the ways in which adults speak about other children’s achievement may also influence the way children conceive and reason about ability. Noun labels seem to inspire more essentialist, or fixed, beliefs than do descriptions with verbs (e.g., “Rose eats a lot of carrots” (verb) versus “Rose is a carrot-eater” (noun); Heyman, 2008, p. 362). Children may be more likely to employ essentialist reasoning about other children who were described with noun labels (e.g., “math whiz”) than when others’ achievements were described without labels. Referring to instances when other children overcame difficulties in the past may inspire less essentialist reasoning about present abilities and more optimism about future abilities. Conversely, references to the continuity of others’ past performance, such as having always been good at a particular school subject, may lead to less optimism about the potential for future change. Stories about the discontinuity of others’ ability and performance may encourage malleability beliefs.

Heyman (2008) argued that, rather than verbal discourse directly influencing children’s beliefs, children actively seek information to help them make sense of school performance, and verbal discourse may be one such source of information. She also noted that, although controlled experiments can provide evidence of influence, children in fact receive a wide variety of information from a variety of sources, including parents, peers, and educators.
Learning environments. Learning environments play an important role in the practice of learning behaviors, and thus the cultivation of dispositions. Environments can hinder or promote certain dispositions. Claxton and Carr (2004) describe environments on a continuum from “prohibiting, affording, inviting, or potentiating” (p. 91). In order to promote dispositions, an environment must clearly emphasize valued actions; further, they describe powerful or potentiating environments as those that “actively ‘stretch’ [dispositions], and thus develop them” (p. 92).

In her analysis of the dynamic classroom system, Carr (2001a) described how children navigated multiple identities and purposes in the social context. The classroom contains a “dispositional milieu” (p. 535), in which different activities afford opportunities to demonstrate social identity or, often, identities, with sometimes conflicting goal orientation. The combinations of identities and activities in which children participate carved unique niches in the classroom ecosystem (Gauvain, 1995, in Carr, 2001). These niches, too, were subject to the influence of social intersections. Carr argued that performance and learning goals are not only part of children’s internalized mindset, but also have sociocultural and historical meaning and influences. She stated: “In a group setting, performance goals have a tendency to become the default setting, they form their own social identities (e.g., as being good or being right), and they can invade and colonize hitherto mindful and open-ended social identities and discourses” (Carr, 2001, p. 540, emphasis in original). Early childhood educators must, she argued, thoughtfully and explicitly foster a learning-oriented climate.

Personal experiences. I have relevant personal experiences that drove my interest in this research and helped me complete this study successfully. Before beginning my Ph.D. program, I taught preschool through third grade. In addition to work supporting teacher candidates and
novice teachers, I have taught many courses in our undergraduate early childhood licensure program. I have previously taught three sections of the course that was examined in this study, Foundations in Early Childhood Education.

Each time I have taught this course, the topic of positive language and praise is a point of focus throughout the semester. In conversations with students both in and out of class, the issue is of perennial interest and often puzzlement. Even teacher candidates in their final semesters of the program have expressed confusion; they seem to internalize the maxim that “praise is bad” or that they should not say “good job,” but often indicate that they struggle to understand why or how to provide high-quality responses instead. With this study, I focused on students’ understanding of positive language, as well as personal factors and learning experiences that contribute to the development of their learning on the topic.
Chapter 2: Literature Review

Parents and Teachers’ Theories of Intelligence

Adults can cultivate perseverance by attending to children’s efforts and progress more than to inherent traits or outcomes. Instructors’ own implicit theories of intelligence (Dweck, 1999) may be associated with the type of feedback they give to students, and, in turn, the messages students receive about ability may influence their motivation (Rattan et al., 2011). Instructors with an entity theory may be more inclined to attribute one instance of poor performance to a lack of ability and to use comforting and unhelpful strategies (e.g., assigning less homework) with struggling students, implicitly communicating lower expectations and a fixed mindset. Students who receive comfort-oriented feedback may perceive their instructors as having lower expectations and feel less supported, encouraged, and motivated (Rattan et al., 2011). However, the relationships between adults’ mindsets and the praise they use is unclear. Gunderson and colleagues (2013) investigated whether parents’ verbal praise to one- to three-year-olds predicted later motivational frameworks. Children’s frameworks were not predicted by parents’ total praise as a proportion of total utterances, parents’ theories of intelligence, socioeconomic status, or overall verbal interaction. However, parents’ use of process praise did significantly predict children’s endorsement of an entity theory of intelligence six years later.

The discourse of learning-oriented classrooms can emphasize thinking and the challenge of learning (Marshall, 1988). Teachers of learning-oriented classrooms emphasize a concern for learning rather than for completing work within time constraints, encourage cooperation versus competition, and treat errors as inherent in learning. Lesson introductions may include endogenous motivational statements, such as interest or relevance to personal lives, as opposed to exogenous motivations, such as “demand, recognition, [or] competition” (Marshall, 1988, p. 17).
Learning-oriented teachers may also view student ability as malleable, and they may employ more supportive motivational strategies. These multiple factors may work in concert to promote learning goals, or, if misaligned, some practices may undermine other efforts. Teachers in classrooms receiving mindset interventions may adapt their practice to better support students’ growth mindset, though these changes may vary with other teacher characteristics (Schmidt, Shumow, & Kackar-Cam, 2015).

To support children’s advances in problem-solving abilities, educators can “teach for metacognition” (Karpov, 2014, p. 135) by specifically making children aware of their thinking, learning, and progress. Claxton and Carr (2004) call this element of education the “learning curriculum” (p. 87). They argue that children benefit when teachers make this curriculum explicit, and intentionally create environments with opportunities to practice and grow learning dispositions. Claxton and Carr (2004) list four specific ways teachers support the learning curriculum: they explain and draw attention to valued actions, orchestrate the environment, comment on learning processes and outcomes and invite children to do so as well, and model the behaviors of effective learners. A final and crucial piece to the development of learning dispositions is the reification of experience and mutual participation of both teachers and children. Through documenting learning processes and outcomes, and eliciting contributions from learners as well as teachers, a learning community explicitly supports the development of learning dispositions.

**Preservice teachers.** To my knowledge, there have been only two published studies of preservice teachers’ implicit theories of intelligence: Jones, Bryant, Snyder, and Malone (2012), and Jonsson and Beach (2012). Those studies are discussed below.
Jones et al. (2012) investigated preservice and in-service teachers’ definitions of intelligence and beliefs about the malleability of intelligence. The researchers employed a mixed methods design, using an open-ended item for teachers to respond to a prompt to define intelligence, and the short form of Dweck’s (1999) Theory of Intelligence Scale. Participants included 270 preservice teachers and 33 in-service teachers. Qualitative responses were coded, resulting in seven themes: achievement, knowledge, procedural skills, self-regulation, cognitive processes, motivation, and personal characteristics. Quantitative analysis of the TIS results indicated no statistical difference between preservice and in-service teachers’ theories of intelligence, and that 77.9% reported an incremental view of intelligence. Further, there was no statistically significant relationship between implicit beliefs and years of teaching experience.

Jones and colleagues (2012) indicated that teacher preparation programs should consider preservice teachers’ views of intelligence, and how verbal interactions and course materials may influence these mindsets. Given the potential influence of teachers’ mindsets on their practices, the authors suggested that preservice teachers’ fixed mindsets may have a negative impact on future students.

In a series of two studies, Jonsson and Beach (2012) investigated how preservice teachers’ theories of intelligence related to their preferences for different types of praise, as well as to their acceptance of stereotypes and beliefs about social comparison. The first study included 176 preservice teachers across preschool, elementary, and secondary programs. The participants completed a Theory of Intelligence Scale (TIS; Dweck, 1999) and a Person Process Feedback scale (PPF) developed by the authors. The PPF provided one scenario—a student who has just “solved a complicated puzzle or finished some complicated work in school” (p. 179) and eight feedback statements, which participants were to rate between 1 and 10. Four of the
feedback statements reflected person praise, and four reflected process praise. Participants also completed a questionnaire about acceptance of stereotypes. Results indicated that stereotype acceptance was positively correlated with an entity theory of intelligence, and that endorsing person praise statements was positively correlated with endorsing process praise statements. The authors state that this relationship between praise type variables may have been an effect of measurement use, but do not explain this inference. Using multiple regression models, the authors found that acceptance of stereotype use predicted preservice teachers’ endorsement of person praise statements, and that an incremental theory of intelligence predicted their endorsement of process praise statements. These relationships were statistically significant, but with small effect sizes (independent variables predicting 3.3% and 2.6% of variance, respectively).

In the second study by Jonsson and Beach (2012), 151 preservice teachers completed the TIS (Dweck, 1999), the PPF, and a scale created by the researchers on beliefs about social about social comparison. Sixty-nine of the participants were in their first semester of the program, and 82 were in their final semester. An entity theory was significantly, positively correlated with endorsements of person praise and the belief in social comparison as a means of promoting learning. An incremental theory was significantly, negatively correlated with person praise and social comparison, but the correlation with process praise was not significant. As with the first study, both types of praise were significantly, positively correlated. Multiple regression showed that 10.5% of the variance in preference for person praise was predicted by beliefs in an entity theory and support for social comparison. No significant effects were found in multiple regressions with preference for process praise as the dependent variable. A mixed repeated 2x2 ANOVA showed that the preservice teachers were more likely to give process praise compared
to person praise, and that endorsements of person praise were significantly lower in the last-
semester group compared to the first-semester group.

Together, these two studies by Jonsson and Beach (2012) provide some evidence that
preservice teachers’ theories of intelligence may be at least somewhat related to their support of
person versus process praise statements. Additionally, differences across semesters showed that
there may be relevant effects of teacher education. However, the design did not allow for follow-
up on the results.

**Teacher Praise**

Brophy (1981) defines praise as language intended “to commend the worth of or to
express approval or admiration” (p. 5). Further, he explains that praise statements “express
positive teacher affect (surprise, delight, excitement) and/or place the student’s behavior in
context by giving information about its value or its implications about the student’s status” (p. 6).
Praise is often recommended as a tool for teachers to reinforce positive student behaviors in the
classroom. For praise to be an effective positive reinforcement of behavior, it must be contingent
on the target behavior, specific to the target behavior, and seen as sincere or credible by the
recipient (O’Leary & O’Leary, 1977, in Brophy, 1981). However, Brophy’s review of research
on teacher praise found praise statements were infrequent and ineffective. Instead, he argues,
praise can have various other functions in the classroom: spontaneous expression of surprise or
admiration, balance for criticism or vindication of predictions, attempted vicarious
reinforcement, positive guidance or avoidance of criticism, ice breaker or peace offering,
student-elicited stroking, transition ritual, consolation prize, or encouragement.

Brophy (1981) also notes that teacher feedback, including praise, can shape students’
understanding of their behavior and achievement and the circumstances to which students
attribute these outcomes. Context and characteristics also influence the effectiveness of teacher praise as much or more than its frequency alone (Brophy, 1981). Although praise may not function as a reinforcer in the behaviorist sense, praise can still serve important functions in the classroom. Effective praise is informative and helps students understand what they did well and how they accomplished it. Table 2.1 contains Brophy’s guidelines for effective praise.

Table 2.1

**Guidelines for Effective Praise**

<table>
<thead>
<tr>
<th>Effective praise</th>
<th>Ineffective praise</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is delivered contingently</td>
<td>1. Is delivered randomly or unsystematically</td>
</tr>
<tr>
<td>2. Specifies the particulars of the accomplishment</td>
<td>2. Is restricted to global positive reactions</td>
</tr>
<tr>
<td>3. Shows spontaneity, variety, and other signs of credibility; suggests clear attention to the student’s accomplishment</td>
<td>3. Shows a bland uniformity, which suggests a conditioned response made with minimal attention</td>
</tr>
<tr>
<td>4. Rewards attainment of specified performance criteria (which can include effort criteria, however)</td>
<td>4. Rewards mere participation, without consideration of performance processes or outcomes</td>
</tr>
<tr>
<td>5. Provides information to students about their competence or the value of their accomplishments</td>
<td>5. Provides no information at all or gives students information about their status</td>
</tr>
<tr>
<td>6. Orient students toward better appreciation of their own task-related behavior and thinking about problem solving</td>
<td>6. Orient students toward comparing themselves with others and thinking about competing</td>
</tr>
<tr>
<td>7. Uses students’ own prior accomplishments as the context for describing present accomplishments</td>
<td>7. Uses the accomplishments of peers as the context for describing students’ present accomplishments</td>
</tr>
<tr>
<td>8. Is given in recognition of noteworthy effort or success at difficult (for this student) tasks</td>
<td>8. Is given without regard to the effort expended or the meaning of the accomplishment (for this student)</td>
</tr>
<tr>
<td>9. Attributes success to effort and ability, implying that similar successes can be expected in the future</td>
<td>9. Attributes success to ability alone or to external factors such as luck or easy task</td>
</tr>
<tr>
<td>10. Fosters endogenous attributions (students believe that they expend effort on the task because they enjoy the task and/or want to develop task-relevant skills)</td>
<td>10. Fosters exogenous attributions (students believe that they expend effort on the task for external reasons—to please the teacher, win a competition or reward, etc.)</td>
</tr>
<tr>
<td>11. Focuses students’ attention on their own task-relevant behavior</td>
<td>11. Focuses students’ attention on the teacher as an external authority figure who is manipulating them</td>
</tr>
<tr>
<td>12. Fosters appreciation of and desirable</td>
<td>12. Intrudes into the ongoing process, distracting attention from task relevant behavior</td>
</tr>
</tbody>
</table>
A recent review of research on teacher praise indicates that many teachers use general praise more frequently than behavior-specific praise (Jenkins, Floress, & Reinke, 2015). For example, a study of kindergarten teachers’ language found only three behavior-specific praise statements per hour compared to 18.6 general praise statements per hour in large-group settings (Floress & Jenkins, 2015). Both preservice and in-service teachers have reported a need for more training in classroom management and responding to challenging student behaviors (Jenkins et al., 2015). Training can help teachers implement more effective praise strategies in the classroom (e.g., Briere, Simonsen, Sugai, & Myers, 2015).

Jenkins and colleagues suggest future research address types and rates of praise across classroom settings (i.e., general versus special education classrooms), instructional contexts (i.e., large group, small group, and individual interactions), and grade levels. Further research is needed to clarify the relationship between praise and class-wide behavior. The researchers also recommend providing more training for preservice teachers in the use of effective praise as a classroom management technique. As these examples illustrate, research on teacher praise has focused largely on classroom management and behavior interventions.

**Positive Guidance and Encouragement**

Positive guidance is an approach to responding to children’s behavior in a productive way that promotes competence, self-regulation, and positive relationships (McFarland, Saunders, & Allen, 2008). Gartrell (1997) identified six key practices in positive guidance: to understand that children take time to develop and will make missteps while learning; for adults to...
proactively adjust environment to meet children’s needs and preempt issues; to act with the
knowledge that productive interactions stem from positive relationships; for adults to practice
strategies that help children find solutions; for teachers to build partnerships with parents; and to
encourage teamwork among adults as an important part of meeting children’s needs.

A common misconception about the positive guidance approach is that children should be
given praise as a reward for good behavior (McFarland et al., 2008). However, the approach
discourages the use of evaluative praise, and advocates for adults to use encouragement in its
place. “While praise stresses the teacher being satisfied with the child’s achievement of product,
encouragement helps children to judge their own actions and the process and effort they go
through, rather than the end product” (McFarland et al., 2008, p. 208). In attending to process
and effort, rather than an external evaluation, encouragement fosters intrinsic motivation and
self-regulation rather than a reliance on external factors.

The textbook used for the course, *Who Am I in the Lives of Children? An Introduction to
Early Childhood Education* (Feeney, Moravcik, & Nolte, 2013), explicitly distinguishes between
praise and encouragement (pp. 200-202). The authors explain that praise is general, makes a
judgment, attends to external products or rewards, and applies the same criteria for all children.
In contrast, they describe encouragement as specific, individualized feedback that is descriptive
rather than judgmental and attending to feelings and motivation. Praise focuses on the person or
outcome, comparing children, and external evaluation; encouragement focuses on process,
experience, effort, individual growth, and self-evaluation. The text emphasizes the utility of
encouragement to promote authentic engagement with children, and to support their intrinsic
motivation and self-regulation.
There have been relatively few studies examining preservice teachers’ acquisition of positive guidance techniques. McFarland and colleagues (2008) studied the experiences of 63 junior and senior university students enrolled concurrently in a practicum experience and a course on positive guidance. Several aspects of their investigation related to the use of language, including definitions of guidance, specific guidance skills, and opinions about the approach.

Prior to the course, many students provided inaccurate (38.1%) or somewhat inaccurate (46%) definitions of positive guidance. Misconceptions sometimes related to ideas about praise, encouragement, or punishment, and included statements such as “reinforcing a child’s behavior using positive words rather than negative ones” and “using words instead of physical punishment” (p. 213). Following the course, fewer students’ definitions were inaccurate (27%) or somewhat inaccurate (52.4%), though students whose initial responses were not accurate were more likely to remain so than to provide an accurate definition of positive guidance. Accuracy of definition was not related to students’ Professional Skills Inventory, a measure of students’ professionalism and guidance skills.

Participants’ descriptions of the most difficult skills to master included positive language (20%) and positive reinforcement/encouragement (6.7%). The list of least difficult to master also included positive reinforcement/encouragement (18.3%) and positive language (10%). Asked to name their greatest challenge in learning positive guidance, students responded with lack of confidence (20.6%), being overwhelmed with not knowing how to respond (17.5%), and using positive language (12.7%). One student (1.6%) named “using encouragement instead of praise” as the greatest challenge. Many students (31.7%) indicated that positive language was the area in which they felt most improved. Some students disagreed with certain guidance principles, such as avoiding negative language (16.7%) and avoiding praise (1.7).
McFarland and colleagues (2008) indicated several important implications for teacher education programs. Students would benefit, they said, from very clear descriptions of techniques and the purpose behind those techniques. Additionally, they acknowledged that previously formed habits likely influence language patterns and these habits may make certain techniques more challenging to learn. They recommended periods of observation of master teachers using positive guidance skills and ample opportunity to practice the skills themselves.

The same researchers examined the role of reflection and self-evaluation in the students’ development of positive guidance skills (McFarland et al., 2009). To corroborate the students’ self-ratings, their supervisors also completed the PSI. While students rated the mid-semester and end-of-semester reflections as a helpful exercise, the degree to which they found it helpful was not statistically significantly related to their ultimate skill ratings or improvement in skills. The thoroughness of students’ reflections was also unrelated to skill level or improvement. At the semester midpoint, more students overestimated their ability to employ positive guidance skills compared to their supervisor’s rating (44.4%) than underestimated compared to the supervisor (30.2%). At the end of the semester, this changed: fewer overestimated their ability (22.2%) than underestimated (54%). The number whose self-assessments matched their supervisors stayed relatively stable (22.2% at the midpoint and 20.6% at the end of term). No data were provided about the students’ actual skill level or degree of improvement. Although the reflections were not statistically related to the students’ skill levels, the students still indicated they were helpful; in the end, the researchers concluded that the reflections and self-assessments were meaningful contributions to the students’ learning in the course.

McFarland and colleagues’ work (2008; 2009) highlights important areas to consider in preservice teachers’ development, especially relating to learning guidance techniques such as
providing effective feedback (i.e., specific, positive encouragement) to children. It is important to note that the context seemed more focused on behavior-related than learning-related feedback. However, their results provide evidence that this is a complex topic for novice teachers to learn.
Chapter 3: Methods

This concurrent mixed methods study was embedded within a semester-long course. This study investigated beginning education students enrolled in one section of the course Foundations in Early Childhood Education (ECE 1001). Quantitative data, collected at the beginning and the end of the semester, included pre/post measures of students’ mindsets (Mindset Assessment; MindsetWorks, 2012b) and a researcher-designed questionnaire about praise beliefs. Qualitative data, collected simultaneously with the quantitative data as well as additional sources throughout the semester, included students’ written responses to open-ended items on the praise beliefs questionnaire and five reflective journals. More details about the methods are provided in the sections below.

Research Design

This study used a concurrent mixed methods design. This means both quantitative and qualitative data were collected at the same time, analyzed separately, and then integrated. Concurrent mixed methods designs are useful when there is a need for complementarity, or a more complete understanding of a topic (Creswell & Plano Clark, 2011; Greene, 2007). In this study, I collected both quantitative and qualitative data at the beginning and end of the semester, as well as additional qualitative data throughout the semester (see Figure 3.1). Details of data collection, analysis, and integration are included below.
Figure 3.1. Procedural diagram illustrating the data collection and analysis procedures situated during the semester course.

Context and Participants

The population for this study was a group of 25 students who participated in my section of ECE 1001 in the spring 2017 semester. Foundations in Early Childhood Education is a required class for students in the University of Cincinnati Early Childhood Education undergraduate degree program. There are typically three sections offered each spring. It is a pre-cohort course, meaning that students take the course before applying to the two-year licensure cohort. It is typically taken in the freshman or sophomore year by students intending to participate in the early childhood cohort, although it is sometimes taken as an elective for students in other programs, such as nursing or psychology. The demographics of the course tend to reflect those of the roughly 65-person cohort—primarily white women, ages 18-22—which in turn reflect demographics in the field. Nationally, women are estimated to comprise over 90% of the early childhood workforce, and over 70% of the workforce is white (Committee on Early Childhood Care and Education Workforce, 2011).
The course is structured so that half of the class time is spent in a field experience at the university’s lab preschool, the Child Development Center at the Arlitt Center for Education, Research, and Sustainability (Arlitt Center). The center embraces a constructivist philosophy and uses a child-centered, play-based curriculum (Copple & Bredekamp, 2009). It serves approximately 160 preschool children of diverse socioeconomic backgrounds. The other half of class time is an in-person meeting. The course introduces many topics, including a history of the field of early childhood education, child development, child assessment, relationships and guidance, health and safety, the importance of play, and how to develop curriculum. A recurrent topic of discussion is the language the teachers at the Arlitt Center use with the children and the role of language during the field experience.

**Recruitment and consent.** After receiving approval from the Institutional Review Board, students were recruited to participate in the study by another graduate student at the end of their final class period. This peer collaborator explained the research and offered to answer any questions the students had. To allow students to review their assignments and ensure they were comfortable giving permission for them to be used for research purposes, each student was given a copy of their surveys and journals. The peer collaborator indicated that no students asked questions. She then invited them to participate (i.e., have their class data be analyzed for research purposes). Due to the potential concern of coercion, she reiterated to students that participation was voluntary and would not require any additional burden beyond course assignments. It was made clear that grades are not related to participation. She collected signed consent forms and held them for the researcher until after final grades were submitted to the registrar, to ensure that class grades could not be tied to study participation in any way. See Appendices A and B for the recruitment and consent documents.
**Participants.** All students present for the recruitment agreed to participate. One student was absent and did not respond to an email regarding recruitment. Thus, the sample included the 24 students who agreed to participate in the study. All data sources were part of the course itself; thus, all students were expected to complete the questionnaires and written reflections. Both quantitative and qualitative data were collected from the same sample, known as concurrent, identical sampling (Collins, Onwuegbuzie, & Jiao, 2007), which provides a more in-depth understanding of the phenomenon (Creswell & Plano Clark, 2011).

The sample comprised 15 freshmen, 5 sophomores, 2 juniors, 1 senior, and 1 non-matriculated student. Twenty students had declared or intended to declare a major in early childhood education, two students were exploratory majors, one was majoring in paralegal studies with a minor in early childhood education, and the non-matriculated student was an experienced art teacher continuing studies in education.

**Instruments**

In this section, I explain the quantitative and qualitative instruments used for data collection in the study, including a detailed explanation of the researcher-developed questionnaire. Table 3, at the end of this section, shows the quantitative and qualitative data sources related to the constructs of interest.

**Mindset questionnaire.** This quantitative 8-item questionnaire was developed from Dweck’s (1999) Theory of Intelligence Scale. See Appendix C for the full questionnaire. It is available through MindsetWorks, an organization founded by Dweck and colleagues in 2007. Compared to the original questionnaire, the updated version contains items related to effort preferences (e.g., “When something is hard, it just makes me want to work more on it, not less”) and learning goals (e.g., “I like work that I’ll learn from even if I make a lot of mistakes”) in
addition to beliefs about the malleability of intelligence (e.g., “No matter how much intelligence you have, you can always change it a good deal”). Participants rate each statement on a 6-point scale from “disagree a lot” to “agree a lot.” The questionnaire is composed of questions selected from three longer measures: theory of intelligence (or mindset), learning goals, and effort beliefs. The even items are reverse-scored, and all items are totaled to create the Mindset Profile Number. The numbers are organized according to Mindset Assessment Profiles, with higher Mindset Profile Numbers corresponding a stronger growth mindset. In previous studies, the measures from which this questionnaire was developed had good internal reliability: $\alpha=0.78$ for the theory measure, $\alpha=0.73$ for the learning goals measure, and $\alpha=0.79$ for the effort beliefs measure (Blackwell, Trzesniewski, & Dweck, 2007).

**Reflective journals.** Students were required to complete five journals across the course of the semester. See Appendices D and E for the assignment descriptions and writing prompts. Reflective journals are a common component of education courses, with the intention of helping students explore their experiences and relate observations to classroom learning (Hayden & Chiu, 2015). Although the depth of reflections may not be statistically related to skill development, written reflections can still be meaningful exercises for student learning (McFarland et al., 2009). The journals in this course were required, but were graded only for completion rather than according to content. This was to emphasize a learning orientation rather than a focus on the grade. As the instructor, I responded in writing to student journals, typically by highlighting connections to class content and asking questions to deepen students’ thinking. Prompts were provided, but students were also encouraged to expand however they saw topics as most meaningful to them. At least two prompts related explicitly to language: the journal
following the first observation in the Arlitt classroom, and the journal associated with the textbook chapter on guidance.

The final reflection assignment, due the final week of the semester, prompted students to reflect on their learning throughout the semester. This was an open-ended assignment, and students could write about any topic they chose. Students were asked to include specific observations from the Arlitt Center or class experiences that pushed their thinking, and to consider questions or topics they might continue to explore in their program.

In past years, students had written about language and the issue of praise in multiple journals, not only the two prompts that explicitly address the topics. Many students have also chosen to write about language and praise in their final reflection. I included in my analysis any reflections that were relevant to these issues, providing a minimum of two written products per participant, and the potential of up to five products containing relevant data.

Feedback questionnaire. This mixed method, scenario-based questionnaire is modeled on a similar tool featuring older students and more achievement-oriented tasks (Mielahn, 2007). With permission from the author, I created early childhood scenarios and feedback options. The questionnaire has six short scenarios. For each scenario, students first completed an open-ended item with their own response to the scenario (i.e., what they might say to that child). After completing the six open items, students then rated four provided response options on a 5-point scale from highly advisable to highly unadvisable. The provided options were generic feedback, attention to personal trait or ability, attention to effort, and attention to process. Therefore, there were 24 closed items: six for each type of feedback. Below, each of the six scenarios is explained in more detail. See Appendix F for the full questionnaire.
**Scenarios.** The six scenarios of the questionnaire were written to provide a variety of conditions for students to consider how they might provide feedback. I considered literature on growth mindset as well as literature on praise and encouragement when writing the scenarios. Whereas literature on growth mindset tended to use more academically oriented learning conditions, or at least examples in which there is an objectively correct answer, literature on praise versus encouragement tended to use examples relating to behavior and creative processes, where subjective evaluations were possible. Drawn from conditions described in the MindsetWorks EducatorKit (2012b), the first five scenarios were: learners struggling despite strong effort, struggling and needing help with strategies, making progress, succeeding with strong effort, and succeeding with little effort. The EducatorKit suggests language frames for teachers to use with students in varying conditions. They write, “As students begin to work on their learning objectives, growth minded language guides and motivates them to ensure that they remain persistent, resilient, and focused on the process of learning” (MindsetWorks, 2012a, p. 1). The final scenario was based on examples provided in the course textbook (Feeney et al., 2010): a child’s creative process building with blocks. Table 3.1 provides a summary of the conditions and corresponding scenario prompts on the questionnaire.

Table 3.1

**Feedback Questionnaire Scenarios**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Prompt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Struggle despite strong effort</td>
<td>Aaron, who has mastered simple addition, has tried hard but made several errors on a more challenging practice.</td>
</tr>
<tr>
<td>Struggle and need help with strategies</td>
<td>Brooke, who easily completes simple puzzles, has given up on a more challenging puzzle.</td>
</tr>
<tr>
<td>Making progress</td>
<td>Charlie, who is practicing letter-sound correspondence, has written his name for you: CHRLE.</td>
</tr>
<tr>
<td>Success with strong effort</td>
<td>Daphne, who finds fine motor activities challenging, has successfully tied her shoes for the first time.</td>
</tr>
</tbody>
</table>
Success with little effort  Ethan, who reads many words already, reads you an alphabet book.
Creative work with no “right” answer  Frances, who is enthusiastic about building, shows you her block structure.

Aaron scenario. The Aaron scenario was written to determine students’ responses to a child who is struggling despite exerting significant effort. In this case, the scenario features a child struggling with a new math concept. According to guidance from the growth mindset literature, effective responses help learners understand that mistakes are part of the learning process. Additionally, teachers can help learners examine the task in smaller steps and can acknowledge the effort and persistence students have already put forth.

Brooke scenario. The Brooke scenario was written to determine students’ responses to a child who is stuck and not making progress. In this case, the scenario features a child giving up on completing a puzzle. According to guidance from the growth mindset literature, effective responses prompt learners to focus on the processes required for completing the task successfully, specify the area of difficulty, and offer possible strategies to support progress. Based on my own experiences as classroom teacher and a researcher in preschool classrooms, this scenario matches situations the students are likely to encounter in their observations of free play during their preschool field experience.

Charlie scenario. The Charlie scenario was written to determine students’ responses to a child who is making good progress but has not yet achieved complete success. In this case, the scenario features a child who has included most, but not all, of the letters in his name. According to guidance from the growth mindset literature, effective responses acknowledge learners’ effort, process, and progress toward mastery. Additionally, young children’s name writing is an important step in emergent literacy abilities (Welsch, Sullivan, & Justice, 2003) and using some,
but not all, of the correct letters is a common stage in the development of the skill (Puranik, Schreiber, Estabrook, & O’Donnell, 2014). As with later stages of inventive spelling, this can be seen as a positive step toward proficiency.

**Daphne scenario.** The Daphne scenario was written to determine students’ responses to a child who has succeeded after exerting strong effort. In this case, the scenario features a child who has successfully tied her shoes for the first time. According to guidance from the growth mindset literature, effective responses acknowledge learners’ persistence and processes that led to the success.

**Ethan scenario.** The Ethan scenario was written to determine students’ responses to a child who has succeeded with little effort exerted. In this case, the scenario features a child who has read an alphabet book that is below his current reading ability. According to guidance from the growth mindset literature, effective responses would indicate to students that easy tasks will not improve their skills, and they are ready for a new challenge. Additionally, it is worth noting that intrinsic interest and motivation in book selection are important factors in young children’s literacy, and teachers are instructed not to discourage a child from reading a book they want to read.

**Frances scenario.** The Frances scenario was written to determine students’ responses to a child’s creative process. According to the textbook’s guidance about using encouragement versus praise, this scenario is one in which an adult’s evaluation is not necessary, and could even be perceived as intrusive or precluding the child’s own evaluation. The textbook includes multiple references to creative and representational activities, such as building and painting, as examples of situations in which teachers might be inclined to praise students but could use encouragement instead (e.g., “you have been using a lots of red paint” instead of “You’re a great artist” or
“That’s a beautiful drawing,” Feeney et al., 2010, p. 200). Based on the students’ comments in class and their journal reflections, this scenario also closely matches situations students were likely to encounter in their observations of free play during their preschool field experience.

**Demographic variables.** In addition to the Mindset Assessment and feedback questionnaire items, I also asked students to provide demographic information. Students provided their age, academic status (freshman, sophomore, junior, senior, or other), and specific education courses taken previously or concurrently with ECE 1001.

Table 3.2

*Constructs of Interest and Related Data Sources*

<table>
<thead>
<tr>
<th>Construct of Interest</th>
<th>Quantitative Data Source</th>
<th>Qualitative Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students’ theories of intelligence</td>
<td>Mindset Assessment</td>
<td></td>
</tr>
<tr>
<td>Students’ beliefs about different types of positive feedback</td>
<td>Feedback Questionnaire</td>
<td>Feedback Questionnaire (open-ended items)</td>
</tr>
<tr>
<td></td>
<td>(closed items)</td>
<td>Student journals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Student reflections</td>
</tr>
</tbody>
</table>

**Procedures**

The Mindset Assessment, feedback questionnaire, and demographic variables were collected via an online survey link sent to students through Blackboard. The survey was sent twice: once in January, to be completed the first week of class, and once in April, to be completed before the last class meeting. Due to technical difficulties with the link, most students completed the April survey during the final class meeting. The reflective journals were distributed throughout the semester; the first journal was due the week after the students’ first visit to the Arlitt Center, and the final reflection was due following the final class meeting.
Students had the option of submitting print copies of journals in class or via email. Some students did not complete every assignment; for example, two students did not complete the full survey in January, and one student was unable to complete the full survey in April. The assignments were required for all students in the course, though there were no grades associated with the questionnaire; only students who consented to have their assignments analyzed for research purposes were included in the analysis. Because each student had up to seven sources of data, I chose to include incomplete cases in my analyses.

Data Analysis

In concurrent mixed methods studies, quantitative and qualitative data are typically analyzed separately for within-strand inferences and then integrated to produce meta-inferences (Plano Clark & Ivankova, 2016). Because data were collected in the context of the course, I did some initial analysis as each data source was collected. For quantitative data, this included extracting descriptive statistics of the initial questionnaires. For qualitative data, this included reading initial responses to the open-ended questionnaire items and responding to students’ journals as they were completed. My notes regarding these initial analyses assisted with the ultimate formal analyses. After the semester was completed, I assigned each participating student a pseudonym and created a de-identified copy of the assignments using the pseudonym and deleting clear identifying factors. I then analyzed each data source separately before integrating the strands. Details of these analyses are described below. Table 3.3 summarizes the research questions and analysis methods.
Table 3.3

*Research Questions and Analysis Methods*

<table>
<thead>
<tr>
<th>Question Type</th>
<th>Question</th>
<th>Analysis method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative</td>
<td>What are beginning education students’ mindsets, or implicit theories of intelligence, as measured by the Mindset Assessment tool?</td>
<td>Pre/post descriptive statistics of Mindset Assessment scores</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dependent-samples t-test</td>
</tr>
<tr>
<td>Quantitative</td>
<td>When presented with classroom-based scenarios, to what degree do students endorse certain types of positive feedback?</td>
<td>Pre/post descriptive statistics of closed items on Feedback Questionnaire</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dependent-samples t-test of subscales</td>
</tr>
<tr>
<td>Quantitative</td>
<td>What associations exist between students’ mindsets and positive feedback beliefs?</td>
<td>Intercorrelation matrix</td>
</tr>
<tr>
<td>Qualitative</td>
<td>When presented with classroom-based scenarios, what types of feedback statements do students provide?</td>
<td>Coding of responses to open-ended items on Feedback Questionnaire</td>
</tr>
<tr>
<td>Qualitative</td>
<td>What are students’ beliefs about praise and positive language?</td>
<td>Coding of journal responses and final reflection</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplemented with instructor field notes</td>
</tr>
<tr>
<td>Qualitative</td>
<td>How do students interrogate these beliefs through course participation, field experience, and written reflections?</td>
<td>Coding of journal responses and final reflections</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Supplemented with instructor field notes</td>
</tr>
<tr>
<td>Qualitative</td>
<td>How do students’ beliefs change over the course of the semester?</td>
<td>Temporal analysis of codes</td>
</tr>
<tr>
<td>Integrative</td>
<td>Are students’ mindsets meaningfully related to beliefs about positive feedback? If yes, what are the relationships and do they change as a result of course participation?</td>
<td>Compare quantitative and qualitative results</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Joint displays</td>
</tr>
</tbody>
</table>

Quantitative analyses. Due to the sample size and the newly designed measure (i.e., the feedback questionnaire), the quantitative analyses were exploratory. Thus, these analyses were
intended to provide initial evidence about these constructs and relationships within one class sample, rather than conclusive and generalizable results. In the following sections, I describe analysis procedures for the Mindset Assessment and the closed items on the feedback questionnaire. I used the quantitative data analysis software R to conduct analyses. The quantitative analyses were guided by the following research questions:

- What are beginning education students’ mindsets, or implicit theories of intelligence, as measured by the Mindset Assessment tool?
- When presented classroom-based scenarios, to what degree do students endorse certain types of positive feedback?
- What associations exist between students’ mindsets and positive feedback beliefs?

**Mindset Assessment.** In accordance with the scoring instructions from MindsetWorks, I reverse-scored the even items on the scale and calculated a total Mindset Assessment Profile score. I calculated Cronbach’s alpha for the total scale, as well as for the subsets of items from each of the original scales (theory of intelligence, learning goals, and effort beliefs). I conducted a dependent-samples t-test to determine whether there was significant change in students’ MAP score from January to April.

**Feedback questionnaire.** I organized my analyses around the four theoretical factors: generic feedback, trait feedback, effort feedback, and process feedback. I calculated the mean and standard deviation for each item in January and in April. I created subscales for each theoretical factor with the sum of the six items written to represent the factor. I calculated Cronbach’s alpha to determine internal consistency of each subscale, and used a dependent-samples t-test to determine whether there was significant change in students’ ratings of each feedback type from January to April.
Associations between Mindsets and Feedback Questionnaire. I calculated correlations between the total Mindset Assessment score and the subscale total for each of the four feedback types in January and in April.

Qualitative analyses. In the following sections, I describe analysis procedures for the open-ended items on the feedback questionnaire and the students’ reflective journals. I used the qualitative data analysis software MAXQDA to manage data and for formal coding procedures. The qualitative analyses were guided by the following research questions:

- When presented with classroom-based scenarios, what types of feedback statements do students provide?
- What are students’ beliefs about praise and positive language?
- How do students interrogate these beliefs through course participation, field experience, and written reflections?
- How do students’ beliefs change over the course of the semester?

Feedback questionnaire. The analysis of the qualitative feedback questionnaire responses was iterative and informed by the literature, while still remaining open to emerging themes. The data are partially quantified, in that frequencies of categories and sub-categories are presented. While this is an imperfect way to present qualitative data, quantification can be “a powerful tool for making sense of whether, when, and how students learn” (Hammer & Berland, 2014, p. 45). When presenting quantified data, Hammer and Berland (2014) recommend that researchers should represent in detail the complex intellectual work of arriving at quantified data. To help readers determine for themselves the credibility of the findings, researchers can explain their construction of the data and coding scheme, include a substantial portion of the data and the coding scheme, and discuss details of decisions about borderline cases. To address these
recommendations, I explain how I used iterative inductive and deductive processes to develop my coding scheme and included multiple examples in the description of the analysis procedures and in the findings themselves; the full coding scheme is also included in Appendix G.

I first read through the responses to each prompt, to reacquaint and immerse myself in the data (Saldaña, 2009). Then, as I reread, I took notes about the content of the responses. I used provisional coding, which employs a “predetermined start list” of codes based on theory and experiences related to the phenomenon of interest (Saldaña, 2009, p. 168). Per the literature on growth mindset, I coded the use of generic praise statements (e.g., good job), as well as attention to process, effort, and personal traits and abilities. I coded phrases that did not fit these pre-established categories as “Other” for further exploration. Figure 3.2 illustrates this coding process with an example of one student’s response to the Daphne scenario in January and her response in April. Her January response attends to process and contains a generic statement. Her April response attends to process and effort, and contains a statement coded as “other,” which was further explored in the next round of coding.

<table>
<thead>
<tr>
<th></th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grace</td>
<td>You tied your shoes!! Good job, Daphne.</td>
<td>You just tied your shoes! I know that was challenging; you must feel so proud of yourself.</td>
</tr>
</tbody>
</table>

*Figure 3.2. Example of provisional coding from the Daphne scenario.*

This coding scheme allowed for a close connection to the theory and existing research on growth mindset, and provided a basis for comparing students’ responses across time points and across scenarios. Throughout this process, I discussed coding decisions with peer reviewers. For example, the statement “You tied your shoes all by yourself” was challenging to code because it attended to process (‘you tied your shoes’) but the celebration of an individual achievement (‘all by yourself’) seemed to attend to effort. After discussion with multiple peer reviewers, I decided
to code these segments as both process and effort, and to keep such dual-coded statements together in subsequent analyses within categories.

After identifying phrases according to the established categories, I further analyzed each category for subthemes. Where possible, I looked at the dimensions of specificity and evaluation. Figure 3.3 shows this process with representative examples within the provisional category “Process” from responses to the Daphne scenario:

<table>
<thead>
<tr>
<th>Non-Evaluative / Less Specific</th>
<th>Evaluative / Less Specific</th>
</tr>
</thead>
<tbody>
<tr>
<td>You tied your shoes!</td>
<td>You did a great job tying your shoes!</td>
</tr>
<tr>
<td>You tied your shoes for the very first time all by yourself!</td>
<td></td>
</tr>
<tr>
<td>Non-Evaluative / More Specific</td>
<td>Evaluative / More Specific</td>
</tr>
<tr>
<td>You got past the loop part you found most difficult!</td>
<td>Excellent job, Daphne; that’s a pretty solid knot there. Tying your shoes is difficult and you did it so well all by yourself!</td>
</tr>
</tbody>
</table>

*Figure 3.3. Example of coding “Process” segments according to specificity and evaluation.*

I analyzed statements coded as “other” thematically by scenario. For each scenario, I first pulled all “other” statements into one list. Then, I organized the list by placing related comments together. For example, in the Daphne scenario, “pride” was a repeated pattern. Finally, I returned to the database and refined the “other” statements with the more specific thematic codes.

After the detailed analysis of each provisional category (generic, trait, effort, process, and other), I returned to the database and refined each statement with more specific codes. I repeated this process for each of the six scenarios, though iteratively revisited scenarios to ensure consistency where appropriate. For example, when I made the decision about how to code attention to autonomously completed processes, I searched in all responses for attention to “yourself” to ensure each was coded as both process and effort.

*Inter-coder reliability.* Including a second coder of qualitative data can demonstrate reliability of the coding scheme, and may also enhance the validity of the findings through the
negotiations and conversations about the data and the codes that emerge during the coding process (Hammer & Berland, 2014). To enhance credibility of the findings, a second researcher coded six responses from each scenario at each time point, or approximately 27% of the qualitative questionnaire data. Responses were selected for the second coder randomly by using Microsoft Excel to assign a random number to each response and selecting the lowest six numbers for each response set. One randomly selected response entry was null (i.e., the student did not submit a response for that prompt), and the response with the next-lowest number was chosen. The second coder was trained using the coding manual and different data from the random subsample. After the researcher was confident in the coding scheme, she independently coded the random subset of data. Instances of disagreement were flagged and discussed until agreement was reached.

Through discussion with the second researcher, the coding scheme was refined. Changes included clarification of coding decision rules (e.g., Process\Progress can include reviewing past progress or suggesting that a child is ready to advance to the next step in a sequence; Process\Correction entails situations where the teacher identifies an error and supplies a correct answer, whereas Process\Fix Mistakes implies supporting the child to identify and correct errors). Adjustments were made to the code names and hierarchy (e.g., renaming Effort\Words or Sentences as Effort\Specific Challenge; repositioning Process\Sound it Out and Process\Fix Mistakes as subcodes of Process\Specific Strategy; repositioning Other\Close to Effort category). Two new subcodes were introduced to the coding scheme (Process\Provide Information and Process\Specific Strategy\Review). We also discussed issues that were not captured by the coding scheme, such as nuances in phrasing and tone, that contributed to the interpretation of the
data. After thorough discussion of the data subset and the coding scheme, I returned to the full data set and updated coding based on the changes.

**Integration analysis.** As a mixed methods study, a key issue of quality is integration (Maxwell, Chmiel, & Rogers, 2015). My integration research questions were *Are beginning education students’ theories of intelligence meaningfully related to beliefs about praise? If yes, what are the relationships and do they change as a result of course participation?* I compared the quantitative and qualitative questionnaire findings to form a more complete understanding of students’ beliefs about each type of feedback. To understand whether and how a student’s theory of intelligence, or mindset, is related to their beliefs about feedback and their learning on the topic, I compared the quantitative and qualitative data about students’ beliefs to the quantitative data indicating their mindsets. I compared whether the themes, or the timing of the themes, related to their learning differ according to these profiles. I also examined both types of data for other information about student characteristics or learning experiences that affect patterns of change.

**Data matrices.** Joint displays that integrate both quantitative and qualitative information help communicate the findings of mixed methods research (Plano Clark & Sanders, 2015). Displays may be used to convey conceptual information, a summary of the research process, points of connection or development, or to convey integrated results (Plano Clark & Sanders, 2015, p. 183). Visual displays can be especially helpful in longitudinal designs, which add the dimension of time (Plano Clark et al., 2015). In a methodological review of longitudinal mixed methods studies, Plano Clark and colleagues (2015) referenced multiple visual displays. Because of the complexity of longitudinal mixed methods designs, diagrams can be useful to clarify data collection procedures (e.g., Turner-Cobb et al., 2010, p. 895). Visual displays can also be useful
to present findings. Dierick-van Daele and colleagues (2010) displayed patient quotes across
time points. Pettersson and colleagues (2012) showed quantitative data from four cases collected
across four time points. These examples integrate either qualitative or quantitative information
with temporal information. However, examples of displays that integrate all three types of
information are lacking. In the section presented integrated findings, I use visual displays to
integrate multiple types of information and more clearly communicate my research findings.
Chapter 4: Findings

Quantitative Findings

In this section, I report the findings of the quantitative research questions: (1) What are beginning education students’ mindsets, or implicit theories of intelligence, as measured by the Mindset Assessment tool?; (2) When presented classroom-based scenarios, to what degree do students endorse certain types of positive feedback?; and (3) What associations exist between students’ mindsets and positive feedback beliefs?

Students’ mindsets. To answer the research question, What are beginning education students’ mindsets, or implicit theories of intelligence, as measured by the Mindset Assessment tool?, I analyzed students’ responses to the Mindset Assessment Profile (MAP). Cronbach’s alpha for the MAP was 0.42 in January (theory of intelligence, $\alpha = 0.77$; learning goals, $\alpha = 0.53$; effort beliefs, $\alpha = 1.23$). In April, the MAP had an alpha of 0.48 (theory of intelligence, $\alpha = 0.24$; learning goals, $\alpha = 0.58$; effort beliefs, $\alpha = 1.05$). The alpha values, and possible reasons for the low results, are discussed in the final chapter. The MAP contains eight items, each of which is answered on a scale of 1 (disagree a lot) to 6 (agree a lot); four of the items are reverse scored. Table X summarizes the means and standard deviations for each item in January and in April.

The total score results in a Mindset Assessment Profile score. Scores 29 and above indicate a growth orientation (G), with higher scores signifying a stronger orientation. Scores 28 and below are considered to indicate a more fixed orientation (F), with lower scores signifying a stronger orientation. In January, students’ scores ranged from 28-40, and in April, they ranged from 27-41. Table 4.1 provides a summary of the descriptions of the profiles for the score ranges.
Table 4.1

Mindset Assessment Profile Descriptions

<table>
<thead>
<tr>
<th>Score range</th>
<th>Profile group</th>
<th>Profile description</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-28</td>
<td>F1</td>
<td>You are unsure about whether you can change your intelligence. You care about your performance and you also want to learn, but you don’t really want to have to work too hard for it.</td>
</tr>
<tr>
<td>29-32</td>
<td>G1</td>
<td>You believe that your intelligence is something that you can increase. You care about learning and you’re willing to work hard. You do want to do well, but you think it’s more important to learn than to always perform well.</td>
</tr>
<tr>
<td>33-36</td>
<td>G2</td>
<td>You really feel sure that you can increase your intelligence by learning and you like a challenge. You believe that the best way to learn is to work hard, and you don’t mind making mistakes while you do it.</td>
</tr>
</tbody>
</table>


The class mean in January (M=32.53, SD=3.47) indicates MAP “G1”, and the mean in April (M=33.47, SD=4.11) corresponds to MAP “G2.” A paired-samples t-test was conducted with the MAP totals to compare students’ mindsets in January and in April. There was not a significant difference in scores from January and April; t(18)=−1.17, p = .26. These results suggest that students had moderately growth-oriented mindsets at the beginning of the course, and that their mindsets did not change significantly by the end of the course.

Table 4.2

Means and Standard Deviations of Mindset Assessment Profile Items in January and in April

<table>
<thead>
<tr>
<th>Item</th>
<th>January M</th>
<th>January SD</th>
<th>April M</th>
<th>April SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. No matter how much intelligence you have, you can always change it a good deal.</td>
<td>4.95</td>
<td>1.03</td>
<td>5.11</td>
<td>0.66</td>
</tr>
<tr>
<td>2. You can learn new things, but you cannot really change your basic level of intelligence.*</td>
<td>4.58</td>
<td>1.30</td>
<td>4.32</td>
<td>1.38</td>
</tr>
<tr>
<td>3. I like my work best when it makes me think hard.</td>
<td>4.53</td>
<td>0.70</td>
<td>4.74</td>
<td>0.73</td>
</tr>
<tr>
<td>4. I like my work best when I can do it really well without too much</td>
<td>2.47</td>
<td>1.12</td>
<td>3.05</td>
<td>1.27</td>
</tr>
</tbody>
</table>
Because the overall change was not significant, I explored whether there were any changes at the item level. Paired-samples t-tests were conducted for each of the eight items, but none were significant.

**Feedback beliefs.** The second quantitative research question was, *When presented classroom-based scenarios, to what degree do students endorse certain types of positive feedback?* To answer this question, I analyzed students’ responses to the quantitative items on the feedback questionnaire administered in January and in April. The questionnaire contained four items for each of six scenarios, for a total of 24 items. For each item, students rated a potential response to the scenario on a scale of 1 (terrible) to 5 (excellent). Each scenario had one generic, one trait, one effort, and one process item. Students’ responses to each feedback type are detailed below.

**Subscale differences.** T-tests of each subscale showed there was a significant change in students’ ratings of generic, trait, and process feedback, but not in their ratings of effort feedback. Table 4.3 summarizes the t-tests conducted on each of the feedback-type subscales, and the subsequent sections explain the results in more detail.
Table 4.3

Results of T-Tests for Each Type of Feedback

<table>
<thead>
<tr>
<th>Variable</th>
<th>January</th>
<th>April</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Generic</td>
<td>21</td>
<td>16.21</td>
<td>3.01</td>
<td>12.58</td>
</tr>
<tr>
<td>Trait</td>
<td>21</td>
<td>19.47</td>
<td>2.14</td>
<td>16.74</td>
</tr>
<tr>
<td>Effort</td>
<td>21</td>
<td>25.53</td>
<td>1.43</td>
<td>25.26</td>
</tr>
<tr>
<td>Process</td>
<td>21</td>
<td>26.05</td>
<td>1.96</td>
<td>27.31</td>
</tr>
</tbody>
</table>

Note. M = mean; SD = standard deviation.

Generic feedback. Six items on the feedback questionnaire represented generic responses to the classroom scenarios. The means and standard deviations for each of the items in January and April are presented in Table 4.4. The six items were summed to create a generic subscale. Cronbach’s alpha for the generic subscale in January was 0.71 and in April was 0.72. A paired-samples t-test was conducted with the subscale totals to compare students’ responses to generic feedback in January and in April. There was a significant difference in the ratings from January (M=16.21, SD=3.01) to April (M=12.58, SD=3.15); t(19)=4.04, p < .001. These results suggest that students rated generic feedback significantly lower in April than they did in January, indicating their beliefs had changed.

Table 4.4

Means and Standard Deviations of Generic Feedback Items in January and in April

<table>
<thead>
<tr>
<th>Item</th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>1. It’s ok!</td>
<td>2.32</td>
<td>0.82</td>
</tr>
<tr>
<td>2. That’s all right!</td>
<td>1.79</td>
<td>0.79</td>
</tr>
<tr>
<td>3. Good job!</td>
<td>1.84</td>
<td>0.83</td>
</tr>
<tr>
<td>4. That’s great!</td>
<td>3.32</td>
<td>0.89</td>
</tr>
<tr>
<td>5. Great job!</td>
<td>3.05</td>
<td>0.85</td>
</tr>
<tr>
<td>6. What a great block tower!</td>
<td>3.89</td>
<td>0.74</td>
</tr>
</tbody>
</table>

Note. n = 21; M = mean; SD = standard deviation.
Trait feedback. Six items on the feedback questionnaire represented trait-based responses to the classroom scenarios. The means and standard deviations for each of the items in January and April are presented in Table 4.5. The six items were summed to create a trait subscale. Cronbach’s alpha for the trait subscale in January and April were 0.06 and 0.46, respectively. A paired-samples t-test was conducted to compare students’ responses to trait feedback in January and in April. There was a significant difference in the ratings from January (M=19.47, SD=2.14) and April (M=16.74, SD=2.49) conditions; t(19)=5.13, p < .001. These results suggest that students rated trait feedback significantly lower in April than in January, indicating their beliefs had changed.

Table 4.5

<table>
<thead>
<tr>
<th>Item Description</th>
<th>January Mean</th>
<th>January SD</th>
<th>April Mean</th>
<th>April SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Don’t worry. Not everyone is great at math!</td>
<td>2.0</td>
<td>1.05</td>
<td>1.84</td>
<td>0.90</td>
</tr>
<tr>
<td>2. You’re good at puzzles. I bet you can do it!</td>
<td>3.79</td>
<td>0.92</td>
<td>3.42</td>
<td>0.77</td>
</tr>
<tr>
<td>3. You’re such a good writer!</td>
<td>2.11</td>
<td>0.74</td>
<td>2.42</td>
<td>0.69</td>
</tr>
<tr>
<td>4. You’re so good at tying your shoes!</td>
<td>4.16</td>
<td>0.60</td>
<td>3.26</td>
<td>0.73</td>
</tr>
<tr>
<td>5. You must be a great reader!</td>
<td>3.42</td>
<td>0.84</td>
<td>2.79</td>
<td>0.54</td>
</tr>
<tr>
<td>6. You must be a great builder!</td>
<td>4</td>
<td>0.67</td>
<td>3</td>
<td>0.88</td>
</tr>
</tbody>
</table>

Note. n = 21; M = mean; SD = standard deviation.

Effort feedback. Six items on the feedback questionnaire represented effort-related responses to the classroom scenarios. The means and standard deviations for each of the items in January and April are presented in Table 4.6. The six items were summed to create an effort subscale. Cronbach’s alpha for the effort subscale in January and April were -0.01 and 0.44, respectively. A paired-samples t-test was conducted to compare students’ responses to effort feedback in January and in April. There was not a significant difference in the ratings from January (M=25.53, SD=1.43) and April (M=25.26, SD=2.16) conditions; t(19)=0.35, p = 0.73.
These results suggest that students’ ratings of, and thus their beliefs about, effort feedback did not significantly change from January to April.

Table 4.6

*Means and Standard Deviations of Effort Feedback Items in January and April*

<table>
<thead>
<tr>
<th>Item</th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. You are trying really hard. I admire your effort.</td>
<td>4.05</td>
<td>4.11</td>
</tr>
<tr>
<td>2. You're working on a more challenging puzzle! Need some help?</td>
<td>4.37</td>
<td>4.05</td>
</tr>
<tr>
<td>3. You’ve really been working on writing your name!</td>
<td>3.26</td>
<td>3.95</td>
</tr>
<tr>
<td>4. You kept trying, and now you can do it all by yourself!</td>
<td>4.79</td>
<td>4.42</td>
</tr>
<tr>
<td>5. Your reading is improving every day! Are you ready for a book with a few more words?</td>
<td>4.79</td>
<td>4.63</td>
</tr>
<tr>
<td>6. You put a lot of effort into making that!</td>
<td>4.26</td>
<td>4.10</td>
</tr>
</tbody>
</table>

Note. n = 21; M = mean; SD = standard deviation.

*Process feedback.* Six items on the feedback questionnaire represented process-related responses to the classroom scenarios. The means and standard deviations for each of the items in January and April are presented in Table 4.7. The six items were summed to create a process subscale. Cronbach’s alpha for the process subscale in January and April were 0.49 and 0.61, respectively. A paired-samples t-test was conducted to compare students’ responses to process feedback in January and in April. There was a significant difference in the ratings from January (M=26.05, SD=1.96) and April (M=27.31, SD=1.70) conditions; t(19) = -2.59, p = 0.02. These results suggest that students rated process feedback significantly higher in April than in January, indicating that their beliefs changed in favor of process feedback.

Table 4.7

*Means and Standard Deviations of Process Feedback Items in January and April*

<table>
<thead>
<tr>
<th>Item</th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mistakes are part of the process. Let’s take a closer look!</td>
<td>4.68</td>
<td>4.68</td>
</tr>
<tr>
<td>2. You’ve got part already! How did you find those pieces?</td>
<td>4.42</td>
<td>4.53</td>
</tr>
<tr>
<td>3. I can read your name! Can you tell me which letters you wrote?</td>
<td>3.95</td>
<td>4.63</td>
</tr>
</tbody>
</table>
4. You looped the ears and pulled, and now they're tied! 4.58 0.61 4.63 0.50
5. You recognized all your letters! 4.00 0.47 3.95 0.62
6. You stabilized the bottom so you could build it even taller! 4.42 0.69 4.89 0.32

Note. n = 21; M = mean; SD = standard deviation.

**Associations between mindsets and feedback beliefs.** The final quantitative research question was, *What associations exist between students’ mindsets and positive feedback beliefs?*

To answer this question, I examined the correlations between students’ MAP scores and the subscale totals for each feedback type. In January, the generic and trait subscales were significantly correlated, and the effort and process subscales were significantly correlated, but the MAP scores were not significantly correlated with any feedback type. Table 4.8 shows these relationships.

Table 4.8

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. G_Jan</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. T_Jan</td>
<td>0.78*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. E_Jan</td>
<td>0.31</td>
<td>0.19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. P_Jan</td>
<td>0.21</td>
<td>0.28</td>
<td>0.54*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. M_Jan</td>
<td>0.32</td>
<td>0.16</td>
<td>0.19</td>
<td>-0.06</td>
<td>—</td>
</tr>
</tbody>
</table>

Note. G=generic; T=trait; E=effort; P=process; M=Mindset Assessment. * Indicates significance at p ≤ 0.05.

In April, the generic and trait subscales were again significantly correlated. Unlike the January results, the effort subscale was significantly correlated with each of the other subscales. The MAP scores were significantly, negatively correlated with both the generic and trait subscales, but not significantly related to the effort or process subscales. This indicates that, at the end of the semester, students with stronger growth mindsets rated generic and trait-based feedback more negatively. Table 4.9 shows these relationships.
Table 4.9

*Correlations Between Feedback Types and Mindset Assessment in April*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. G_Apr</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. T_Apr</td>
<td>0.88*</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. E_Apr</td>
<td>0.49*</td>
<td>0.58*</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. P_Apr</td>
<td>0.35</td>
<td>0.38</td>
<td>0.67*</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>5. M_Apr</td>
<td>-0.69*</td>
<td>-0.68*</td>
<td>-0.25</td>
<td>0.03</td>
<td>—</td>
</tr>
</tbody>
</table>

Note. G=generic; T=trait; E=effort; P=process; M=Mindset Assessment. * Indicates significance at p = ≤ 0.05.

Qualitative Findings

**Types of feedback statements.** To answer the qualitative research question, *When presented classroom-based scenarios, what types of feedback statements do students provide?*, I analyzed students’ January and April responses to the scenarios on the questionnaire. Six open-response items comprised the qualitative components of the questionnaire. Each was a brief scenario of a young child in a classroom and a prompt to provide a response to the child: Aaron, Brooke, Charlie, Daphne, Ethan, and Frances. For each scenario, I detail the types of feedback students provided as responses to the classroom-based scenarios in January and in April. First, I explain responses according to the provisional coding scheme—generic, trait, effort, and process feedback—and subthemes within each of those categories. I also explain other themes that emerged outside of that original scheme. Then, I provide examples of students’ responses that showed growth from January to April. Finally, I explain patterns in students’ use of generic, trait, effort, and process feedback across the scenarios.

**Aaron’s scenario.** Aaron’s scenario was written to portray a child struggling despite exerting strong effort. The prompt students responded to was: “Aaron, who has mastered simple addition, has tried hard but made several errors on a more challenging practice.”
January responses. In January, five students used generic terms: three praising, presumably, Aaron’s progress (e.g., “good job”), and two offering consolation for the struggle (e.g., “it’s okay”). One student attended to trait, expressing her confidence in his success “because you are so smart” (Beth). Twelve students attended to effort. One of these responses acknowledged the child’s experience: “I know you’re having difficulty with these problems” (Beth), and one described how the task might require increased effort: “this more challenging work can be kind of tricky” (Emma). Ten students encouraged sustained or increased effort, prompting Aaron to “keep trying” or “try again.” Statements of confidence also accompanied effort messages; for example, Jacob responded, “It will come with time if [you] continue to try.”

Fifteen students attended to process in their responses. Two offered to demonstrate a process (e.g., “let me show you an example” from Claire). Three students used interrogatives to discover where the trouble was (e.g., “What part are you not understanding?” also from Claire) or to prompt the child to share his thought process (e.g., “How about you show me the first step?” from Fiona). Three students described or praised Aaron’s progress up to the current point (e.g., “Look how far you’ve come” from Penny). Some students focused on specific aspects of the task at hand, with four suggesting they find and fix the problem or errors he made (e.g., “let’s go back a few steps and see where the problem is” from Yeva; this was dual-coded as both Assistance and Process) and three students suggesting a specific strategy (e.g., “let’s see how we can break this down into simple addition” from Olivia; again, this statement was dual-coded as both Assistance and Process). Three students offered more generally to “work on” the problems with Aaron or to help him “take a closer look,” and one stated she would provide “guidance but not the answer” (Hannah).
In addition to the provisional categories and subthemes, other themes emerged. Fourteen students offered some assistance to Aaron, whether through a suggestion to work together (e.g., “Let me show you the steps again to complete this problem, and then we can do another one together” from Emma; coded as Process\Demonstrate and Other\Assistance) or reminding Aaron of her availability (e.g., “I am here to help you and answer any questions you have!” from Beth). Six students expressed their confidence in Aaron’s eventual success. Three of these expressions came with effort messages; for example, Abby responded, “With some more practice, you’ll be able to master these more difficult problems” and Jacob wrote that he would “let him know it will come with time if he continues to try.” Beth’s confidence came with a trait-based attribution: “I know you can figure them out because you are so smart.” Two expressions of confidence were not specifically qualified with effort or trait messages and were simply added to the overall response; for example, Emma assured “you’ll get the hang of it in no time.” Additionally, three students included a statement about emotions, three with directives (e.g., “Don’t worry” from Emma and “Don’t get so down on yourself” from Norah). Tessa reflected the child’s experience, commenting, “I’ve noticed how you have been getting very frustrated.”

April responses. In April, three students included generic consolations (i.e., “it’s okay”), and no students used trait-based feedback. Twenty students attended to effort in some way. Four students affirmed the effort Aaron had already put forth; for example, Fiona began her response, “Aaron, I see you’re working really hard on that problem.” Four students acknowledged his struggle or normalized the effortful nature of the process; for example, Uma assured Aaron, “Since we’re taking it to the next level, it’s okay to struggle.” Five students directly described the task as likely requiring more effort. For example, Claire offered assistance with the problem “because it’s a little more difficult,” and Quinn explained that “it took time for you to get
addition; it’s okay that you need time for this!” Ten students encouraged sustained or increased effort; for example, Isabel prompted Aaron to “keep working at it.” Others included effort messages with expressions of confidence; for example, Rebecca explained, “the more [you] practice, the better you will get.”

Eighteen students attended to process in their April responses. Two students used interrogatives, one to prompt an explanation from Aaron (“Why don’t you show me how you’re doing the problem?” from Grace) and one to offer assistance (“Do you want to work on it together?” from Abby; this was dual-coded as Assistance and Process). Nine students commented on the child’s previous relevant accomplishments or progress on the task. For example, Morgan noted that “you mastered the other problems” and Rebecca commented, “you’ve already completed a few math problems.” Seven students offered suggestions: two to review previous skills, three to find and fix mistakes, and two with specific strategies to try. Six students made more general suggestions to “work together”, “take a closer look”, or “break this equation down”.

Assistance, confidence, and emotion were again present in students’ April responses. Fifteen students offered assistance in some way, whether through hands-on help or reminding the child of their presence as a resource. Four students included expressions of confidence in Aaron’s success, two explicitly tied to more practice (e.g., “with practice I know you can get there” from Dylan) and two based on previous success learning new math (e.g., “I have seen you be successful with other problems and I know you can do these too” from Samantha). Quinn commented on the child’s emotional experience, noting, “I can see you’re frustrated.”
Table 4.10

Class Summary of Provisional Category Frequencies in Aaron Scenario

<table>
<thead>
<tr>
<th></th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Trait</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Effort</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>Process</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Other</td>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>

Note. January n=22; April n=23. Some responses contained multiples of the same code; for this frequency count, each student’s response is represented only once.

Examples of change. Some students demonstrated a shift from vague cheerleading to more specific, supportive responses. In January, Samantha begins with generic praise, which is not likely to ring true when the child is in the midst of struggle. She tries to encourage him by describing proximity to success and urging more effort but does not offer any specific strategies to help him achieve success. In contrast, her April response is more directly supportive. She assures him of her confidence in his success and bases this confidence on previous progress. Then, she offers a specific strategy to try.

Table 4.11

Samantha’s Responses to Aaron Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron good job! You were so close; why don’t you try it again!</td>
<td>That’s okay Aaron, I have seen you be successful with other problems and I know you can do these too. Maybe try this method?</td>
</tr>
</tbody>
</table>

Emma’s January response begins by normalizing the challenge involved in the task at hand. She offers assistance by immediately suggesting she demonstrate or reteach the process. She aims to boost his confidence but uses platitudes to do so and offers that he can ask her for help. Elements of this response could be effective, but as a whole it feels scattered and loses its effect. In April, her response is more straightforward and thus more supportive: she comments on
his previous accomplishment and acknowledges his current struggle, then volunteers to tackle the problem with him.

Table 4.12

*Emma’s Responses to Aaron Scenario*

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t worry, Aaron, this more challenging work can be kind of tricky. Let me show you the steps again to complete this problem, and then we can do another one together. Keep your head up, you will get the hang of it in no time. If you have any more questions or need help don’t hesitate to ask.</td>
<td>Aaron you are wonderful at simple addition, I see that you are struggling with some of these more challenging problems. Let’s see if we can rework on these problems together.</td>
</tr>
</tbody>
</table>

Beth’s responses show a similar pattern of change. Her January response acknowledged his experience and expressed confidence in his future success, attributing that confidence to his intelligence. She also offered that he could ask her for help. Her April response begins by praising his previous accomplishment and acknowledging the challenge of the current task. The offer of assistance in April engages with the child rather than being a peripheral resource.

Table 4.13

*Beth’s Responses to Aaron Scenario*

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron, I know that you are having difficulty with these problems but I know you can figure them out because you are so smart and I am here to help you and answer any questions you have!</td>
<td>You are awesome at simple addition but I see you’re struggling with these harder problems. Let’s see if we can work through them together.</td>
</tr>
</tbody>
</table>

Others’ responses stayed relatively static, or even showed less desired changes. For example, Kate’s January and April responses were nearly identical, each containing a generic consolation and encouraging continued effort, but no guidance on how to solve the problem itself.
Rebecca’s January response prompts Aaron to describe his process and analyze where he is having difficulty, and offers assistance to solve the issue. This could be an effective way to determine a teacher’s approach and to help Aaron’s metacognitive awareness of the process. In contrast, her April response describes progress he has made and expresses confidence that he will succeed with effort—both supportive statements. However, in her attention to his progress and encouragement of effort, she has foregone the quality of her specific inquiry from January.

Table 4.15

Rebecca’s Responses to Aaron Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron, why don’t you show me what step you’re struggling with and I will try and help you from there.</td>
<td>Aaron, you’ve already completed a few math problems; the more practice the better you will get.</td>
</tr>
</tbody>
</table>

Brooke’s scenario. Brooke’s scenario was written to portray a child struggling and needing help with strategies. The prompt students responded to was: “Brooke, who easily completes simple puzzles, has given up on a more challenging puzzle.”

January responses. In January, students’ responses did not include any generic feedback statements. One student used a trait-based comment (from Beth, “Brooke, you are so good at puzzles and I know you can figure this one out”). Fourteen students commented on effort and 12 commented on process. Further analysis of the effort comments revealed themes within this category. Many students suggested trying again or trying harder—essentially directing, “don’t give up.” Four students commented on an attribute of the task itself; for example, Morgan wrote,
“[This challenging puzzle] will just take a little longer than the other ones.” Tessa sent a specific growth message by attending to the task attribute: “If it is challenging, that means you are learning.” One student used an interrogative; Lauren inquired, “Why did you give up?” One student said, “It’s ok if you don’t solve the puzzle on your first try,” speaking to the more abstract process of encountering challenge and the lesson that “If at first you don’t succeed, try, try again.”

Subthemes in the process category revealed that some students prompted Brooke about her puzzle-solving process, asking “What do you normally do?” or “What might we do next?” Some made suggestions about the next step, such as “Let’s find all the edge pieces” from Emma and “Why don’t we try to find pieces that have the same color and put them together?” from Grace. Others made comments that suggested that she might build on her previous successes, such as “Use what you know about solving easier puzzles to help you with the more challenging one.”

Other themes emerged outside of the provisional coding scheme as well. Several students offered assistance to the child: “we can work on this together”; “I’m here to help you”; “let me know if you’re stuck.” Fiona suggested asking a friend to help. Another theme was conveying the teacher’s confidence in the child’s ability to overcome this challenge: “You can do it!”; “I know you can solve this”; “I have faith in you.” A few used interrogatives to broach the situation, asking, “Are you stuck?” or “Is there something going on?” A few students commented on the emotional experience of the situation, one inquiring what was making the child upset, one encouraging patience, and one offering a directive not to become frustrated. One student indicated she would “probably offer her an incentive” to encourage the child to complete the puzzle.
April responses. Students’ April responses showed an increase in attention to effort and to process. Again, no students used generic feedback statements. Interestingly, four students included trait-based feedback, compared to the one use in January. The students seemed to use trait praise in combination with expressions of confidence, seemingly to bolster children’s self-efficacy; for example, Samantha wrote, “Brooke, you have done puzzles so easily, I know that you can do this.” Eighteen students attended to Brooke’s process and 18 attended to her effort, with similar nuance evidenced in the subthemes.

Within the effort category, the theme of encouraging Brooke to try again or try harder was again present, with seven students saying “don’t give up” or “I think you should keep trying.” Some of these statements came with the offer of assistance; for example, Claire offered, “Let’s try it again together.” An interesting phrasing came from Wendy, who said, “Giving up on this puzzle won’t help you get better at them.” This is explored in more detail in the Discussion section. Within the effort category, several students again commented on task attributes, with reflective comments about the situation; for example, Abby commented, “This puzzle is more challenging.” A few students abstracted this a step further to talk about challenges in general, saying, “Sometimes puzzles can be tricky” (Hannah) or “It just might take you longer than before” (Uma). Lauren offered the suggestion, “If you take [your time], you’ll be able to figure it out.” Three students used interrogatives, such as “I see you’ve given up; why did you give up?” Three students affirmed the child’s previous progress and effort on the current puzzle; for example, Rebecca commented, “I see how hard you are working on this puzzle!”

Within attention to process, some students gave more general prompts, such as “Let’s take another look” (Kate) or “Let’s work on it together and figure it out” (Norah). Others were more specific in their suggestions, such as encouraging her to match colors, find edges, and try
different spots. Again, several of these suggestions came with the offer of assistance, such as “Let’s work on it together” or “I’ll help you solve it.” Some students asked the child what strategies she had previously used to solve puzzles: “What do you normally do first?” (Quinn) or “Let’s think of strategies we use when working on other puzzles” (Emma).

Again, there were responses that fell outside the provisional coding scheme. Offers of assistance were again present, as were expressions of the teacher’s confidence in the child’s ability (e.g., “I know you can do this”). As in January, there were responses that contained acknowledgement of the child’s emotional experience. The tone of these acknowledgements varied from “it’s ok to be frustrated” (Claire) to “it can be frustrating, but I know you can do it” (Yeva) to “I can see you’re feeling a little defeated by this puzzle” (Quinn).

Table 4.16

<table>
<thead>
<tr>
<th></th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Trait</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Effort</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Process</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
<td>17</td>
</tr>
</tbody>
</table>

Note. January n=22; April n=23. Some responses contained multiples of the same code; for this frequency count, each student’s response is represented only once.

Examples of change. Some students showed a clear progression in detail and quality from January to April. For example, Isabel’s responses changed strongly for the better. Her January response shows her inclination to introduce an extrinsic incentive, whereas in April she clearly acknowledges the child’s initial progress and offers a specific suggestion for moving forward.
Table 4.17

*Isabel’s Responses to Brooke Scenario*

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would probably offer her an incentive for figuring out a more</td>
<td>You do a good job of finding where the pieces go once you get started; maybe start by using all of the straight edge pieces and work on the border of the puzzle.</td>
</tr>
<tr>
<td>challenging puzzle to help motivate her.</td>
<td></td>
</tr>
</tbody>
</table>

Violet transitioned from a general ‘cheerleading’ response to specific strategy support.

Table 4.18

*Violet’s Responses to Brooke Scenario*

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Don’t give up. You can</td>
<td>Let’s look at the pieces and try to match them. Do you see any other</td>
</tr>
<tr>
<td>do it!</td>
<td>blue pieces that may go together?</td>
</tr>
</tbody>
</table>

The qualities of others’ shifts were less straightforward. Fiona’s April response had a different tone from the simple, supportive response in January. Although it is clear she is attending to process in trying to suggest a strategy, the tone has shifted toward a directive rather than a reflection about the experience. This example illustrates also that there are many layers of nuance and context to feedback scenarios: in each, there are shades of student-centered versus teacher-centered aspects; in some circumstances, prompting to ask a friend for help could be seen as either supportive or off-putting.

Table 4.19

*Fiona’s Responses to Brooke Scenario*

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>I see that puzzle is challenging</td>
<td>I think you should keep trying on that puzzle.</td>
</tr>
<tr>
<td>you. Do you want to ask a friend</td>
<td>Maybe try matching colors together as a tool.</td>
</tr>
<tr>
<td>for help?</td>
<td></td>
</tr>
</tbody>
</table>

Uma’s responses are another example of such ambiguity. Although her April response contains an indication of trying to tune into the specific child and situation, she uses trait-based
praise. In incorporating a broad statement about confidence and taking one’s time, she moved away from the specific strategy suggestion from her January response.

### Table 4.20

**Uma’s Responses to Brooke Scenario**

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Let’s work together on this. I’ll put a piece together and then you can after me.</td>
<td>Solving puzzles seems to come so natural to you. I know you can do this harder one; it just might take you longer than before.</td>
</tr>
</tbody>
</table>

**Charlie scenario.** Charlie’s scenario was written to portray a child making progress on a challenging task. The prompt students responded to was: “Charlie, who is practicing letter-sound correspondence, has written his name for you: CHRLE.”

**January responses.** Three students included a generic evaluative statement: “Wow, Charlie, great job” (Fiona), “That is great” (Olivia), and “You’re off to a great start” (Rebecca). No students used trait-based feedback and twelve students attended to effort. Of these, five prompted Charlie to “try again” or to repeat a specific process (i.e., “sound it out again”; this was coded as both effort and process). Beth gave a specific compliment while attending to effort: “Charlie, that is a really good try because it sounds just like your name.” Six students noted that his attempt was “close.”

Twenty students made comments related to the child’s process. Of these, eight made corrections, three prompted him to find the errors, 13 prompted him to sound out his name, one offered a non-specific evaluative comment (“congratulate him on what he has written” from Claire), and one student prompted Charlie to say his name (Tessa). Several students offered a correction with a prompt to sound it out or to try again. For example, Claire’s full response was: “Congratulate him on what he has written and then sound out his name with him and help him write it correctly.” Emma responded, “Charlie, you have forgotten two important vowel sounds.
in your name. Let’s sound it out: CH-AR-LIE. Did you hear any vowel sounds that you might have missed? I know it can be tricky, especially with the “ie” sound.”

Other themes emerged as well. Seven students included an offer of assistance with their response. For example, Uma and Penny both wrote, “Let’s sound it out together,” and Norah asked, “Do you want to spell out your name with me?” Tessa provided her rationale for prompting him to say his name, explaining that her next steps depended on how he pronounced his name. One student admitted that she did not know what she would say.

April responses. Three students included a generic praise statement with their responses: “that’s great” (Quinn), “Great job!” (Tessa), and “Way to go!” (Uma). Ten students attended to effort, including one acknowledging “how hard you’ve worked on writing your name” (Rebecca), one complimenting his effort (“that’s a great try” from Fiona), and one noting his autonomous accomplishment (“You got all of the sounds yourself” from Olivia; this phrase was dual-coded as attending to both process and effort). Three students commented on how “close” his spelling was to the correct spelling. Three prompted taking “another look” (e.g., Kate) or to “practice some more” (e.g., Uma). Lauren conveyed confidence that success would come with effort: “with practice I know we can spell [it] correctly.”

All 23 students attended to process in some way. Fourteen students gave attention to a specific aspect of Charlie’s process: nine with non-evaluative descriptions (e.g., “I can read your name!” from Tessa, and “You used a C, H, R, L, and E!” from Quinn), and five with evaluative statements (e.g., “You are getting so good at sounding out your words!” from Beth, and “I like how close you are to spelling your name!” from Kate). Two students called attention to the progress he was making; for example, Uma said, “I see you are getting better and better at writing your name.” Three students used an interrogative to elicit Charlie’s own description; for
example, Grace asked, “Can you tell me what letters you wrote?” Five students prompted Charlie to “sound out” his name, and 15 prompted him to fix mistakes or issued some sort of correction. Many students combined process statements of different foci. For example, 13 students used a specific description of progress coupled with a correction or prompt to attempt again (e.g., Isabel wrote, “That does sound like your name, but it may be missing a couple of letters”).

As in January, students’ responses also contained offers of assistance (9; e.g., Claire’s response ended with “Now let’s try to get the letters that were missing to complete your name”). Two students also expressed her confidence in Charlie’s spelling; for example, Beth added, “You’ll definitely get it next time!”

Table 4.21

<table>
<thead>
<tr>
<th></th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Trait</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Effort</td>
<td>12</td>
<td>10</td>
</tr>
<tr>
<td>Process</td>
<td>20</td>
<td>23</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

Note. January n=22; April n=23. Some responses contained multiples of the same code; for this frequency count, each student’s response is represented only once.

Examples of change. Although there were only slight changes from January to April according to frequencies of the main four categories, there were subtle shifts in emphasis and tone of students’ responses. Many students began their January responses by launching right into a correction, whereas their April responses showed a tendency to respond first to positive qualities of the child’s work. For example, Abby’s January response, while encouraging, shows an immediate prompt to correct his spelling. In April, though, she begins by recognizing that Charlie has represented most of the phonemes in his name (she does invert terms here; I believe she means correct letters for the sounds he hears).
Table 4.22

Abby’s Responses to Charlie Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charlie, let’s try this again. You almost have it.</td>
<td>Charlie, you are using the correct sounds for most letters. Let’s try it this way.</td>
</tr>
</tbody>
</table>

Olivia’s January response begins with a brief generic praise statement and a correction. She then tries to guide Charlie to correct his error by listening for missing letters. In April, she begins by acknowledging that he has written something for each sound, and prompts to help him discover the “silent letters.” Although she lacks the professional terminology—rather than missing “silent letters,” the errors Charlie made were on phonemes with less obvious grapheme representation (r-controlled vowel and “ie” vowel combination, which are typically learned later in literacy development)—Olivia has considered his progress and specific needs in her response.

Table 4.23

Olivia’s Responses to Charlie Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>That is great but there are a few letters that you are missing, can you say your name slow and see if you hear any other letters?</td>
<td>You got all of the sounds yourself but let’s see if we can find the silent letters of your name.</td>
</tr>
</tbody>
</table>

Uma’s January response shows her immediately guiding Charlie in the phonemic segmentation of her name (Uma used “her” rather than “his”). In April, she begins by complimenting Charlie on her progress in writing his name, and offering additional practice. While it lacks the specificity of the phonemic segmentation, her response indicates the use of a written guide for Charlie to use for practice, which would likely be more useful than relying on “sounding it out,” especially for the particular errors he made.
Table 4.24

Uma’s Responses to Charlie Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Let’s sound it out together, CH-AR-LEE</td>
<td>Way to go Charlie, I see you are getting better and better at writing your name. Let’s practice some more. (Show how to write her name, then let her copy)</td>
</tr>
</tbody>
</table>

Other students moved away from making corrections, and focused more on acknowledging the child’s effort and describing what the child has done so far. Rebecca’s response in January reflects the pattern to compliment and correct, whereas her April response demonstrates attention to effort and engages the child in discussion about his work.

Table 4.25

Rebecca’s Responses to Charlie Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charlie, you’re off to a great start, but I want you to try again. You left out one letter can you figure out where that letter might belong?</td>
<td>Wow Charlie, I see how hard you’ve worked on writing your name can you spell your name out loud now?</td>
</tr>
</tbody>
</table>

Grace’s January response shows her uncertainty in responding to this situation, where the child has not yet achieved the “correct answer” but is making progress. Rather than jumping to correct the errors, she admits that she is unsure what a quality response might be. In April, she eschews either praise or correction and simply asks the child to read what he has written.

Table 4.26

Grace’s Responses to Charlie Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I’m honestly not sure what I would say)</td>
<td>Can you tell me what letters you wrote?</td>
</tr>
</tbody>
</table>
**Daphne scenario.** Daphne’s scenario was written to portray a child experiencing success with strong effort. The prompt students responded to was: “Daphne, who finds fine motor activities challenging, has successfully tied her shoes for the first time.”

**January responses.** In January, 16 students included generic praise in their responses: “awesome,” “great job,” “congratulations,” etc. No students used trait-based feedback. Eight students commented on the child’s effort. One of these comments was evaluative (“Keep up the good work!” from Rebecca), whereas four were non-evaluative observations of the child’s effort (e.g., “Your hard work and practice have paid off!” from Yeva). Jacob noted the child’s autonomous accomplishment, responding, “I see you tied your shoes all by yourself!” This response was coded as both process and effort. Two students prompted Daphne to keep practicing her new skill. Nine students commented on the child’s process. Of these seven, four were non-specific and evaluative (e.g., “You did a great job tying your shoes!” from Abby), while three were non-specific and non-evaluative (e.g., “You tied your shoes!” from Grace). Two students suggested extension activities (Fiona offered that Daphne could provide assistance to her classmates, and Isabel said she would find other fine-motor activities for Daphne to practice).

In addition to the provisional coding scheme, other themes emerged. One student expressed confidence in the child (“I knew you would be able to figure out how to tie your shoes!” from Beth), and one expressed excitement for the child. A strong theme was pride, with eight students conveying the emotion (e.g., “I’m so proud of you!”). Lauren wrote that she would use an extrinsic reward, responding that she would “give her a sticker because she succeeded on one of her challenges.”
April responses. In April, eight students used generic praise in their responses, though each used the phrase in conjunction with other feedback. Again, no students used trait-based feedback. Twenty students attended to the child’s effort. Within attention to effort, two subthemes emerged. Ten students used non-evaluative affirmations of the amount of effort exerted (e.g., “You worked so hard on that!” from Fiona). Eight students noted the autonomous accomplishment. For example, Penny commented, “You tied your shoes all by yourself!” Two students commented on the effort involved in the experience (e.g., Samantha noted, “I know you were struggling…”) and three students noted the task itself was challenging (e.g., “That’s really hard to do with small hands!” from Quinn). Isabel encouraged Daphne to continue practicing her new skill.

Fifteen students attended to the child’s process. These comments varied in terms of specificity and evaluation. Of these, two were non-specific and evaluative (“You did such a good job tying your shoes!” from Emma, and “I like how you figured out how to tie your own shoes!” from Kate). Eight students made non-specific, non-evaluative comments (e.g., “You just tied your shoes!” from Grace). Four students described the child’s process in more detail, using specific, non-evaluative comments, such as “I saw how you could tie the two strings together to make a bow!” from Rebecca. Two students drew attention to the progress that Daphne had made; for example, Morgan said, “You have kept trying to tie your shoes and now you have mastered it!”

Emotion was again a prominent theme. Quinn commented on the child’s prior difficulty, perhaps to amplify the accomplishment: “…and I know you’ve been getting frustrated with shoelaces.” Eight students noted pride in the situation; these comments were split evenly
between expressing the student’s pride (“I’m so proud of you!”) and reflecting the child’s pride (“You must feel so proud of yourself!”). One student also expressed her confidence in Daphne.

Table 4.27

**Class Summary of Provisional Category Frequencies in Daphne Scenario**

<table>
<thead>
<tr>
<th></th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic</td>
<td>16</td>
<td>8</td>
</tr>
<tr>
<td>Trait</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Effort</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>Process</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>9</td>
</tr>
</tbody>
</table>

Note. January n=22; April n=23. Some responses contained multiples of the same code; for this frequency count, each student’s response is represented only once.

Examples. There was a clear shift from January to April in students’ attention to effort and process. For example, Hannah gave generic praise in January but gave a more detailed response in April that showed appreciation for the child’s effort and specific accomplishment.

Table 4.28

**Hannah’s Responses to Daphne Scenario**

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would tell Daphne she did an amazing job… something on the lines of</td>
<td>Tying your shoes is difficult and you did it so well all by yourself!</td>
</tr>
<tr>
<td>being encouraging/rewarding and giving her a high five.</td>
<td></td>
</tr>
</tbody>
</table>

Olivia also demonstrated this shift from generic praise to specific attention to effort and process. In addition, her April response lacks an evaluation; instead, she describes the accomplishment.

Table 4.29

**Olivia’s Responses to Daphne Scenario**

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great job, Daphne!</td>
<td>You tied your shoes all by yourself!</td>
</tr>
</tbody>
</table>
Violet’s response shows an additional shift in focus from the teacher to the child. Her April response reflects the child’s sustained effort and describes a specifically challenging part of the process that the child overcame.

Table 4.30

Violet’s Responses to Daphne Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>I’m proud of you, Daphne!</td>
<td>I see you’ve really been practicing tying your shoes. You got past the loop part you found most difficult!</td>
</tr>
</tbody>
</table>

Other students’ responses showed progress toward higher quality responses, or less clear changes from their January to their April responses. For example, Penny clearly increased attention to effort and process. In April, she also expressed pride for the child. While a more ideal response might attend to the child’s reaction rather than her own, she has made clear progress toward more specific appreciation for the child’s accomplishment.

Table 4.31

Penny’s Responses to Daphne Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>That’s awesome, Daphne! I’m so excited for you; see if you can tie them again.</td>
<td>Wow, Daphne! You tied your shoes all by yourself; I’m so proud of you!</td>
</tr>
</tbody>
</table>

**Ethan scenario.** Ethan’s scenario was written to portray a child succeeding easily, with little effort. The prompt to which students responded was: “Ethan, who reads many words already, reads you an alphabet book.”

**January responses.** In January, eight students used generic praise terms, such as “great job” or “that was great.” Four students made trait-based comments, each related to a statement of confidence in Ethan’s ability to take on a more challenging book. For example, Beth’s full response was: “You are so smart, Ethan! I am so impressed you can read this whole book. Now
we can start working on more words and bigger words because you are so good at knowing all the letters in the alphabet.”

Nineteen students attended to effort. One told Ethan to “keep up the good work.” Three noted that the book was too easy for him, and 17 encouraged him to select a more challenging read (e.g., “let’s pick out a bigger and more exciting book!” from Yeva; “how about we try reading a more challenging book this time” from Emma; and “Why don’t you try reading me this book?” from Samantha). Several students specifically noted that Ethan could now move beyond an alphabet book. For example, Beth’s suggestion, noted earlier, that “now we can start working on more words and bigger words.”

Ten students attended to process in their responses. Two gave non-specific evaluative statements (i.e., “great job reading this book” from Morgan). Rebecca noted, “soon you’ll be reading sentences and then books.” Two students asked if he would like to try another (without specifying the difficulty of the next book). Several students called attention to his readiness to progress to the next level; for example, Beth wrote, “Now we can start working on more words and bigger words because you are so good at knowing all the letters in the alphabet.” Two students made suggestions for extension activities. For example, Fiona asked, “Now can you try and use those letters and write out some words for me?”

Other themes emerged as well. Two students remarked that they were impressed with Ethan’s reading, and three students thanked him or showed appreciation for his reading. Several students also expressed confidence in Ethan’s ability to succeed with a higher-level text. For example, Kate wrote, “I think you are now ready to step it up a notch,” and Abby suggested, “I think you’d be good at [a more challenging book].”
April responses. In April, no students used generic praise statements or trait-based feedback in their responses. Fifteen students attended to effort. Two students tied statements about effort to their process feedback: Rebecca attributed Ethan’s letter knowledge to his previous effort (“You can read right through the alphabet from lots of practice, can’t you?”) and Samantha noted his autonomous accomplishment (“You have read this book all by yourself!”). One student commented that the book seemed too easy for Ethan. Nine students suggested Ethan attempt a more challenging text, and six students specifically suggested he tackle more words and sentences now that he had learned the alphabet.

Twenty students attended to process in their April responses. Five gave general, evaluative responses (e.g., “great reading, Ethan!”) and one gave a non-specific, non-evaluative response (“You have read this book all by yourself!” from Samantha; this was dual-coded with Effort\Autonomy). Fourteen students specifically attended to Ethan’s reading of the alphabet, six with evaluative statements (e.g., “I like how you know the letters of the alphabet!” from Kate) and seven with non-evaluative observations (e.g., “You know all the letters in the alphabet!” from Abby). Several students also called attention to Ethan’s progress, tying together a comment about his reading the alphabet book and his readiness for a new challenge; for example, Kate’s full response was, “I like how you know the letters of the alphabet! Since you know that, let’s try reading a book with more words!”

In addition to the provisional coding scheme, students’ responses included other themes. Two students indicated they were impressed with Ethan’s reading, and two others expressed pride for his accomplishment. Two asked if he would like to read another book, without specifying the difficulty of the next text. Norah asked, “Don’t you want to read stories about race cars and trucks?” implying but not explicitly referring to more difficult texts. She also offered
her assistance: “I’ll be here if you need help.” Five students expressed their confidence in
Ethan’s ability to read a higher-level text. For example, Beth wrote, “I know you can read a more
difficult book than this one!”

Table 4.32

Class Summary of Provisional Category Frequencies in Ethan Scenario

<table>
<thead>
<tr>
<th>Category</th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Trait</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Effort</td>
<td>19</td>
<td>16</td>
</tr>
<tr>
<td>Process</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Other</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>

Note. January n=22; April n=23. Some responses contained multiples of the same code; for this
frequency count, each student’s response is represented only once.

Examples of change. In January, many students launched immediately into challenging
Ethan to read a more advanced book and gave little acknowledgement of the reading he did do.
April responses contained more process feedback at the beginning of responses. For example,
Olivia’s January response begins with a generic praise statement, then encourages him to read a
harder book and expresses her confidence in his ability to do so. In April, she acknowledged his
alphabet knowledge and emphasized its importance for future reading.

Table 4.33

Olivia’s Responses to Ethan Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Great job Ethan! Can we pick another book that has some harder words in it that I know you can read to me?</td>
<td>You know your alphabet, which really helps reading words!</td>
</tr>
</tbody>
</table>

Similarly, Wendy’s January feedback entails extension activities from the alphabet book,
presumably in response to the book’s being easy for Ethan. In April, she acknowledged his
reading while alluding to its being simple for him.
Table 4.34

Wendy’s Responses to Ethan Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would also have him sound out the words and have him give me one word that starts with the letter.</td>
<td>Great review Ethan! You have a great foundation of the alphabet.</td>
</tr>
</tbody>
</table>

Rebecca’s January response is, while celebratory, fairly generic. In contrast, her April response forgoes the evaluation; rather, she simply describes his accomplishment and attributes his success to prior effort.

Table 4.35

Rebecca’s Responses to Ethan Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethan, what a great job you did, soon you’ll be reading sentences and then books, keep up the good work</td>
<td>Ethan, you can read right through the alphabet from lots of practice, can’t you?</td>
</tr>
</tbody>
</table>

Beth’s responses at each time point are quite similar, except that she did not repeat the trait-based praise.

Table 4.36

Beth’s Responses to Ethan Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>You are so smart Ethan! I am so impressed you can read this whole book! Now we can start working on more words and bigger words because you are so good at knowing all the letters in the alphabet.</td>
<td>Ethan, I am so impressed with your reading skills. I know you can read a more difficult book than this one! Let’s try to read something different because I know you can do it!</td>
</tr>
</tbody>
</table>

Frances scenario. Frances’s scenario was written to portray a child working on a creative activity for which there is not one correct answer. The prompt to which students responded was:

“Frances, who is enthusiastic about building, shows you her block structure.”
In January, students’ responses were comprised of largely generic, evaluative comments: “awesome,” “great job,” “beautiful,” “fantastic.” Fourteen of 22 responses to this prompt included some version of a generic, evaluative response. Of these, seven responses were only this basic statement. For example, Kate’s January response was simply, “That’s amazing! Great job.”

Three students also included trait-based praise (e.g., Jacob wrote, “you have a real talent for building”). Two students attended to the effort the child put into the block structure: Emma wrote, “I can see you worked really hard at building this tower” and Tessa noted France’s autonomy by asking, “Did you make this all by yourself?”

Fourteen students attended to process in some way. Six students included a question about the child’s process (e.g., “Can you show me how you built it?” from Beth). Seven made non-specific, evaluative comments about the structure; for example, Abby wrote, “Frances, that block structure looks awesome!” None of the students made a specific observation about the child’s process of building the block structure. Six students offered extensions that shifted the beyond the structure Frances had created. Four students prompted for the child’s next creation (e.g., “What do you want to build now?” from Grace). Samantha specifically suggested what to build next (i.e., “Do you think you could build a castle or a house?”), and Lauren offered that she would search for online resources about building structures.

Some statements and questions fell outside the original coding scheme (generic, trait, effort, and process). Rebecca asked a simple clarification question to begin her response: “Frances, did you build that block tower?” Two students mentioned creativity: Samantha complimented France’s structure, and Hannah explained the rationale of her response (i.e., “I would tell Frances her building is fantastic and ask her to build something for me since she is
such a good builder to encourage creativity”). Samantha expressed her confidence in Frances’ ability to attempt building a different structure.

April responses. In contrast, the April responses showed much less generic feedback and much more specific, process-oriented feedback. While seven students included a generic praise statement in their responses, no response was purely generic. Rather, generic comments were coupled with more specific attention to process and effort. For example, Penny’s April response was, “Wow, Frances, your building is amazing! How did you build it so high?” One student included trait-based praise as part of encouraging future endeavors: Beth wrote, “You should keep building block structures because you’re so good at it.”

Seven students included attention to effort. Two noted Frances’ autonomous accomplishment, Kate with an evaluative statement (i.e., “I like how you built that all by yourself!”) and Yeva with a question (i.e., “How did you do that all by yourself?”). Hannah gave an evaluative affirmation of Frances’ effort (i.e., “I like how you spent so much time on your block structure”), and three students gave non-evaluative affirmation of Frances’ effort (e.g., “You must have worked hard on it” from Morgan). Beth encouraged her to keep building other structures.

The majority of students (20 of 21 responses to this prompt) included process-oriented feedback. Some students coupled process-oriented feedback with generic statements or with attention to effort. Ten students included an interrogative about the structure or process (e.g., Penny asked, “How did you build it so high?”). Thirteen students made specific comments about the structure; five of these were evaluative (e.g., “I love how you stacked the blocks up in a way that they won’t fall down” from Claire) and eight were non-evaluative (e.g., “You built the base strong so it could be built taller!” from Violet). Three students gave non-specific, evaluative
feedback (e.g., “That’s such a cool block structure!” from Yeva). One student offered an extension activity, looking up other buildings online.

Three comments fell outside the provisional coding scheme. Emma commented on the creativity of the structure, Beth remarked that Frances “must be so proud of this structure,” and Lauren asked, “should we look up more buildings online?”

Table 4.37

Class Summary of Provisional Category Frequencies in Frances Scenario

<table>
<thead>
<tr>
<th>Category</th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generic</td>
<td>14</td>
<td>5</td>
</tr>
<tr>
<td>Trait</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Effort</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Process</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

Note. January n=22; April n=23. Some responses contained multiples of the same code; for this frequency count, each student’s response is represented only once.

Examples of change. Many students demonstrated clear changes between their January and April responses, moving from generic praise to descriptions of process. For example, Grace’s responses showed dramatic change, from a generic praise statement and a question about moving on to a reflection of the child’s effort and an inquiry about her process:

Table 4.38

Grace’s Responses to Frances Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good job building this, Frances. What do you want to build now?</td>
<td>It looks like you put a lot of hard work into building that. Can you tell me what shapes and colors you used?</td>
</tr>
</tbody>
</table>

Similarly, Morgan gave generic praise in January, but non-evaluative attention to both process and effort in April.
Table 4.39

Morgan’s Responses to Frances Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frances that looks great! I love what you did!</td>
<td>That is a tall building Frances! You must have worked very hard on it.</td>
</tr>
</tbody>
</table>

Some students made more subtle shifts in their responses. For example, Yeva included a generic praise statement in both January and April. However, whereas in January she followed up with trait-based praise, she opted for an interrogative in April that inquired about the child’s process and autonomous accomplishment.

Table 4.40

Yeva’s Responses to Frances Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frances, that is such a cool block structure. You have such a talent with building!</td>
<td>That’s such a cool block structure! How did you do that all by yourself?</td>
</tr>
</tbody>
</table>

At least one student showed change in unexpected ways, which may indicate she maintained or even developed misconceptions about quality feedback. Beth’s January response contained a generic praise statement coupled with an open-ended question about Frances’ process. Her April response contained a reflection of Frances’ emotion. However, she also included an evaluation of the product and the child’s trait or ability.

Table 4.41

Beth’s Responses to Frances Scenario

<table>
<thead>
<tr>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frances, that looks awesome! Could you show me how you built it?</td>
<td>Frances, you must be so proud of this structure! It is awesome and you should keep building block structures because you’re so good at it!</td>
</tr>
</tbody>
</table>
**Summaries across scenarios.** Table 4.42 shows the sum of the frequencies of phrases coded with each type of feedback across all six scenarios. The use of generic feedback dropped by more than half from 46 instances in January to 20 in April. Trait feedback was rare, with only 9 in January and even fewer, 5, in April. Effort feedback was prominent in January, with 67 instances, and even more common in April, with 91 instances. Process feedback was the type most frequently used, with 80 instances in January and 114 in April.

Table 4.42

| Class Summary of Provisional Category Frequencies across All Scenarios |
|---|---|---|---|
| Generic | January 46 | April 20 |
| Trait | 9 | 5 |
| Effort | 67 | 91 |
| Process | 80 | 114 |
| Other | 74 | 68 |

*Note.* January n=22; April n=23. Some responses contained multiples of the same code; for this frequency count, each student’s response is represented only once.

**Beliefs, interrogation, and change.** To answer the remaining qualitative research questions, I analyzed students’ reflections across five writing assignments. The questions were:

- *What are students’ beliefs about praise and positive language?*
- *How do students interrogate those beliefs through course participation, field experience, and written reflections?*
- *How do students’ beliefs change over the course of the semester?*

As an introductory survey course, ECE 1001 touches on many topics during the semester. Praise and encouragement were explicitly covered in the textbook chapter on Relationships and Guidance, assigned for week seven of the 14-week course. However, students began their classroom field experience at Arlitt during the second week of the course. Therefore, before issues of praise and encouragement were formally introduced, students were observing,
reflecting, and conversing about what they saw in the classrooms. Once the topic was covered in class, students addressed beliefs about praise and encouragement more directly in their journals; here, we can uncover how students interpreted the information presented, what elements resonated, and how they began to apply what they had learned. At the end of the course, the issue of praise remained a key topic in many students’ final reflections. In the sections that follow, I describe this journey of learning about effective feedback, from their initial impressions, to grappling with new ideas, and finally to their thoughts at the end of the course.

**Initial impressions.** The first journal topic was students’ first impressions of their initial visit to the Arlitt Center. The complete prompt was: “Describe the classroom and interactions you see between teachers and children. What are your first impressions? Include at least one specific conversation you find notable, and explain your choice.” The second journal was an open topic, meaning students were invited to write about anything that connected their observations and the course topics. There was a list of suggested prompts provided for students corresponding to the chapter topics; however, students were encouraged to write about what was interesting and resonant for their own learning. (For the full assignment description, list of prompts, and grading criteria, see Appendix D.) In these initial reflections, we can see students beginning to take note of the teachers’ intentional way of speaking with the children, how the students saw this style connecting to other aspects of the teachers’ approach, and how the students experienced this new environment.

**Noticing a new style.** Although very few initial journals reflected specifically on issues of praise and feedback, many students did share observations and reflections relevant to the conversations they saw between children and teachers. The experience made an immediate impression on many students. Quinn wrote of her first observation day, “Only about half an hour
of my time there was spent in their classroom, but there were several interactions that absolutely blew my mind.” Several noted that their experiences had a distinct feel that differed from their expectations; as Morgan put it, “Arlitt has a different and unique way of doing things.”

Students’ observations occurred in the morning and often during free play time; this usually took place in the classroom, although students did sometimes visit the traditional outdoor playground, outdoor nature playscape, or the indoor gross-motor play space with the children and teachers. During this largely unstructured time, children are free to choose which activities to engage in, such as dramatic play, puzzles, blocks, painting, or other materials that the teachers have made available. This approach contrasted to students’ previous experiences and expectations. Olivia wrote in her first journal, “At the moment I am very skeptical about the ‘children learn through play’ motto but I am excited to learn more about the structure and reasoning behind the way that Arlitt runs their classrooms.” Abby expressed discomfort with the role of play facilitator, noting, “I wasn’t a huge fan of just playing with the students, it felt more like baby-sitting than working in a classroom. I am just comparing this experience with past ones in older grades classrooms.” The free-play time seemed to clash with students’ conceptions of classroom activities.

Students noticed that the children—and the teachers’ interactions with them—were more sophisticated than they anticipated. Some students commented on the unexpected maturity of the children; as Emma wrote in her first journal, “Arlitt holds their students to a high standard, and it was so fascinating to me watching these kids act like mini adults.” Violet noted in her second journal that the children were “more intelligent than given credit for.” In Lauren’s second journal, she described her surprise about a child who remembered her name and engaged her directly, asking, “[Lauren] would you like to help me with a challenging puzzle?” This kid was
about four and he says it so profoundly like an adult.” She described how many of the children were obviously passionate and enthusiastic about their interests. Rebecca also had a growing appreciation for the children’s abilities. She wrote in her second journal, “The more I am around these young children in the class the more I realize how developed their social and cognitive skills really are at such a young age. These children are very smart and independent young individuals. Their intelligence really shows through many of the interactions…. ” Along with surprise at the children’s abilities, students also addressed the role of the teacher in the play-based classrooms.

Observing teachers’ skill. Students noted the depth of the conversations they saw, the questions being asked, and the use of vocabulary they might have previous thought too advanced for young children—the ways the teachers facilitated learning during this open play time. Jacob, who had been a practicing art teacher for a number of years, commented on how the teachers facilitated such an open environment for the children. He wrote, “I was amazed to see the science behind young minds so masterfully displayed. It has challenged me to readdress my ideas of how a classroom with many types of learners can best function. In what ways can I further differentiate the learning in my future art classroom?” Abby, who had expressed discomfort with the play-based approach, also wrote in her first journal, “I saw [the teachers] playing with the students by getting on the floor, suggesting different activities, and I really noticed how they talked to the students. Each time they spoke, I noticed how they supported and questioned the kids but without babying them.”

In his first journal, Dylan described the teachers as “free-form caretakers” who “focused more on interactions” than his traditional conception of instructors. He noted how teachers talked children through situations and supported them to “do it by themselves.” Although he indicated
initial hesitancy about the free-play time in the classroom, he also expressed appreciation for the teachers’ style: “The other thing I enjoyed was the ‘in the fray’ type of teaching where the teachers would put themselves in the middle of the group of kids and be among them and be ‘one of them.’ I like this approach, it makes the teachers more accessible to the children.” Hannah observed in her second journal how the teachers facilitate the children’s intellectual development: “When students come up with new ideas the teachers at Arlitt challenge the child’s thoughts and ask questions to provoke deeper thoughts to help them make connections.”

In her initial journal, Uma elaborated on her expectations and what she noticed and appreciated about the teachers’ communication style:

I also found the teaching style of the teacher to be quite notable. The way she spoke, so soft and comforting yet also well composed and thought-provoking, took me by surprise at first. Going in, I thought the preschool was going to be more like babysitting, where the teacher mostly watches and interacts with the children, throwing in some educational aspects every now and then. Either this preschool is way different from the one I went to, or it’s just been that long since I’ve been. However I found a deep appreciation for this kind of language. I liked the way the teacher presented herself to her students, using characteristics of sympathy and warmth, but also choosing words so carefully as to ignite a spark inside the brains of those children. Every question she answered was never just a straightforward yes or no. Instead she would hint at an answer, while giving ample explanation and also providing room for open thought.

Not all students were immediately comfortable with the approach they observed. For example, Wendy had a less positive reaction on her first visit. She wrote in her first journal, “The way the students and teachers interacted was unlike other interactions I have witnessed between
preschoolers and their teachers. The conversations seemed somewhat belittling towards the children.” Overall, the students’ reactions indicated a lack of prior awareness of, and perhaps even some resistance to, the style of language used at Arlitt.

Multiple students wrote broadly about the importance of quality interactions in the classroom. Fiona wrote in her first journal, “The teacher interactions in the classroom are meaningful and serve a purpose to the learning of the student.” In her first journal, Claire wrote that teacher-child interactions “are very vital to the child’s life and their liking to learning. For example, if you have a teacher that has not meaningful conversations and integrations with their students it could negatively impact their views on school and learning.” She continued, “It is important for the teacher to get on the same level as the child and to try to help them with their problems instead of ignoring them and pushing them away.” Students were beginning to notice how the teachers were intentional and had a long-term purpose for the way they interacted with the children.

Students began to see connections between the style of interactions and other aspects of teaching. For example, several commented on how the quality of the interactions was indicative of positive relationships between teachers and children. Morgan wrote of the clear respect the teachers had for the children and how she saw that playing out in their interactions. Quinn commented specifically on how this was demonstrated in conversations, noting in her first journal, “The teachers all spoke to the students as if they were on the same intellectual level.” In her first journal, Samantha described how the teachers were called by their first names and how they “got down on the children’s level and played with them and encouraged them to solve problems rather than given them the answer,” and she added, “I thought their interactions with
the children were special.” Claire also noted that teachers’ communication styles are important for being role models and supporting relationships with and between children.

Penny tuned into how the teachers leveraged this communication to deepen children’s thinking. She wrote in her first journal, “While I was observing, I noticed how the teachers talk to them. A lot of questions were asked. If a child said something they liked the teacher would try to have them explain why they like it or ask, “What’s so special about it?” It had them think more and open their minds up to develop their brain.” She was noticing that teachers were responsive to the children and extended conversations about their work.

An important tenet in this responsive style is supporting children’s autonomy. Isabel wrote in her second journal that she often heard teachers suggesting rather than directing, and shared an example phrase she heard teachers deploy to support students encountering challenge:

They allow the students to figure out what works and what does not work. A phrase I hear often is ‘maybe you could try that a different way,’ this is used a lot for a large variety of reasons. A few of the reasons may include when a child is struggling to use equipment like scissors, tape, or a stapler, when a child is trying to attach a clothespin to cloth, or even when a child is completing a puzzle.

Isabel noted this facilitation happens in the context of free play, where children have the autonomy to pursue activities they are interested in and learn through interactions with others. Similarly, Kate noticed in her second journal “that the teachers ask a lot of questions to the students so that they can figure out how to solve things themselves.”

In her second journal, Morgan shared an example of how teachers responded to children’s free expression. She wrote, “As they create their crafts, Hanna tells them what she sees instead of asking them what they’re drawing. I think this is important, because the children
may not know what they’re drawing or making. Maybe they haven’t decided yet and will once they’re done. If they are creating something specific, it excites them to tell Hanna about it.” This idea of “telling what you see” connects to the encouragement practice of nonjudgmentally observing the child’s activity rather than evaluating.

A distinct but related topic that many students commented on was the teachers’ approach to guidance and classroom management. Students observed how teachers challenged and supported children to do things autonomously, including guiding children to resolve their own conflicts. Several students noted how well behaved the children were, and that the way teachers supported conflict resolution helped to teach the children rather than simply putting out the fire. Claire wrote, “At Arlitt, when there is a situation the teacher will try and talk it out with the students and explain why they shouldn’t be doing something or try to talk out a problem that is happening.” Yeva explained, “Through this method of discipline, the students are able to understand why they should not act in the way that they have, and they are more likely not to repeat their actions instead of if they were scolded for their bad behavior.” Teachers endeavor to help children understand their actions and consequences, so they are able to make more positive choices in the future. This relates to the guideline to provide specific feedback on children’s effort and processes, so they are able to understand how they arrived at their achievement or how they might be more successful in the future.

Lauren reflected on the need to develop the teacher’s role as a balance between authority and approachability. She wrote, “Tone of voice is very important. You need to be stern to the point to make them understand that they know that you are the teacher but also, I feel you want them to want to be your best friend to a point.” Jacob described in his second journal how he saw the teachers acting “more as advisers and role models than this disciplinarians.” Some students
contrasted the styles they saw with observations in other schools and expressed appreciation for the calm manner of the Arlitt teachers.

In her second journal, Emma connected this management approach to the maturity and close relationships she observed between the children and teachers:

The teacher and student relationships at Arlitt are much different than the other schools that I attend. The students interact with each other in an almost professional manner; some even act more mature than the second graders at [an urban elementary school]. The teachers do not call the student nicknames, but instead use their first name to create a personal and professional relationship. When punishing a student the teachers typically don’t raise their voice or say no. Instead they explain what the child did wrong and then offer a way to fix the problem, or suggest a new activity. The students respect their teachers, and typically listen very well to what those in charge say.

She wrote that she had been reflecting on “classroom talk” and how to find an appropriate balance between a style that reflects context and the educational philosophy of the teacher.

While nearly all of the comments about teachers were positive, a few students did note moments they observed that were less than “textbook perfect.” For example, Kate mentioned in her first journal that a teacher did raise her voice when she saw children throwing rocks on the nature playground. This indicates students were integrating and reconciling the information they were getting from multiple sources—the textbook, the class, and their observations—as they navigated this new experience.

*Acclimating to the environment.* Students shared reflections on their thoughts and feelings about entering the classrooms. It was not uncommon for students to express insecurity. Morgan reflected on her uncertainty leading up to the first observation day. “Walking into the Arlitt
Center on the first day of observations was honestly very nerve-wracking for me,” she wrote, describing feeling awkward and unsure at first. Samantha was also uncertain; she said her first reaction to the Arlitt classroom was, “oh my goodness, this is chaos!” She wrote, “I was hoping that they would let me be in the observation booth because I felt uncomfortable and I was nervous to be in the classroom but they wanted me in the classroom with the kids.”

Beth shared similar feelings, writing, “At first, I wasn’t very sure how to interact with the students,” noting that she only had experience with older children and that the teachers were skilled at engaging the children and facilitating their interactions. In the end, she indicated a positive experience; she wrote, “I also loved interacting with the preschool children and understanding better what they’re thinking.”

Fiona also shared this reaction. She wrote, “I was a bit intimidated about the experience and questioning my ability to adequately observe and interact with the children, however once I entered the classroom I seemed to fall right into place.” After describing several teacher-child interactions, Fiona also commented, “I was able to begin practicing these skills while I was observing and I look forward to continuing this practice week to week.”

Kate commented on how she felt after her initial experience, noting the energy she spent in her short visit. She wrote, “It’s a lot more tiring than I had expected. I was only there for an hour and twenty minutes but after I felt more tired than usual.”

Students also wrote of trying out the teachers’ techniques for themselves. Several expressed uncertainty in handling the situations the way the teachers would. In her second journal, Violet wrote, “I seem to panic a bit when the children are mad at each other and want to be able to handle it the correct way.” Grace noted in her second journal that she “still [felt] kind of awkward in their classroom and I think that’s because we are only there an hour and a half.”
every week. I know that’s really all the time we have but I don’t think it’s enough time for me to be comfortable.”

Wendy, who had commented in her first journal that she disliked the teachers’ style and found it “belittling,” shared an attempt at working with a child in the classroom in her second journal entry:

I approached the student and she was frustrated and upset because she could not cut and tape paper into a “house” like how she would have liked to. I wanted to help this student so I walked over and sat down and asked what she was doing and if I could help her. She said yes, so I proceeded to help her by doing what I thought was the best thing to do to make a house out of the paper. But, the student just so may have disagreed with how I was doing it but I could not understand why. I asked her to tell me what she wanted me to do and she started crying and screaming for the teacher to come do it. So, then the teacher came over and the student had the same interaction with the student as I did. I want to learn what I did wrong so I can improve and prevent this from happening again.

Although it is impossible to determine exactly why the child was frustrated with Wendy’s response, this example demonstrates that Wendy was becoming more aware of how teacher-child interactions influence children’s outlook and approach toward their activities and considering how to effectively facilitate the situation.

Uma, who had discerned qualities of the teachers’ communication style from her first visit, shared an extended anecdote in her second journal about using intentional language to facilitate a situation in the classroom. Here, she combines conflict management and encouragement:
All the students were gathering around the table, making their own crafts. “I’m gonna make a princess crown!” the outgoing and spontaneous little girl said. “Oh, well, I’m gonna make one too!” said her little shadow. My senses kicked in and I decided to watch more closely. “Will you make it for me? You’re so good at making crowns. I can’t do it,” sighed the self-doubting girl. I had been noticing these interactions before, taking note in my head, but today I decided to take action. I challenged the girl, saying “Why don’t you try first before making her do it for you? I’m sure you could make a great crown on your own if you try.” She didn’t exactly like this answer. “But I can’t do it!” she proclaimed. I kept at it, being persistent that she try first before declaring she can’t do something. Eventually she came around, picked up a marker and drew the outline of her crown. It was too small to fit her head, so I helped her make it bigger by adding another piece of paper for length. She decorated it all on her own, getting lost in her own creation. Pretty soon she forgot all about the girl next to her and the task became hers. When she was finally finished, she took her crown and proudly placed it on top of her head, turning around smiling for me to see. I smiled back at her, being sure to compliment her on her own masterpiece, how she really did do it even when she thought she couldn’t.

Uma further commented:

It’s funny how easily children (and people in general) can fall into their own comfort zones, staying back in the shadows, being too afraid to try something new in fear of failure. A lot of times this is due to a lack of confidence. When a child is pushed to go beyond the limits, while giving adequate motivation and support, amazing things can happen.
Here, she explicitly connected this classroom experience to the long-term rationale of using specific, process- and growth-oriented feedback to encourage children’s progress.

**Processing praise.** After discussing the chapter on Relationships and Guidance, students responded to the third journal prompt, “Describe how the teachers talk with the children. How do the teachers use strategies such as prompting, modeling, and encouragement to engage children in learning? Have you tried using those strategies?” In response to the prompt, many students explicitly addressed the topics of praise and encouragement and their reactions to these ideas. Here, we can see students reacting to a surprising new concept, reconciling the ideas with their experiences and beliefs, sharing how they see teachers deploying the techniques, and trying the techniques out for themselves.

**Reacting to a new concept.** Many students indicated they had never explicitly considered issues of praise, especially as contrasted with encouragement, before it was addressed in the course. Beth noted, “I have never thought about using detailed and personal comments instead of generic terms until this chapter.” During the tour of the Arlitt Center in the first week of class, the program director briefly mentioned that the teachers tried to avoid generic statements like “good job.” Olivia reflected back to that tour and how her ideas had evolved since then:

> When we toured Arlitt and were told that the teachers talk to the students a little differently, I didn’t think that it would be that different than what I am used to. Now that I have been in an Arlitt classroom for some time and listened to the teachers talk and interact with the kids I see that the way that they do things is very different than what I have ever experienced. Initially I was very surprised at the way that the children are talked to but I realize that it just goes along with the goals and operations of the school.
Like Olivia, many students noted how different and surprising they found this element of teaching practice. Abby wrote, “In class, we just learned about how to use encouragement instead of praise in the classroom, and in Arlitt the teachers do just that. I was so surprised about the difference between the two and I really like how the Arlitt teachers encourage the students.” Although the caution to avoid “good job” and other praise seemed counterintuitive to many students, they expressed curiosity and interest about the ideas.

Not all students were as open to the idea that praise might not be the most effective way to respond to children. Samantha shared her strong initial reaction to being told to avoid praise and how she came around to the idea:

I ultimately had a very negative first impression because I did not like that teachers did not praise their students, but once I understood the reason why, I began to appreciate it. The first discussion we had was in class and some students had received emails from an Arlitt instructor saying how they shouldn’t say good job to students but rather things that encourage the student’s development. I did not understand the negativity involved with praise at first and was confused because I was praised and I turned out perfectly fine. I now understand how it can be negative because children learn how to please others instead of learning to finish and be proud of the process.

Here, Samantha shows how being told to avoid generic praise seemed to conflict with her personal experience, which she found “perfectly fine.” Although she felt initial resistance and defensiveness, the long-term goal of supporting children’s self-sufficiency resonated with her.

Using examples from class, the textbook, and their interpretations of interactions at Arlitt, several students articulated what they saw as the standout feature of encouragement over praise: specificity. As Beth explained, “The teachers at Arlitt do an amazing job at helping the students
understand what they’re doing and why what they’re doing is a good thing.” Generic statements, on the other hand, do not do much to support this understanding. Claire elaborated:

Sometimes a simple saying will work but most of the time if you can make it specific to the child and whatever they have done it will make more of an impact. For example, saying, ‘The way you built those blocks together was a great idea. It looks very stable and sturdy’ over ‘Good job’ is definitely the way to go.

Here, Claire demonstrates awareness that specificity provides more information to the child than generic praise. She does not comment on the dimension of evaluative versus non-evaluative statements; in fact, the example she shares does contain an evaluation.

Directing attention to effort and processes not only helps students understand their actions, it can also deemphasize comparisons between students. Emma wrote, “Encouragement enforces individuality, it’s nonjudgmental, and it focuses on the action instead of the final product. Praising the student with things like “good job” can create a sense of competition between other students. … Also using encouragement phrases instead of praise phrases … makes sure the students know what they are doing is wonderful and is unique to them.” Teachers can attend to the individual and decrease the implication that children’s work can be categorized as “good” or “bad.”

In class, some students said they felt praise was an important way to help children feel good about their work. We discussed that detailed feedback could also convey positive appreciation for their work. As Abby wrote, “With [encouragement], the student can see that the teacher recognizes their hard work and is acknowledging it. I think that is much more meaningful than a simple ‘good job on building that structure.’ I see that kind of encouragement all
throughout the classroom.” She also noted how the teachers used their feedback to extend the interaction:

I also see that the teachers ask a lot of open-ended questions allowing the student to explain their actions. I like how the teachers do that, it’s a great way to interact with students and engage in conversation. I’ve noticed that a lot of the preschool students enjoy explaining their actions, it seems like they are happy to tell you.

Whereas a simple praise statement might make the child feel good in the moment, it can also truncate the interaction. Here, Abby explains how she sees teachers engaging the children in extended conversations that also accomplish the goal of helping the children feel good about their work.

Yeva noticed how these techniques turn every interaction into a teaching opportunity. She wrote:

Helping students understand why they are doing a good job benefits them so much more because they are learning about life interactions. I have always thought of school to be solely about learning material in the classroom, but with the method of encouragement, it is really cool to see how students are learning about how to interact with others as well. Here, she noted that the usefulness of encouragement extends beyond acknowledging children’s effort, connecting also to the social-emotional learning that takes place in the classroom.

Some students’ explanations highlighted how multidimensional feedback can be. For example, Beth wrote about her understanding of why specific feedback is more effective. She wrote, “[It] is meaningful to the students when the teachers comment on what they’re doing and explaining how proud they are of them. Students this young are very impressionable and it is very important for them to have self-confidence.” Here, she demonstrates understanding that
specific feedback is more effective than generic feedback, because it helps the child understand what they are doing (and what, specifically, warranted comment from the teacher). However, her comment about pride is an interesting contradiction of the guideline for encouragement to be nonjudgmental. The topic of pride also emerged in the qualitative analysis of students’ responses to the questionnaire scenarios and will be elaborated on in the discussion section.

Students’ journals showed their emerging and multifaceted understanding of praise and encouragement. Many responded to the idea that specificity increases the effectiveness of feedback, and that specific feedback can convey positive regard and decrease the sense of competition. However, the dimension of evaluation was less explored in students’ journals and seemed to be an area for further clarification.

*Observing teachers’ skill.* In this third journal, students continued to comment on the general style of teachers’ interactions with the children. They also shared specific examples of teachers providing feedback and what insights these real-life examples helped them understand. Fiona noticed the relaxed, natural feel of the conversations teachers had with children. She wrote:

> At Arlitt, the teachers talk to the children as they would talk to any other adult. They do not use the insincere tone of voice or the fake cheesy smile. I found this very relieving. I think that this is something that can really affect a student. It is important for them to know that the adult takes them seriously, respects what they have to say and is listening to them.

She connected this genuine conversation to its utility in supporting children’s language development, as well:
Along with the appropriate way of talking to children, the teachers at Arlitt can also use this skill to try and scaffold and model behaviors for children. Through talking to them in appropriate ways, they are modeling language and vocabulary for children to learn and use in their own speech. It adequately shows them the proper ways to pronounce words and guides/encourages them to try and use the words themselves.

Similarly, Hannah reflected, “Children are able to sense when teachers or adults are not being genuine with them, which is why it is important to get to know the children and be honest, empathetic, respectful, and trustworthy.” These comments show students realizing that authentic conversation about children’s work could be integrated as a natural part of the classroom discourse, and was ultimately much more useful than inflated or artificially enthusiastic praise.

Beth noted that the Arlitt teachers were excellent role models for the principles discussed in class. She wrote:

These teachers follow everything we have learned so far in the book. They are very good at guiding the students. … The Arlitt teachers are also very good at using encouragement in the classroom. I almost never hear the teachers use generic statements, such as ‘good job,’ with their students. … The teachers at Arlitt do an amazing job at helping the students understand what they’re doing and why they’re doing is a good thing, and this is helping me learn a lot for when I become a teacher.

Similarly, Claire noticed how practiced the teachers were at using specific feedback in their interactions. She wrote, “They also make sure to encourage the child instead of just praising everything they do. … The teachers at Arlitt use this a lot and you can tell they’ve had a lot of practice in it.” The quality of the field experiences seemed to reinforce the principles discussed in the textbook and in class.
While most students spoke positively about the teachers they observed, some students commented that they did not think they had seen these ideas in action. For example, Grace wrote:

I don’t recall seeing or hearing much encouragement like we discussed in class. I think I have heard more examples of praise being used. The children tend to do a lot of crafty stuff. I have caught myself and the teachers saying things like, ‘That’s so pretty,’ or ‘Very colorful. Good Job!’ I’m sure the teachers do use encouragement in the classroom but I don’t remember hearing any.

It is possible that Grace also missed when teachers were using encouragement, perhaps because she was not present or was attending to another aspect of the classroom at the time, or even that she did not recognize examples in interactions she observed.

Hannah, on the other hand, shared how the teachers she observed used encouragement to provide meaningful responses to children’s creative expressions. She wrote:

If the children show the teachers a painting I have never seen them only say ‘good job’ but instead are interested in what the children make. Jen and Beth are both good at asking in depth questions to promote the children to share what they have created, who it is for, what its purpose is, what feelings they have about the art, etc.

Kate shared an example of observing a teacher comment on a child’s Lego creation and how it helped her understand that encouragement can serve multiple purposes. She wrote:

The student was really proud of it and walked up to one of the teachers. She responded with, ‘It looks like you worked very hard on that! How do you feel after completing something awesome like that?’ I really admired how the teacher made the student think and still make the student feel good about their work.
Her reflection about this episode shows insight into a concern shared by students in class—they wanted to use praise because they wanted children to feel good about themselves and their work. Similarly, Rebecca commented, “I listened to how the teachers would give encouragement to their students and let them know they are doing a good job at some type of task without giving a basic response such as ‘Good job!’ or ‘Wow!’” Here, the students show an understanding that the praise itself is not necessary to elicit and share a positive reaction to a child’s work.

Morgan shared examples of the teacher she observed deepening the conversations with children, rather than using concise praise statements that could end the interaction. She wrote:

She often asked them questions, and was sure to build on their play rather than tell them ‘good job.’ She would say things like ‘I see that you created a ramp for the cars to slide down’ and ‘You built your building very tall!’ I enjoyed the way the students would respond to her and answer her questions. They got very excited about their play and their creations. It was clear that the students were proud of what they did and wanted Hanna to notice.

These longer conversations were more meaningful than a simple evaluation from the teacher. Rebecca also reflected that these more specific comments and questions tended to prompt meaningful conversations. She wrote, “I also find that the more engaging a teacher is with the students the more they want to listen and talk with the teacher. Encouraging and meaningful praise is very important but meaningful conversation is important too.” She noticed the teachers’ ability to do this no matter the activity, describing a conversation she saw on the class’s walk around campus, during which she said she would have anticipated the teacher be focused only on maintaining safety on the walk:
She asked him questions instead of saying something basic or vague such as ‘Cool!’ or ‘Okay.’ You could tell her conversation was really getting this boy to think. He went into lots of detail about pigs, farms, dirt, and farmers. She kept asking open-ended questions.

He was so excited to share his opinions and thoughts with his teacher.

Conversations also allowed teachers to convey important messages that served more long-term goals. For example, Samantha noticed how the teachers’ comments promoted growth, encouraging the children to develop their abilities. She wrote:

In Arlitt, though I began to take notice of the interactions the teachers had with the students and how they encourage their development rather than praising them generically. During group time, the kids would exit the group time by showing a ‘move,’ the teacher would call them up and they showed their move. The teacher would say things like ‘wow, that jump is higher than last time,’ ‘can you spin again?’, ‘have you been working on this at home?’, etc. It was interesting how they would never say ‘wow, that’s cool’ or ‘good job’ but rather ask questions and lead them to do better.

Through these more specific comments, teachers could reinforce the progress children had made and help them reflect on efforts that might have helped them develop their abilities.

In another example, Quinn shared an anecdote of how a teacher encouraged a child to attempt a challenge on his own before receiving help and how she celebrated when he accomplished it:

In my classroom, the students all see themselves as able to talk to the teachers about anything. One boy (D) in particular last week was struggling using his ‘big kid’ voice versus his ‘baby voice’ while his mom was in the room observing. She was there shadowing for a day with D’s little brother, and D was definitely regressing to the age of
his little brother. The kids were especially wound up on Thursday, so they went outside a little early. D had on an under shirt, a button up shirt, and a zip up jacket. At first, D decided he needed his mom’s help to button up his shirt, so he ran up yelling ‘Mommy, mommy! Can you help me?’ So, the teacher stepped in and said, ‘How about we try again, using our regular voice? And how about you try and see what you can do, then one of us will help you.’ So D tried successfully to button his own shirt, and the teacher said, ‘Wow! That’s not easy to do with small hands, you must be so proud of yourself!’

She went on to explain the skills she observed in this interaction: “The teachers at Arlitt are so good at easily relating to what the children are feeling, and making them feel like they’re feelings are valid.” As opposed to generic praise, specific reflections like the examples Quinn shared provide the language to help children understand their experiences.

Wendy, who had expressed uncertainty about the teachers’ style of interactions after her first visits, commented about the effects she saw when teachers used encouragement:

When a student does something right or well it is not only acknowledged, but encouraged and appreciated. For example, a student created a new book with the supplies on the table and she shows the teacher her new completed book. The teacher responds, ‘That book has so much detail and wonderful illustration. I can tell that you put a lot of time and effort into making that. Keep up the hard work.’ This is a perfect example of encouragement, I really agree with the concept of encourage over praise. I think that it has a much better effect on the student and the morale of the classroom.

She noted that the specific, personalized responses had a deeper positive effect than if the teachers had simply provided generic praise.
Personalized responses are made more meaningful through close, positive relationships. Many students reflected about how teachers’ conversations were indicative of the relationships they had with the children. Abby wrote, “the way a teacher personally talks to a student says a lot about them as a teacher and the relationship that is shared between the people.” She elaborated, “The teachers at Arlitt really show compassion, encouragement and effort when working with the students.” She noted the calm tone of the teachers that allowed the children “to feel comfortable and able to trust the teacher.”

Claire also commented on how the teacher-child interactions are indicative of their close relationships. She wrote:

When I am observing at Arlitt, I notice how the teachers talk to the students in a different way than most teachers do. The teachers, especially in my classroom always make sure they take time to make every child have their opinion and voices heard. For example, if we are at group time and the teacher asks a question she will make sure everyone has their chance to speak and be heard. Also, they make sure they are listening to the child and even ask personal questions about their days. This shows how strong of relationships they like to have with their students because when you’re closer to them then it makes the learning experience and time there more enjoyable.

In these comments, students demonstrate they are seeing how different aspects of teachers’ practice work together to create a warm, supportive learning environment. When teachers have built strong relationships with the children, their personalized feedback is all the more potent.

The textbook and course situate encouragement in the chapter about relationships and guidance; perhaps because of this, many students shared examples related to supporting conflict
resolution and guiding behavior. For example, Olivia wrote about the way she saw teachers respond to children’s behavior during a safety drill:

There are not a lot of ‘Good job’ statements at Arlitt. The teachers tend to compliment based upon what the child is doing or the skill that they are practicing. One example that happened recently was on the day that I was at Arlitt and there was a fire drill. All of the children did exactly what they were supposed to and when they were all outside and sitting down the teacher said something like, ‘You guys really knew what to do in case there was ever an emergency. I am glad that we would all be safe.’ To me this statement tells the children that they did something that was good and but also tells them that they know what to do if there were ever really a fire in a building. The children now know that getting out of the building quietly is important and what they should be do if they want to do the right thing.

Olivia’s example highlighted the connection between responding to work and responding to behavior: providing specific feedback helps children understand what was effective and why. Having this broader understanding of the effects of their actions helps children make decisions about their actions in the future.

Specific observations that communicate cause-and-effect relationships are also more flexible, and can be applied similarly to actions that are less praise-worthy. Yeva made the connection that providing feedback that is intended to teach can be useful when responding to both desired and mistaken behaviors. She wrote:

Every interaction that they make with other students is commented on in a way that does tell them ‘good job’ for their positive interactions, or ‘don’t do that again’ for their negative ones, but rather a way of learning why what they are doing is right or wrong. For
example, I was able to observe a teacher-student interaction on the playground where a student was playing a little too rough with his peers. Instead of the teacher scolding him and sending him into time-out, the teacher first stopped the group of students and asked what was going on. Then, after assessing the situation, the teacher explained to the student who was being too rough that it was wrong to treat his friends that way, and she explained why it was wrong. The student then understood and continued playing in a respectful manner.

Students were beginning to understand that teacher feedback is much more than simply the words spoken and the immediate outcome. As Dylan noted, the language teachers use conveys implicit messages as well: “Talking to children is special because it shows what you think about them, ‘I want them to feel safe,’ ‘Are they mature enough to understand?’; ‘I won’t bother explaining because they won’t get it.’” Dylan was beginning to understand how intentional teachers consider their long-term goals, and use their feedback to help children understand, to build them up, and to help them grow.

*Trying techniques for themselves.* As students learned about effective feedback in class and observed the Arlitt teachers speaking with students, many of them reflected on how they were consciously adjusting their own behavior and attempting to be more intentional in their classroom interactions. Emma described this process of emulating the teachers, noting:

[The teachers] get on the students level, call them by name, personalize the conversation, and always have a good encouragement to say to the student. Sometimes it can be difficult to incorporate all of these aspects into a conversation, especially when you are new to the classroom.
As Wendy noted, understanding an idea is quite different from applying it. She acknowledged, “I wish I was better at this, I really am trying to work on it but it is so much harder than how the teachers at Arlitt make it look!”

Once we had addressed the idea that “good job” is not a particularly meaningful or effective thing to say with young children, many students commented that they had not realized how automatic the phrase had become for them. Beth noted, “I learned that I use generic terms a lot more than I thought.” Similarly, Emma reflected, “Thinking of encouragement phrases instead of just spitting out good job is definitely a challenge.” Kate described an example of trying to use encouragement in interactions with children in the Arlitt classroom. She wrote:

[O]ne of the students and I were working on a puzzle. It was a more complicated one but we finally finished and the student was super happy about it. I said, ‘Yay! You finished the motorcycle puzzle. It’s a tough one.’ I said this line because I remembered reading something similar to it in our textbook.

As students became more aware of their language and aimed for more effective practices, several commented about noticing and trying not to use the automatic phrase “good job” but not being sure what to say instead. Here, we see that Kate found it helpful to have the example phrases in the textbook.

Other students shared examples of using encouragement in the Arlitt classrooms and the results they noticed from these efforts. Quinn described how she was learning to apply these ideas during her time at Arlitt. She wrote:

In my own speaking with the students, I have gotten much better at starting to ask them what they think about what they’re doing. For example, when they are doing individual
crafts, and a student asks me if I like it, I will choose something specific to comment on, then ask the student to tell me what they were trying to make.

Here, she is demonstrating an effort to be responsive to the child, provide specific feedback, and to engage in deeper conversations about children’s work.

Beth reflected on her increased awareness of her own language patterns and noticing children’s reactions to her attempts at genuine engagement. She wrote:

In Arlitt, I have been trying to change to more personal terms and I have seen how much of an impact it has on the students. When I use generic terms, the students don’t really react to the comment. At Arlitt, I had an experience where I said to a student after she finished sewing her basket with yarn, ‘Look how you put that yarn through each section, you should be very proud of yourself!’ The student felt very happy and responded, ‘Thanks, I know!’ This showed me how different these comments really are.

In this example, Beth described a specific aspect of the child’s process without evaluation and commented on how the child might feel after completing such an accomplishment. She noticed that the child responded to this personalized feedback more than to a generic phrase.

Abby reflected about how incorporating these strategies into her interactions made her time in the classroom more meaningful. She wrote:

I have really tried to start using [encouragement instead of praise]. Ever since we covered this topic, I have always been using praise so my focus now when I enter a classroom is to work on encouraging students rather than praising. I also have found myself asking open ended questions more towards students to allow a conversation to start. Using these strategies have helped me build relationships with the students I have been working with.
Intentionally attending to specific aspects of children’s work and engaging in authentic conversation with them helped Abby develop relationships with the children.

Dylan also reflected on how to tune into conversations with children and the effects that can result. He wrote:

To actually sit down and talk to them shows your dedication, truly listening to everything they say and answering properly. I will admit I’ve zoned out or stopped paying attention as a student meticulously explains every single detail of his drawing. I’ve repeated stuff like ‘oh yea…,’ ‘that’s cool’ or ‘Really?’ when I didn’t fully understand them but still need to respond to them to show them I was listening. To engage with them can be easy, let them talk, encourage what they’re doing, critique is a little bit, let them know what you really think.

He recognized that “truly listening” and conversing with children conveys respect and helps build relationships.

Some students wrote about applying these ideas outside of the Arlitt classrooms as well. For example, Samantha wrote about using encouragement in Arlitt and in her nannying job:

I noticed that I was trying to apply this as well. At Arlitt, I was helping some girls build a tower and they were struggling so I suggested they build a stronger foundation that they could build it higher. They used the advice and made the tower tall they showed me their work. I told them that they made it being a team and that working together they could make lots of things. They were pleased with my response and their work. I also used these tactics when I nanny for this family. The 3-year-old girl was working on a puzzle and was struggling with putting the pieces together. I encouraged her to move the pieces around and pivot them other ways. She finished the puzzle and I told her ‘you did it all by
yourself, you did not give up, you moved the pieces around to solve the puzzle.’ She was pleased and I felt like I encouraged her development instead her easily praising her.

Samantha attended not only to the specific processes she saw children using, but also to the social strategies (i.e., teamwork) and dispositions (i.e., persistence) that contributed to their success.

Just as students shared successful examples, they also reflected shortcomings. As Claire wrote, “I still need to work on how I use the encouragement method over praise because sometimes I still slip up, but I will definitely try to incorporate it in my future classroom.” Several students commented on the idea of “slipping up,” “catching” themselves, or hearing others using praise. We discussed many times that praise was not inherently harmful to children, and that more effective responses would come with time and practice. Uma discussed her own process:

I have noticed that it is not as simple as it may seem. Sometimes I feel a little funny, simply because the actions I am taking are way more intentional and not as free flowing. However I recognize this as a good thing. I know that the more I consciously consider these methods, the easier they will come naturally down the road. Of course I know that every attempt to do this will not be perfect. A student is not going to react to me the same way every single time, and sometimes my efforts will seem fruitless. That is all a part of the learning process though.

While students showed understanding through their descriptions and examples, they also recognized that they were just at the beginning of the journey to using specific feedback as a natural part of their practice.
Final reflections. The final assignment for the class was a written reflection on students’ learning in the course. The assignment was described for them, “You are expected to use your journals and weekly note sheets to reflect on what you have learned and how your thinking has developed over the course of the semester” (for full assignment description and grading criteria, see Appendix D).

In their final reflections at the end of the semester, many students wrote about communication and relationships. The distinctive style of the Arlitt teachers was very different for students, but it made an impression. Hannah noted the clear respect teachers demonstrated for the children in their classrooms and described the sincere and attentive communication she observed. Uma reiterated her “deep appreciation” for the teachers’ ability to use purposeful language. Twelve of 21 students wrote explicitly about the issue of praise and encouragement.

Reflecting on new knowledge. Students indicated that prior to the course, they had not been aware of the distinction between these two types of feedback. For example, Grace shared:

I think one of the most important things I learned in the classroom this semester was the difference between praise and encouragement. This is something I had never thought of, but after reading the chapter and discussing the information in class, I knew that would be something very valuable in my future.

Samantha wrote, “To begin, I did not realize there was a distinct difference between encouragement and praise, I thought praise was encouragement. So, I would always praise children, I would say things like ‘good job’ or ‘way to go’ or even, ‘I like that.’”

Morgan, who raised the issue of praise in class early in the semester, reflected in her final journal:
In the beginning of the semester, I asked, ‘Why can’t we said good job to the children in Arlitt? I don’t understand what the problem is.’ It wasn’t until after we discussed praise and encouragement that I really understood. … Even though I didn’t understand why I had to avoid saying ‘good job’ at first, it was very intriguing to watch [the teacher] say these different things to the children and how they reacted to them. I was lucky to sit with a group of boys as they were playing with toy cars and blocks one Tuesday, while [the teacher] sat and observed them. When they did something well, instead of saying ‘good job,’ [the teacher] would say, ‘I see that you created a ramp for the cars to slide down’ and ‘You built your building very tall!’ When she said things like this, the children got very excited because she noticed what they had done. Instead of generalizing what they students did by saying, ‘good job,’ she directly pointed out and acknowledged what they did and showed her students that she was proud.

While it was a novel concept for many students, the class and observations of skilled teachers made an impact on students’ ideas about providing quality responses to children. Claire wrote:

Before learning about encouragement versus praise this year I never really knew the difference or even realized I was doing something wrong. I have now grasped the fact that praising children might make them feel good but it doesn’t really appreciate what they’re doing or acknowledge their hard work. I have tried very hard to cut down on my use of “Good job!” and “Wow, that’s really good” since learning about the pros of encouragement.

Claire noted that the teachers at Arlitt were skilled at encouraging the children rather than giving them “a simple, nonmeaningful compliment.” She felt that the teachers’ approach showed their care for and interest in the children.
Learning about praise was surprising or even confusing for many students. Kate wrote she was “stunned for a moment” upon learning that she “shouldn’t have been using praise so much.” The idea that praise was not necessarily an effective or appropriate practice conflicted with their previous conceptions of the role of the teacher. Some students expressed needing to “unlearn” previous beliefs and habits. For example, Tessa wrote:

[S]ome of the things that I thought were ‘correct’ when dealing with children turned out to not be the best method. One thing that stands out to me is when we were discussing praise and how to properly distribute it. I had no idea there was a certain way to praise a child, but I’m glad I learned how to properly reflect on these skills.

Wendy shared her negative initial reactions to this mode of feedback: “My opinion on how to speak to a child really changed and developed throughout this course. … During my first couple visits to Arlitt, I did not agree with how the teachers talked to the children. I felt as though the teachers were belittling the children.” She shared an anecdote about observing interactions in the classroom that helped her change her mind, as she saw how the teacher’s conversational techniques deepened children’s thinking and encouraged independence. Through prolonged discussion in class and repeated observations, students’ ideas evolved past confusion and resistance to understanding that there are more effective and meaningful ways to respond to children than generic praise.

Students responded to nuanced aspects of ideas around praise and encouragement. One of the most salient aspects for students was that their feedback could help children deepen their understanding of their actions. Emma noted simply, “Encouragement is focusing on what the student actions [are], instead of the outcome of his actions.” Yeva wrote, “Arlitt has taught me that encouragement should be used rather than praise, so that the student can understand the
reasoning behind their work and their actions. This helps students become independent thinkers, and not rely on an adult giving them constant praise for everything they do.” Similarly, Wendy wrote, “By encouraging a child, I feel that the child could develop more rapidly and with an understanding of how they can recognize what they did to make them succeed or what they can do to make them improve when they do not succeed at first.” The students were coming to understand that specific feedback describes aspects of children’s processes and thus guides them to think more deeply about what they have accomplished.

Kate connected this affordance of specific feedback to long-term goals of education. She wrote, “If your goal is to help children build self-regulation skills, then praise is not an effective practice.” With a deeper understanding of what has warranted attention from the adult, children can use the information to evaluate and guide future actions.

Isabel also noted the long-term implications for quality feedback. She wrote, “As we learned it is motivating and more beneficial to the child to provide encouragement to them, rather than praise. Encouragement is far more genuine than praise and it helps children stay motivated to complete or continue better themselves at a task or skill. Praise does not strengthen a child in the long run, while encouragement allows a child to grow.” She connected this point to examples of how generic praise could have “left the children to simple be content with their work,” when specific comments could inspire further conversation and accomplishments.

Penny equated encouragement with specificity, writing, “Praise is very general and is the same for everybody and doesn’t focus on the child individually. Being more descriptive and personal on what the child was working on is more encouragement.” Several other students also tuned into the individualization of specific feedback. For example, Grace wrote:
I think [encouragement] will become an important part of my classroom because I want my students to know what they’re doing correctly, and why it is a good thing, etc. I don’t want to give the same ‘good job’ response to every one of my students. I would like to give unique, individualized responses to all my students’ achievements.

She recognized that her responses could signal to her students that she was truly attending to their work and not providing a clichéd or automatic answer.

Focused, individualized attention can also help cultivate deeper relationships. Uma expressed appreciation for how encouragement can enhance “the ability to connect with your students and inspire them to do their best.” She reiterated the example from her third journal about watching a teacher in Arlitt facilitate a situation where one child lacked confidence in her ability to make a crown the way she wanted. She wrote:

[The teacher asked] the girl to try to make one on her own before she asked for help. ‘If she made you one, it wouldn’t be your own. Don’t you want to feel proud for making your very own crown, especially after all your hard work?’ I thought this was a great technique to get the girl to go above and beyond, while also making her think about how she would feel in the end.

Uma noticed the teacher’s skill of recognizing the child’s feelings and inspiring her to work for her own accomplishments.

In class, we also discussed how praise related to behavior guidance and classroom management. Many students expressed an interest in the class discussion, sharing examples from their own experiences as students and from observing teachers in the field. Tessa reflected in her final assignment on how praise can be used in classroom management situations to manipulate behavior. She wrote:
I remember reading in the book about how in order to make your comments meaningful, you should make praise personal to each child. I also learned that group praise isn’t always the best thing to do, because what if one child wasn’t part of the whole group and doesn’t feel as cared about? I know that an old trick my elementary teachers would do is praise one child for following the directions, thus making other child do the same to receive that praise from the teacher. The book discusses how this is wrong because it singles out the one child for doing something right, but then takes it away as soon as the other children follow his or her model.

Attending to desired behavior can help children develop more positive and prosocial behaviors (Perle, 2016). However, doing so in a group setting as a tactic to elicit the compliance of others is not completely in line with the spirit of providing sincere, specific feedback to an individual to help them learn.

While we most often discussed encouragement and praise as existing on a continuum of quality feedback, some students interpreted praise as a practice to avoid entirely. The textbook did caution against some potential negative outcomes associated with using praise ineffectively. For example, Morgan wrote, “I never thought of praise being general, and affecting a child … negatively. After seeing how it can identify a student and make them feel as if they have to do ‘good’ on everything that they do, I see why encouragement is so important.” Similarly, Samantha recalled warnings that children can learn to seek and even depend on praise. She wrote, “Later in class, I learned that these phrases are impersonal, generic, and have a greater effect on the students later in life because they seek the approval of others. I genuinely did not realize the mistake I was making when I said these praises.” If it becomes the norm for children
to receive an evaluation, some children depend on others’ (rather than their own) evaluation and can feel pressure for each evaluation to be positive.

**Becoming aware and working toward change.** Many students wrote that they became aware of their own tendencies toward automatic praise. Abby described saying “good job” as “a hard habit to break.” Several students mentioned “catching” themselves using generic praise and making efforts to compose more personalized responses in the moment. For example, Grace wrote:

> After learning this in the classroom, I caught myself using praise at Arlitt and at my job. I would catch myself saying small praise, and try to correct myself by giving the student encouragement instead. It was pretty hard because I’m used to just saying ‘good job,’ or ‘that’s pretty’ so to think of something unique to say each time a student wants to show you their work will be a challenge, but worth it in the long run. This is definitely the biggest take away I will really try to use in my future classroom.

Although a new strategy can feel cumbersome and make interactions more effortful, students saw that the value in working toward the more effective practice.

With their new efforts came some uncertainty. Samantha explained her reservations as she tried out this new style of feedback:

> I was worried that if I were to only encourage a student then they would be sad because I did not give them the praise that they craved. But I experienced the opposite with [a child at Arlitt], she was pleased with what I had to say. I saw the smile on her face and I knew that she was proud of her structure and was excited to continue to build on to it.
One of the confusing aspects about cautions against praise was the desire to use their praise to make children feel good about their work. As they used specific, nonjudgmental feedback in practice, though, students began to see that their feedback could still be positive and meaningful.

Students commented on their own learning processes and changing their behavior in the classroom. Kate shared an example of using encouragement instead of praise with a child cleaning up art supplies:

She started putting the items she took out away because she was ready to play with something else. I remember saying, ‘Thank you. You helped pick up all of the paint and glue and you put them away where they belonged.’ I read a similar line in the text and I used it to what was happening in real-life. Ever since we learned this new concept I am away of how I should compliment] the children and how I should talk around them.

Similarly, Penny wrote:

Something I really struggled with in Arlitt was using praise instead of encouragement. I would say ‘Wow! Nice job’ instead of ‘you worked really hard on building those blocks straight so they would stop falling over.’ … In the beginning of the semester I thought I was encouraging the kids but I was only praising. I became better toward the end of the semester but I still need some practice.

She noted her progress, but also recognized that it would take time to use encouragement naturally as part of her interactions.

Yeva also reflected on how her ideas, and subsequently her behavior, had changed over the course of the semester. She wrote:

This class has taught me to really think about what I say to children, and how it impacts them. Previously, I would constantly praise a student for their work, but after my
experience with Arlitt, I have been able to elaborate on the work of students so that they can think more about the meaning behind what they are doing.

She shared a specific example of an interaction in the classroom and how her perspective had changed:

For example, one student in my classroom showed me a painting they had just finished. Previously, I would have responded to that work by saying ‘good job!’ to the student. This is wrong because the student becomes so dependent on praise, that they do not get to reflect on their work, and when they don’t receive praise in the future, they will think they have failed. After learning about encouraging students, my current response to that student’s painting would be, ‘You worked so hard on that painting! What made you want to paint that; does it have a special meaning to you?’ I have learned that with a response like this, the student is able to reflect on their work and really think about the meaning behind it. The student is able to infer that I think it is a beautiful painting, but does not become dependent on praise.

Yeva articulated how she worked to use language to engage students more meaningfully and her understanding of the rationale behind the change.

In their final reflections, students wrote about their newfound awareness of and intentionality with the language they used with young children. Although the idea that there are different qualities to praise—and, indeed, that praise might not always be beneficial or appropriate—was new and surprising, students willingly explored the nuanced topic, keenly observed the teachers in their field experiences, and endeavored to refine their own interactions with children. As several students pointed out themselves, this semester was about beginning a process of change, rather than achieving mastery of the skills.
Integrated Findings

This mixed methods study incorporated both quantitative and qualitative data in order to gain a more complete understanding of beginning education students’ beliefs about effective feedback and how those beliefs changed over the course of one semester. To maximize the potential of mixed methods research, different types of data are brought together and integrated in intentional ways (Plano Clark & Ivankova, 2016). Using both quantitative measures and the students’ own words gives a more complete picture of the data that is both more valid and more useful (Greene, Caracelli, & Graham, 1989). Joint displays that visually juxtapose quantitative and qualitative findings can be particularly useful for communicating mixed methods findings (Plano Clark & Sanders, 2015). In the following sections, I use joint displays to explore how the quantitative and qualitative findings converge and diverge in order to form a more holistic picture of the results and to support meta-inferences from each set of findings.

Quantitative and qualitative feedback questionnaire findings. I compared the quantitative and qualitative findings from the feedback questionnaire to support inferences about students’ beliefs about generic, trait, effort, and process feedback across the course of the semester. For January and April, each joint displays includes a qualitative example, the qualitative frequency, and the quantitative rating with one example of a student’s use of a specific feedback type from each of the six scenarios in order (Aaron, Brooke, Charlie, Daphne, Ethan, and Frances). The qualitative frequency indicates the total number of responses coded for the feedback types across all scenarios. The quantitative ratings in the tables are the mean total of the relevant subscale from the feedback questionnaire (i.e., the sum of their ratings [1 for terrible to 5 for excellent] for all six subscale items, with a maximum of 30).
*Generic feedback.* Table 4.43 juxtaposes the quantitative and qualitative findings about students’ beliefs about generic feedback and how their beliefs changed over the semester. In both the qualitative and the quantitative findings, students’ ratings and use of generic feedback decreased from January to April. Generic feedback inherently will not change in quality, so the instances of use were essentially identical. However, the students used generic feedback far less frequently in April, and only in conjunction with other types of feedback. Taken together, the evidence indicates that by the end of the course, students believed that generic feedback is not effective on its own.

Table 4.43

**Joint Display Integrating Qualitative, Quantitative, and Temporal Information about Student Reactions to Generic Feedback**

<table>
<thead>
<tr>
<th>Time point</th>
<th>Qualitative example of student responses</th>
<th>Qualitative frequency</th>
<th>Quantitative rating</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Aaron, you’re doing great.</td>
<td>46</td>
<td>$M$: 16.21</td>
<td>Both quantitative and qualitative findings indicate students’ ratings and use of generic feedback decreased.</td>
</tr>
<tr>
<td></td>
<td>--</td>
<td></td>
<td>$SD$: 3.01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>That is great.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yay! Fantastic!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Great job, Ethan!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>That looks awesome, Frances!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April</td>
<td>That’s ok, Aaron.</td>
<td>20</td>
<td>$M$: 12.58*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>--</td>
<td></td>
<td>$SD$: 3.15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Way to go, Charlie.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Excellent job, Daphne.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wow, Ethan.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Frances, this looks great.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* $M = \text{mean; } SD = \text{standard deviation. Rating out of a maximum of 30. } * \text{ indicates } p \leq 0.05 \text{ for paired-samples } t\text{-test. -- indicates no segments were coded with generic feedback for the scenario.} \n
121
**Trait feedback.** Table 4.44 juxtaposes the quantitative and qualitative findings about students’ beliefs about trait feedback and how their beliefs changed over the semester. The quantitative results show that students rated examples of trait feedback significantly lower in April than in January, although they rated trait feedback more highly than they rated generic feedback. The qualitative findings show that students were not inclined to use trait feedback very frequently. When students did use trait feedback in their qualitative responses, they did so more often to boost children’s confidence in their ability to take on a challenge than to attribute success to the child’s inherent ability. Together, the quantitative and qualitative evidence indicates that students may feel that trait feedback can be useful for increasing children’s self-efficacy, but that students are not particularly inclined to attend to trait in their own responses.

Table 4.44

<table>
<thead>
<tr>
<th>Time point</th>
<th>Qualitative example of student responses</th>
<th>Qualitative frequency</th>
<th>Quantitative rating</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>I know you can figure them out because you are so smart. Brooke, you are so good at puzzles. -- -- Wow, Ethan, you are such a great reader! You have such a talent with building!</td>
<td>9</td>
<td>M: 19.47 SD: 2.14</td>
<td>Both quantitative and qualitative findings indicate that students’ ratings and use of trait feedback decreased. Students rated trait feedback more highly than they seemed inclined to use it in their own responses.</td>
</tr>
<tr>
<td>April</td>
<td>Solving puzzles seems to come so naturally to you. --</td>
<td>5</td>
<td>M: 16.74* SD: 2.49</td>
<td></td>
</tr>
</tbody>
</table>

122
You should keep building block structures because you’re so good at it.

Note. $M = \text{mean}; SD = \text{standard deviation. Rating out of a maximum of 30. * indicates } p \leq 0.05$ for paired-samples t-test. -- indicates no segments were coded with trait feedback for the scenario.

Effort feedback. Table 4.45 juxtaposes the quantitative and qualitative findings about students’ beliefs about effort feedback and how their beliefs changed over the semester. The quantitative findings show that students’ ratings of effort feedback were quite high at the start of the semester and remained so in April with no significant change. The qualitative findings show that students increased the frequency and nuance of their effort feedback in April, such as with nonjudgmental affirmations of children’s efforts. Taken together, the evidence indicates that students feel that quality feedback attends to effort and that their use of effort feedback became more supportive and nuanced with instruction.

Table 4.45

<table>
<thead>
<tr>
<th>Time point</th>
<th>Qualitative example of student responses</th>
<th>Qualitative frequency</th>
<th>Quantitative rating</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Just keep practicing and working hard!</td>
<td>67</td>
<td>$M: 25.53$</td>
<td>The quantitative findings indicate that students’ ratings of effort feedback were high at the beginning of the semester and remained high, with no significant change. Qualitative findings show increased and more nuanced use of effort feedback in April as</td>
</tr>
<tr>
<td></td>
<td>Don’t give up! Keep trying!</td>
<td></td>
<td>$SD: 1.43$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Charlie, let’s try this again.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I know how hard you have been working and it paid off today!</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>We should maybe try a more challenging book.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>I can see you worked really hard at building this tower.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
I see that you have tried hard on this and it’s okay to make mistakes.

Brooke, I see how hard you are working on this puzzle; you’ve finished this other puzzle all by yourself.

Wow, Charlie, I see how hard you’ve worked writing your name.

You have kept trying to tie your shoes, and you have mastered it!

Since you know that, let’s try reading a book with more words!

It looks like you put a lot of hard work into building that!

Note. $M$ = mean; $SD$ = standard deviation. Rating out of a maximum of 30.

**Process feedback.** Table 4.46 juxtaposes the quantitative and qualitative findings about students’ beliefs about process feedback and how their beliefs changed over the semester. The quantitative findings show that students rated process feedback highly in January and statistically significantly higher in April. Their use of process feedback was frequent in January, but was far more frequent in April and with greater detail to the child’s work. Taken together, the evidence indicates that students believe that attention to process is quality feedback and that their use of process feedback became more specific and supportive through instruction.

Table 4.46

<table>
<thead>
<tr>
<th>Time point</th>
<th>Qualitative example of student responses</th>
<th>Qualitative frequency</th>
<th>Quantitative rating</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>January</td>
<td>Let’s try and work on this together.</td>
<td>80</td>
<td>$M: 26.05$, $SD: 1.96$</td>
<td>The quantitative findings indicate students’ ratings of process feedback</td>
</tr>
</tbody>
</table>
picture on the box and figure out the middle.
Charlie, sound your name out slowly for me. I want to hear the sound of each letter.
You did a great job tying your shoes!
That’s great; now let’s read something a bit more challenging.
Good job building this, Frances.

<table>
<thead>
<tr>
<th>April</th>
<th>You know how to add really well. Since we’re taking it to the next level, its okay to struggle.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>What do you do first when you solve small puzzles? The outside or the inside? Let’s start with that!</td>
</tr>
<tr>
<td></td>
<td>You used a C, H, R, L, and E!</td>
</tr>
<tr>
<td></td>
<td>You got past the loop part you found most difficult!</td>
</tr>
<tr>
<td></td>
<td>You know your alphabet, which helps reading words!</td>
</tr>
<tr>
<td></td>
<td>Frances, you have built this tower so high! You made a strong foundation so that you were able to make it even taller!</td>
</tr>
</tbody>
</table>

Note. \( M = \) mean; \( SD = \) standard deviation. Rating out of a maximum of 30. * indicates \( p \leq 0.05 \) for paired-samples \( t \)-test.

**Mindsets and beliefs about feedback.** In this section, I explore the mindset data more qualitatively and merge these findings with the findings about students’ feedback beliefs.

**Distribution across MA profiles.** Students’ mean MA scores indicated that they were moderately growth-oriented at the beginning of the course and at the end of the semester. Table 4.47 shows the distribution of students’ final scores across the profile groups.
Table 4.47

Distribution of Students’ April Mindset Assessment Profiles

<table>
<thead>
<tr>
<th>Profile</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>Lauren, Norah</td>
</tr>
<tr>
<td>G1</td>
<td>Abby, Beth, Dylan**, Emma, Hannah, Penny, Samantha*</td>
</tr>
<tr>
<td>G2</td>
<td>Fiona, Isabel, Kate, Olivia, Quinn**, Rebecca, Tessa, Wendy*</td>
</tr>
<tr>
<td>G3</td>
<td>Claire, Jacob*, Morgan, Uma, Violet, Yeva</td>
</tr>
<tr>
<td>G4</td>
<td>Grace</td>
</tr>
</tbody>
</table>

Note. * = Only January score available. ** = Only April score available.

The course itself was not designed to be a mindset intervention, so it is not unexpected that there was not a statistically significant change in the class’s scores over the course of the semester. It is interesting to note that there is a different distribution among students whose scores maintained or decreased from January to April versus those whose scores increased. Table 4.48 shows these distributions.

Table 4.48

Distribution of Students’ April Mindset Assessment Profiles by Type of Change

<table>
<thead>
<tr>
<th>Profile</th>
<th>Maintained or decreased</th>
<th>Increased</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>Lauren, Norah</td>
<td>--</td>
</tr>
<tr>
<td>G1</td>
<td>Abby, Emma, Hannah, Penny</td>
<td>Beth</td>
</tr>
<tr>
<td>G2</td>
<td>--</td>
<td>Fiona, Isabel, Kate, Olivia, Rebecca, Tessa</td>
</tr>
<tr>
<td>G3</td>
<td>Claire, Uma, Yeva</td>
<td>Morgan, Violet</td>
</tr>
<tr>
<td>G4</td>
<td>--</td>
<td>Grace</td>
</tr>
</tbody>
</table>

Note. Students with a MAP for only one time point were excluded from this table. – indicates no students’ scores fell in the profile group.

While the overall goal of the course was not specifically to intervene for students’ mindsets, it is considered positive for educators to have a growth mindset—to have the belief for themselves and for their students that, no matter one’s current ability, it is always possible to improve at your task. Students’ scores do indicate that there is at least some room for many of the students to become more growth-oriented in their approach to learning. The Mindset Works
(2012) description of the F1 and G1 reads, “You are unsure about whether you can change your intelligence. You care about your performance and you also want to learn, but you don’t really want to have to work too hard for it” (Mindset Works, 2012b). The next-strongest group, G2 and G3, reads, “You believe that your intelligence is something that you can increase. You care about learning and you’re willing to work hard. You do want to do well, but you think it’s more important to learn than to always perform well.”

Some students did reflect on these issues during the course. For example, Uma wrote in her third journal about trying to use encouragement in the classroom:

Sometimes I feel a little funny, simply because the actions I am taking are way more intentional and not as free flowing. However I recognize this as a good thing. I know that the more I consciously consider these methods, the easier they will come naturally down the road. Of course I know that every attempt to do this will not be perfect. ...That is all a part of the learning process though.

Olivia wrote in her final journal about how her perspective had changed:

I learned this day that one of the characteristics of a good teacher is that they are willing to take risks. In the past I’ve thought that taking risks can be scary and what happens if the risk ends up to have a bad ending and there are punishments. The idea made me realize something new. Risks do not always have to be something that is physical it can be something as simple as trying a new food. In my future classroom, I will have to take risks to try new lesson plans and activities to cater to the individual children and their learning styles.

These segments reflect emerging growth-oriented beliefs that could also support the development of effective teaching skills. This will be further explored in the discussion chapter.
**MA profiles and feedback beliefs.** In January, there were no statistically significant correlations between students’ MA score and their ratings of the feedback types. In April, however, there was a negative correlation between the MA score and their ratings of generic and trait feedback. Figures 4.1 and 4.2 show these relationships visually for January and April, respectively.

![Figure 4.1. Students’ January ratings of feedback types by Mindset Assessment profile.](image)
Because the group sizes are quite different, comparing the frequency of students’ use of each feedback type in their open-ended responses would not facilitate useful interpretation. However, in examining the responses, there were interesting examples corresponding to the profile groups. For example, Norah’s MA score placed her in the F1 profile range. She began her January response to Aaron by saying “It’s alright, buddy; don’t get so down on yourself!” To Brooke, she wrote, “Don’t give up so easily!” Compared with other reflections of the children’s experience and effort (e.g., Fiona [G2] wrote, “Brooke, I see this puzzle is challenging you”), Norah’s directives seem less supportive. Beth, whose January score was 28 (F1), used trait feedback in three of her January responses (e.g., “You are so smart, Ethan!”). In April, her score was 29 (G1), and she used trait feedback in one response. Some students with higher growth-mindset profiles put more direct growth messages in their responses. For example, Tessa, whose January score was 29 (G1) and April score was 34 (G2), wrote to Brooke in January “just because this puzzle is challenging you doesn’t mean you should give up!” In April, Wendy wrote
to Brooke, “Giving up on this puzzle won’t help you get better at them.” Wendy’s January MA score was 36 (G2), and she did not complete the Mindset Assessment portion of the questionnaire in April. In the following section, I provide the full set of qualitative questionnaire responses from two students with notable change toward a stronger growth mindset and one student who maintained a more fixed mindset, in order to gain a more holistic view of how one person’s mindset and feedback responses may be related.

**Examples of change.** For some students, change in their mindsets corresponded to change in the feedback they provided on the open-ended questionnaire items. For example, Violet showed the most dramatic change in her MA score, increasing from 28 in January (profile F1) to 37 in April (profile G3). Her qualitative responses also show impressive change; her January and April responses are shown in Table 4.49.

Table 4.49

*Violet’s Responses to Questionnaire Scenarios in January and April*

<table>
<thead>
<tr>
<th>Scenario</th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron</td>
<td>Keep working hard; you’ll get it!</td>
<td>You’ve mastered addition! Let’s challenge ourselves and work through it together.</td>
</tr>
<tr>
<td>Brooke</td>
<td>Don’t give up; you can do it.</td>
<td>Let’s look at the pieces and try to match them. Do you see any other blue pieces that may go together?</td>
</tr>
<tr>
<td>Charlie</td>
<td>You’re close but missing a few letters. Try sounding your name, and try again.</td>
<td>I see you have heard the letter sounds! Now let’s try hearing the sounds that may be a bit difficult.</td>
</tr>
<tr>
<td>Daphne</td>
<td>I’m proud of you, Daphne!</td>
<td>I see you’ve really been practicing tying your shoes. You got past the loop part you found most difficult!</td>
</tr>
<tr>
<td>Ethan</td>
<td>That was great; try reading this one now (then hand him a more challenging book).</td>
<td>You know the alphabet so well! Can you read me a book with more words?</td>
</tr>
</tbody>
</table>
| Frances  | Wow, that’s awesome! | The color scheme you picked matched wonderfully. You built the base strong so
Violet’s change toward a growth mindset was accompanied by more specific, supportive responses in April.

Grace also developed a stronger growth mindset over the semester. She began in January with a MA score of 35 (profile G2) and ended with a score of 41 (profile G4). Her January questionnaire responses show some strong and supportive instincts, which are developed even further in April. Table 4.50 shows her responses.

Table 4.50

Grace’s Responses to Questionnaire Scenarios in January and April

<table>
<thead>
<tr>
<th>Scenario</th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron</td>
<td>How do you think you would solve this problem? Is there any part of the problem you already know [how] to solve so you can work step by step?</td>
<td>You have been doing good on addition and it can get harder. Why don’t you show me how you’re doing the problem so we can work together?</td>
</tr>
<tr>
<td>Brooke</td>
<td>Why don’t we try to find pieces that have the same color and put them together? Let’s start with green pieces. Can you find any?</td>
<td>Why don’t you start by finding pieces with similar colors to see if those go together; then if you are still struggling I will help you.</td>
</tr>
<tr>
<td>Charlie</td>
<td>(I’m honestly not sure what I would say).</td>
<td>Can you tell me what letters you wrote?</td>
</tr>
<tr>
<td>Daphne</td>
<td>You tied your shoes!! Good job, Daphne.</td>
<td>You just tied your shoes! I know that was challenging; you must feel so proud of yourself.</td>
</tr>
<tr>
<td>Ethan</td>
<td>Good job reading this book Ethan. Would you want to read another book you like? I know you like this book. Would you like to read this to me?</td>
<td>It looks like you know all your letters. Do you want to read your favorite book to me now?</td>
</tr>
<tr>
<td>Frances</td>
<td>Good job building this, Frances. What do you want to build now?</td>
<td>It looks like you put a lot of hard work into building that. Can you tell me what shapes and colors you used?</td>
</tr>
</tbody>
</table>
Grace’s January responses showed her providing positive feedback to the children, engaging them with questions, and offering specific suggestions to the two who were struggling. Interestingly, she indicated she was stumped for a response to Charlie, who was making progress in writing his name, but had not yet reached the conventional spelling; perhaps this was because she was unsure how to provide a correction in a supportive way. In her April responses, Grace shows more specific and non-judgmental attention to children’s actions, and elevates the accomplishments with her attention to effort (e.g., in her response to Daphne). She also provided a non-judgmental response to Charlie, simply asking him to read his work back to her. It seems Grace’s strengthening growth mindset was also complemented with stronger qualitative responses.

On the other end of the spectrum, Lauren began the semester with a MA score of 28 (profile F1) and ended in April in the same profile range with a score of 27. Table 4.51 shows her questionnaire responses.

Table 4.51

Lauren’s Responses to Questionnaire Scenarios in January and April

<table>
<thead>
<tr>
<th>Scenario</th>
<th>January</th>
<th>April</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aaron</td>
<td>Aaron, you’ll get it. We will work more individually to help you further understand the harder math. I’ll give you some practice sheets and if you still don’t understand we can schedule after school practice.</td>
<td>It’s okay; we can work on it so you can get better.</td>
</tr>
<tr>
<td>Brooke</td>
<td>Why did you give up? How can I make you understand the more challenging puzzle?</td>
<td>If you take [your time] you’ll be able to figure it out. I know you can.</td>
</tr>
<tr>
<td>Charlie</td>
<td>I’d tell him that there are some letters that are silent and they hid so we have to we have to remember that his name is one of them.</td>
<td>That’s not how we spell your [name]. And but [sic] with practice I know we can spell I correctly.</td>
</tr>
<tr>
<td>Daphne</td>
<td>I’d tell her great job and then give her a</td>
<td>You did it. I knew you can tie your shoes</td>
</tr>
</tbody>
</table>
sticker because she succeeded on one of her challenges.

Ethan

I would tell him that is a great job and then try and challenge him by giving him a harder book with full sentences. See if he can succeed in that too.

I think we can try for a harder book. I know you can do it.

Frances

Try and find some resources you can search with her online about building structures.

Wow, I love how tall you made the building. Should we look up more buildings online?

Lauren’s responses do show some positive change. Her response to Daphne in January included an unsolicited extrinsic reward for the accomplishment, whereas in April she affirmed the accomplishment and expressed her confidence in Daphne. (For some children, intervention systems that include extrinsic rewards may be useful tools to help them learn appropriate behavior [Bowman-Perrott, Burke, Zaini, Zhang, & Vannest, 2016]; without that type of information about Daphne, however, this is not necessarily an appropriate response.) Lauren also complimented a specific aspect of Frances’s building in April before offering an extension activity. However, her responses are not as well developed as some of the students with a stronger growth orientation.

These example cases do not provide definitive evidence that there is an inherent correspondence between a beginning education student’s mindset and their beliefs about effective feedback for children. However, there does seem to be a relationship for at least some students, such that students with a stronger growth mindset may be less likely to use generic and trait feedback, and their use of effort and process feedback may be more developed and supportive. This possibility is explored further in the discussion chapter.
Chapter 5: Discussion

This mixed methods research study examined the mindsets of beginning education students in a Foundations of Early Childhood Education course, the students’ beliefs about different types of feedback, and whether and how their mindsets and feedback beliefs may be related. In this final chapter, I reiterate the findings for the quantitative, qualitative, and mixed methods research questions and discuss my interpretations. Next, I share pedagogical implications of the findings. Then, I explain strengths and limitations of the study, and I reflect on future directions for this line of research.

Mindsets

The beginning education students in my Foundations of ECE course had a mean Mindset Assessment score of 32.53 in January. In April, the mean score was slightly higher at 33.47, but the difference was not statistically significant. The profile for a score of 33 is G1, indicating a moderate growth mindset. These results fit with previous research on preservice teachers’ mindsets, which also indicated that the majority were growth-oriented (Jones et al., 2012).

It is interesting to note that the MA questions refer to one’s beliefs and preferences for one’s own learning (e.g., “I prefer my work…”). It is possible that students’ responses could be different when reflecting beliefs about children’s abilities and potential, especially for students interested in becoming early childhood educators. Having the mindset to engage with difficulty, however, could be beneficial to education students as they begin their careers. There were some indications in the journal writing that at least some students reflected on their own learning process and how their skills improved when they stretched themselves in new and challenging situations. This disposition could support students as they grow in their chosen field. Perhaps the MA measure alone is useful, but not enough to help clarify students’ beliefs. Students might
benefit from a more explicit conversation about mindset and effort beliefs, so they can build stronger connections between these beliefs and practices that would be aligned, both for their own learning and for the children in their future care.

**Measuring mindsets.** The MA measure did not behave as expected in my sample. Although previous research had reported good internal reliability (Blackwell et al., 2007), the items from each subscale did not have the expected internal consistency in my results. Indeed, the items on the theory of intelligence and effort beliefs subscales were negatively correlated in both January and April. I examined the data to be sure there was not an error—for example, in the reverse scoring of some items—but did not find one. It is possible there is a discernable reason for this surprising result, and by collaborating with a psychometrician in the future I may be able to determine a reason related to data management or the specific code used to calculate Cronbach’s alpha for the items. The version of the assessment used, which is part of the Educator Kit for classrooms (MindsetWorks, 2012b), might also have contributed to measurement issues. The eight-question version contained some questions from three separate, longer measures. Future research might test whether the longer versions perform more reliably.

**Feedback Beliefs**

The quantitative results indicated that students’ ratings of generic and trait feedback decreased, ratings of effort were relatively high and remained stable, and ratings of process feedback increased. These results are in line with the pedagogical goals for the course, that students would decrease use of generic and trait-based feedback in favor of more specific comments that draw attention to children’s effort and processes. It is possible that the effort and process subscales had ceiling effects, decreasing the likelihood that there would be significant change. It is also possible that students’ opinions about the items changed in more nuanced ways;
for example, a student could have more favorable opinions of process feedback but no longer consider the item’s wording a quality example of process feedback. The students’ April responses also frequently contained a combination of effort and process feedback; therefore, it is possible that their ratings of the effort feedback and process feedback separately reflected a belief that quality responses contain different dimensions of feedback.

The qualitative data corroborated and expanded on the quantitative results. Students’ frequency of using generic and trait feedback decreased from January to April, their frequency of using effort and process feedback increased, and the types of effort and process feedback they provided were more nuanced and supportive. There were not necessarily clear patterns of change in all of the nuances; indeed, there were some stellar responses in January, and April responses that seemed almost overthought. For example, Rebecca’s responses to Aaron were highlighted in the Findings chapter; she took to heart the message that teachers should attend to progress the children have made and she sends a growth-oriented message that he will improve with more practice. However, her April response lacks the specific inquiry she used in January (“Why don’t you show me what step you are struggling with”), which could have been an effective way to assist Aaron through his sticking point. Overall, though, there was strong evidence that students were engaged with ideas about how to provide effective, supportive feedback to young children.

**Responding to various learning scenarios.** I designed the questionnaire to represent a variety of situations—children in various stages of struggle, success, and creation—and the students seemed to respond differently across different situations. While these variations in how students responded created some difficulty in the quantitative analysis (discussed later in this chapter), it also revealed interesting distinctions in the qualitative findings. I had a sense from students’ responses that there was a continuum of difficulty; I felt a corresponding continuum in
my own process of interpreting their responses. In this section, I describe the scenarios in order of the ease of coding, from least to most complex.

**Frances scenario.** Coding was most straightforward for the Frances scenario, which (not coincidentally) most closely corresponded to examples provided in the textbook. While the students’ January responses largely contained generic evaluations, the April responses contained much more clear attention to effort and specific aspects of the child’s process. Perhaps this clear change speaks to the lack of awareness of the benefits of and cognitive processes involved with block-building. Block-building is an open-ended representational tool, which provides opportunities for development across all domains. It is not necessary, or necessarily useful, for teachers to project their own interpretations or opinions onto the work. Whereas in January, the beginning education students simply saw a product to which they should provide some positive response, in April they were more attuned to the complex activity involved.

**Daphne scenario.** The next most straightforward scenario was Daphne tying her shoes. Unlike Frances’ block-building, tying shoes is a clearly defined task with an easily evaluated objective. Like the Frances scenario, though, students’ January responses consisted largely of generic, evaluative comments. In April, the students provided more specific attention to her effort and process. Students provided some of the clearest examples of effective effort feedback in response to this scenario. For example, the comment “I know how hard you have been working and it paid off today!” attributes the child’s success to her persistence. Another interesting finding in the Daphne scenario was the theme of pride. In January, eight students expressed some variation of the phrase “I am proud of you!” By contrast, the April responses also contained eight comments about pride, but four of them focused on Daphne’s feelings about her own accomplishment: “You must be so proud!” I return to this issue later in this chapter.
**Brooke scenario.** Brooke’s scenario was the next on the continuum of coding complexity. As with tying one’s shoes, it is evident when one successfully completes a puzzle. However, the child in this scenario was in the midst of experiencing difficulty rather than celebrating success. The most common themes were students encouraging Brooke to try again or to try harder, engaging her with questions about her puzzle-solving process, and suggesting specific strategies. They also offered assistance and expressed confidence in her ability to succeed. The themes were similar in January and April, with more frequent and more specific attention to effort and process. More students attended to the emotional experience of the difficulty in April. Though use of trait praise was infrequent, there were several instances when students used trait praise to inspire Brooke’s confidence, an issue that will be returned to later in this chapter.

**Aaron scenario.** Aaron’s scenario was in some ways quite similar to the Brooke scenario: a child experiencing difficulty. Students responded with similar patterns of encouragement to persist, strategy suggestions, offers of assistance, and expressions of confidence. Responses to the scenarios’ contexts of each child’s—Brooke’s that she had given up easily and Aaron’s that he had tried hard—were relatively comparable as well. One element that distinguished the two was that Aaron was grappling with a content area (math) rather than a jigsaw puzzle. The process of identifying the source of the struggle and offering effective suggestions is more complex.

**Ethan scenario.** Ethan’s scenario also presents a content-relevant situation: young children’s emergent reading. Students responded to the scenario’s context, frequently suggesting to Ethan that he tackle a more challenging book. In April, many of these suggestions were made in more supportive ways, first acknowledging his reading of the alphabet book before prompting the harder book. The conundrum of this scenario is that there are many reasons a child might
read an easier alphabet book: perhaps it was an old favorite, or he loved the pictures, or the examples for the letters were funny. While it is important for teachers to encourage children to try new challenges when they have mastered a skill, it is also important for teachers—especially early childhood teachers—to recognize and support children’s intrinsic motivation when it comes to emergent literacy.

**Charlie scenario.** The final scenario on this continuum of complexity was Charlie, a child who had written his name with several, but not all, of the letters in the conventional spelling. This seemed to present a challenge for students who wanted to respond positively to the child, but for whom the errors were more salient than the progress. One student even wrote, “I’m not sure what I would say.” In January, many students jumped immediately to correcting Charlie, whereas April responses contained more acknowledgements of his progress and support to help him with his spelling. As noted in the Methods chapter, Charlie’s scenario represents a common step in children’s emergent writing (Puranik et al., 2014). Further, students frequently prompted Charlie to “sound out” his name with them, when he had already represented each of the sounds with a letter (CHRLE). The “errors” Charlie made were related to specific phonetic rules that are typically learned later in literacy development (an r-controlled vowel and an “ie” vowel combination). The most appropriate responses to Charlie—and perhaps more confidence from the students in how to respond—would come from more content-specific pedagogical knowledge (Shulman, 1986).

**Measuring feedback beliefs.** Quantitative analysis of the feedback questionnaire revealed some of its shortcomings as a measure. Though the one-class sample size is too small to conduct sophisticated psychometric analyses, descriptive analyses revealed topics that would be important to investigate in future research. Some of these issues may be related to the way the
items were written, and others may be related to student beliefs. In the sections below, I discuss the descriptive statistics of each of the subscales, speculating on possible reasons for the results and directions for future work to refine the items.

The generic subscale seemed to have the most internal consistency of the four subscales, with a Cronbach’s alpha of 0.71 in January and 0.72 in April. Still, there were differences in reaction to the items, as ratings in January ranged from 1.79 (“That’s all right!” for the Brooke scenario) to 3.89 (“What a great block tower!” for the Frances scenario). Future research could investigate differences in how students reacted to generic feedback to different classroom scenarios.

On the trait subscale, two of the items seemed notably different from the others, and the subscale had very low internal consistency (0.06 in January and 0.46 in April). Students rated the trait feedback on the Aaron scenario and the Charlie scenario lower than the other four ($M = 2.0$ and 2.11, respectively, compared to 3.79, 4.16, 3.42, and 4.0). Upon closer examination, the consolation in the Aaron scenario (“Don’t worry. Not everyone is great at math!”) appears in the literature as a potential response from fixed-mindset teachers (Rattan et al., 2011), but is quite different from the encouragement provided to Brooke, who is similarly frustrated (“You’re good at puzzles. I bet you can do it!”). In future research, it would be helpful to determine how students’ opinions differ on these two shades of effort-trait-related feedback. However, students’ responses to the Charlie trait feedback (“You’re such a good writer!”) may be connected to their understanding and beliefs about emergent literacy as well as beliefs about effective feedback. Students’ qualitative responses to the Charlie scenario demonstrated a frequent instinct to correct Charlie’s emergent spelling; thus, it is possible that students felt his writing was not yet successful enough to warrant the praise. There were also some differences across items in
subscales that could have contributed to lower internal consistency, such as whether or not an item included a question.

The effort subscale had one item that performed differently from the others. Cronbach’s alpha on this subscale ($\alpha = -0.01$ in January) reflected this lack of consistency. Students rated the response to Charlie’s scenario lower (“You’ve really been working on writing your name!”; $M = 3.26$) than any other item on the subscale (range $= 4.05–4.79$). The subscale had higher consistency in April ($\alpha = 0.44$), and students responded more positively to the Charlie scenario ($M = 3.95$), though it was still the lowest rated of the six effort items. As with the trait feedback, this response may be connected to students’ beliefs about the child’s emergent literacy abilities described in the scenario.

The process subscale had a Cronbach’s alpha of 0.49 in January and 0.61 in April. In January, students rated the response to the Charlie scenario the lowest (“I can read your name! Can you tell me which letters you wrote?”; $M = 3.95$), but it was not as different in this subscale as the others. In April, students rated the item much higher ($M= 4.63$). Interestingly, ratings decreased for one item (“You recognized all your letters!” for the Ethan scenario; $M = 4.00$ in January; $M = 3.95$ in April). In their April qualitative responses to this scenario, students frequently commented on the accomplishment and included a prompt to try a more challenging book; the quantitative changes could reflect the students’ belief that the comment alone is not a sufficient response to this scenario.

Even with its shortcomings, the feedback questionnaire provided interesting insights into students’ beliefs about feedback types. In the future, the questionnaire could be improved with input from more experts, cognitive interviews with participants to clarify how they interpret items, and a larger sample size to allow for psychometric analyses of reliability and validity. It
would also be interesting to investigate whether varying scenario content (e.g., activity or academic content area reflected, gender of the child) would influence ratings in any way, given that people may hold different mindset beliefs in different domains (Dweck, Chiu, & Hong, 1995) and adults may show gender bias in their delivery of praise (e.g., Gunderson et al., 2018).

**Coding quandaries and matters of phrasing.** Every attempt was made to apply a rigorous analysis to the open-ended questionnaire data, including having a second coder for over 25% of the data. Through deep conversations with the second coder, the final coding decisions were more thorough and consistent. Even with these efforts to ensure validity, there is some subjectivity involved in the coding. For example, a frequent theme across situations, especially those in which the child was not yet successful, was a teacher’s offer of assistance. However, there were times when the offer was more subtle or implicit, and others when it was not clear whether the teacher was offering assistance or simply using “let’s” casually as part of phrasing a suggestion (e.g., “Let’s try a different book”). Decisions had to be made about when “let’s” earned the assistance code and when it did not.

Even within a single code, there was often a diversity of types of responses. For example, students utilized different qualities of questions. Across categories, there was frequent use of interrogatives (open-ended questions), but within the process category a student may ask about materials (e.g., “What colors do you see?” “How many blocks did you use?”) or may use questions to engage critical thinking skills and reflection (“How did you do that?” “What might we do differently?”). Therefore, the code “Process\Interrogative” does not capture the full dimensionality of the phrase. Similarly, the phrases “you worked so hard on tying your shoes” and “you kept trying, and now you’ve mastered tying your shoes” both received the code
“Effort\Affirm-Non-evaluative,” but the latter is more effective in its attribution of success to Daphne’s perseverance.

Further, the literature is not consistent on whether effort and process feedback are fully separate categories. A recent article defined process praise as “includ[ing] praising students’ level of effort and effective strategies” (Amemiya & Wang, 2018, p. 1). Later in this chapter, I discuss how effort and process feedback work together. The codebook is ultimately a compromise between thorough analysis and such fine-grained detail that it would be difficult to draw larger inferences from the findings.

The coding scheme was useful for quantifying and comparing responses between participants and across time points. I intentionally did not explicitly evaluate the responses, as I did not have a single, objective way to judge the quality of such multidimensional responses (nor did I see a clear way to make one). Still, it should be acknowledged that there are subtle variations that may not be captured by the codes but could affect how the learner receives a response. How a response is phrased can make the difference between a response that feels dismissive and one that is warm and supportive.

A common phrasing issue involves the word “but.” In attempting to “sandwich” negative feedback, it is common to begin with a positive comment before providing criticism or corrections. This happened multiple times in students’ responses. Students began by acknowledging the child’s effort and steps toward the “correct” spelling, and then attempted to provide constructive feedback to advance his skill. However, the way this feedback is phrased can have significant effects on the way it is received. Consider the following examples: “You are awesome at simple addition but I see you’re struggling with these harder problems” (Beth, in her April response to the Aaron scenario). “I saw you have wrote [sic] your name, but I think you
have forgotten some letters” (Morgan, in her April response to the Charlie scenario). “Great reading Ethan but I know you are capable of much more” (Dylan, in his April response to the Ethan scenario). In these examples, the “but” negates the positive statement that comes before it. Not all uses of this construction are equally contradictory; nevertheless, it is an issue that could be addressed. Often, simply rephrasing the feedback can soften the effects: “Great reading, Ethan; now you’re ready for a harder book!”

Other responses could also have been changed to have a more supportive tone by simple rephrasing. For example, Penny’s response to Ethan in April: “I think that book is too easy for you Ethan; let’s try a more challenging book.” Instead of downplaying the achievement of reading the book, the same objective of calling attention to his readiness for more challenge can be met with more positive phrasing: “Wow, you read that so easily! Would you like to try another book [with more words, with similar art, about a topic he enjoys… etc.]?”

Another subtle aspect of responses was the spectrum of teacher-centered comments (focused on the “I”) versus child-centered comments (focused on the “you”). In the Aaron scenario, for example, offers of support ranged from teacher-driven (demonstrating or re-teaching) to collaborative (working together to solve the problem) to child-driven (inquiring about the process). In the Daphne scenario, there was a notable distinction between the teacher’s pride and the child’s pride. In the Frances scenario, some students offered their own perceptions while others elicited the child’s opinion. Each of these responses may be appropriate at different times, depending on the child and the context; this is yet another dimension that teachers learn to weigh in their delivery of feedback.

Beliefs, interrogation, and change. Students’ reflective journals showed an evolution over the course of the semester. In the first journal, students were reacting and adjusting to a new
environment. They noticed that there was something distinctive about the manner and the language of the teacher-child interactions. The students showed surprise and a growing appreciation for the intellectual abilities of young children and a newfound awareness of how the children were learning through play. The students found the Arlitt teachers’ management styles particularly notable and described conversations that were effective at not just minimizing “misbehavior” but in teaching children how to proactively resolve their own conflicts. Although these topics may not explicitly connect to issues of praise and encouragement, the principles relate: meaningful teacher-child interactions support children’s development.

Later in the semester, when the topic of praise was formally covered in the course, students grappled with a new and strange idea—that not all praise was necessarily positive. Many were surprised and confused, and some even expressed resistance to this counterintuitive concept. Still, students engaged with the ideas presented and most came to appreciate that there are ways teachers can make their feedback more valuable than supplying generic praise.

In their journals, students show a developing understanding that specificity helps children learn. This seemed to be the most salient aspect of our conversations about praise and encouragement; students could clearly see how specific feedback could help children understand things. They also reflected on the fact that specific feedback helps develop relationships by demonstrating a genuine interest in the children’s work and by inspiring deeper conversations than a pat evaluation might. Supporting learning, building positive relationships, and valuing children’s individuality all seemed to assimilate easily into students’ schema for their role as an early childhood educator.

Students’ schema for the role also included being a person who helped children feel good about themselves and their work. Several students expressed a concern that avoiding praise
would leave children feeling badly. Through observations of the Arlitt teachers, conversations in class, and using non-evaluative comments in their own interactions with children, students came to realize that they could still express positivity without using praise.

The textbook raised multiple issues in its argument that encouragement should be used rather than praise. As students wrote about their interpretations, they used different aspects of the textbook’s explanation. Praise is a complex topic, and the variety of details students chose to write about signifies their attempts to understand the ideas from the book. However, there were some instances in which the students oversimplified the topic. For example, the authors cautioned that issuing praise can “teach children to act to receive approval from adults… children become so dependent on external evaluation from adults that they can’t determine what they like or value. … These children appear to be ‘praise junkies,’ dependent on praise as the only way to feel good about themselves” (Feeney et al., 2012, p. 201). Yeva mentioned this point in her journal, writing: “[Saying ‘good job’] is wrong because the student becomes so dependent on praise, that they do not get to reflect on their work, and when they don’t receive praise in the future, they will think they have failed.” It is an important point to consider—whether our evaluation is necessary, and whether we are also helping children to reflect on their own opinion and their own work—but I disagree that saying “good job” is such a dire transgression.

It is natural that we seek the approval and praise of those whose opinions we value. We want to hear that others are receiving our work and our efforts well. While this evaluative praise has its place and will be discussed later in this chapter, to Yeva’s point, it is not as useful a method for introducing corrections or critiques. If at an early age children become accustomed to specific, informative statements about their work and processes—and are not always expecting
exclusively praise—corrections may feel more natural and helpful, rather than disappointing and hurtful.

Feeney et al. also wrote that “praise is often not genuine” (2012, p. 200). Likely recalling this line, Isabel wrote in one journal, “Encouragement is far more genuine than praise.” The textbook continued on to illustrate how praise of one child can be used to manipulate the behavior of other children, especially in a group setting. However, the takeaway that all praise is disingenuous is not helpful either. When praise is sincere and specific, it can provide important information to learners about the value of their accomplishments (Brophy, 1981).

In considering how to provide effective feedback to the children, the students also grappled with their own experiences with and desire for praise. These reactions were often quite strong, ranging from defensive (“I was praised and I turned out perfectly fine”) to shocked (“I … had a very negative first impression because I did not like that teachers did not praise their students”). An important part of the students’ process of learning was reconciling their own upbringing and education with the new ideas presented to them in the textbook and the classroom. In addition to their reflective writing assignments, we also spent substantial class time discussing the questions that emerged as they integrated their past experiences with new learning.

A key experience seemed to be observing the teachers’ effective use of the techniques students read about. However, that is likely not sufficient on its own. For many students, there appeared to be at least some level of disequilibrium upon reading about praise and encouragement and observing effective feedback in practice. Developing the skillset to use more specific, effective feedback involves conceptual as well as behavioral change. Students seem to
benefit from a sustained field experience coupled with facilitation of their reactions and their own attempts at the techniques.

In their final reflections, encouragement and praise were topics that stuck with students throughout the semester, and many indicated they intended to incorporate encouragement into their future practice. The distinction of “encouragement” from generic praise is useful in this way. However, the impression that “all praise is bad” may not be constructive in the long run. Students said they now noticed their tendency to say “good job” and now understood why praise was discouraged, but had difficulty coming up with what to say instead. Some students wrote about “catching” themselves using praise, and students asked me in class if I ever still accidentally say “good job.” I told them honestly that they could probably count multiple times within one class meeting I would say it. Repeatedly, we discussed how praise would not harm a child, but that there are more meaningful things to say than generic praise. At the end of the course, students had made significant strides toward understanding the impact of their language and how providing sincere, specific feedback is more powerful than offering automatic praise. As several of them noted, though, this Foundations course was just the beginning of a longer journey of understanding and implementing intentional practice.

**Mindsets and Feedback-Type Associations**

There is some evidence to indicate relationships between students’ mindsets and their beliefs about the feedback types. Quantitative analyses showed that, by April, there was a significant negative correlation between mindset scores and ratings of generic and trait feedback. This implies that students with stronger growth mindsets had lower opinions of these types of feedback. Further, the integration of quantitative and qualitative data revealed examples of how students’ open-ended responses corresponded with their mindset profiles. Some students with
lower MA scores displayed less supportive or effective patterns. Some students with higher MA scores included explicit growth messages in their responses. The integrated findings section showcased three students’ changes from January to April, including one student whose MA score jumped nine points and whose qualitative responses demonstrated substantial change from fairly generic to detailed, quality responses. While these findings do not provide definitive evidence that there is a direct connection between students’ mindsets and their beliefs about feedback, there may be a relationship between the constructs for at least some students. Perhaps this connection is relatively direct, with students expressing their growth-oriented beliefs in their words. But the patterns of change are intriguing as well; it is possible that students who developed stronger growth mindsets were also more apt to engage with and apply the ideas about effective feedback taught in the course.

As research about teachers’ mindsets advances, it will be important to explore this relationship further. Resolving the issues with the MA may help clarify the evidence as well. However, it is also important to note that recent research findings indicate that simply having a growth mindset as a teacher does not necessarily translate to passing that mindset to students (Haimovitz & Dweck, 2017). If the mindset is not reflected in types of feedback the teacher uses, it is less the mindset that matters than the language. It is critical to respond effectively to both success and failure and to help learners see failures as “an enhancing experience that facilitates learning and growth” (Haimovitz & Dweck, 2016, p. 860). But teacher language is just one part of a growth-minded teaching approach. Teachers’ instructional practices, such as the types of assignments and assessments they give, are also influential on learners’ mindsets (Park et al., 2016). Teachers must be intentional about creating an environment that supports a growth orientation. Saying, “mastery takes time” and “mistakes are part of the process” is not sufficient;
we must also structure our curriculum and policies to support students on a challenging and nonlinear path toward success. Teachers who focus on learning processes and avoid practices that focus on innate ability are more effective at creating mindset cultures in classrooms (Park et al., 2016; Sun, 2015; Haimovitz & Dweck, 2017).

**Pedagogical Implications**

This study grew from several years of working with preservice teachers, from very beginning education students through seniors completing their student teaching. It responds to an instructional need as well as a gap in the research literature, and the findings have important implications for teaching preservice teachers about effective feedback.

**Mindsets misconstrued.** The idea of a growth mindset has captivated many educators, and may have important positive effects on classroom culture when teachers consciously communicate their beliefs that students are capable of improvement through effort and strategy. However, some—including Carol Dweck, the pioneer of the mindset theory—worry that the growth mindset movement has gotten away from itself (Dweck, 2015). Dweck warns that simply claiming a “growth mindset” is not an effective way of supporting students’ development of said growth mindset and that practices, such as feedback and assessment, must reflect a growth orientation. Further, simply praising effort is not sufficient to support students through confusion and frustration. If a learner is applying an ineffective strategy, sustaining effort will not result in greater success. Later in development, effort praise may be less effective for learners who interpret increased effort as reflecting lesser ability and may infer that adults who praise their effort are, however unintentionally, signaling their belief that the learner has a lower ability (Amemiya & Wang, 2018). Students in the current study increased their use of effort praise from January to April, which is a positive change. However, these effort statements were not always
accompanied by a specific strategy suggestion and occasionally even came at the expense of attention to strategy that the student had used in January. Therefore, it is important that future work with students helps them understand the nuances of why and how to attend to both effort and process in their feedback.

**Praise vs. encouragement: An unhelpful dichotomy.** Brophy defines praise as language meant to “commend the worth of or to express approval or admiration” for a person, behavior, or product (1981, p. 5). The evaluation is more than an affirmation of a correct response, but one that expresses a judgment of quality or the teacher’s opinion about the work or behavior. (In coding the questionnaire responses, I avoided labeling responses as either praise or encouragement, but I did code for whether phrases contained an evaluation of quality or expressed an opinion.) According to the textbook used in the course, one of the qualities that distinguishes praise from encouragement is whether it contains an evaluation (Feeney et al., 2012). Examples of effective praise given from the growth mindset literature sometimes contain an evaluation (e.g., “good job trying to put that back,” [Gunderson et al., 2018, p. 400], and sometimes do not (e.g., “you must have worked hard on these problems,” [Amemiya & Wang, 2018, p. 2]). This blurs the line of what constitutes praise and what constitutes encouragement.

There are times when the evaluation is used as a segue to more specific feedback, rather than serving as the substance of the response. In Claire’s response to Frances in April, she wrote, “I love how you stacked the blocks up in a way that they won’t fall. Looks very sturdy.” Here, Claire’s evaluations were in the form of specific vocabulary (stack, sturdy) that indicated she was paying close attention to Frances’s work. In many cases, generic, evaluative openers seem to be merely a conversational lead-in that is part of the natural cadence of speech or a verbal cue of shifting attention (“Wow,” “Oh my goodness,” “Look at that”). These types of openers are more
neutral in quality than “good job” or “I love…” and serve to shift attention to a child’s work without projecting beliefs or opinions onto the work.

Furthermore, there are times when it is appropriate and useful for the teacher—as the leader of the classroom and holder of more expert knowledge—to share an evaluation. In such situations, teachers should be cognizant of the utility of an evaluation. “Good” relative to what scale? Does that imply that others’ work is less good? More effective feedback still contains more descriptive terms. Is the tower “good,” or is it “sturdy”? Is the paragraph “good,” or is it “persuasive”? Novice learners can indeed benefit from the evaluations and feedback of more expert practitioners, whose experience and basis for comparison is much broader than those learning a new skill.

Some proponents of encouragement discourage adults from expressing their pride, as it implies some level of ownership over the accomplishment and can send the message that the adult’s feelings are as or more relevant as the child’s (Firestone, 2017). While I do agree that it is important to emphasize the child’s experience rather than the adult’s, I also believe that there are times when it is appropriate and validating for a learner’s accomplishment to be affirmed by a close guide, such as a parent or teacher.

Perhaps more important than avoiding evaluations that would mean feedback is “praise” and not “encouragement” is for teachers to be able to determine when an evaluation is appropriate and useful. Teachers may reflect on whether their opinion is relevant or if it is more appropriate to elicit the child’s own self-evaluation. If there is not an objective scale of quality, avoiding words that imply one might be helpful to learners. If teachers do have relevant expertise that could be helpful, they can deliver specific feedback that helps learners understand the
rationale so they can better apply the information toward their work and own self-evaluations in the future.

It is also clear that students are sensitive to the need for supportive responses to learners who are not yet experiencing success, whether they are in the midst of productive struggle or they have made a misstep. For example, one student indicated in January that she was unsure how to respond to Charlie, whose writing reflected a non-conventional spelling of his name. In another scenario, several students used trait praise in an attempt to boost Brooke’s confidence for completing a challenging puzzle—a strategy that can backfire, especially for children with lower self-esteem (Brummelman et al., 2013). Indeed, recent work points to adults’ responses to children’s failure as an important indicator of children’s mindsets and the need to help adults develop motivational strategies that align with a growth mindset (Haimovitz & Dweck, 2016; 2017).

Rather than positioning praise and encouragement as distinct categories, I argue that it is more useful to teach about the qualities of effective feedback and how to approach various learning situations, whether the child is succeeding yet or not. This thorough manner of instruction would better support preservice teachers in being intentional with their language. Such an approach could begin by introducing two main dimensions: specificity and evaluation. Considering a continuum for each of these dimensions, preservice teachers would be able to compare various responses and better see the how they differ (e.g., Figure 3.3, which illustrates these dimensions in responses to the Daphne scenario).

With an understanding of how specificity and evaluation affect their comments, preservice teachers would be better prepared to provide effective feedback across situations. They could then consider the target of their comments (trait, effort, process, or outcome?) and
their purpose (to encourage, motivate, reinforce, or celebrate?). Most of all, instruction about effective feedback should help preservice teachers consider the child and the context. Teaching about types of feedback—whether encouragement versus praise, or a more multifaceted approach—should not overshadow an emphasis on helping preservice teachers develop mindful responses to the unique children in their care and a professional ability to evaluate what a particular learner may need in that moment.

More than words. The words we use matter. However, words are not the only tool we use to convey a message. There are other cues that affect our communication. For example, teachers use proximity and tone of voice to help a message be more clear and effective. “That’s great!” delivered in passing or across the room feels empty; however, if a trusted teacher who is sitting with us and truly attending to our work says “that’s great,” the genuine evaluation can carry a great deal of weight and meaning. Uma’s January response to the Charlie scenario also demonstrates the importance of tone and gesture in teaching scenarios. She wrote that her response would be, “Let’s sound it out together: CH-AR-LEE.” Perhaps this is a correction, or perhaps she is highlighting how he has represented each sound he heard in his name. Without the full context, it is difficult to tell whether this is a response that dismisses or celebrates a child’s effort and progress. Tessa showed some awareness of the importance of body language in her January response to the Daphne scenario, which she ended by saying, “with a big smile on my face.” This could be taken as a sign of sincerity, which is an essential element of effective praise; however, if the “big smile” conveyed inflated enthusiasm, it could counteract the message she tried to convey.
Strengths and Limitations

This study introduced a novel way to address the topic of praise and bridged multiple perspectives on the topic. By acknowledging the guidance about behavior-specific praise, encouragement over praise, and effort and process praise over person praise, the course and the study illustrated the complexity of a seemingly simple idea.

The study participants represent a population rarely included in the literature on either growth mindset or praise. Further, the studies that did include preservice teachers did not necessarily distinguish how far into their studies the students were. This study specifically highlights beginning education students who are at the start of their teacher-education program, thus laying a foundation for future research to show how preservice teacher beliefs may change over the course of their full programs.

Though the topic of “praise and encouragement” was part of just one chapter in a semester-long course, we always began class sessions with a conversation about the students’ observations and their questions. We discussed issues of praise frequently, and many students wrote about praise and encouragement in detail even for their open-topic assignments. This timeline and structure allowed for a prolonged engagement with the topic, enabling a comprehensive understanding of students’ beliefs not at just one time point but also how they changed over the course of the semester.

This study used multiple sources of data to illustrate not just the types of feedback students provided, but also their understanding of how and why feedback matters. The questionnaire contained quantitative and qualitative items to examine students’ opinions about four categories of feedback, and their reflective journals offered a window into their learning
process throughout the semester. Together, the sources of data offered a much more in-depth picture of their use and understanding of feedback for young children.

Further, I used more detailed coding of language than previous studies of praise used. For example, Gunderson and colleagues (2013; 2018) categorized praise as process praise, person praise, or other praise, and provided limited examples for each category in their supplemental materials: good job, nice work, good listening, that was a good try; good girl, that’s my boy, you’re so nice, let’s show her how smart you are; and good, that’s correct, perfect, and yay. By comparison, the current study captures much more of the multidimensional nature of students’ feedback.

Like any research project, this study also had its limitations. The measurement issues discussed in detail above do restrict the conclusions that can be drawn, especially from the quantitative components. The sample size was small, as it drew on the experiences of only one section of one course. It also lacked a control condition, so comparisons cannot be made to estimate the effects of my particular approach to the course or to a different text or curriculum. We covered a broad spectrum of topics covered in this introductory course, which, while beneficial in some ways, does mean that there was less time to explicitly address concepts with as much detail and frequency as would be possible in a more targeted course or intervention. Therefore, the findings of this study are a valuable contribution to the literature about early childhood preservice teachers and effective praise and feedback, but they cannot be generalized to broader populations based on this study alone.

**Future Research**

Moving forward, there are a number of directions for research that could prove fruitful. First, improvements could be made to the quantitative measures. As mentioned in the methods
chapter, this study used a version of the MA that comprised questions from three longer measures. This could have contributed to low alpha values with the participants of this study. Yet, there were surprising results (i.e., negatively correlated items purported to load onto the same factor) that should be investigated to ensure validity of future studies. There are also steps, discussed above, that can be taken to strengthen the subscales of the feedback questionnaire.

In addition to the psychometric improvements to the feedback questionnaire, it would also be valuable to adapt the questionnaire scenarios for use as a teaching tool. An important finding from this study is that the students did grow their understanding of dimensions of feedback, but also that they responded differently across scenarios. Preservice teachers would benefit from responding to a wide variety of scenarios over time. Instructors could guide their students to analyze the responses, inspiring a deeper sustained conversation about intentional feedback. Scenarios could easily be adapted across courses to give preservice teachers low-risk, constructive experience with the issues they are likely to encounter in the field. This would also provide opportunities to incorporate the content-area knowledge relevant to the more domain-general principles of feedback.

Though this study makes an important contribution to the field, it is also limited by its size and context. Future studies could use larger sample sizes and a comparison condition to expand on the findings of this study. Additionally, it will be important to examine student learning across multiple contexts. The specific university context of this study provided an opportunity for students to learn from exceptional practicing teachers in the lab preschool. Future research should consider the role of the field placement for student learning.

Another avenue for this line of research is to take it outside the college classroom. The written questionnaire was suitable for the course context and it allowed the pre-post comparisons
to illustrate student learning. However, writing a response is, of course, quite different from responding to children in real time. Future studies could collect behavioral data from preservice teachers who are in field-placement classrooms. This would allow researchers to study more accurately the types of feedback they actually provide and how their language changes over time.

Further, studies examining behavioral data could be combined with meaningful professional development opportunities. Interventions that target teacher feedback will be more effective than teaching about a topic within a survey introductory course. Likewise, ongoing coaching will facilitate learning more than one-time feedback or a pre-post design. Preservice teachers would benefit from a more focused, sustained approach to improve their feedback delivery. This could include opportunities to discuss more subtle issues, such as those raised earlier in this chapter about phrasing responses supportively. It is likely that such professional development would benefit practicing teachers as well.

**Conclusion**

While it is widely acknowledged that a positive verbal environment is necessary for young children’s optimal learning, how to deliver effective feedback is far from a straightforward issue in early childhood education. Different perspectives offer conflicting guidance for teachers, ranging from the direction to offer only specific praise, to recommendations for praising effort and process rather than traits, to cautions to eschew praise altogether. The result is a confusing tangle, especially for preservice teachers working to reconcile their own experiences and beliefs with the advice of various instructors, supervisors, and mentor teachers. Effectiveness and appropriateness of different types of feedback is a nuanced topic that preservice teachers must learn, yet how preservice teachers understand praise
and how these multiple perspectives are addressed in their teacher-preparation programs are largely absent from the research literature.

This study used both quantitative and qualitative methods to examine beginning education students’ beliefs about generic, trait, effort, and process feedback and how those beliefs changed during a semester course. Findings showed that students decreased their ratings and use of generic and trait feedback, and increased their ratings and use of effort and process feedback. Further, their open-ended responses were multifaceted, and students progressed toward more specific and supportive responses at the end of the semester. The detailed coding scheme showed subtleties not reported in previous studies about types of praise or feedback. Students’ responses to the mixed methods questionnaire were supplemented by reflective writing assignments from five points across the semester, which showed how they worked to make sense of what was a new and surprising concept for them. This mixed methods approach illuminated a nuanced picture of students’ beliefs about praise at the beginning of the course and how they evolved by the end of the term.

In addition to this holistic view of students’ beliefs, this study also sought to build on the growth mindset literature about teachers’ mindsets. Integration of the findings showed that there might be a connection between students’ mindsets and their beliefs about the four types of feedback as well as how their responses developed from January to April. More explicitly leading a conversation with beginning education students about their beliefs about intelligence and effort may facilitate more growth-oriented language toward children; such a conversation may also support the students’ own learning as they experience uncertainty in new classroom environments and work to develop their own teaching skills.
The findings from this study offer important implications for research and for the way teacher-educators guide preservice teachers as they learn to provide effective feedback for young children. Teaching about dimensions, rather than categories, of feedback can support preservice teachers in making informed, intentional decisions about what they say and how they say it. With this preparation, preservice teachers can enter the field proactively working to support children’s positive learning dispositions. They can use their language to support children’s confidence to approach new tasks, persist through challenge, and overcome difficulty; they may even find more confidence to do so themselves.
References


Appendix A: Recruitment Document

Information and Recruitment Script
University of Cincinnati
Department: Educational Studies
Principal Investigator: Laura Kelley
Faculty Advisor: Dr. Rhonda Brown

Hello everyone,

As you know, my name is Laura Kelley. I am a doctoral candidate at the University of Cincinnati. I am conducting a research study on beginning education students’ theories of intelligence, and their knowledge and beliefs about the use of positive language with young children. This research is guided by my advisor, Dr. Rhonda Brown. This is my colleague, (name of non-instructional personnel who will witness the consent process), who is here to discuss this research study with you and invite you to participate. Leave the room; colleague continues recruitment and consent.

If you agree to participate, this will allow Laura to use some of your course assignments in this study. These course requirements are: a questionnaire about your views on intelligence and how you respond to children in certain scenarios, and journal assignments connecting your experiences to what you learn in class. She may invite you to discuss your reflections further in short, informal interviews. These interviews would be to help her understand your perspectives as a learner. These voluntary interviews would be scheduled at your convenience, not connected in any way to your grade.

Here is how the study will work: Once we are finished discussing the research study today, I will ask you to review the research study consent form and sign if you are willing to participate. I will then keep your consent forms in a sealed envelope, in a locked cabinet in my office. Your decision will be confidential and not a public part of our class. Your decision whether or not to participate will not impact your grade in this course. Laura will not know who decided to participate until after final grades have been submitted to the registrar.

Only those students who agree to participate will have their course assignments or discussion comments used in the study. She will change any identifying information to a pseudonym, and this data will be analyzed for the research. She may ask others to analyze or look at the data with me. In this case, only pseudonyms will be shared with these people.

You do not have to be in this study. While participation in the course is required, you can choose not to have your course assignments included in the study. Your decision to be in any study is totally voluntary. Your grade will not be affected by whether or not you choose to participate. Laura will not know who has decided to participate until after she has turned in your final grades to the registrar. Additionally, if you decide now to participate in the study, you may choose to stop at any time.
Your information will be kept confidential. Your information will not be shared outside of this study team except to those groups who are responsible for making sure studies are conducted correctly and ethically. However, if your comments in the research data relate to your safety or the safety of others, these may be shared with my advisor and/or others in the School of Education.

Do you have any questions?

If you would like to ask questions about the research study at any point, you can contact Laura via email at kelleyl2@mail.uc.edu. Her contact information is in the syllabus and on Blackboard. You can also contact her research adviser with any questions or concerns about this research. Her email is Rhonda.brown.edu. (Write email on the board.)

When there are no further questions: Here is the consent form for the research study and a folder containing the documents that will be used for research if you choose to participate. You can keep the extra copy of the consent form for your records. Pass consent forms and individualized folders to each student. Each of the consent forms will already have been signed by the recruiter as a witness.

Review Consent Form with class. Are there any questions about the consent form?

When there are no questions about the consent form: You may now sign the consent form if you wish to participate. If you do not wish to participate, you can leave the form blank. Once you have finished, please place your consent form and your folder here. Envelope should be placed on a desk or table in front of the room.

I will stay here until everyone has placed a form in the envelope. If you want to ask a question privately, you may do so. Wait until everyone has put their consent form in the envelope; answer any questions.
Appendix B: Consent Form

Adult Consent Form for Student Participants in Research
University of Cincinnati
Department: Educational Studies
Principal Investigator: Laura Kelley
Faculty Advisor: Dr. Rhonda Brown

Title of Study: Beginning Education Students’ Theories of Intelligence and Beliefs about Praise: A Concurrent Mixed Methods Study

Introduction:
You are being asked to take part in a research study. Please read this paper carefully and ask questions about anything you do not understand.

Who is doing this research study?
The person in charge of this research study is Laura Kelley of the University of Cincinnati (UC) Department of Educational Studies. She is being guided in this research by Dr. Rhonda Brown, her research adviser. There may be other people on the research team helping at different times during the study.

What is the purpose of this research study?
The purpose of this research study is to investigate beginning education students’ theories of intelligence and beliefs about positive language used with children, and experiences during the course ECE 1001.

Who will be in this research study?
You may be in this study if you are enrolled in ECE 1001 – Section 001.

What will you be asked to do in this research study, and how long will it take?
This study will be based on assignments required of all course participants, including questionnaires, journal entries, and the final reflection. You may also be asked to participate in brief, informal interviews; you decline an interview and still participate in the study. Interviews would take under 30 minutes and would be scheduled at your convenience.

Are there any risks to being in this research study?
It is not expected that you will be exposed to any risk by participating in this study. You may choose not to participate in the research study at any time. You will need to complete all course requirements whether or not you choose to participate in this research study. Interviews are not required for the course, nor are they required for participation in the study. Participation does not have an effect on your grades for the course.

Are there any benefits from being in this research study?
You will receive no direct benefit from your participation in this research study beyond the educational value of the activities. However, your participation may help improve this and future courses in the field of early childhood education.
What will you get because of being in this research study?
You will not be paid to take part in this research study.

Do you have choices about taking part in this research study?
Yes. If you do not want to take part in this research study, you may leave this form blank. You will still need to fulfill the requirements for the course, but in this case your assignments and discussions will not be used as part of the research study. You will not be treated any differently if you choose not to take part in this research study, nor will your grades be affected regardless of whether you choose to participate.

How will your research information be kept confidential?
Information about you will be kept private by keeping paper copies of research data in a locked office, and keeping electronic data in a password-protected area (i.e., Blackboard). All identifying information (i.e., names) will be changed to pseudonyms. All data will be stored for five years after the end of this research study and then destroyed by shredding or deleting. The data from the research study may be discussed with other researchers, presented, or published. In this event, your pseudonym will be used.

Agents of the University of Cincinnati may inspect research study records for audit or quality assurance purposes.

What are your legal rights in this research study?
Nothing in this consent form waives any legal rights you may have. This consent form also does not release the investigator, the institution, or its agents from liability for negligence.

What if you have questions about this research study?
If you have any questions, please direct them to Laura (kelleyl2@mail.uc.edu) or her research adviser, Rhonda Brown (Rhonda.brown@uc.edu).

The UC Institutional Review Board reviews all research projects that involve human participants to be sure the rights and welfare of participants are protected.

If you have questions about your rights as a participant or complaints about the study, you may contact the UC IRB at (513) 558-5259. Or, you may call the UC Research Compliance Hotline at (800) 889-1547, or write to the IRB, 300 University Hall, ML 0567, 51 Goodman Drive, Cincinnati, OH 45221-0567, or email the IRB office at irb@ucmail.uc.edu.

Do you HAVE to take part in this research study?
No one has to be in this research study. Your grade will not be affected by participation or non-participation in this research study. You may choose not to participate or you may stop participating at any time by communicating this via email to Laura (kelleyl2@mail.uc.edu). If you decide to withdraw from the study, partial data may still be used for the research study unless you request otherwise by communicating with Laura.

Agreement:
☐ YES, I have read this information and have received answers to any questions I asked. I give my consent to participate in this research study AND the researcher may contact me for follow-up questions. I received a copy of this consent form to keep.

OR

☐ YES, I have read this information and have received answers to any questions I asked. I give my consent to participate in this research study BUT prefer not to be contacted for follow-up questions. I received a copy of this consent form to keep.

Participant Name (please print)_______________________________________________

Participant Signature________________________________________________ Date ________

Signature of Person Obtaining Consent ______________________________ Date ________
Appendix C: Mindset Assessment Questionnaire

<table>
<thead>
<tr>
<th>Do you agree or disagree?</th>
<th>Disagree a lot</th>
<th>Disagree</th>
<th>Disagree a little</th>
<th>Agree a little</th>
<th>Agree</th>
<th>Agree a lot</th>
<th>Profile Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. No matter how much intelligence you have, you can always change it a good deal.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2. You can learn new things, but you cannot really change your basic level of intelligence.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>3. I like my work best when it makes me think hard.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>4. I like my work best when I can do it really well without too much trouble.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>5. I like work that I’ll learn from even if I make a lot of mistakes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>6. I like my work best when I can do it perfectly without any mistakes.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7. When something is hard, it just makes me want to work more on it, not less.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>8. To tell the truth, when I work hard, it makes me feel as though I’m not very smart.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Mindset Assessment Profile Number
*Reverse score even-numbered questions*
Appendix D: Journal Assignments

Assignment description:
To help you connect the class content with your experiences at Arlitt, you will write four reflective journals over the course of the semester. Two journals have a specific required topic and completion date, and you may choose the topic and timing of your other two journals. Prompts are provided; however, you are encouraged to expand your journaling however you see as most meaningful to you. Please remember to respect children’s privacy by not using their names in your journal responses (initials or pseudonyms are fine). As you write, be sure to:

- Indicate the topic of your journal and the corresponding course topic
- Use specific, relevant observations from the Arlitt classroom
- Make explicit, relevant connections to the textbook and/or class discussion
- Include a reflection about the significance of the topic, a new or surprising insight, or lingering questions related to the issue
- Write clearly and without significant mechanical errors

Journals should be thoughtful and detailed; such responses are typically 4-5 paragraphs. At the end of the semester, you will use your journals to revisit experiences and complete the reflection writing assignment. Journals are not “graded” in a traditional sense; rather, they are an extended conversation between us about your thoughts and experiences. Completed journals are weighted for 10% of your final grade.

Journal 1 - First Impressions - DUE: Sunday, January 22
Describe the classroom and the interactions you see between teachers and children. What are your first impressions? Include at least one specific conversation you find notable, and explain your choice.

Journal 2 - Open Topic - DUE: Sunday, February 19

Journal 3 - Relationships and Guidance - DUE: Sunday, February 26
Describe how the teachers talk with the children. How do the teachers use strategies such as prompting, modeling, and encouragement to engage children in learning? Have you tried using those strategies?

Journal 4 - Open Topic - DUE: Sunday, April 2

Suggested Journal Prompts

For the “open topic” journals, you may write about anything relevant to the course and your observations. To assist your thinking, you may wish to consider the following prompts.

Approaches to Education: What elements of the Reggio Emilia approach do you see, both in the environment and in the teachers’ actions?
Goals for Early Childhood Education: *What do you think the goals are of the Arlitt program? What can you tell about the curriculum? What are your thoughts about the responsibilities of a program for young children’s care, education, and school readiness?*

Child Development: *What do you see in the classroom - materials, activities, interactions - that addresses children’s different developmental domains? How do children and teachers interact with each other and with the materials? What do you think is meant by “development of the whole child”?*

Documentation and Assessment: *What are the teachers doing to capture children’s progress? Why do you think they approach documentation and assessment in these ways? (You may want to ask them questions, especially if you do not have the opportunity to observe documentation while you are there.)*

Play: *Where and when do you children play in this classroom? Describe how children play with materials and with other children. Discuss how children’s social and emotional development is fostered in the classroom.*

Environment and Curriculum: *Write about an area in the classroom where you observed the plans for learning and the children engaged with the materials and/or adults. How are the space and the curriculum created to be accessed from multiple developmental levels?*
Appendix E: Reflection Assignment

Assignment description:
You will write a final reflection about your experience in the course. You are expected to use your journals and weekly note sheets to reflect on what you have learned and how your thinking has developed over the course of the semester. You will be provided evaluation criteria, and class time will be dedicated to discussing your experiences. The grade earned will be weighted for 10% of your total semester grade.

Evaluation criteria:
Content (6 points)
- Thoughtfully reflects on how thinking has developed over the course of the semester
- Cites specific observations from Arlitt or class experiences that have pushed thinking
- Considers areas for future exploration and growth as you continue education coursework and field experiences (or, if you do not plan to major in education, how this learning may be relevant to future experiences)

Writing and Presentation (4 points)
- Well-written, clear response with logical flow of ideas, appropriate word usage, and sentence structure
- Well-organized and incorporates appropriate organizational components such as headings, sound paragraph structure, use of indentation and spacing
- Submitted on time with minimal spelling and/or technical errors

TOTAL SCORE ____/10
Appendix F: Feedback & Mindset Questionnaire

1. This questionnaire asks you to respond to scenarios about children in learning situations. It also gathers information on your opinions about intelligence, performance, learning, effort, and challenges. There are no wrong answers; please answer honestly and say what you believe.

2. Before we begin, please answer a few questions about yourself.

3. First and last name:

4. Age:
   - Under 18 (1)
   - 18 (2)
   - 19 (3)
   - 20 (4)
   - 21 (5)
   - 22 (6)
   - 23-24 (7)
   - 25 and above (8)

5. Class status:
   - Freshman (1)
   - Sophomore (2)
   - Junior (3)
   - Senior (4)
   - Other (5) ____________________

6. What is your major (and minor, if applicable)?

7. What other education courses have you taken previously or are you taking currently?

8. What previous experience do you have working with young children?

9. This part of the questionnaire asks you to respond to scenarios about children in learning situations. Read each scenario and type something you might say in response. Please write the exact words you might say, rather than a description. (For example, "Hi!" rather than "I would greet her.")
10. Aaron, who has mastered simple addition, has tried hard but made several errors on a more difficult challenge. What might you say to Aaron in response?

11. Brooke, who easily completes simple puzzles, has given up on a more challenging puzzle. What might you say to Brooke in response?

12. Charlie, who is practicing letter-sound correspondence, has written his name for you: CHRLE. What might you say to Charlie in response?

13. Daphne, who finds fine motor activities challenging, has successfully tied her shoes for the first time. What might you say to Daphne in response?

14. Ethan, who reads many words already, reads you an alphabet book. What might you say to Ethan in response?

15. Frances, who is enthusiastic about building, shows you her block structure. What might you say to Frances in response?

16. Thanks! Now you will return to those same scenarios and read other possible responses. Please rate each response from highly unadvisable to highly advisable. There are four responses for each scenario.

17. Aaron, who has mastered simple addition, has tried hard but made several errors on a more difficult challenge. Response: It's ok!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

18. Aaron, who has mastered simple addition, has tried hard but made several errors on a more difficult challenge. Response: Don't worry. Not everyone is great at math!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

19. Aaron, who has mastered simple addition, has tried hard but made several errors on a more difficult challenge. Response: You are trying really hard. I admire your effort!
   a. Terrible (1)
   b. Poor (2)
20. Aaron, who has mastered simple addition, has tried hard but made several errors on a more difficult challenge. Response: Mistakes are part of the process. Let's take a closer look!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

21. Brooke, who easily completes simple puzzles, has given up on a more challenging puzzle. Response: That's all right!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

22. Brooke, who easily completes simple puzzles, has given up on a more challenging puzzle. Response: You're good at puzzles. I bet you can do it!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

23. Brooke, who easily completes simple puzzles, has given up on a more challenging puzzle. Response: You've got part already! How did you find those pieces?
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

24. Brooke, who easily completes simple puzzles, has given up on a more challenging puzzle. Response: You're working on a more challenging puzzle! Need some help?
   a. Terrible (1)
   b. Poor (2)
25. Charlie, who is practicing letter-sound correspondence, has written his name for you: CHRLE. Response: Good job!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

26. Charlie, who is practicing letter-sound correspondence, has written his name for you: CHRLE. Response: You're such a good writer!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

27. Charlie, who is practicing letter-sound correspondence, has written his name for you: CHRLE. Response: You've really been working on writing your name!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

28. Charlie, who is practicing letter-sound correspondence, has written his name for you: CHRLE. Response: I can read your name! Can you tell me which letters you wrote?
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

29. Daphne, who finds fine motor activities challenging, has successfully tied her shoes for the first time. Response: That's great!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
30. Daphne, who finds fine motor activities challenging, has successfully tied her shoes for the first time. 
   Response: You're so good at tying your shoes!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

31. Daphne, who finds fine motor activities challenging, has successfully tied her shoes for the first time. 
   Response: You kept trying, and now you can do it all by yourself!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

32. Daphne, who finds fine motor activities challenging, has successfully tied her shoes for the first time. 
   Response: You looped the ears and pulled, and now they're tied!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

33. Ethan, who reads many words already, reads you an alphabet book. 
   Response: Great job!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

34. Ethan, who reads many words already, reads you an alphabet book. 
   Response: You must be a great reader!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)
35. Ethan, who reads many words already, reads you an alphabet book. Response: Your reading is improving every day! Are you ready for a book with a few more words?
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

36. Ethan, who reads many words already, reads you an alphabet book. Response: You recognized all your letters!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

37. Frances, who is enthusiastic about building, shows you her block structure. Response: What a great block tower!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

38. Frances, who is enthusiastic about building, shows you her block structure. Response: You must be a great builder!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

39. Frances, who is enthusiastic about building, shows you her block structure. Response: You put a lot of effort into making that!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)
40. Frances, who is enthusiastic about building, shows you her block structure. Response:
   You stabilized the bottom so you could build it even taller!
   a. Terrible (1)
   b. Poor (2)
   c. Average (3)
   d. Good (4)
   e. Excellent (5)

41. Almost there! The final part of this questionnaire gathers information on your opinions about intelligence, performance, learning, effort, and challenges. Answer honestly and say what you believe. There are eight statements for you to rate.

42. Read each statement, decide how much you agree or disagree with the statement, and select your answer (Disagree a lot, disagree, disagree a little, agree a little, agree, agree a lot).
   a. No matter how much intelligence you have, you can always change it a great deal.
   b. You can learn new things, but you cannot really change your basic level of intelligence.
   c. I like my work best when it makes me think hard.
   d. I like my work best when I can do it really well without too much trouble.
   e. I like work that I’ll learn from even if I make a lot of mistakes.
   f. I like my work best when I can do it perfectly without any mistakes.
   g. When something is hard, it just makes me want to work more on it, not less.
   h. To tell the truth, when I work hard, it makes me feel as though I’m not very smart.
## Appendix G: Coding Scheme

<table>
<thead>
<tr>
<th>Code</th>
<th>Sub-code</th>
<th>Definition</th>
<th>Notes</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Generic</strong></td>
<td>Generic</td>
<td>Generic praise or generic consolations.</td>
<td>Distinguished from other codes when statement does not, for example, name a process or emotion. *Can be a generic evaluation of a product (rather than a process).</td>
<td>Great job. Way to go! You did it. It’s ok. *That’s a great block structure.</td>
</tr>
<tr>
<td>Trait</td>
<td>Trait</td>
<td>Indication of an implicit/static trait or ability.</td>
<td></td>
<td>You’re good at math. You’re so smart. You’re so good at puzzles. You’re a good reader. You have a talent for building.</td>
</tr>
<tr>
<td>Effort</td>
<td>Affirm-Evaluative</td>
<td>Acknowledge child’s effort with evaluation</td>
<td>Time = effort</td>
<td>Keep up the good work! I like how long you’ve worked.</td>
</tr>
<tr>
<td></td>
<td>Affirm-Nonevaluative</td>
<td>Acknowledge/describe child’s effort without evaluation</td>
<td>Time = effort</td>
<td>You’re working hard. You’ve spent a long time on this.</td>
</tr>
<tr>
<td></td>
<td>Autonomy</td>
<td>Acknowledge an autonomous accomplishment or attempt.</td>
<td>“Yourself” defaults to autonomy code. Dual code with the appropriate process code.</td>
<td>You tied your shoes all by yourself!</td>
</tr>
<tr>
<td></td>
<td>Close</td>
<td>Expression about proximity to success, usually to encourage.</td>
<td></td>
<td>You’re so close!</td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td>Acknowledge how the child is experiencing the task, or providing perspective about how the task might be experienced.</td>
<td></td>
<td>I see you’re struggling. I know you’re having difficulty. It’s okay to make mistakes.</td>
</tr>
<tr>
<td></td>
<td>Task attribute</td>
<td>Describe attributes of the task that may affect a learner’s approach or experience.</td>
<td></td>
<td>This more challenging work can be kind of tricky. These problems are harder.</td>
</tr>
<tr>
<td></td>
<td>Try again/harder</td>
<td>Encouraging sustained or increased effort.</td>
<td>*Can be dual-coded when a different process is suggested “again”</td>
<td>With more practice…</td>
</tr>
</tbody>
</table>
| **Take time** | Commenting on the time it takes to develop a skill. | Can be abstract or a specific recommendation. *Can be dual-coded with, for example, confidence. | Sound it out again.*
<p>| Take your time. It took time for you to learn [skill]. *If you take your time, you’ll be able to. |
| <strong>More challenge (general)</strong> | Encouraging a learner to increase the level of difficulty or challenge. |  | Let’s challenge ourselves! |
| <strong>More challenge (specific)</strong> | Encouraging a learner to increase the level of difficulty of challenge for a specific task. | From Ethan scenario—e.g., words or sentences. *Often dual-coded with “Process\Progress” | *Now let’s try a book that has some harder words in it. |
| <strong>Too easy</strong> | Suggesting a task is too easy or not sufficiently challenging for a learner’s level. | Specific to Ethan scenario. | That book seems too easy for you. |
| <strong>Interrogative</strong> | A question, or a statement that functions as a question, about effort exerted. |  | Why are you giving up? Why did you stop working? |
| <strong>Process</strong> | Names a general process, but not a specific aspect of the process. Describes but does not evaluate child’s activity. | You just tied your shoes! You read the book! |
| <strong>Nonspecific-Nonevaluative</strong> | Distinguished from “generic praise” by naming the process. Evaluates the child’s activity. | You did a great job tying your shoes! Great reading! |
| <strong>Nonspecific-Evaluative</strong> | “I see” or “It looks like” often indicate this code. | I can read your name! You used letters for all the sounds! You read all the letters! You used both laces to tie your shoes! |
| <strong>Specific-Nonevaluative</strong> | Names a specific aspect of the process. Describes but does not evaluate the child’s activity. | Evaluation can be of quality (e.g., “very well”) or indicate adult’s opinion (e.g., “I like how…”). | You are getting so good at sounding out words. I love how you stacked the blocks up so they won’t fall. |
| <strong>Specific-Evaluative</strong> | | | |</p>
<table>
<thead>
<tr>
<th>Correction</th>
<th>Indicates an error in the child’s work and makes a correction.</th>
<th>*Can be dual-coded with “Other\Assistance”</th>
<th>It is spelled CHARLIE. You’re missing something.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate</td>
<td>Offer to demonstrate or re-teach the process.</td>
<td></td>
<td>Let me show you an example. I’ll show you the steps.</td>
</tr>
<tr>
<td>Fix Mistakes</td>
<td>Suggestion to find and correct errors, or find the source of the trouble.</td>
<td>*Often dual-coded with “Other\Assistance”</td>
<td>*Let’s go back and see what mistakes you made. *Why don’t you show me what step you’re struggling with. *Let’s see where you made a mistake. *I think there are some letters missing; why don’t we try to find them.</td>
</tr>
<tr>
<td>General</td>
<td>Alludes to general processes, but does not name a specific strategy.</td>
<td>*Often dual-coded with, for example, “Other\Assistance”</td>
<td>*Let’s work on this. *Let’s take a closer look. *I will solve one, and then you can. *Let’s break this down.</td>
</tr>
<tr>
<td>Interrogative</td>
<td>A question, or a statement that functions as a question, about processes.</td>
<td>*Often dual-coded, for example with “Other\Assistance”</td>
<td>*How about you show me the first step? *Do you want to work on it together?</td>
</tr>
<tr>
<td>Progress</td>
<td>Acknowledges previous progress on similar tasks or the task at hand, or suggests readiness for the next challenge.</td>
<td>Distinguished from trait-based praise when learning is implied rather than a static ability.</td>
<td>Look how far you’ve come! You were so close. You’ve been doing good on simple addition. You’ve mastered the other problems.</td>
</tr>
<tr>
<td>Review</td>
<td>Suggests reviewing as a strategy, or encourages the child to reflect on prior success.</td>
<td></td>
<td>Let’s go back and work on skills… Let’s go back and review. You finished this other puzzle all by yourself.</td>
</tr>
<tr>
<td>Specific Strategy</td>
<td>Suggests a specific strategy to tackle the problem (or alludes to suggesting a specific strategy).</td>
<td>“Sound it out” from Ethan scenario falls here. *Can be dual-coded with, for example, “Other\Assistance”</td>
<td>*Let’s break this down into simple addition. Start with the easier problems and gradually build up; use your fingers to count. Maybe try this method?</td>
</tr>
<tr>
<td>Extension</td>
<td>Shifts the conversation to activity beyond the task at hand.</td>
<td>Have her try other fine motor activities. What do you want to build now? Should we look up more buildings online?</td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Assistance</td>
<td>Offers assistance to the child. “Let’s” defaults to assistance code, unless clearly irrelevant. Can be hands-on or more removed. *Often accompanies other codes (e.g., process codes).</td>
<td></td>
</tr>
<tr>
<td>Confidence</td>
<td>Expressions of confidence in the child’s ability to be successful in the task. *Can be dual-coded, for example, with process or effort</td>
<td>You’ll get the hang of it in no time. I know you can do it! *I know you can figure them out.</td>
<td></td>
</tr>
<tr>
<td>Emotion</td>
<td>Attention to emotional experiences or reactions. Can be of the child or the adult. Sub-codes include: defeat, excitement, frustration, patience, and pride.</td>
<td>Don’t worry. I can see that you’re frustrated. I am so excited for you! You should be proud of yourself. I am so proud of you!</td>
<td></td>
</tr>
<tr>
<td>Interrogative</td>
<td>A question, or a statement that functions as a question, about something other than effort or process.</td>
<td>Are you stuck? What is making you so upset? Did you build that?</td>
<td></td>
</tr>
<tr>
<td>Incentive</td>
<td>Offering an extrinsic incentive or reward for a task.</td>
<td>Offer her an incentive … to help motivate her. Give her a sticker because she succeeded on one of her challenges.</td>
<td></td>
</tr>
</tbody>
</table>