Chapter 15
"Struggling Learner"…or Struggling Teacher?: Questions Surrounding Teacher Development for Multimodal Language, Literacy, and Learning

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Abstract When a child falls short of teachers' perceptions of achievement, the label "struggling" is often applied and solutions are sought to address the young learner's "deficiencies." In this chapter, attention is focused upon teachers' perceptions of the learner and the factors that contribute to these assessments. Viewing these concerns through selected critical lenses: twenty-first-century learning, social justice concerns, and pedagogical content knowledge, I argue that teachers' negative perceptions of children's achievement may be attributed, in part, to teacher education's failure to prepare teachers who are literate in multiple modalities. As drawing, painting, and other visual arts experiences are common to most early childhood classrooms and as visual texts are critical to twenty-first-century learning, I focus my critique on early childhood teacher preparation and development in visual arts practice and pedagogy. Specifically, common "theories-in-use" regarding children's visual texts ("art") are examined, and the question is posed: *does teacher education adequately prepare early childhood professionals with the substantive arts learning needed to support young children in multimodal language, literacy, and learning?* Inverting the problem frame to position the adult as "struggling," rather than the child, I suggest structures for critical review of early childhood teacher education programs and practices.

Keywords "Struggling learner" • Teacher education • Assessment • Deficit labeling • Social justice • Twenty-first-century learning • Multimodal • Espoused theories • Theories-in-use • Making meaning • Children's art • Arts pedagogy

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Revisiting the Metaphor of "Seeing Hats"

> "Is it a hill?" "Maybe…a snail?" "…melting ice cream?" "A hat?" Like the grown-ups who Antoine de Saint Exupéry (1943/1971) describes at the start of his classic tale, *The Little Prince*, my students (early childhood and elementary education majors) fail to decipher the image that I have scanned from the book and projected on the screen. I shake my head, feigning a hint of professorial concern at their inability to understand the child's drawing, "Oh, my! It appears that we have some work ahead of us!" (Narey, 2009, p. 230)

In the 2009 edition of *Making Meaning*, I described my use of a metaphor drawn from de Saint-Exupéry's popular tale: adults often see assumptions (hats) instead of children's actual capacities and achievements (such as a child's visual inquiries of how boa constrictors digest elephants). My ongoing use of the activity, wherein I ask my adult learners to identify the child's illustration in de Saint-Exupéry's (1943/1971) *Little Prince*, has been a provocative way to introduce the construct of making meaning. The activity challenges my adult learners' notions of children's "art" as we deconstruct the events: the child narrator's encounter with the "magnificent picture in a book… of a boa constrictor swallowing an animal" (p. 3); followed by the child's deep pondering of the text that leads him to wonder how a boa constrictor might digest a *really* huge creature; next, his drawing to figure out how this might look and desire to share the awesomeness of the phenomenon he has depicted with the grown-ups, asking if "the drawing frightened them" (p. 4); and, finally, the grown-ups' responses to the child's image (e.g., why should they be frightened by a hat?). During this activity, I explicitly draw out a crucial insight: the adults in de Saint-Exupéry's story fail to recognize the child's drawing as the visual traces of his critical thinking and meaning making, and they dismiss his drawing as irrelevant to "more serious" studies.

In essence, this story is a metaphor for the problem that we face in early childhood teacher education: a large majority of our early childhood education community maintains assumptions about art, language, literacy, and learning, and these unexamined beliefs greatly influence decisions they make about, and for, children. As I pose the question, "struggling learner"…or "struggling teacher?" I revisit the metaphor to ask all adults who work with young children, and particularly those who are responsible for teacher education, to consider whether their perspectives embrace children's visual inquiries into such phenomena as "boa constrictors digesting elephants," or are they indicative of a culture wherein adults only see hats?

Rush to Deficit Labeling

Within our monomodally focused educational culture, there are teachers, teacher educators, administrators, researchers, and other adults who rarely take the time to look past their uninformed perceptions of children's visual productions and interpretations. Rather, these adults make judgments and label young children's abilities based upon narrow verbal paradigms that dismiss other forms of knowing. Too frequently, children who do not meet these adults' expectations are labeled "struggling

learners." The adults then rush to correct the child's proclaimed deficit, rather than take the time to look beyond the perceived deficiency to discover the children's multimodal capacities and strengths – abilities that might surpass adults' expectations for twenty-first-century knowledge and skills, but remain unrecognized because they do not conform to narrow perspectives for achievement within the favored modality. As Osterman and Kottkamp (2004) point out in their broader discussion of teacher reflection:

> …we make assumptions about what we observed, often without further discussion with others and with no attempt to confirm our interpretations. From these observations, we draw conclusions that affirm our assumptions. The actions we finally take, the decisions we make, reflect these conclusions. In brief, we see the world as we want to see it and act accordingly…As a result, the assumptions that we draw may not be accurate, and the decisions that we make may be flawed. (p. 30)

"Struggling" Teacher, Administrator, and Teacher Educator?

In this chapter, I seek to address this label, "struggling learner," which is often applied to children who do not appear to meet verbocentric standards of achievement by drawing attention to the adults who use this designation and to the assumptions or "common-theories-in-use" (Narey, 2009) that promote adults' (mis)labeling of learners. Challenging the supposition that it is children who "struggle," I flip the problem frame to suggest that it may be the adults: teachers, administrators, teacher educators, and others, who are "struggling" due to their lack of substantive pedagogical and practical preparation for multimodal learning. Specifically, within the focus of this volume, I concentrate on production and interpretation of visual textual forms. Citing the critical role of teacher education to twenty-first-century learning, and acknowledging adults' long embedded assumptions about teaching derived from their 12 years in traditional classrooms (Dede, 2010), I purposely situate my critique in the context of teacher education to ask: *does teacher education adequately prepare early childhood professionals with the substantive arts learning needed to support young children in multimodal language, literacy, and learning?*

The Questionable Practice of Labeling Learners as "Struggling"

> Every teacher must…by regarding every imperfection in the pupil's comprehension, not as a defect of the pupil, but as a defect of his own instruction, and endeavor to develop in himself the ability of discovering new method…" (Tolstoy, 1967, p. 58)

As Tolstoy argues, if a child is not meeting expectations, we must look at the teaching and not assume that there is a "defect" in the learner. Yet, within the literature and, for some of us, within our own professional or personal experiences, we discover numerous accounts of children being labeled as deficient within teaching frameworks that privilege verbal modalities.

The concern for deficit labeling of children based upon monomodally derived assessment criteria is not new. Over 20 years ago, Janet Olson (1992) found that many students who are assigned to special education as "learning disabled" are visual learners who "do not respond to the traditional verbal approach to learning" (p. 114). Olson further noted the prevalence of boys and students of color among those labeled as "struggling." Millard and Marsh (2001) cite similar findings, reporting that their research shows that boys experience more difficulty with a verbocentric curriculum than their female peers. They argue that the way to improve performance is to understand and respond to differences in modes of learning. Other researchers concur (Bearne, 2006; Fletcher, 2006), and some (Burke & Dunn, 2002; Gay, 2000) argue that instruction that is congruent with the multimodal backgrounds of students of color results in significant learning gains. All children benefit from a broader perspective (Hanafin, Shevlin, & Flynn, 2002; Johnson, 2003) and when schools adopt curricula and assessment practices that include attention to children's nonverbal strengths, "those youth who experience substantial success are the very ones who've been labeled 'struggling reader' or 'learning disabled'" (Siegel, 2006, p. 73). It is important to underscore here that these labeled children did not suddenly change, but rather, the adults' perspectives of language and literacy changed, and thus, so did the adults' perceptions of the children's achievement.

When adults make efforts to understand children's multimodal capacities, the focus is on learning, rather than remediation, on a child, rather than a deficit. Yet, despite more recent calls for broader perspectives of literacy by numerous scholars (see Harste, 2014; Janks, 2013; Siegel, 2012), and classic writings by educational theorists like Dewey and Eisner, teacher education programs typically perpetuate a verbocentric perspective that positions the child as "struggling," when in reality, it may be that it is the teacher, administrator, or ultimately, as I posit in this chapter, the teacher educator, who "struggles" with literacy in visual, or other modes.

Defining a Problem Frame

Eisner (1994) points out that those of us who enter the field of education "have had years to internalize a set of expectations regarding what teachers do and what schools are like" (p. 6); therefore, "the most difficult task for educators may very well be relinquishing the yellow school bus mentality that conceives of both the purposes and the forms of schooling in terms conditioned by familiar and comfortable traditions" (p. 69). Dan Lortie (1975) refers to this phenomenon as "the apprenticeship of observation" (p. 61). Seemingly, it can also be a phenomenon applied to teacher education, wherein teacher educators also teach the way they were taught within their postgraduate contexts of university courses. Further, externally driven demands for accountability in pre-K through higher education have become entangled within the grids of all educators' personal belief systems and, along with multiple other individual and societal factors, serve to complicate a definition of a specific problem frame for dealing with the deficit labeling of children who do not meet some adults' verbocentric notions of achievement.

Without denying the complexities or importance of the numerous individual and societal influences on teaching, I propose that the problem of addressing verbocentric measures of achievement can be defined within teacher education. The context of preservice and in-service teacher development is a logical and accessible locus for reflection upon the pedagogy and practices that inevitably lead to the educational decisions made for young children in early learning settings across the globe. By focusing the problem within the pedagogy and practices of teacher education, we can begin to examine how to interrupt the culture of deficit labeling of children that has emerged from monomodally based assessment criteria, by setting up structures for critical review of teacher education program goals, juxtaposed against the reality of teacher education practices. As preservice and in-service teacher development programs engage in these reflective reviews, most likely they will uncover evidence of the "yellow school bus mentality" operating within their programs. As teacher educators, we need to attempt to "make sense," to make meaning, of the texts of our interactions with preservice and practicing teachers, just as we ask these adult learners to make sense of their interactions with children (Narey, 2009). In the next section, I detail some contradictions that are commonly revealed in reflections on teacher education practices.

Goals, Commonly Espoused Beliefs, and Theories-in-Use

Most teacher education program goals are fashioned in response to accreditation standards put forth by professional and/or governmental regulatory bodies. For instance, as pointed out in a National Association for the Education of Young Children (NAEYC) (2009) position statement, a "large majority of programs at all degree levels (72–77 %) relied heavily on NAEYC standards to guide program quality and improvement work" (p. 9). As teacher educators, we must integrate established program goals with our own professional beliefs and values. Notwithstanding the infinite variables this takes into account as each of us develops our practice within the diverse contexts in which we work, when we engage in critical reflection, we must not only be aware of contradictions between these program goals and our own personal beliefs and values but also develop a consciousness of potential differences between our espoused beliefs and our theories-in-use (Narey, 2008, 2009). As Argyris and Schön contend:

> When someone is asked how he would behave under certain circumstances, the answer he usually gives is his espoused theory of action for that situation. This is the theory of action to which he gives allegiance, and which, upon request, he communicates to others. However, the theory that actually governs his actions is this theory-in-use. (Argyris & Schön, 1974, pp. 6–7)

What we say we believe can sometimes be quite different than what we actually do in practice. Therefore, a first step in reflection for teacher educators may be to question whether there is alignment among goals, espoused beliefs, and theories-in-use (Fig. 15.1). This new consciousness can facilitate needed changes to advance the quality of our practice as we engage in the work of critical reflection (see Osterman

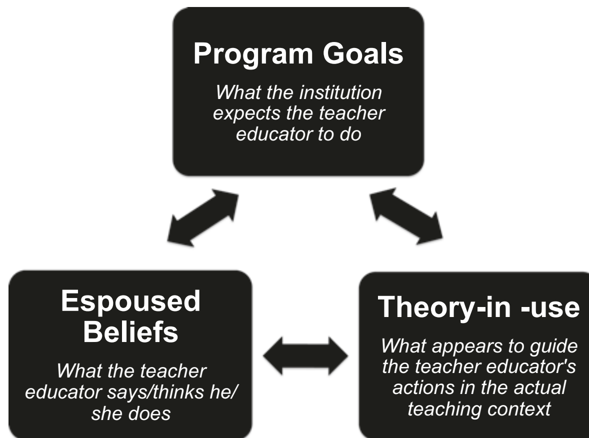

Fig. 15.1 Proposed first step for teacher educator reflection: critically analyze alignment of goals, espoused beliefs, and theories-in-use

& Kottkamp, 2004; Savaya & Gardner, 2012; Schon, 1983, 1987; van Manen, 1977) to observe contradictions among program goals, our espoused beliefs (theories of action), and our theories-in-use.

A Proposed Structure for Reflection

In the next two sections, I highlight commonly observed contradictions among goals, espoused beliefs, and theories-in-use that emerge across teacher education contexts. These illustrations extend my previous discussions of common theories-in-use regarding "art" (Narey, 2009) as I draw attention to frequently held misperceptions of children's visual text production (art-making). For the purpose of framing my argument within key areas of early childhood teacher education, I have selected two overarching problem frames to organize and critique frequently encountered misperceptions. The first is focused on misperceptions that imply a perceived hierarchy of learning modes and the second frame is centered on misperceptions that exacerbate problematic uses of assessment.

Following the initial step of looking at the three broad areas for alignment (goals, espoused beliefs, and theories-in-use) within these selected frames, we can then select, and apply, additional critical lenses to further inform our analysis of our teaching. From within the current educational discourse, numerous issues emerge as important spheres in which to situate this further reflection. Teacher educators may choose from among these multiple concerns for critiquing multimodality in their pedagogies. For this chapter, I focus on several critical concerns that I believe are particularly relevant to this discussion of teacher education's preparation of multi-

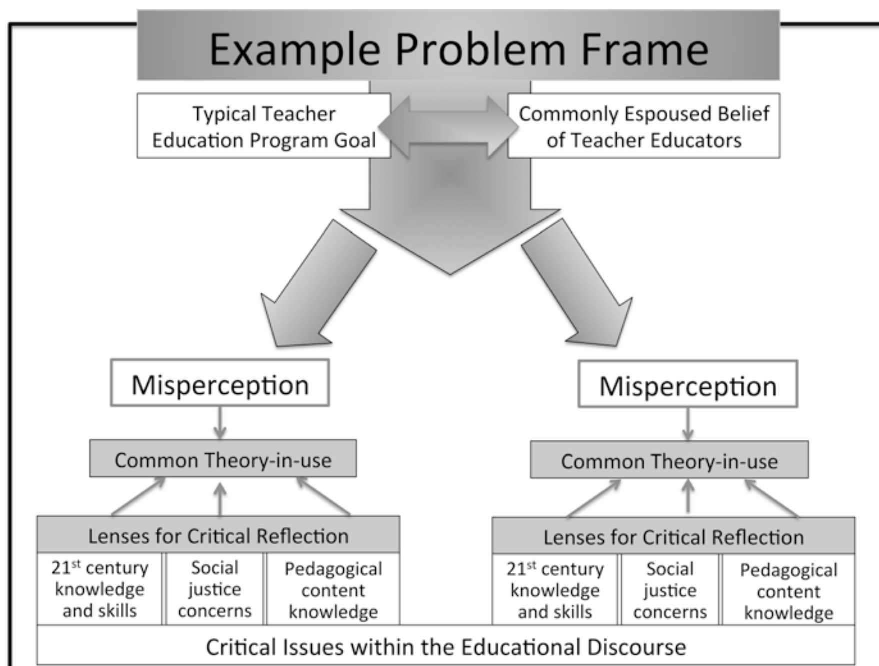

Fig. 15.2 Structure for section examples showing the next step for teacher educator critical reflection

literate practitioners for visual modes: twenty-first-century knowledge and skills, social justice concerns, and pedagogical content knowledge.

The next sections will focus on the two selected overarching problem frames: (1) hierarchy of learning modes and (2) problematic uses of assessment. Within each of these, I list typical program goals and typical espoused theories. Then, I reveal how educators' common misperceptions contradict broadly accepted concerns in the current discourse: twenty-first-century learning, social justice, and pedagogical content knowledge. Through this analytic structure for further reflection (graphically explained in Fig. 15.2), I model examples of how teacher educators can critically view their practices and begin to answer the question: *does my course/program adequately prepare early childhood teachers with the substantive arts learning needed to support young children in multimodal language, literacy, and learning?*

Problem Frame: A Perceived Hierarchy of Learning Modes

Typical Teacher Education Program Goal: *Promote understanding of theory, research, and practice in child development for learning across domains and content areas.*

Commonly Espoused Belief of the Teacher Educator: "It is important to provide early childhood practitioners with a foundation in the interrelated areas of children's development in physical, cognitive, social, emotional, language, and aesthetic domains, so that they can prepare appropriate experiences across the trajectory of developmental levels."

As suggested with this example of a typical teacher education program goal, most early childhood programs put forth targeted outcomes that underscore the importance of teaching child development for learning. Teacher educators, if asked to explain their beliefs in this area, will usually restate their institutions' program goals. As proposed in this sample of a commonly espoused belief, most will espouse the importance of providing a foundation in development across all domains. Yet, from a reflective multimodal standpoint, we often observe that the teacher educator's "theories-in-use" do not include this substantive attention to all domains, but rather, as demonstrated in the following discussions, seem to convey a perceived hierarchy of learning modes. Within this first overarching problem frame, three common misperceptions about development in visual learning modes might be revealed when analyzed in a critical review of teacher education practices. These misperceptions are *art-making is about feeling, not thinking; drawing is a precursor of writing;* and *children should be left alone to create.*

Misperception: "Art-Making" Is About Feeling, Not Thinking

Despite espousing the conviction that early childhood teachers need a strong foundation in current theory and research across all domains of child development in each subject area, critical reflection upon actual teacher education practices can reveal a theory-in-use that seems to ignore art as an important development area.

Common Theory-in-Use

Verbal forms of literacy are highly valued within the context of early childhood teacher education programs, with more course time devoted to reading-oriented subject matter than is provided to visual literacy. Children's development in visual modes of learning seems to be valued primarily as physical, emotional, or aesthetic development: teacher educators typically do not convey that learning in visual modes is also equally critical to children's development in cognitive, language, or social domains. Further, cognitive, language, and social development appear to be afforded "higher status" than other domains. Thus, rather than enacting the typically espoused belief (i.e., *it is important to provide a foundation in the interrelated areas of children's development*), the teacher educator's common theory-in-use seems to be that art requires little thought, and, as such, it is promoted merely as an occasional opportunity for children's expression of feelings.

Theorist, John Dewey's (1934/1980) position on art and intelligence counters this common assumption that art is merely expression of emotion without thought:

> Any idea that ignores the necessary role of intelligence in production of works of art is based upon identification of thinking with use of one special kind of material, verbal signs and words. To think effectively in terms of relations of qualities is as severe a demand upon thought as to think in terms of symbols, verbal and mathematical. Indeed, since words are easily manipulated in mechanical ways, the production of a work of genuine art probably demands more intelligence than does most of the so-called thinking that goes on among those who pride themselves on being "intellectuals." (p. 46)

Yet, theoretical perspectives like Dewey's appear to be absent from many teacher educators' theories-in-use. Even though many teacher educators praise Reggio Emilia, few seem to recognize Dewey's constructivist ideas of *art as cognition* within the world-renowned Reggio approach to early childhood education (e.g., Lindsay, 2015). Further, the volumes of current research that underscore the critical thinking, problem solving, and decision-making that is brought about through children's visual text production have not yet broken through old assumptions about art. As we move forward to reflect more deeply on this common theory-in-use, we discover further concerns by viewing it through the lenses of twenty-first-century learning, social justice, and pedagogical content knowledge.

Lens for Reflection: Twenty-First-Century Knowledge and Skills

Recent educational discourse continues to be rife with calls for twenty-first-century learning that prepares students for an uncertain, ever-changing future. "Education is now about the preparation of students for new ways of thinking: ways that involve creativity, critical analysis, problem solving and decision-making" (Griffin & Care, 2015, p. vii.). In line with these new ways of thinking, Eisner (1994) posits, "Intellectual life is characterized by the absence of certainty, by the inclination to see things from more than one angle, by the thrill of the search more than the closure of the find" (p. 71). Emphasizing that these are qualities inherent to work in the arts, Eisner contends that schools actually lead students away from the intellectual life by ignoring the arts. Rudolf Arnheim (1969/1997) explains further, "Thinking requires more than the formation and assignment of concepts. It calls for the unraveling of relations, for the disclosure of elusive structure. Image-making serves to make sense of the world" (p. 257). Karen Gallas (1994) extends the views of these theorists with her observations of art as metacognition, "… arts become a way of thinking about thinking…this way is very natural and accessible to children. The process and dynamics of the art experience best capture the way children make their world sensible from very early years on" (p. 116).

Although the push for twenty-first-century learning in the current educational discourse often translates superficially into a press for digital tools and technology, what children actually need is this creativity, critical analysis, problem solving, and decision-making promoted by multimodal literacy and visual language development. Children's development across all domains of development is critical and teacher educators who privilege some forms of development over others or fail to acknowledge visual modes of learning as important means of cognitive as well as affective development are failing to prepare teachers for twenty-first-century classrooms.

Lens for Reflection: Social Justice Concerns

When teacher educators acknowledge that visual text production and interpretation are critical cognitive capacities that require development, the time afforded to arts education manifests as a significant social justice concern. Contrasted with Finland, a country that has an education system "widely acknowledged as one of the best in the world" (National Center on Education and the Economy (NCEE), 2015), the United States demonstrates a rather poor showing in arts education.

As Bamford (2009) notes, in Finland, "arts education account for 80 % of the teaching time" (p. 60), with all subjects being taught through the arts, as well as visual arts taught, individually, as a specific discipline (Ketovuori, 2011). Yet, in the United States, minimal, if any, time is allotted to art, particularly in schools serving children in minority groups or from low-income families. As reported by the US Government Accountability Office (US GAO) (2009), "schools identified as needing improvement and those with higher percentages of minority students were more likely to report a reduction in time spent on the arts."

Zahira Torres and Ryan Menezes (2015) comment on the massive reduction of public school arts programs all over the United States and blame the narrow focus on subjects that are measured on standardized tests as a major factor. Even in California, which is among the states with the strongest policies promoting arts education, Torres and Menezes report that there has been a significant decline. Citing a *Los Angeles Times* analysis of L.A. Unified School District's data, they point out that poorer neighborhoods in Los Angeles have experienced the greatest loss in arts programming despite the district's long-standing efforts to close gaps between affluent and economically disadvantaged groups.

Teacher educators concerned with social justice must consider the significance of policies that work to diminish development in visual modes of learning. Teacher educators, who recognize the wrongness of such theories-in-use and who come to acknowledge that art *is* about thinking, will understand that children who are denied opportunities to learn in visual modes are not just being deprived of a "fun activity," or "break from rigorous subjects," but rather, these children are being prevented access to the critical cognitive development that arts learning affords.

In a similar vein, children assumed to be low achieving are sometimes purposely given "arts"-type activities because it is assumed that these are "easier" than activities planned for higher-achieving students. This practice is equally unjust, not only for the "low-achieving learner" who may or may not have developed arts-related abilities but also for children who are perceived to be "high achievers." Both of these groups, indeed, *all* children must be provided with equitable instruction that develops cognitive capacities through visual learning modes.

Lens for Reflection: Pedagogical Content Knowledge

Generally, early childhood teacher educators lack substantive training in art pedagogy. Thus, when they address children's development in visual modes, many perpetuate mindless arts experiences like "directed production" of class projects (e.g., in the United States, orange construction paper jack-o-lanterns or tissue and pipe

cleaner butterflies). Within the teacher educator's theory-in-use, the primary value of such "art" activities is that they are exercises in following directions or practicing fine motor skills. In other instances, teacher educators often endorse "art" activities focused on feelings and encourage future teachers to allow children to express emotions in finger paint or clay. Rarely is art promoted as a means of thinking. Yet, as this chapter's opening story suggests, children's critical thinking and making sense of the world often come about through visual modes.

Examples of coursework for teacher preparation for primary grade instruction (ages 5–9 years) are offered in the first edition of *Making Meaning* (Narey, 2009). Explanation of how adults can promote development of very young (ages 2–4 years) children is detailed in Chap. 1 (Narey, this volume). Here, I discuss another example to highlight the kinds of the thinking involved in children's drawings. In this image (Fig. 15.3), Daniel intentionally mixes plane and elevation: drawing the top view of the table and the cake so that viewers would know that the cake was on the table. However, he draws the candles from a frontal view to show that there were four: one for each year. Knowing that tables are surfaces supported by legs attached to corners, he illustrates this understanding. He also wants to show two important activities that he expects to occur due to our conversations about our small family celebration: following family custom, as the person celebrating the birthday, he would be cutting the first piece of his cake, and, after this, he would receive presents. Daniel draws the cake knife in his right hand and he makes a present in the other. Like his other drawings of persons during this stage of development, he notes distinct parts on his figure: a portion above what appears to be a waist and a shape below and heavy marks depicting shoulders, hands, and feet. He then copies letters from a poster and adds some watercolor paint to important items. Like most other children during this stage of development, Daniel is unconcerned about adult concepts of linear perspective to produce a "representational artistic image." Rather, Daniel draws his cognitive understandings of his world and himself.

Throughout the chapters in this volume, and in the first edition, authors demonstrate this kind of children's thinking along with descriptions of how adults promote

Fig. 15.3 Daniel's drawing of anticipated events for his birthday celebration (age 4 years)

and support such development. Unfortunately, this understanding of children's "art" as cognition often is not the early childhood pedagogical knowledge that teacher educators address despite their espousing a belief that endorses a children's development across all domains of learning.

Misperception: Drawing Is a Precursor to Writing

Notwithstanding some early childhood educators' recognition of emergent literacy (i.e., reading and writing behaviors that precede formal literacy training), most have not reenvisioned their notions of literacy as multimodal (Siegel, 2006). Thus, not only is visual language and literacy development diminished or distorted by the previously discussed misperception regarding art and thinking, development in visual modes is also misrepresented to be merely an early phase of verbal literacy.

Common Theory-in-Use

Many teacher educators present drawing as an early stage on a verbal literacy continuum. Thus, while these teacher educators appear to value children's drawings as important, it is only as a means to a preferred verbal end. Implying a nonexistent hierarchy of development, they make the assertion: "Drawing is a precursor to writing." Frequently cited statements from Vygotsky's (1978) final chapter of *Mind in Society* have likely contributed to this common theory-in-use, yet a close reading of Vygotsky's work challenges interpretations that frame drawing as a phase through which children pass and then abandon on their way to becoming writers. In his criticism of school practices, it is clear that Vygotsky is concerned with meaning making, as he establishes the contextual frame for his subsequent statements regarding drawing and writing:

> The teaching of writing has been conceived in narrowly practical terms. Children are taught to trace out letters and make words out of them, but they are not taught written language. The mechanics of reading what is written are so emphasized that they overshadow written language as such. (p. 105)

Thus, when he discusses "drawing as a preliminary stage in the development of written language" (p. 112), he is referring to the child's developmental progression that includes the discovery that his/her marks signify something (as I described in my account of Daniel's pirate ship drawing in Chap. 1 of this volume). Further reading of Vygotsky's chapter ensures that he does not see drawing as a "lesser" capacity. Although one statement might appear to connote a hierarchical view: "We are fully justified in seeing the first precursor of future writing in this mnemotechnic stage" (p. 115), closer reading reveals that while keywords, "precursor," and "writing" are noted in this quote, the "mnemotechnic stage" is a trajectory that is parallel to, but distinct from, drawing. This mnemotechnic stage reference actually emerges from Vygotsky's description of a 1930s study conducted by Luria in which children were told to remember a number of phrases that exceeded their anticipated memory

and encouraged to make marks to assist their recall. Therefore, it is not drawing, but rather, these mnemotechnic symbols, which Vygotsky proposes to be the "precursor to writing."

Lens for Reflection: Twenty-First-Century Knowledge and Skills

In general, texts in the twenty-first century are highly visual: meaning is carried as much through images as it is through words. Therefore, teachers' perspectives of language and literacy development must take into account the images found in both print (e.g., newspapers, magazines, advertisements) and nonprint textual forms (e.g., film, video, and Internet websites). "As educators we need to determine the specific features of reading that occur and that are needed for the synchronous functioning of the modes of print, image, movement, colour, gesture, 3D objects, music and sound on a digital screen" (Walsh, 2006, p. 36). Broad communication abilities are important to twenty-first-century learning (Scott, 2015) and visual modes should not be abandoned in the early years.

Lens for Reflection: Social Justice Concerns

Children's production and interpretation of visual texts are essential literacy practices complete in their own right. When teacher educators perpetuate the notion of children's drawing as a precursor to writing, they devalue visual textual forms as vital modes of communication (Coates & Coates, 2006), both individually and within the larger context of society. This is significant to discussions of social justice in terms of:

- Children's access to development in, and use of, all modes of communication
- Issues of bias in terms of assessment of children's achievement and deficit labeling (discussed previously in this chapter)
- Children's preparation for informed participation in a democratic society through development of critical literacy

Falchi, Axelrod, and Genishi (2014) reveal how this misperception, *drawing is a precursor to writing*, plays out in a discussion of their 5-year ethnographic research investigation of multilingual children in early childhood classrooms. They describe the tight regulation of early learning in many schools in low-income neighborhoods across the United States as:

> constrained in terms of their multilingual and multimodal literacy practices. Where a dominant discourse (spoken or written English and particular academic literacies) is the only acceptable one, children and teachers are heavily monitored for their adherence to these curricular approaches… Students who are seen as being "at risk" are then marginalized through intervention services that separate them from their classroom communities and target particular skills, ignoring other areas of development. (p. 346)

The authors point out that, although children's drawings and other visual texts are included in the curriculum, "they are not typically valued, discussed or privileged.

Children are not able to spend too much time on them, and they are not what really 'counts' as literate practices" (p. 361).

A further social justice concern for education is the need to prepare children for full participation in our democratic societies; thus, critical literacy becomes an important issue. Within our construct of twenty-first-century literacy, the scope of critical literacy must include visual textual forms. Terry Barrett (2003) points out that even though kindergarten children are typically unable to read the verbal text on cereal box samples, they are highly capable of attending to the connotations of the visual features in the design, and understand that manufacturers attempt to persuade them to want the cereal. Noting that even 3- and 4-year-olds have this capacity when teachers provide appropriate learning opportunities, Barrett underscores the importance of developing critical literacy:

> Learners of all ages can successfully decipher the many messages circulating in the images and objects of visual culture if given the opportunities and some strategies… Images and objects present opinions as if they were truth, reinforce attitudes, and confirm or deny beliefs and values. If the messages carried by visual culture are not interpreted, we will be unwittingly buying, wearing, promoting, and otherwise consuming opinions with which we may or may not agree. (p. 12)

Lens for Reflection: Pedagogical Content Knowledge

Notwithstanding that Marie Clay's (1966) important research in emergent literacy expanded the literacy lens for early childhood; teacher education has distorted the value of children's visual production with this erroneous notion that drawing is merely a precursor to writing. Anning (1999) offers a glimpse of how this misperception looks in a preschool classroom as she describes how a child's teacher wrote the words, "A bumble bee," for him to copy alongside his drawing:

> The message to the child is clear. The expressive nature of his drawing of a bee does not count for much. The adult knows better. She demonstrates her superiority by showing him the symbolic form of the words for a bumble bee. It would be an unusual act for an adult to respond to a child's drawing by drawing an image themselves. Thus 'dialogues' on paper between the adults and the children, even in the relatively informal setting of a pre-school, demonstrates that drawing is not to be taken seriously by the adult as a communicative act. (p. 166)

When teacher educators hold to the misperception that drawing is a precursor to writing, they appear to dismiss any responsibility for developing pedagogical content knowledge in visual art. They abandon understanding of visual textural production by the wayside and go on to focus numerous teacher education courses on developing children's verbal skills. This results in leaving early childhood practitioners with no understanding of how to plan appropriate arts experiences.

Misperception: Children Should Be Left Alone to Create

Often the arts are promoted as "self-expression," which many teacher educators mistakenly translate as allowing children free time in the art center—assuming (incorrectly) that the children's artistic modalities will advance on their own.

Common Theory-in-Use

Holding to the image of an artist in a lonely garret, many teacher educators think of art as a solitary endeavor. This belief is reinforced by textbooks that admonish teachers to not interfere in the child's art-making, but merely provide an abundance of materials and leave the child alone to create (Kindler, 1996). This hands-off position even extends to sheltering children from adult artwork for fear of frustrating children unable to create at the adult level (Beetlestone, 1998). Further, some even prevent children from assisting each other (Kindler, 1996).

Lens for Reflection: Twenty-First-Century Knowledge and Skills

As the New London Group (1996) projected, literacy in the twenty-first century:

> must account for the burgeoning variety of text forms associated with information and multimedia technologies. This includes understanding the competent control of representational forms that are becoming increasingly significant in the overall communications environment.... (p. 61)

Beyond this need to develop children's competencies in visual forms of communication, twenty-first-century learning also requires visual competencies for problem-solving capacities that are enhanced when learners engage in creative collaboration (Brooks, this volume; Scott, 2015). Yet, "teachers rarely model drawing as a tool for problem solving, so children are unaware of its potential for helping them to learn" (Anning, 1999, p. 171). If a teacher educator's theory-in-use perpetuates a "hands-off" position toward art that discourages early childhood professionals from seeing children's work in visual modes as problem-solving and collaboration, ironically, they are missing an opportunity to support the twenty-first-century skills they purport to endorse.

Lens for Reflection: Social Justice Concerns

Abdicating responsibility to teach children by leaving them to develop visual arts competencies on their own has long-term effects on their social futures. As the New London Group (1996) contends, "… literacy pedagogy has to change if it is to be relevant to the new demands of working life, if it is to provide all students with access to fulfilling employment" (p. 66). Multimodal communication, critical

thinking, problem solving, and collaboration are more frequently observed in well-designed art learning than in a typical reading or math lesson, yet early childhood teachers are generally not given the tools to prepare children in these twenty-first-century skills through visual modes. Thus, essentially, children who do not have opportunities to develop these skills outside of their classrooms will significantly be left behind. Art is not just for those whose families can afford to pay for privately run classes: art learning is the right of all children, just like reading or math. We need teachers, and teacher educators, to provide that learning. We can no longer accept that it is permissible to leave children to figure it out on their own.

Lens for Reflection: Pedagogical Content Knowledge

Rather than advocating a hands-off approach to children's art learning, many scholars and researchers insist that teacher interaction, guidance, and instruction are essential (Frisch, 2006; McArdle, 2012; Thompson, 1997). As the wealth of examples from children attending the schools of Reggio Emilia (Edwards, Gandini, & Forman, 1998) and other multimodal learning spaces demonstrates, when teachers interact with children and respond to their interests and ideas with thoughtful planning and support, children are capable of sustained and exceptionally complex artistic work. In these art-based learning spaces, children work in collaboration with teachers and peers to generate, critique, and build upon ideas (see, for example, Rolling, this volume). Unlike the mindless-messing-with-materials stereotype of free expression embraced by many classroom teachers, the many examples in this volume show how very young children may achieve sophisticated levels of meaning making and underscore the need for teachers to take an active role in children's art learning.

Problem Frame: Problematic Uses of Assessment

Typical Teacher Education Program Goal: Ensure that early childhood teachers understand the goals, benefits, and uses of assessment.

Commonly Espoused Theory of the Teacher Educator: "I believe that early childhood teachers must have understanding of thoughtful, appreciative, systematic observation and documentation of each child's unique qualities, strengths, and needs, and the ability to interpret assessment results, with the goal of obtaining valid, useful information to inform practice and decision-making."

This chapter is grounded in the argument that teacher education does not provide early childhood educators with an adequate understanding of arts pedagogy, and much has already been discussed regarding the negative results of labeling children based upon monomodally based verbal assessments. In this section, I now focus on assessment of children's art to refute the misperception: *process is more important than product as there are no right answers in art*.

Misperception: Process Is More Important Than Product, Whatever Children Do in Art Is OK: There Is No Right Way

In a culture that is predicated on knowing the correct answers, art seems to be the one area that many teacher educators believe has no right answer. While this may be valid to the extent that there is no *one right way*, there are frequently many answers in art that are decidedly *better* than others. This becomes clear when art is viewed as problem solving: there are many possible responses to a problem, and some responses will be more effective than others based upon the desired purpose and the variables involved. However, as has been pointed out in the previous section, teacher educators do not acknowledge art as problem solving; thus, they frequently convey the unfounded notion that in children’s art, *process is more important than product because there are no right answers in art.*

Yet, adults do make assessments of children’s art products. For instance, when I show examples from a kindergarten (Fig. 15.4) in my professional development courses, many adults (teacher educators and teachers) typically attribute the detailed drawing on the left to a more “advanced” child artist. As they apply adult standards of artistic production to the drawings, they view the one on the right with “stick figure” forms and scribbled background as completed by a child who was less skilled. Most agree that the work on the left is more likely to be selected to be hung in school hallways for visitors to view. My adult learners are usually quite surprised to learn that both drawings were actually created by the same child, who drew the

Fig. 15.4 Two drawings completed in a kindergarten classroom

detailed work on the left at the beginning of the school year and the stick figures at the end of the year. Some even wonder what might have caused a perceived "regression" in the child's artistic skill.

The two drawings are additional samples from Daniel's portfolio that was introduced in Chap. 1 (Narey, this volume). I bring these images into the discussion here to underscore that product *and* process are important to assessment of visual production and interpretation. Visual products (drawings, paintings, dioramas) are permanent data that can be revisited and viewed in the context of development of bodies of work over time. Products serve as tangible evidence of the creator's thought process as well as his/her physical process in developing the work that can serve as a basis for the dialogue necessary for assessment.

In Daniel's case, the two drawings were created in school, so I was not engaged in his physical process of making; however, through our dialogue, I learned much about his thinking. The first drawing of a boy is his response to his teacher's assignment to draw a portrait of his table partner. Daniel described the various details of hair color and clothing that he had observed and carefully recorded in his drawing. The second drawing, created at the end of the school year, is his "favorite thing he did in kindergarten." He explained that he liked going to the gymnasium to play "Duck, Duck, Goose." In the picture, he drew his class sitting in a circle on the varnished wood gym floor, legs extended and heads down with one child walking around the outside deciding who to tap on the back as they played the game.

As with assessments in all areas of performance, it is important to understand development over time and, in context, but also, to be aware of the purpose and thinking behind the product. Rather than base assessment of these drawings on criteria of realistic (adult) representation, we must rather look at the child's equally successful communication of his intended purpose in both drawings.

Common Theory-in-Use

In early childhood methods courses, teacher educators often extol the value of "process over product" when discussing children's art. Yet, typically, they do not teach the future early childhood teachers how to assess either the child's process *or* the product, and when viewing children's drawings, they often appear to maintain adult standards with an underlying assessment of "artistic talent." Thus, when the child who is struggling to make a drawing "look right" initiates a request for help, a common response from the early childhood teacher is the same as learned in their teacher education classes: "just do your best, you can't really make a mistake in art," and those children who are successful at figuring it out on their own are designated "class artist," with the success attributed to the child's innate talent.

Lens for Reflection: Twenty-First-Century Knowledge and Skills

Process and product are both important, but only to the extent each contributes to achieving the intended purpose of the work. When children are taught to review their art products to examine, assess, and reflect upon purpose in relation to the

process and product, they gain important critical thinking skills. Scott (2015) notes that critical thinking is fundamental to twenty-first-century learning with the emphasis on developing children's "ability to examine, analyse, interpret and evaluate evidence" (p. 4) as learners grow to become adults in a complex, rapidly changing world. "Today's citizens need to be able to compare evidence, evaluate competing proposals and make responsible decisions" (p. 4). The common mind-set of a "right answer" (in numerous school subject areas), versus "no right answer" (as attributed to art), is not only a misperception; it is antithetical to intellectual life in general, and twenty-first-century learning, specifically. In all subject areas, students need to learn to seek, select from, and know how to invent best answers to problems based upon understanding of purpose and variables involved.

Lens for Reflection: Social Justice Issues

Children's work in art, as in any other subject area, requires diagnostic and formative assessment in order to appropriately determine the teaching strategies that the child needs for further development. Critique is not about criticizing or prescribing but about facilitating dialogue regarding the artist's intent and the viewers' interpretations (Barrett, 1997). Essentially, this type of critique, in dialogue with the learner, is at the heart of teaching children the critical literacy skills that they will need throughout their lives, not only to achieve high quality in their own work but also to discern and critically respond to images and media. To analytically respond to the child's work with worthwhile formative feedback is not a devaluation of the work, or the child, but rather is the teacher's responsibility as much as analyzing (along with the learner) the child's reasoning to determine his/her difficulty in solving a math problem, understanding a scientific concept, or deconstructing an article to discern a point of view.

Lens for Reflection: Pedagogical Content Knowledge

Children are capable of thoughtful critique and gain valuable understandings from self and peer assessments. Teacher educators must model these assessments for their adult learners. In the first edition of *Making Meaning*, I described an "Art to Inform" unit that focused upon observational drawing and that modeled self and peer critique strategies (Narey, 2009, pp. 240–245) and incorporated "conversational pedagogy" (Eckhoff, 2013, p. 366). One of my preservice teachers, Ashley, applied this to her work in a second-grade classroom. I documented this work on a slide (Fig. 15.5) for follow-up university class discussion. On the left, we see the drawing produced by Tyler, after a lesson Ashley taught on observational drawing strategies that had utilized photographs of animals as references. As a next step of the lesson, Ashley taught the students how to peer critique using the work sheet and strategies I had modeled in our university course. Tyler's classmate, Ryan,

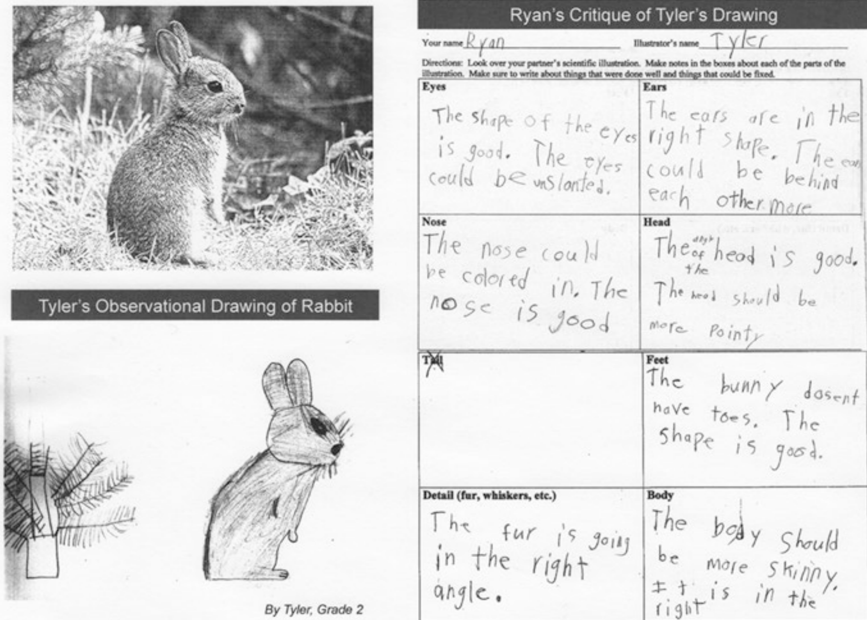

Fig. 15.5 Author's PowerPoint slide showing artifacts from Ms. Patete's practicum teaching lesson in a second-grade classroom on observational drawing and peer assessment

completed the work sheet critique to assist Tyler in assessing his drawing by carefully examining and evaluating how closely the drawing matched the photograph.

As evidenced by Ryan's comments, he is able to demonstrate thoughtful analysis as he assists his classmate with valuable feedback on the drawing. For instance, Ryan compares Tyler's drawing of the rabbit's eye to the photograph, suggesting that in the drawing the eye should be drawn at less of a slant (i.e., "The eyes could be unslanted."). He also notes that in the photograph, one ear partially overlaps the other and suggests, "The ear could be behind the other more."

As this example demonstrates, teacher educators can provide early childhood professionals with understandings of meaningful assessment that result in valuable learning, rather than perpetuate the common misperception that there are "no right answers in art." Although this example illustrates assessment of a child's representational work, assessments can be designed for nonrepresentational work as well, as teachers and children learn to focus on how process and product relate to purpose (see Narey, 2009).

Adequate Practical and Pedagogical Preparation?

Reflecting upon her early research in multimodality, respected literacy scholar, Marjorie Siegel (2012), comes to a critical realization:

> aside from inviting each student to talk about their sketch, I do nothing to draw out Lisa's understanding of multimodal design or engage her and the rest of the group in reflective talk about her sign making. Instead, I make what is a common response to multimodal designs, that is, to look past the multimodal choices to the meanings represented. (p. 677)

As I pointed out in the introductory chapter to this volume, even advocates of multimodality may engage in practices that do not demonstrate the full potential of multimodal language, literacy, and learning. Siegel draws attention to the need for teachers to engage learners in reflective talk about the multimodal decision-making underlying their meaning making. She notes that, while this aspect was missing from her early interactions with learners, many literacy researchers who are practicing artists (see, e.g., Jerome Harste, 2014) do engage in this multimodal reflective talk.

Multimodal meaning making is not just about having children draw, read, talk, write, or use other modes to communicate an idea. Rather, the creative exploration of that idea must be part of the meaning making: who is producing and who is interpreting, and for what purpose? What choices (e.g., textual form, medium, style) are available to communicate the idea, and what alternative ways might these be interpreted? In order to engage children in this reflective multimodal meaning making work, teachers, themselves, must be able to "read" and "write" across many modes. Line, color, compositional layout, and numerous other elements of visual texts contribute to the meaning intended by the producer and interpreted by the audience of the work. As underscored in this volume, visual modes figure prominently in early childhood and twenty-first-century learning. Therefore, teacher education must adequately prepare early childhood teachers to support and promote multimodal language, literacy, and learning by offering substantive visual arts pedagogy needed for this visual production and interpretation.

Unfortunately, although we see outstanding examples in Finland and a few other nations, generally, there seems to be a lack of substantive visual arts pedagogy in teacher education programs across the globe. Further, in a transnational study of preservice early childhood teachers, Russell-Bowie (2010) found that most sampled students entered university teacher education programs with minimal background in the arts. It should not be surprising, then, that a large portion of early childhood teachers, who usually have taken only one art methods course in their teacher education program, feel inadequate when they are confronted with the expectation to include art in their curriculum (Thompson, 1997).

"Without knowing about the past and the future (the precursors to children's current development and learning and the trajectory they will follow in later years), teachers cannot design effective learning opportunities within their specific professional assignment" (NAEYC, 2009, p. 4). As this chapter's review of commonly observed teacher education practices suggests, we must reconsider how we are preparing early childhood professionals (or not) in visual modes. In our efforts to

prepare teachers for educating all children in our twenty-first-century world, we must provide the necessary background in visual arts learning that will support the teacher's ability to look beyond verbocentric standards of achievement in order to see and acknowledge children's multimodal capacities: we must work to create a culture wherein adults no longer "struggle" to see boa constrictors digesting elephants instead of hats.

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