The word ‘mediation’ in our daily lives has different connotations for different people in different contexts. Some may automatically comprehend it in the sense of a third-party arbiter brought in to reconcile differences, whether it be a professional brought in to settle a legal dispute or a caregiver brought in to settle a squabble between siblings. Our use of mediation is not as an everyday concept but rather as an academic concept, which we detail in this chapter as the foundation for our concept of responsive mediation. From our Vygotskian sociocultural stance, mediation is key in the development of higher mental processes of all humans. In this chapter, we articulate the pivotal and complicated role of mediation in the development of higher mental processes, especially in terms of L2 teacher development. Beginning with Vygotsky, we trace how mediation is conceptualized within a sociocultural theoretical perspective. We then follow with how various Vygotskian scholars have interpreted mediation and extended it for psychological and educational applications. We offer responsive mediation as playing a crucial role in exploiting the potential of what Vygotsky called symbolic tools—social interaction, artifacts, and concepts—to enable teachers to appropriate them as psychological tools in learning-to-teach and ultimately in directing their teaching activity.

Mediation: The central concept in Vygotsky’s theory of the mind

To start, Vygotsky argued that the relationship between the world and humans is indirect, that is, mediated. This relationship is typically represented in Vygotsky’s (1978) triadic model connecting sign, tool, and mediated activity (adapted from p. 54) (Figure 2.1).
Humans do not act directly with or on the world but use culturally and historically molded physical tools that expand their physical abilities and thus enable them to change the conditions in which they live. In short, physical tools are externally oriented to shape the material world. For example, using a mortar and pestle in certain cultures and time periods enabled cooks to transform ingredients and thus transform cuisine in the process, while food processors in other cultures and time periods have shortened the time needed to transform ingredients. Whether using a mortar and pestle or a food processor, something will be gained, perhaps time, while something may be lost, perhaps texture or taste. Humans also have the unique capacity to use psychological tools, such as literacy, to mediate their thinking and activities that likewise expand their mental processes, transforming themselves and their activity in the process. Psychological tools, or signs, have also been historically and culturally shaped, passed on, and adapted by successive generations in response to individual and community needs, but they are internally oriented to shape cognitive development. As such, psychological tools represent unique cultural manifestations of artifacts and activities, concepts and social relations, or mediational means.

Within Vygotskian sociocultural theory, how we learn to use these psychological tools to develop our higher mental processes—to transform ourselves—is explained through the role of mediation. Children learn to use these tools in and through sustained social interaction with adults, first on the social plane (external or interpsychological) and later on the mental plane (internal or intrapsychological) plane as the child begins to self-regulate. Adults use verbal tools initially in joint activity, which has a clear purpose (goal-directed activities), as a way to regulate, or mediate, the child’s behavior. Children appropriate these tools and begin to use them in the form of egocentric (private) speech to organize, or plan, direct, and evaluate, their own behavior. For example, children may initially tell themselves ‘hot’ when near a stove, as their caregivers have done, to deter any impulse to touch it. Children likewise regulate others’ behavior (social speech), for example when a child tells a caregiver to ‘get the ball.’ As children master verbal tools, these tools gradually become internalized, transforming into inner speech through which children regulate their own mental functioning and activity. This ongoing process of transformation from the external to the internal, resulting in new forms of cognition, is what Vygotsky expressed as internalization.

Teacher educators need to engage teachers in appropriate practices of L2 teacher education, and in the context of engaging in these practices, expose them to the psychological tools needed for successful performance of these activities, with the
goal of developing L2 teacher/teaching expertise. Psychological tools grounded in the sociocultural histories of language teaching/teacher education mediate teachers’ mental processes. Teachers are not born with these psychological tools, nor do they need to discover or reinvent these tools themselves. Instead, psychological tools should be presented explicitly to teachers through theoretical learning. This is precisely what L2 teacher education programs are supposed to do. Teacher educators who work in these programs have already internalized the psychological tools they use to enact theoretically and pedagogically sound instructional practices. To make these psychological tools available to novice teachers, teacher educators first need to externalize them. That is, they need to present them to teachers as external signs through moment-to-moment and at-a-distance dialogic interactions.

The child and adult (or teacher and teacher educator) will inevitably have different motives as they engage in joint activity. Thought does not exist in itself but is “engendered by motivation, i.e., by our desires and needs, our interests and emotions” (Vygotsky, 1986, p. 252). Although learners engage in activity with their own motives, part of what more expert others do is promote the development of new motives through mediation. The new motive “always ripens under the umbrella of the person’s current motive, that is, within his or her current activity” (Karpov, 2014, p. 28). For example, a teacher’s motive in writing a reflection journal may be to meet a requirement of a course. Alongside that teacher’s motive, the teacher educator may mediate that activity through written comments and questions intended to encourage a new motive—journal writing as self-inquiry to promote the development of teacher/teaching expertise. Thus, within the joint activity of L2 teacher education, teacher educators must have a clear sense of their own motives, try to elicit what teachers’ motives are, and work to promote new motives in teacher activity when necessary. The process of doing this is demanding for teacher educators, so we hope the case studies of teachers engaged in learning-to-teach that follow (Chapters 5–9) provide some insights.

**Mediational means: Artifacts and activities, concepts and social relations**

Mediational means have widespread, value-laden social and ideological implications. Researchers have shown how literacy, as a psychological tool, is multifaceted, with different practices that embody different values and goals for different social groups (Brice Heath, 1983; Scribner & Cole, 1981). The literacy of formal schooling, established and valued as normative by certain groups, confers power to those groups while disempowering other groups enacting different literacy practices (Brice Heath, 1983; Scollon, 2001). Additionally, although these tools facilitate certain actions, they simultaneously restrict them (Scollon, 2001), exemplified by the mortar and pestle and food processor comparison. A more relevant example for L2 teacher education would be that while using a lesson plan provides affordances for a beginning teacher in terms of sequencing a considerable
amount of information and activity within a lesson, it may constrain the teacher’s classroom teaching, so that finishing the lesson as planned becomes the goal itself. Though Vygotsky discussed these mediational means, within the domain of child cognitive development, they are implicated in all human cognitive development, and for our purposes, the development of L2 teacher/teaching expertise.

Cultural artifacts and activities, as mediational means, appear to be simple concepts but are in fact multifaceted. Language has been singled out as the most powerful cultural artifact that transforms, or mediates, mental functioning, allowing humans to perform increasingly complex activities. Artifacts can be symbolic, such as language, as well as concrete, such as the physical object of a videotape of a teacher teaching. Artifacts have an ideal-material quality in human activity “that are not only incorporated into the activity, but are constitutive of it” (Lantolf & Thorne, 2006, p. 62). For example, a lesson plan is ideal in a teacher’s conceptualization of it in the mind and representation on paper, but then becomes material both as a physical copy of it written out and then enacted in the classroom. For a teacher, the physicality and sociality of a lesson plan interact, but its sociality, or how it is used to organize the activities of instruction, shapes how the lesson plays out in the actual class. Humans are unique in that they can create a mental plan, symbolically through speaking or writing, of their physical activity before they engage in that activity (Ilyenkov, 1977). The phrase ‘lesson plan’ is ideal and material as well in that we have a conceptual understanding of its meaning, but it has a material sense in how it is represented in terms of the alphabetic or phonetic system of English.

Concepts, both everyday and academic, as detailed in Chapter 1, also mediate the ongoing process of internalization. As we know, Vygotsky envisioned that learning involved a dialectic between everyday concepts, subconscious, empirical knowledge that may actually be incorrect or misinformed, and academic concepts, more systematic and generalized knowledge that is the purview of school learning. For Vygotsky, it is only through explicit and systematic instruction that learners will transcend their everyday experiences and reach a deeper understanding of and control over the object of study (true concepts). Conceptual development emerges over time, depending on the affordances and constraints of the learning environment and learner agency. According to Lantolf and Thorne (2006), “human agency appears once we integrate cultural artifacts and concepts into our mental and material activity” (p. 63). In L2 teacher education, teacher educators mediate teacher’s cognition through academic concepts so they become psychological tools that teachers use to enact their agency and regulate their mental and material activity of teaching in locally appropriate, theoretically and pedagogically sound instructional practices for their students and contexts.

Social relations, or human mediation, are also important in terms of how the adult’s involvement with the child in joint activity promotes internalization. From the time children are born, they participate in different culturally specified activities and relations that are part of their historical legacy and are involved in dialogic interactions with caregivers who use language to regulate the child.
Though language is important in human mediation, “the construction of meaning is regulated (or mediated) by social relationships” (Moll, 2014, p. 33). The social in relations is not only the dialogic interactions between child and adult, but the longstanding historical and sociocultural inheritance that shapes the interaction. In L2 teacher education, we view the social relations between the teacher educator and teacher as functioning as a powerful and demanding form of mediation. The specific forms of human mediation used will no doubt differ depending on the goal-directed activities in which teachers and teacher educators are engaged, as well as the institutional settings in which that mediation is embedded.

The zone of proximal development: An arena of learner potentiality

The transformation of mental processes from the external to the internal through the introduction of verbal tools into activity emphasizes “qualitative rather than quantitative increments” (Wertsch, 2007, p. 179), and is intimately tied to the child’s relationship to the environment. Environment does not mean a description of the features in the context in which the child is situated but that the child’s mental–personal is always in relation to the material–social. Vygotsky sought to explain the basis of qualitative change through the notion of the social situation of development: “The social situation of development represents the initial moment for all dynamic changes that occur in development during the given period” (Vygotsky, 1998, p. 198). Within such a critical period, a contradiction emerges between what the child can actually do, the child’s emotional–affective needs, and emerging mental formations. Vygotsky proposed that children go through varied stages in their development characterized by dialectical interaction of stable and critical periods initiated by a contradiction. The unity of the contradiction indicates that the mental–personal has been transformed, as has the material–social, so that the child has a new relation to the environment. As teacher educators, we believe L2 teacher education programs represent a similar sort of critical period in teachers’ professional development. Just as Vygotsky proposed critical periods as times of qualitative transformation in children’s development (i.e., the introduction of literacy through formal schooling), thus causing a restructuring of social relations (i.e., being asked reading comprehension questions by the teacher), L2 teacher education programs are often a period of tremendous emotional/cognitive dissonance. Students are repositioned as teachers, everyday concepts about teachers and teaching (i.e., the apprenticeship of observation) are reconceptualized through academic concepts (i.e., theoretical learning), new identities, meanings, and ways of being emerge, and teachers form new perezhivanie about their experiences. It is a time during which human mediation, as we illustrate in Chapters 5–9, is absolutely critical in cultivating teachers’ professional development.

Given Vygotsky’s notions of the social situation of development, critical periods, and the development of higher mental processes as mediated, beginning as
joint activity in which the tool is externalized for a child by a caregiver, it follows that the child’s independent use of a psychological tool will naturally lag behind the use of the tool with assistance. Vygotsky’s innovation is that he conceptually framed this distance between a learner’s level of independent performance and the level of assisted performance as the *zone of proximal development* (ZPD):

The zone of proximal development of the child is the distance between his actual development, determined with the help of independently solved tasks, and the level of the potential development of the child, determined with the help of tasks solved by the child under the guidance of adults and in cooperation with his more intelligent partners. (1933/1935, p. 42)

The ZPD offers an alternative conception of instruction and cognitive development than the underlying conventional schooling practices where instruction follows development. In other words, a child is assumed to be at a certain level of development and then instruction focuses on content considered appropriate for that level. For Vygotsky (1986) however, correctly organized instruction “marches ahead of development and leads it,” focusing on “ripening” mental processes (p. 188). This is possible through Vygotsky’s conception of the ZPD as a metaphoric space of potentiality. In order to understand the causes, characteristics, and forces surrounding a child’s social situation of development, Chaiklin (1993) suggests that Vygotsky intended the ZPD as a diagnostic tool. The ZPD thus has direct implications for assessing what learners need instructionally at any given point in time, and consequently, for how a more expert-other can mediate responsively. Rather than instruction focusing on a learner’s independent activity or what has already been internalized, a learner’s ZPD emerges in and through the activity of assisted performance. Expert-others, such as teachers, observe that assisted performance and then work with learners at the boundaries of their potential, or their ZPD—that is, the level at which they begin to perform only with considerable help from expert-others. Mediation aimed at the upper threshold of a learner’s abilities means that learner frustration is always a possibility, so expert-others should stay attuned to learner affect during ZPD activity as well (Mahn & John-Steiner 2002).

Vygotsky (1987) did discuss ways that more expert-others could observe and mediate learner activity, such as “demonstration, leading questions, and by introducing elements of the task’s solution” (p. 209). More specifically, he describes the expert’s role as showing how a problem could be solved and then seeing if the student could solve the problem through imitation, by beginning to solve the problem and seeing if the student could finish it, by enabling the student to solve the problem through interaction with a more capable other, or by explaining the principle underlying the problem (Vygotsky, 1998, p. 202). Yet, he and many who have taken up sociocultural theory argue that educational applications should not simply focus on identifying exemplary mediation patterns but on ensuring that in whatever interactive activity the child and expert-other are...
engaged, the focus of attention should be on whether the child is able to take part in the activity in ways that could not be done on his/her own and that the interactive activity results in a specific psychological function becoming appropriated by the child (Kozulin, 2003; Mahn, 2003; Wertsch & Stone, 1985). This issue is core to our argument as well; it is not the practices of L2 teacher educators themselves, but what happens inside those practices that enable our teachers to engage in activities that are beyond their current capabilities and have significant consequences for how they begin to think about and enact their teaching.

Furthermore, the ZPD is always rooted in cultural and historical values; that is, people/society have a vision of the end goals of a ZPD, of where development should go (Newman & Holtzman, 1993). The same holds for us as teacher educators involved in L2 teacher education programs. We have a vision of our end goals, of where our teachers’ development should go, although this, of course, will be shaped by the fact that ‘located L2 teacher education’ (Johnson, 2006) is about constructing locally appropriate responses that meet the needs of teachers and teacher educators in the settings and circumstances where they live, learn, and work.

In addition to the collaboration that occurs in the joint activity during the ZPD, Vygotsky (1987) viewed imitation as a major component of developmental activity directed at maturing mental functions. As he noted, it is during collaboration that the child can “move from what he has to what he does not have through imitation” (p. 210). Imitation is not simply verbatim copying of what someone does. Rather, imitation is potentially transformative activity in which a child, having some understanding of the goals and means of the activity, intentionally and creatively tries to reproduce adult performance (Vygotsky, 1988). In sum, children imitate what they are in the process of learning, and imitation “is the chief means by which early childhood human beings are related to as other than and in advance of who they are” (Newman & Holzman, 1993, p. 151).

Play, as Vygotsky (1933/1966) defined it, is also a rich source of higher mental development and creates a zone of proximal development:

In play the child is always behaving beyond his age, above his usual everyday behavior; in play he is, as it were, a head above himself. Play contains in a concentrated form, as in the focus of a magnifying glass, all developmental tendencies; it is as if the child tries to jump above his usual level. The relation of play to development should be compared to the relation between instruction and development . . . Play is a source of development and creates the zone of proximal development. (p. 74)

Vygotsky posited that what children are doing through play, in essence, is working through their understandings of signs and cultural artifacts in ways that initially imitate interactions in which they have participated or observed, a kind of ‘practice’ in a ‘safe zone.’ For example, when a caregiver observes a child playing ‘teacher,’ the caregiver may marvel at the cleverness of the child as he or she uses
grammatically complex and semantically appropriate expressions, for example ‘if you misbehave like that, I’m going to have to put you in a timeout.’ In fact, the child is imitating in his or her play activity what has been experienced in activity with the caregiver. For Vygotsky (1988), both play and imitation are not copying or acting, but complex and transformative processes, a chief means of being in advance of oneself, requiring an ability to understand the minds of others.

Teacher educators thus play a vital role in enacting mediation directed at each teacher’s potentiality during ZPD activity. And it is the quality and character of the mediation that teacher educators provide that is instrumental in understanding and supporting the development of teacher/teaching expertise. Also critical to this process are the structured mediational spaces, or safe zones, where teachers are allowed to ‘play’ at being and becoming teachers, where they can, with assistance, function ahead of themselves as they write about, talk about, and enact teaching activity, advancing their understanding of what it takes to think, talk, and act like an L2 teacher.

A major challenge for teacher educators is to recognize both the lower and upper thresholds of this metaphoric space for each teacher, identifying what a teacher can do in joint activity interacting with peers, and more importantly with expert-others, while accomplishing a task that is beyond his/her abilities. This enables teacher educators to gauge teachers’ potential for development and their capabilities as they are emerging, so that teacher educators relate to teachers in advance of themselves. Subsequently, another challenge for teacher educators is to provide activities in advance of a teacher’s independent functioning but accompanied by supportive interactions. If all goes as planned, teachers will imitate the use of these tools, that is, use them in the same way that teacher educators used them, but this imitation marks only the beginning. Teacher educators need to orchestrate and monitor teachers’ use of these externalized psychological tools until teachers gain increasing control over them. As teachers begin to internalize these external psychological tools, teacher educators can be less and less involved in assisting teachers. Ultimately, teachers move beyond imitation and can independently use these psychological tools to address the challenges they face and/or the instructional problems at hand.

**Vygotskian-informed scholars’ interpretations of mediation**

Van der Veer and Valsiner (1991) argue that Vygotsky’s intellectual work was motivated by a “quest for synthesis” (p. 391), but that quest was thwarted by historical and personal circumstances during his lifetime. The political climate of the Soviet Union that became increasingly perilous during Vygotsky’s life constrained what he could share and how he could share his ideas in writing. Vygotsky’s poor health as a result of suffering from tuberculosis and his early death at 37 meant that his productive work time was relatively short. The incompleteness of his work, as well as its originality, has inspired a profusion of research based on his ideas. In particular, mediation and how it shapes how we come to control our mental worlds has been widely discussed by a range of scholars working within sociocultural...
theory (Cole, 1996; Daniels, 2002; Karpov & Haywood, 1998; Kozulin, 2003; Lantolf & Thorne, 2006; Lantolf & Poehner, 2014; van der Veer & Valsiner, 1991; Wertsch, 1985, 2007). Several interpretations of mediation are relevant when considering how teacher educators can intentionally integrate theoretical learning in the cultural practices of teaching and teacher education.

**Explicit and implicit mediation**

According to Wertsch (2007), Vygotsky expressed two perspectives on mediation in his writing—explicit mediation and implicit mediation. Wertsch argues that the different disciplinary perspectives influencing Vygotsky over the course of his life influenced his conception of and the very language used to explain mediation: explicit mediation is attributed to the discipline of Psychology, and implicit mediation, to poetics/semiotics.

Explicit mediation, what we would associate with formal schooling, has a two-fold nature according to Wertsch (2007). It is explicit in that someone, a teacher for example, intentionally and openly introduces a sign (i.e., meanings) into ongoing activity, and that sign is likewise ongoing and visible (see Chapter 3 for a detailed discussion of Vygotsky’s maxim ‘sign meaning develops’). This type of mediation is evident in Vygotsky’s (1978, 1987) functional method of dual stimulation, in which an artificial stimulus, or sign, is overtly inserted into ongoing activity to study the development of higher mental processes as the object of the activity, as well as to facilitate the organization of it. We can think of this kind of mediation as that which we typically enact in L2 teacher education when we try to engage teachers in appropriate joint practices, and in the process of engaging in these practices, expose them to the psychological tools needed for successful performance of these activities. For example, Johnson & Dellagnelo (2013) exposed a team of teachers to a set of pedagogical tools designed specifically to foster greater student participation and engagement in L2 instruction. The explicit insertion of these tools into how they talked about and enacted their teaching activities assisted the teachers in becoming more fluent users of these tools in their L2 instruction.

Implicit mediation, however, is not “artificially and intentionally introduced into ongoing action” (Wertsch, 2007, p. 189) because, as it typically involves signs (i.e., meanings), it is often part of the communication that is connected to the activity. Wertsch notes that examples of implicit mediation include social and inner speech, which mediate psychological processes. As part of communication, they are less obvious and not purposefully deployed to organize goal-directed activity. Implicit mediation can most certainly be found in teacher/teacher educator dialogic interactions. For example, the way a teacher educator frames how language learners might engage in an instructional activity can mediate how teachers come to understand and enact that activity. As we illustrate in Chapter 7, the teacher educator’s repeated reference to ‘multiple right answers’ not only shaped how the teachers came to understand the theoretical concept they were preparing to teach (parallelism), but also how they eventually taught it.
Wertsch (1985) also developed the concept of strategic mediation, which represents cognitive assistance that moves from implicit to explicit, is responsive to immediate need, and is concerned more with cognitive transformation than behavioral performance. Simply telling a teacher to ‘ask for examples’ might enable her to get through the interactive lecture part of a lesson, but it may not transform the way she thinks about her teaching or how she structures and enacts teaching activity in future lessons. Thus, strategic mediation, for Wertsch, must be minimally intrusive, allowing learners to exert and exhibit as much control over the task as possible. Likewise, assistance must be regulated, for example too much assistance decreases learner agency, while too little increases frustration. Essential to strategic mediation during the ZPD is the notion of intersubjectivity (Wertsch, 1985), defined as “when interlocutors share some aspect of their situation definition” (p. 159). In other words, a learner needs to understand the objects and events in a learning situation from the expert’s point of view in order for their interactions on the external plane to move to the internal.

**Metacognitive and cognitive mediation**

Karpov and Haywood (1998) also argue that Vygotsky expressed two perspectives on mediation in his writing—metacognitive mediation and cognitive mediation. Metacognitive mediation refers to the process through which children develop the semiotic tools to control, or self-regulate, their thinking. This refers to Vygotsky’s idea that we described in the earlier section of this chapter—higher mental processes are mediated by psychological tools, such as language, signs, and symbols that adults teach to children through joint activity.

Cognitive mediation is connected to formal schooling as it refers to the process through which humans develop the psychological tools “necessary for solving subject-domain problems” (Karpov & Haywood, 1998, p. 28). As we wrote in Chapter 1, learners, such as learners of teaching, enter school, or L2 teacher education, with everyday concepts, but can overcome them through the introduction of academic concepts in systematic formal instruction. As learners master academic concepts, they can use them to mediate themselves in relevant problem solving activity. Karpov and Haywood reiterate Vygotsky’s assertion that empty verbalism, simple parroting of the concept, marks the beginning of the development of academic concepts, but note that Vygotsky did not explain how to link these concepts with instructional procedures. However, many of Vygotsky’s followers did just that (see Davydov, 2004; Gal’perin, 1989, 1992; Karpov & Bransford, 1995).

**Mediation as co-regulation during ZPD activity**

Vygotsky’s belief in formal educational activity as the leading activity of development has inspired many Vygotskian scholars to characterize mediation as co-regulation during ZPD activity. Co-regulation, according to Fogel (1991), involves mutual cooperation between mediator and learner so that it is not simply
the mediator who is shaping the nature and direction of their joint activity but also involves how learners respond to, and in some ways regulate, the mediator’s activities. Co-regulation is very much in line with our conceptualization of responsive mediation as being emergent, dynamic, and contingent on the interactions between teachers and teacher educators. In this sense, teachers’ professional development is provoked when they are attempting to accomplish something that they cannot yet accomplish on their own, but they are in fact quite active, in both explicit (i.e., asking for help) and implicit (i.e., expression of negative emotions) ways, in shaping the quality and character of the mediation that emerges during interactions with teacher educators.

In the field of second language acquisition (SLA), Aljaafreh and Lantolf (1994) were the first Vygotskian scholars to conduct an in-depth study of how mediation might function as co-regulation during ZPD activity. In their study of an ESL writing tutor’s meditational moves, they argued that mediation should be attuned to learner development, and therefore, must be graduated, negotiated, and contingent on moment-to-moment changes in learner need. Likewise, mediation should be minimally intrusive, allowing the learner greater opportunities to self-regulate and only becoming more explicit when needed to move forward with the task at hand. Thus, such mediational moves, from implicit to explicit, are contingent on learner responsiveness and continuously negotiated during ZPD activity. In their most recent book, Lantolf and Poehner (2014) argue that viewing mediation as co-regulation during ZPD activity positions mediation “not as a treatment that can be administered to individuals to move them from one level of development to another but rather as interaction that must remain attuned to learner needs and changes in learner contributions over time” (p. 159). We concur, emphasizing the tremendous responsibility placed on mediators, or for us, teacher educators, “in determining how to approach tasks, set goals, select strategies, to optimally involve learners and reformulate plans and actions” (p. 159). This reinforces the import of learner reciprocity (van Der Aalsvoort & Lidz, 2002) and agency in teacher/teacher educator interactions as teachers’ transformation of mental processes is contingent upon teachers taking up for their own purposes what teacher educators offer through mediation.

Given our Vygotskian sociocultural stance, as well as Lantolf and Poehner’s influential work on dynamic assessment (DA) in second language learning, we need to distinguish what we mean by responsive mediation in relation to dynamic assessment, terminology Vygotsky did not use himself. Lantolf and Poehner (2004) define DA as a procedure that integrates assessment and instruction into a seamless, unified activity for simultaneously assessing and promoting learner development through appropriate forms of mediation that are sensitive to the individual’s (or in some cases a group’s) current abilities. In essence, DA is a procedure for simultaneously assessing and promoting development that takes account of the individual’s (or group’s) zone of proximal development (ZPD). (p. 50)
DA is a kind of dialogic cooperation between mediator and learner, with the mediator continually assessing the learner’s understanding in order to determine an appropriate mediational response. Because there is no prescribed script for the mediator to follow, the mediator responds intentionally and spontaneously to the emerging needs of the learner. As we mentioned above, Aljaafreh and Lantolf (1994) propose that the mediator’s assistance in a DA interaction be graduated, moving from implicit to explicit, contingent on a learner’s needs, and dialogic. The goal of DA is “to unify assessment and instruction into a single activity, the goal of which is learner development” (Lantolf & Thorne, 2006, p. 351). In other words, the mediation enables the learner to go beyond the here and now of the task, eventually creating internalized psychological tools that can be used in novel problem solving activities.

Our concept of responsive mediation shares much in common with DA. We believe, however, that the nature of teacher educator mediation of teachers, especially those engaged in the act of teaching, makes enacting Aljaafreh and Lantolf’s (1994) proposal difficult, if not counterproductive, at times. The proposition that mediation moves ideally from implicit to explicit can be impractical given that more often than not, responsive mediation is not possible in the actual activity of teaching. Because we cannot mediate directly during the activity of teaching, mediation often takes place when teachers are preparing for teaching or while reflecting on a lesson after fact. And sometimes such preparation and/or reflection may occur days or even weeks before or after the actual lesson is taught. The mediation that we provide may simply not be taken up as a result at times. Moreover, teacher educators have a limited amount of time to mediate teachers through the array of conceptual, practical, managerial, and interpersonal topics that need to be addressed in L2 teacher education programs. Often we have to mediate teachers in the throes of emotional/cognitive dissonance who still have to wake up the next day and teach a lesson. Without the luxury of time, we have to bolster teachers through other-regulation to enable them to fulfill their basic instructional and ethical responsibilities. Sometimes the most effectual thing we can do for a despairing teacher is to tell her what she could say to achieve a particular objective, or to tell him which kind of activity would help achieve an objective. This suggests, therefore, that the quality and character of responsive mediation in the practices of L2 teacher education will vary depending on the particular practice in which we are engaged and on our teachers’ constellation of emotion, cognition, and activity.

**Human and symbolic mediation**

Kozulin (2003) argues that the agents of mediation in Vygotsky’s writings represent two dimensions: human and symbolic. In human mediation, the focus is on how a child’s involvement in joint activity with an expert-other is consequential for cognitive development; in other words, whether the child is capable of assuming greater responsibility for the activity in the future. In symbolic mediation, the
focus is on how the introduction of symbolic signs, tools, and/or cultural artifacts might bring about change in a child’s performance and ultimately his/her cognition. The distinction between the two, however, is somewhat blurred, as human mediation, or immediate interaction between individuals, typically entails the use of symbolic tools. Building on the example mentioned earlier, a lesson plan has both ideal and material qualities; it is the concrete instantiation of an idealized set of instructional goals and activities. Yet, when a teacher and teacher educator discuss, or co-construct a lesson plan, the teacher educator’s vision of how that lesson plan should be enacted may differ considerably from the teacher’s. Human mediation between the teacher and teacher educator will most likely entail bringing these two visions closer together, or in Vygotskian terms, establishing a sense of intersubjectivity. Critical to the relationship between human and symbolic mediation is Kozulin’s (2003) claim that symbols may remain useless unless their meaning as cognitive tools is properly mediated. He explains this relationship:

Symbolic tools have a rich educational potential, but they remain ineffective if there is no human mediator to facilitate their appropriation by the learner. By the same token, human mediation that does not involve sophisticated symbolic tools would not help the learner to master more complex forms of reasoning and problem solving. (p. 35)

Thus, a lesson plan might assist a teacher in enacting a lesson, but without human mediation with an expert-other, the mere use of the lesson plan risks denying the teacher the opportunity to master expert ways of thinking about and enacting teaching activity. In fact, it might also be the case that a lesson plan enacted without expert mediation could impede a teacher’s development if getting through the lesson plan becomes the teacher’s object, rather than being responsive to and supportive of meaningful student learning. Thus, we reiterate the pivotal role that human mediation plays in cultivating teachers’ professional development.

**Responsive mediation**

Before we offer an initial definition of responsive mediation, we feel it is important to make one final comment about the unique nature of human mediation. As we mentioned in Chapter 1, a central tenet of Vygotskian sociocultural theory is that psychological functions appear twice, once in the actual interaction between people engaged in some sort of goal-directed activity and the other as an inner (internalized) tool for thinking that humans use to direct the material world. On the basis of this premise, Vygotskian scholars who are interested in delineating the quality and character of human mediation, most notably the mediator (i.e., caretakers, mediators, teachers), have deliberately attempted to classify types of human mediation that support cognitive development. For example, Palinscar and Brown’s (1984) seminal work on reciprocal teaching included techniques such
as questioning, summarizing, predicting, and clarifying strategies in supporting children’s literacy development. Rogoff (1995), in her work with cultural communities, argued for three general forms of human mediation: apprenticeship, wherein community models are provided to a novice; guided participation, which occurs through joint activity by expert and novice; and appropriation, where the novice uses the tool without social mediation. However, we align with Kozulin (2003) in his argument that types, techniques, or scales for determining effective human mediation are too numerous and context-dependent to allow for a simple classification system. We wholeheartedly agree, and thus, in our work we intentionally refrain from classifying types of responsive mediation. Instead, our analyses of what happens inside the practices of L2 teacher education focus on what responsive mediation looks like as it unfolds, the intentions underlying it, how responsive mediation assists teachers as they attempt to accomplish tasks and develop dispositions that they do not yet have the capacity for, and the extent to which responsive mediation results in specific psychological functions becoming appropriated by teachers in their thinking and teaching activity.

This overview of the Vygotskian concept of mediation lays the theoretical foundation for an initial definition of responsive mediation. As we have argued thus far, the quality and character of mediation must be negotiated, cannot be predicted beforehand, and is dependent on the ability to recognize and target teachers’ emergent needs as well as utilize their responses to mediation and/or requests for additional support. This does not mean, however, that teachers will automatically or willingly internalize the mediational support offered by teacher educators. Emotions, differing motives, and teacher constructed and/or imagined identities will shape these interactions and how teachers respond to the mediation they experience. The challenges for teacher educators are to recognize the upper limits of teachers’ potential (ZPD) and be strategic in the sort of assistance given, while also recognizing and being responsive to teachers’ responses. It is for these reasons that we intentionally use the term responsive mediation to emphasize the multidirectional nature of teacher educators’ dialogic interactions with teachers and the fluidity with which responsive mediation evolves with twists and starts. Fundamental to our argument is when, where, and how responsive mediation emerges matters in L2 teacher education. In Chapters 3 and 4 we offer key Vygotskian and Vygotskian-inspired theoretical concepts that further articulate our definition of responsive mediation as the nexus of Mindful L2 Teacher Education.

References


Author Queries
AQ1: Word OK as edited to clarify sentence?
AQ2: Is 1988 intended?
AQ3: Please check this paragraph for correctness. It has been broken up a bit, is this OK for clarity?
AQ4: 1988?
AQ5: Please check heading levels.
AQ6: OK as edited for clarity?
AQ7: Please provide translation for article title if possible.
AQ8: Please provide translation for article title if possible.
AQ9: Please check reference – it looks like the chapter title is missing.