

Learning by Design and Second Language Teaching

Theory, Research, and Practice

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3 *Learning by Design* and Second Language Teaching Practices

Learning by Design's Reflexive Pedagogy

In Chapter 1, when I introduced *Learning by Design (L-by-D)* (Cope & Kalantzis, 2015, 2020; Cope et al., Forthcoming; Kalantzis & Cope, 2022; Kalantzis et al., 2005, 2016, 2019), I examined the connections between its principles, knowledge processes, and metafunctions, and the enactment of transformative curricula. In this chapter, I explore the second important dimension of education, *pedagogy*, defined by the creators of the framework as “a series of activities consciously designed to promote learning—the creation of knowledge and the development of a generalized capacity to make knowledge” (Kalantzis & Cope, 2012, p. 273). Guided by this definition, I will discuss teaching practices that can facilitate the integration of *L-by-D* in L2 classrooms. My focus will be on L2 teachers’ instructional planning and daily actions in connection with Kalantzis and Cope’s framework, including the principles of *belonging* and *transformation* and the eight knowledge processes and five metafunctions (see Chapter 1).

The integration of *L-by-D* into L2 instruction is only possible with the adoption of a pedagogy that is *reflexive*. This type of pedagogy “is a more varied and open-ended process of knowledge making, moving backwards and forwards between ... knowledge processes. It is a to-and-fro dialogue between learners and teachers, peers, parents, experts, and critical friends” (Kalantzis & Cope, 2012, p. 273). In a classroom where L2 teaching practice is grounded in *L-by-D*’s reflexive pedagogy, it is important to develop learning activities like the ones I discuss below. To do so, I have adapted the instructional moves recommended by Kalantzis and Cope (2012, pp. 273–276), and I have incorporated pedagogical aspects that specifically pertain to L2 learning. Additionally, I use the L2 Spanish social-reading activity I introduced in Chapter 2 (see Figure 2.1 on page... [add page #]; Zapata & Mesa Morales, 2018) to exemplify the proposed practices.

L-by-D’s **reflexive pedagogy** can be implemented in L2 instruction through tasks that:

- *Position L2 learners as legitimate L2 users and knowledge creators.* Students are agents in the knowledge-making process. They actively use the L2 to make new knowledge that connects broadly applicable discursive (e.g., textual

practices connected to different genres) and linguistic concepts (e.g., specific vocabulary and grammatical structures) with issues related to their local realities. In the case of our social-reading example, students utilize L2 terminology (e.g., vocabulary related to poetry and the environment) and structures (e.g., the present subjunctive to express opinions) to critically analyze two authentic texts, to discuss environmental problems in their communities, and to collaborate in the proposal of solutions.

- *Encourage L2 learners to undertake activities that are meaningful and realistically complex.* Reflexive L2 pedagogy is either connected to life or is life-like. The target language is most effectively developed in instructional settings that focus on whole, socially realistic, meaningful, and purposeful tasks, within a socially engaged community of L2 users (in and beyond the classroom) (Allen & Paesani, 2010; Douglas Fir Group, 2016; Glisan & Donato, 2021; Kern, 2000). The social-reading task in Chapter 2 reflects this practice in a variety of ways. First, learners work with an authentic social activity that mirrors current reading practices in both academic (e.g., the popular *Perusall* platform [Appendix B]; also see Chapter 2, pages... [add page numbers]) and social contexts (e.g., through apps such as *Bookship*, *Bookself*, and *Glose*; Agarwal, 2019). Second, students are exposed to and produce texts in an academic genre, poetry, that not only is part of the L2 curricular content in their language program but also relies on complex analytic skills. Additionally, poetry engages learners at a deep, personal, and emotional level, which, as Hanauer (2012) has shown, allows them to “learn about themselves, about the presence of others, and the diversity of thought and experience that are so much part of this world” (p. 114). Finally, the tasks that students complete in the *applying* knowledge processes synthesize their new knowledge (linguistic, conceptual, multimodal, and thematic), bring them closer to the community, and give them the opportunity to propose possible solutions to local problems.
- *Challenge L2 learners to develop increasingly sophisticated and deeply perceptive conceptual schemas.* Reflexive pedagogy engages L2 learners as collaborative co-constructors of concepts—as definers of terms, maker of theories, careful analysts, and thoughtful critics. Students work collaboratively within Vygotsky’s (1978) *Zone of Proximal Development*: They are provided with a conceptual scaffold, and with their classmates, they can undertake tasks and use the L2 in ways that would not be possible individually. The social-reading example we have been discussing offers learners the opportunity to develop specialized concepts related to the poetry genre, and to understand how these concepts are connected to L2 use and audience, as well as expand their critical understanding of the socially relevant issue of focus. That is, through their collaborative in-depth analysis of the chosen texts (the multimodal animated short *Man* [Cutts, 2012] and the poem *Bosque...jas* [Ramos Aranda, 2013]), students can broaden their perspective and knowledge of a current complex issue and can learn L2 terminology to refer to both poetry and environmental pollution and destruction.

- *Prompt L2 learners to make their thinking or knowledge processes explicit.* Existing research (e.g., National Academies of Sciences, Engineering, and Medicine, 2018; National Research Council, 2000) has shown that in order for learning to be successful, students need to be aware “of their own mental processes (cognitive and affective) and [develop] their ability to monitor, regulate, and direct their thinking to achieve a desired objective” (National Academies of Sciences, Engineering, and Medicine, 2018, p. 70). Therefore, it is important for educators to create opportunities for, for example, the explicit connection between the L2 and the message conveyed in a variety of authentic texts, and to guide students in their understanding of the ways in which they discover those connections. When working within *L-by-D*'s epistemic moves, the L2 students participating in the sample social-reading activity are engaged in a process of guided discovery for which “metacognitive strategies are provided initially by the teacher” (National Research Council, 2000, p. 19). Through their collaborative exploration and the application of the strategies taught, learners unveil meaning-making in terms of the five metafunctions (i.e., what the text is about [reference]; who has created it [agency]; how meaning is organized and conveyed [structure]; what it is connected with [context, e.g., social, cultural, historical]; and what its objective is [interest; meaning-maker's motivation and intended audience]), and the relationship between L2 (and other semiotic resources) and message, and they articulate their thinking process in connection with the results of their work. The incorporation of metacognitive strategies into instruction not only benefits students when completing a specific task but also results in life-long learning that can be applied to other novel academic or personal situations. Indeed,

in research with experts who were asked to verbalize their thinking as they worked, it was revealed that they monitored their own understanding carefully, making note of when additional information was required for understanding, whether new information was consistent with what they already knew, and what analogies could be drawn that would advance their understanding. These meta-cognitive monitoring activities are an important component of [the learning process].

(National Research Council, p. 18)

- *Incorporate a variety of knowledge media, representing knowledge in many ways.* A focus on the development of L2 learners' multiliteracies implies that tasks should involve exposure to and use of the L2 in the written and oral modes, as well as other representational modes: Visual, audio (linguistic and non-linguistic), tactile, gestural, and spatial. In our social-reading activity, students analyze two texts that incorporate a variety of modes (the animated short—visual, audio, gestural, and spatial) and the L2 in the written mode (the poem). Additionally, learners work in the multimodal environment of the digital social-reading platform *eComma* (Center for Open Educational

Resources and Language Learning, n.d.), using the L2 and other forms of communication through the images, colors, and videos they offer to convey their comprehension and interpretation of the text. When working in the two *applying* epistemic moves, students use the L2 in the oral and written mode (*applying appropriately*), and they also employ other semiotic resources to carry out the *applying-creatively* assignment.

- *Encourage dialogue and group collaboration.* Instructional settings need to reflect the collaborative, social nature of learning and meaning-making that students encounter in their personal lives. That is, an ample body of research has shown that collaboration is the norm in everyday settings, but it is not always the case in formal instructional contexts (National Research Council, 2018). For example, in their analysis of the cognitive aspects of learning, the scholars in the National Research Council make reference to studies that have demonstrated how seemingly individual activities such as piloting a ship, decision making in emergency rooms, or scientific discoveries always depend on team work. In the L2 classroom, it is therefore important to foster dialogue among the class community and to create tasks that rely on collaboration and result in the collaborative construction of knowledge. Learners' cooperative work can be beneficial at the cognitive level because, with their partners, within Vygotsky's (1978) *Zone of Proximal Development*, students can engage in L2 uses that they would not be able to tackle individually. Additionally, cooperation can promote the development of the target language and the Four Cs (NEA, 2011; P21, 2011)—critical thinking and problem solving, communication, collaboration, and creativity and innovation. In the social-reading activity I have been describing, textual comprehension and interpretation are carried out collaboratively. Also, within all knowledge processes, learners work in pairs or groups.
- *Offer a broad variety of tasks to cater to the diversity of learners and create a learning environment that gives continuous feedback on their learning.* In Chapter 1, I stated that the main goal of *L-by-D*'s transformative curriculum is to “achieve comparable learning outcomes without prejudice to difference, [with the] intended effect [of] pluralism—a community of productive diversity” (Kalantzis et al., 2005, pp. 63–64). This implies that instructional environments need to cater to the needs of diverse students, and pedagogical tasks need to be sufficiently open to allow variations in the knowledge created, and the way it is created from one learner to the next. In our social-reading task, we enacted this practice by offering students the opportunity to convey their comprehension and interpretation of the poem's content and language in different ways, depending on both students' level of L2 performance and/or their learning preference. For example, some learners expressed their ideas linguistically (in both their first language [L1] and L2 or a mixture of both), visually (through the use of photos or illustrations), or multimodally (through a combination of modes or through music videos). Since the main focus of the social-reading task

was the development of the L2 in the interpretive mode of communication, the options given to learners were appropriate in terms of the type of task and the students' level of L2 performance. That is, some of the questions posed in the interpretation activities could not have been answered comprehensively in the target language. In current L2 education, the use of the L1 is an accepted practice in tasks that involve critical thinking and the communication of complex ideas (e.g., see p. 31 in ACTFL's *World-Readiness Standards for Foreign Language Learning* [National Standards in Foreign Language Education Project, 2015] and the discussion in Scott & Huntington, 2007).

Another important aspect of reflexive pedagogy is its reliance on constant *formative assessment* during the learning process. This type of assessment allows instructors to offer direct and specific feedback that supports learning in two ways: (1) It identifies areas that might need attention and, as a result, teachers can incorporate those areas in novel instructional moves; and (2) it provides a platform for learners to reflect on and take charge of their learning process. Multiple regular and diverse forms of assessment and feedback are key elements to instruction based on *L-by-D*.

- *Incorporate a mix of activities that represent different knowledge processes.* When I introduced *L-by-D*'s knowledge processes in Chapter 1, I posited that learning entails weaving among the kinds of learning activities associated with each process. In the social-reading task I presented in Chapter 2, it is easy to see how students' work within each epistemic move is connected to what they have done previously, in other moves, and it anticipates what they will do next. For example, learners' comprehension and interpretation tasks in *experiencing the new* are thematically linked to the discussion in *experiencing the known*, and they anticipate the connections between meaning and form to be addressed in the *conceptualizing* and *analyzing functionally* processes.

The enactment of these practices calls for instructors anticipating and understanding students' needs in connection with the three dimensions of learner difference (i.e., corporeal attributes, material conditions, and symbolic difference; see page... [add page number]; Kalantzis & Cope, 2012), as well as their funds of knowledge (Moll et al., 1992), informal learning, and of course, linguistic and academic realities.

In order to cater to their specific group of learners, L2 educators' practice can be guided by the principles of evidence-based frameworks such as *Universal Design for Learning* (UDL). UDL originated from studies carried out by scholars in the learning and brain sciences (Rose & Meyer, 2002). Its main premise is that educators need to support "the variability of every learner ... [by] implementing instructional practices that include the establishment of clear goals, intentional planning for learner variability, the use of flexible

[pedagogical moves] and materials, and maintaining timely progress monitoring” (Nelson & Bashman, 2014, pp. 92–93). Embedded in this definition are three main principles that instructors need to attend to when planning and enacting their practice, namely: (1) *multiple means of engagement*; (2) *multiple means of representation*; and (3) *multiple means of action and expression* (Tobin & Behling, 2018).

The first principle, *multiple means of engagement*, makes reference to the need for practitioners to actively engage students with content by taking into account their motivation, needs, and learning preferences, and by offering diverse paths for academic work, including cooperative learning and opportunities for self-reflection. The second one, *multiple means of representation*, is connected to the various, inclusive formats in which materials need to be offered to learners (e.g., in different modalities—written, visual, oral, etc.), as well as to the enactment of pedagogical moves that will foster belonging and learner investment (Pittaway, 2004). The last principle, *multiple means of action and expression*, refers to the opportunities provided to students to tackle learning and assignments in different ways. This principle is connected to the previous two, but it also entails the need for varied, regular forms of assessment (see page... [add page number] in this chapter) (Tobin & Behling, 2018). Overall, through the incorporation of these principles into their practice, instructors can create “inclusive, learner-centered [instructional settings], accessible education, [and] engage diverse learners [academically, through] learning activities that appeal to the largest number of [students]” (Dyjur et al., 2021, pp. 71 and 73).

Clearly, these UDL principles are compatible with the tenets of Kalantzis and Cope’s (2012) **reflexive pedagogy** (which I presented on pages... [add page #] of this chapter), the goals of *L-by-D*’s **transformative curriculum** (Kalantzis et al., 2005; see page... [add page #]), and the vision of L2 learning and teaching introduced in Chapter 2 (see pages... [add page #]). In the next section, I will examine how UDL can inform instructional planning for the integration of *L-by-D* in L2 classes.

Second Language Instruction Based on Universal Design for Learning and *Learning by Design*

In addition to the connections that exist between UDL, reflexive pedagogy, and *L-by-D*’s transformative curriculum, UDL is also compatible with the model of iterative backward design (Glisan & Donato, 2021; Richards, 2013; Wiggins & McTighe, 1998) I introduced in Chapter 2 (see page... [add page]). Indeed, in 2011, the organization *Universal Design for Learning Implementation and Research Network* (UDL-IRN) developed five UDL-based steps that teachers can resort to when planning their curricula, units, lessons, and/or instructional sequences/moves using a process of backward design. The objective of these recommendations is to facilitate instructors’ establishment of pedagogical contexts that “translate into multiple means of representation, multiples means of action and

expression, and multiple means of engagement ... [and] inject as much flexibility as possible in all dimensions of the learning experience” (Fovet, 2021, p. 3). To address our specific needs as L2 educators, I have adapted the UDL-IRN’s (2011) recommendations to L2 instruction. I have divided the recommendations into two categories: *Pedagogical planning* and *instructional moves*. Both are presented in the next two sections.

Pedagogical Planning

Pedagogical planning based on both UDL and iterative backward design should incorporate the following:

1. The establishment of clear outcomes.

L-by-D connection: Principles of belonging and transformation; goals of transformative curriculum; all knowledge processes and metafunctions.

It is important for instructors to establish a clear understanding of the goal(s) of the curriculum, unit, lesson, and/or instructional move/sequence and specific learner outcomes in connection to:

- The desired outcomes and essential student understandings and L2 performance for every learner. (What does L2 learning look like for my students? What will my students be able to do with the L2?)
- The content (linguistic and thematic and/or discipline-related) learners should come to understand and their alignment to the established standards (e.g., ACTFL and/or grade/discipline-specific) within the program of study. Also important: The development of the Four Cs and learners’ information, media, and technology literacy, as well as their flexibility, adaptability, initiative, self-direction, leadership, and responsibility (see Chapter 2, page... [add page number]; NEA, 2011; P21, 2011).
- The potential misunderstandings, misconceptions, and areas where learners may meet barriers to learning.
- How goals will be clearly communicated to learners (i.e., what is needed for goals to be understandable to all learners).

2. The anticipation of learner needs.

L-by-D connection: Principles of belonging and transformation; goals of transformative curriculum; experiencing knowledge processes.

Before they start planning the instructional experience, L2 teachers should have a clear understanding of learners’ needs within their educational setting. Understandings should minimally include:

- Learner strengths and weaknesses specific to established goals for the curriculum, unit, lesson, instructional move/sequence.
- Learner background knowledge (linguistic and thematic/discipline-specific) for scaffolding new learning, also taking into account informal learning.

- Learner preferences for representation, expression, and engagement (dimensions of learner difference [Kalantzis & Cope, 2012; see page... [add page #]], funds of knowledge [Moll et al., 1992]).
 - Learner language preferences/needs (L1 and L2, transanguaging [Cope et al., Forthcoming; García & Wei, 2018], dialects, registers, genres).
 - Sociocultural relevance and understanding (target and local cultures/communities/institutions; socially relevant issues).
 - Curriculum barriers (e.g., physical, socioeconomic, cultural, or ability-level—dimensions of learner difference) that could limit the accessibility to instruction and instructional materials.
3. **The development of measurable outcomes and an assessment plan.**
***L-by-D* connection: Principles of *belonging* and *transformation*; goals of transformative curriculum; all knowledge processes (but an emphasis on *applying*) and metafunctions.**

Before they start planning the instructional experience, L2 teachers need to establish how learning is going to be measured. Considerations should include:

- Previously established goals and learner needs (#1 and #2).
- Embedding checkpoints to ensure all learners are successfully meeting their desired outcomes.
- Providing learners with multiple ways and options to authentically engage in the learning process, take action, and demonstrate understanding.
- Supporting higher-order skills and encouraging a deeper connection with the content (L2 learners as legitimate L2 users; the learning process “facilitates personally meaningful expression” [Hanauer, 2012, p. 106]). (Adapted from UDL-IRN, 2011.)

These three goals (and the practices associated with them) can be achieved in a variety of ways. In order to maximize representation and to ensure the incorporation of learners’ lifeworlds into curricula, units, lessons, and/or task sequences/instructional interventions, educators can explore who their students are in terms of the three dimensions of learner difference discussed in the first section of this chapter and in the previous one (see pages... [add page #]; Kalantzis & Cope, 2012), their funds of knowledge (Moll et al., 1992), as well as their community, and local and institutional ties. This can happen before the start of the academic year (though not all instructors will have access to this sort of data) or in the first week of classes. In her book *This Book Is Anti-Racist Journal*, Jewell (2021) offers a variety of activities that can guide learners to reflect on their identities and sociocultural/sociohistorical ties in a comprehensive, diverse, and inclusive way. The following task, adapted from pages 14–19, could be used as a gateway to students’ identities and lifeworlds and could be modified for use with learners of different ages and levels of L2 performance.

WHO AM I?***Step 1.**

Set a timer for five minutes, and write words/phrases defining who you are. You can also use illustrations or videotape yourself expressing your ideas orally (you can add other elements to your video, too, like your favorite music).¹

Think of your personal identities—parts of you that *you* define, create, name, and frame. Here are some questions you can use as a start. However, don't feel you need to respond to them: You are welcome to include your own perspectives of your identity.

- What do you sound like?
- What is your favorite color?
- What do you like to do? (interests, hobbies, favorite activities)
- How do you feel?
- What is your favorite animal?
- When is your birthday?
- What is your favorite shape?
- Who are your friends?
- What do you like to eat?
- Where is your favorite place to be?
- Your own question:
- Your own question:

Now use the figure below to express your vision of your personal identities. You can write/draw in the figure, or you can create a digital multimodal poster or a video. If you choose the poster or video option, include the link to your work in the figure.

**Step 2.**

You are also defined by your social identities—parts of you that relate to other people in society. These categories—and the way you define yourself within them—are based on creations that have been historically named, framed, and defined by society. Social identity categories include *race*,

ethnicity, socioeconomic class, gender expression, sexual orientation, age, nationality (and/or state/geographical ties), language (including the varieties of the language(s) you speak/identify with), religious beliefs (or lack of), abilities, education, family structure (and your role in your family).

Taking these categories into account, add to your previous definition of yourself (i.e., personal identities). Modify your previous work (the figure in Step 1 or your digital artifact/video) to incorporate your new identities.

Step 3.

Now you are going to build a map of yourself. You will show who you are as a whole person. Using a piece of paper or an electronic document (e.g., a Google slide), position your name at the center. Then, all around, place the words, phrases, illustrations, etc., writing, drawing, collaging, painting your many and various identities. You can create connections among different identities to reflect intersections. Build your map however you like. You may want to keep coming back to this to add more details of who you are.

*Activity adapted from Jewell, 2021, pp. 14–19.

L2 practitioners could use the data that originate from this activity to revise previously made decisions on outcomes, materials, instructional interventions, and assessment, and to plan future pedagogical moves. The information gathered might also guide instructors in the inclusion of socially relevant issues, pointing to those that might be of interest to the students (based on their identities) and/or might be connected to local groups/institutions or to those to which learners belong. To kick start the class's critical inquiry (Osborne, 2006), Jewell (2021) suggests focusing on the land where the educational context is located and where students live. She proposes that both practitioners and students explore who the indigenous group(s) who inhabit(ed) the land are/were, and what the original name of the area was. Additionally, since our focus is L2 teaching, it would be important to include linguistic information, for example, what language(s) are/were spoken in the area, what language family(ies) they belong(ed) to, etc. Jewell (p. 7) posits that introducing this kind of content in the classroom

help[s] us not only to acknowledge the past, but become better stewards (caretakers) so those who come after us will have this earth. Learning about the original names of [our] cit[ies], and what happened to the [local] indigenous tribes when ... settlers colonized and dominated the land and people, [can deepen our] understanding of how the work of racism and colonization is not new. It happens everywhere. No place is immune to the effects of racism and colonization.

This first critical focus can open the doors for L2 teaching for social justice, which teachers can materialize through the inclusion of related issues affecting minoritized communities in the country and the target cultures (e.g., those related to Orborne’s [2006] four pillars—identity, social architecture, language choices, and activism; see page... [add page number]). The activity proposed can also set the stage for reflexive pedagogy, and learners’ use of the L2 for critical work in *L-by-D*’s knowledge processes. A further benefit of this task might be that students belonging to underrepresented groups will be able to see how representation and inclusion are essential aspects of their current learning process (which can contribute to *belonging*). In the next section, we will focus on the enactment of L2 instruction that incorporates both UDL and *L-by-D*.

Instructional Moves

Once L2 instructors have determined learning outcomes in connection with curricular content and their learners’ identities and personal and academic needs, the next step entails the development of instructional moves (e.g., units, lessons, task sequences, single instructional interventions). In this section, I will discuss ways to achieve this goal, starting with the following practices, adapted from the UDL document created by UDL-IRN (2011):

4. The establishment of the instructional experience.

***L-by-D* connection: Principles of *belonging* and *transformation*; goals of transformative curriculum; all knowledge processes and metafunctions.**

L2 teachers establish their instructional sequence. At a minimum, plans should include:

- Intentional and proactive ways to address the established goals, learner needs, and the assessment plan (see #1, #2, and #3 in the previous section).
- A plan detailing what instructional materials will be used and how, and what knowledge processes will be integrated into the L2 teacher’s practice to overcome barriers, support learner understanding, and maximize L2 use in the three modes of communication—interpersonal, interpretive, and presentational. When selecting resources, there should be a balance “in terms of paper [printed], electronic, and live [texts]; semiotic systems used [e.g., the L2 + other modalities, such as visual, gestural, and auditory]; genre [see Chapter 4] and delivery platform” (Anstey & Bull, 2006, p. 53). In Appendix A, I offer a template with questions and semiotic foci which teachers can employ to guide their students’ work with multimodal ensembles.
- A plan that ensures high expectations for all learners and that the needs of the learners in the margins (i.e., struggling and advanced) are answered, anticipating that a broader range of learners will benefit.
- An assessment plan based on multiple, diverse forms of formative assessment to provide necessary data for both the teacher and

students. For example, L2 instructors can implement evidence-based L2-performance assessment frameworks such as *Integrated Performance Assessment* (Adair-Hauck et al., 2006, 2013), tied to learners' work in *L-by-D*'s knowledge processes. Another useful resource which L2 teachers can employ to involve learners in self-assessment and reflection are the *NCSSFL-ACTFL Can-Do Statements* (ACTFL- NCSSFL, 2017). These statements are "aligned with ... ACTFL's *Performance Descriptors for Language Learners* [ACTFL, 2012], [and they] reflect the continuum of growth in L2 communication skills through the Novice, Intermediate, Advanced, Superior, and Distinguished levels [of performance]" (<https://www.actfl.org/resources/ncssfl-actfl-can-do-statements>). When topics related to social justice are included in the curriculum/lesson/unit/instructional sequence/moves, educators can use Learning for Justice's standards for social justice (Teaching Tolerance, 2018) (see page... [add page number]) to assess and/or guide learners to self-assess in connection to their knowledge of and attitudes towards the issues discussed.

Additionally, in Table 3.1, I provide a starting point for L2 teachers to develop measurable outcomes in connection to students' work in *L-by-D*'s eight knowledge processes. This information is based on Kalantzis et al.'s (2005) work. The importance that *L-by-D* places on students' collaborative construction of knowledge is reflected in the assessment criteria, which point to the need for instructors to "assess individuals in a group context: the ability to make productive social connections (to texts and people)" (p. 94). Indeed, in the criteria offered,

the capacity to make and share knowledge with others is considered the most difficult and highest order level of competence because it involves communication, negotiation, and sensitivity, as well as sound knowledge of a subject or familiarity with a task.

(p. 95)

This orientation is compatible with students' L2 (social) use in the three modes of communication—interpersonal, interpretive, and presentational. L2 practitioners can adapt the suggested *L-by-D* assessment categories and the language used in them to serve their instructional needs, and/or they can combine them with other L2 assessment tools (e.g., the *NCSSFL-ACTFL Can-Do Statements*). I will revisit the topic of assessment in the third section of this chapter.

The scholars in the UDL-IRN group (2011) also believe that, when enacting their instructional interventions, teachers need to take into account considerations of how to support multiple means of learner representation, expression and action, and engagement. I have adapted the UDL-IRN's recommendations for application in L2 teaching and learning settings. The integration of both UDL and *L-by-D* presupposes the following:

Table 3.1 Criteria for Measuring Learning by Design's Knowledge Processes Outcomes

Students demonstrate that they:	
<p>Level of Performance Knowledge Processes</p>	<p>Exceed Expectations <i>Collaborative Competence:</i> Can work effectively with others, including people with less or different knowledge and expertise than themselves, to produce an excellent piece of work (their own, or a joint piece of work).</p> <p>Meet Expectations <i>Autonomous Competence:</i> Can figure out how to undertake the task or activity by themselves, and complete it successfully (their own work, or a part of a joint piece of work).</p> <p>Almost Meet Expectations <i>Assisted Competence:</i> Need explicit instruction or support from the teacher or peers to be able to undertake the task or activity.</p>
<p>Experiencing the Known</p>	<p>Can figure out for themselves the connection between their own lifeworld, lived experiences, identities, communities, previous learning (formal or informal), and the learning task.</p> <p>Need prompts from the teacher or peers to make the connection between their own lifeworld, lived experiences, identities, communities, previous learning (formal or informal) and the learning task.</p>
<p>Experiencing the New</p>	<p>Are able to make enough sense on their own of an unfamiliar text or activity to comprehend the main idea/meaning conveyed and offer a general interpretation of the message in the text or activity.</p> <p>Need scaffolds by the teacher or peers to make sense of an unfamiliar text or activity. Limited comprehension and/or interpretation.</p>
<p>Conceptualizing by Naming</p>	<p>Are able to work out for themselves the meaning of a concept from the context of its use or by looking up its meaning, and then use that concept to make an abstraction.</p> <p>Once explained to them, are able to use a concept appropriately in context, and make effective, but limited conceptual connections.</p>

(Continued)

Table 3.1 Continued

<i>Conceptualizing with Theory</i>	Are able to put concepts together in a theory/generalization and can explain that theory/generalization to others.	Are able to work out for themselves the connections among concepts in a theory/generalization.	Are able to see the connection between two or more concepts and how they might reflect a theory/generalization once this is pointed out to them.
<i>Analyzing Functionally</i>	Are able to work with others to figure out and demonstrate the way they see causal connections (e.g., between meaning and form) to people who might not see them in the same way.	Are able to analyze causal connections (e.g., between meaning and form) for themselves.	Are able to understand, once pointed out to them, the general function or purpose of a particular structure in connection to meaning or other relevant causal connections.
<i>Analyzing Critically</i>	Can corroborate from multiple sources an analysis or develop a group understanding of explicit and implicit motives, agendas, and actions, as well as community, institutional, and/or ideological connections.	Can construct a plausible interpretation of underlying motives, agendas, and interests driving a text, action, or piece of knowledge.	Are able to comprehend, once explained to them, some of the obvious human interests and agendas behind a text, action, or piece of knowledge.
<i>Applying Appropriately</i>	Master a convention or a genre to the point where they become fully fledged members of a new L2 community of practice.	Are able to independently communicate in ways which conform to L2 conventions or textual genres.	Are able, in a supportive and structured environment, to communicate in ways which conform to L2 conventions or textual genres.
<i>Applying Creatively</i>	Can create a hybrid text which involves a genuinely original combination of knowledge, actions, and ways of communicating (including the L2).	Are able to independently put together in a meaningful way a limited hybrid text (including the L2).	Are able, in a supportive and structured environment, to put together in a meaningful way one or two elements of a hybrid text (including the L2).
<i>Multiliteracies</i>	Effectiveness in communication of meaning and use of multiple modes of meaning (e.g., the L2, images, audio, gestures, etc.)		

Adapted from "Learning by Design: Criteria for Measuring Learning Outcomes," by Kalantzis et al., 2005, pp. 95–97.

- The L2 teacher purposefully uses a variety of strategies and instructional tools and moves within each knowledge process to present information and content to anticipate students' diverse and unique needs and preferences. **(Representation)**
- Students use a variety of strategies, instructional tools, and methods to demonstrate new understandings. Teachers enact “practices congruent with a metacognitive approach to learning [that] include those that focus on [learners'] sensemaking, self-assessment, and reflection on what worked and what needs improving” (National Research Council, 2000, p. 12). **(Expression and action)**
- A variety of methods are used to engage students (e.g., to provide choice, address student interest, integrate funds of knowledge [Moll et al., 1992], including linguistic practices [e.g., translanguaging; García & Wei, 2018]) and promote their ability to monitor their own learning (e.g., goal setting, self-assessment, and reflection; metacognitive approach). **(Engagement)**

To facilitate the planning, development, and organization of instructional moves (including materials and comprehensive L2 use), I have created a design template for L2 instructors. This resource, presented in Table 3.2, incorporates the pedagogical aspects we have been discussing, and it can be adapted for units, lessons, or tasks in a variety of educational settings. Even though the template includes all epistemic moves and metafunctions, educators can choose only the ones they want to integrate into their practice.

The final essential component of L2 teachers' practice in reflexive L2 pedagogy grounded in *L-by-D* and UDL is the assessment of the teaching practice itself. Instructors' self-reflection can be guided by the following questions:

5. Instructors' reflection and new understandings.

***L-by-D* connection: Reflection on the attainment of goals in each knowledge process as well as those embedded in the transformative curriculum (including principles of *belonging* and *transformation*).**

L2 teachers establish checkpoints for their own reflection and new understandings. Considerations should include:

- To what extent L2 learners have achieved the desired outcomes: What data support your inference(s).
- What instructional strategies (including materials used) have worked well and, if needed, how they can be improved.
- What tools have worked well, and, if needed, how their use can be improved.
- What strategies and tools have provided for multiple means of representation, action/expression, and engagement. Evidence of students' *belonging*.
- What additional tools would have been beneficial to have access to and why.
- Overall, how you might improve your practice. (Adapted from UDL-IRN, 2011)

Table 3.2 Design Template

Cultural/Social Justice Focus		Approximate Length of Module/Unit/Lesson	_____ minutes _____ days _____ weeks
Genre/Discursive Practice			
Theme/Topic			
Outcomes			
What should learners know and be able to do by the end of the module/lesson/unit?	Linguistic (L2): Thematic/discipline-specific:		
Instructional Moves			
<i>Knowledge Processes and Metafunctions</i>	<i>Experiencing the known</i> Instructional materials: Planned activities/tasks: Checkpoint/formative assessment: Modes of communication: <input type="checkbox"/> Interpersonal <input type="checkbox"/> Interpretive <input type="checkbox"/> Presentational Metafunctions: <input type="checkbox"/> Reference (what is this about?) <input type="checkbox"/> Agency (who or what is doing this?) <input type="checkbox"/> Structure (how does this hang together?) <input type="checkbox"/> Context (when/where is this connected?) <input type="checkbox"/> Interest (why?/what's/who's this for?)		
	<i>Experiencing the new</i> Instructional materials: Planned activities/tasks: Checkpoint/formative assessment: Modes of communication: <input type="checkbox"/> Interpersonal <input type="checkbox"/> Interpretive <input type="checkbox"/> Presentational Metafunctions: <input type="checkbox"/> Reference (what is this about?) <input type="checkbox"/> Agency (who or what is doing this?) <input type="checkbox"/> Structure (how does this hang together?) <input type="checkbox"/> Context (when/where is this connected?) <input type="checkbox"/> Interest (why?/what's/who's this for?)		

(Continued)

Table 3.2 Continued

<p><i>Knowledge Processes and Metafunctions</i></p>	<p>Conceptualizing by naming</p> <p>Instructional materials:</p> <p>Planned activities/tasks:</p> <p>Checkpoint/formative assessment:</p> <p>Modes of communication:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Interpersonal <input type="checkbox"/> Interpretive <input type="checkbox"/> Presentational <p>Metafunctions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Reference (what is this about?) <input type="checkbox"/> Agency (who or what is doing this?) <input type="checkbox"/> Structure (how does this hang together?) <input type="checkbox"/> Context (when/where is this connected?) <input type="checkbox"/> Interest (why!/what's/who's this for?)
	<p>Conceptualizing with theory</p> <p>Instructional materials:</p> <p>Planned activities/tasks:</p> <p>Checkpoint/formative assessment:</p> <p>Modes of communication:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Interpersonal <input type="checkbox"/> Interpretive <input type="checkbox"/> Presentational <p>Metafunctions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Reference (what is this about?) <input type="checkbox"/> Agency (who or what is doing this?) <input type="checkbox"/> Structure (how does this hang together?) <input type="checkbox"/> Context (when/where is this connected?) <input type="checkbox"/> Interest (why!/what's/who's this for?)
	<p>Analyzing functionally</p> <p>Structural focus:</p> <p>Instructional materials:</p> <p>Planned activities/tasks:</p> <p>Checkpoint/formative assessment:</p> <p>Modes of communication:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Interpersonal <input type="checkbox"/> Interpretive <input type="checkbox"/> Presentational <p>Metafunctions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Reference (what is this about?) <input type="checkbox"/> Agency (who or what is doing this?) <input type="checkbox"/> Structure (how does this hang together?) <input type="checkbox"/> Context (when/where is this connected?) <input type="checkbox"/> Interest (why!/what's/who's this for?)

(Continued)

Table 3.2 Continued

<p><i>Knowledge Processes and Metafunctions</i></p>	<p>Analyzing critically</p> <p>Instructional materials:</p> <p>Planned activities/tasks:</p> <p>Checkpoint/formative assessment:</p> <p>Modes of communication:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Interpersonal <input type="checkbox"/> Interpretive <input type="checkbox"/> Presentational <p>Metafunctions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Reference (what is this about?) <input type="checkbox"/> Agency (who or what is doing this?) <input type="checkbox"/> Structure (how does this hang together?) <input type="checkbox"/> Context (when/where is this connected?) <input type="checkbox"/> Interest (why?/what's/who's this for?)
	<p>Applying appropriately</p> <p>Task:</p> <p>Deliverables:</p> <p>Formative and summative assessment:</p> <p>Modes of communication:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Interpersonal <input type="checkbox"/> Interpretive <input type="checkbox"/> Presentational <p>Metafunctions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Reference (what is this about?) <input type="checkbox"/> Agency (who or what is doing this?) <input type="checkbox"/> Structure (how does this hang together?) <input type="checkbox"/> Context (when/where is this connected?) <input type="checkbox"/> Interest (why?/what's/who's this for?)
<p><i>Knowledge Processes and Metafunctions</i></p>	<p>Applying creatively</p> <p>Task:</p> <p>Deliverables:</p> <p>Formative and summative assessment:</p> <p>Modes of communication:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Interpersonal <input type="checkbox"/> Interpretive <input type="checkbox"/> Presentational <p>Metafunctions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Reference (what is this about?) <input type="checkbox"/> Agency (who or what is doing this?) <input type="checkbox"/> Structure (how does this hang together?) <input type="checkbox"/> Context (when/where is this connected?) <input type="checkbox"/> Interest (why?/what's/who's this for?)

(Continued)

Table 3.2 Continued

Multimodal Resources	Digital Tools/Media

The incorporation of the instructional moves presented in the previous sections into L2 educational settings entails the enactment of everyday practices that can facilitate the weaving of *L-by-D*'s processes and the organization and flow of instruction. In the next section, I will examine the ones that, based on existing literature, I consider essential for the success of the learning process.

Everyday Practices for Second Language Instruction Grounded in *Learning by Design*

In this section, I describe everyday teaching practices that, based on existing literature and my experience as an L2 researcher, instructor, language program director, teacher trainer, and materials developer, I believe can result in the success of L2 teaching grounded in *L-by-D*, as well as in the incorporation of the principles of UDL. My focus, however, is limited. For example, I will not discuss high leverage practices (i.e., “the tasks and activities that are essential for skillful beginning teachers to understand, take responsibility for, and be prepared to carry out in order to enact their core instructional responsibilities” [Ball & Forzani, 2009, p. 504]).² Rather, my goal is to make reference to small moves that offer an instructional path for both practitioners and students, and that, despite the apparent simplicity of some of them, are crucial in the L2 classroom. Our point of departure is the framework itself.

Presentation of Learning by Design's Knowledge Processes

When I introduced *L-by-D* in Chapter 1, I posited that one of its creators' main goals when adapting and expanding the NLG's (1996) pedagogy of multiliteracies was to simplify the terminology so that both instructors *and* students would be able to understand what they were doing to know. Kalantzis et al. (2016, 2019) believe that the terms they have adopted to name their knowledge processes (i.e., experiencing, conceptualizing, analyzing, and applying) should be explained to learners in connection with the work each move entails, and the objectives and outcomes embedded in them. One way to achieve this goal is to elicit this information from students through a process of guided discovery. That is, while working within a particular knowledge process, the teacher can focus learners' attention on the task at hand, and through questions, can facilitate

connections between what students are doing and the objectives of the epistemic move. As a result, again by doing, learners can discover what kind of knowledge each process involves in terms of content (what it is about), action (what we do and how we do it), and results (what we learn, what we can do now)—the examination of meaning-making. Sample questions to facilitate this process are provided in Table 3.3.

This knowledge can help teachers legitimize their practice in their students' eyes, and it can offer a theoretical, yet comprehensible, basis to connect expected outcomes (e.g., those similar to the ones presented in Table 3.1), L2 use, and meaning-making.

Instructional Objectives

Besides understanding what work within each knowledge process entails and how it is connected to outcomes, L2 use, and meaning-making, learners need to clearly see how what they are doing with the L2 is relevant for their academic growth *and* lifeworlds. That is, as we saw in Chapter 2 and the first sections of this chapter, it is crucial for L2 learning to be both meaningful and purposeful (Glisan & Donato, 2021). L2 content and use must be connected to who the students are—to their identities, lived experiences, communities, and to the development of their multiliteracies and 21st-century skills (see page... [add page number]). Thus, it is imperative for instructors to always explain L2 use in connection with a specific meaning-making purpose relevant to their learners. For example, if students are working with a text belonging to a specific genre and on a socially relevant issue, they must understand how both the genre and issue are connected to their reality, and why they have been chosen by the teacher to be part of the curriculum, unit, lesson, and/or pedagogical intervention.

Additionally, L2 practitioners need to contextualize instruction in terms of purpose (what language is used for), making reference to how language will be used in the eight knowledge processes and embedding the five metafunctions (i.e., focus on different aspects of meaning-making) in learners' L2 use. This means that instructional objectives must never be just linguistic or purely thematic (i.e., the past tense or a particular topic should never be objectives by themselves). Instead,

students need to be made aware not only of the overarching theme or topic that motivates [L2 use] but also of the nature of the communicative exchanges, the persons with whom they are speaking, the goals and purposes of the interactions, cultural forms, [and textual form].

(Glisan & Donato, 2021, p. 17)

This essential pedagogical aspect will become clearer when I present specific examples of L2 instruction grounded in *L-by-D* in the next two chapters of this volume.

To summarize, when instructional objectives are clearly articulated and they make reference to outcomes and expectations in terms of L2 use, learners should be able to answer these questions:

Table 3.3 Guiding Questions for L2 Students on *Learning by Design's* Knowledge Processes

Knowledge Processes	Guided Discovery
<p><i>Preliminary Guiding Questions</i> <i>Focus on Meaning-Making</i> <i>Metafunctions:</i> Reference (what) Agency (who) Structure (how) Context (where/when) Interest (why/for whom)</p>	<ol style="list-style-type: none"> 1. Understanding meaning-making You want to communicate a message (e.g., a joke, some information to a fellow student, a meme). What is important? Check all that apply. Explain your answers. <ul style="list-style-type: none"> <input type="checkbox"/> What you want to communicate (content) and why (objective) <input type="checkbox"/> Who you want to communicate with (audience) <input type="checkbox"/> How you want to communicate the message (mode—language/dialect, image, audio, gesture, etc.) <input type="checkbox"/> What you are going to use to communicate (e.g., text message, phone call, conversation, etc.) 2. Understanding the “motivated” message. What influences your message? Check all that apply. Explain your answers. <ul style="list-style-type: none"> <input type="checkbox"/> Who you are (your identities, your culture, your language, etc.) <input type="checkbox"/> Who you want to communicate with (audience—their identities, culture, language, etc.) <input type="checkbox"/> What you want to communicate (content) <input type="checkbox"/> Situation (e.g., informal vs. formal context, in-person vs. virtual, etc.) <input type="checkbox"/> Your objective (e.g., asking your instructor to give you extra credit vs. participating in a Roblox event) 3. Now, based on your answers, define “meaning-making.” What is important? Why do we say that all meaning-making is “motivated”? Is it the same when you use the L1 or L2? Why?/Why not? Explain.
<p><i>Experiencing the Known</i></p>	<ul style="list-style-type: none"> • What are we talking about? • What is the basis of our discussion? • What is this topic related to in our discussion? • How is each student contributing to it? • How is our work connected to the dimensions/analysis of meaning-making, including the use of the L2?
<p><i>Experiencing the New</i></p>	<ul style="list-style-type: none"> • What topic are we focusing on? • How is this topic connected to our previous work/discussion? • What are we doing now? • How is our work connected to the dimensions/analysis of meaning-making, including the use of the L2?

(Continued)

Table 3.3 Continued

Knowledge Processes	Guided Discovery
<i>Conceptualizing by Naming</i>	<ul style="list-style-type: none"> • What are we doing with the text(s) we are working with? • What are we expected to do/find out in this task? • How is our work related to our previous task(s)? • How is our work connected to the dimensions/analysis of meaning-making, including the use of the L2?
<i>Conceptualizing with Theory</i>	<ul style="list-style-type: none"> • How is our work related to our previous task(s)? • What are we expected to do/find out in this task? • What kind of information will we get? • How is our work connected to the dimensions/analysis of meaning-making, including the use of the L2?
<i>Analyzing Functionally</i>	<ul style="list-style-type: none"> • What are we focusing on? • What do we want to know? • How is our work related to our previous task(s)? • How is our work connected to the dimensions/analysis of meaning-making?
<i>Analyzing Critically</i>	<ul style="list-style-type: none"> • What are we focusing on now? • How is our work related to our previous task(s)? • What are we expected to do/find out in this task? • What kind of information will we get? • How is our work connected to the dimensions/analysis of meaning-making including the use of the L2?
<i>Applying Appropriately</i>	<ul style="list-style-type: none"> • What are we expected to do? • What is the expected result of our work? • How are we going to accomplish this result? • How is our work related to our previous task(s)? • What dimensions of meaning-making do we need to consider to complete this task, including the use of the L2?
<i>Applying Creatively</i>	<ul style="list-style-type: none"> • What are we expected to do? • What is the expected result of our work? • How are we going to accomplish this result? • How is this task different from the previous one? • How is our work related to our previous task(s)? • What dimensions of meaning-making do we need to consider to complete this task, including the use of the L2?

- What am I supposed to be learning here (e.g., in each knowledge process; outcomes/expectations)?
- What is this lesson/pedagogical move about (i.e., how it is connected to my understanding of/participation in meaning-making [L2 + other semiotic systems])?
- How do I participate in this lesson/pedagogical move (i.e., expected use of the L2 in the interpersonal, presentational, and interpretive modes of communications)?
- Have I been an effective L2 user in this lesson/pedagogical move?
- What do I need to work on based on what I did in this lesson/pedagogical move? (Adapted from Anstey & Bull, 2018, p. 139.)

Collaborative Learning

Throughout this chapter, I have emphasized the importance of learners' collaborative construction of knowledge in *L-by-D*. Kalantzis and Cope (2012, p. 71) believe that "knowledge sharing and collaborative learning are the glue that binds together collective intelligence," and, thus, it is an essential component of the learning process in both cognitive and social terms. Furthermore, these scholars posit that the development of students' *collaborative competence* should be an instructional goal in itself. In *L-by-D*,

collaborative competence is a capacity to contribute something of your own experience and knowledge in a group learning context, where the sum of the group knowledge is greater than the sum of the individual parts. Learners make the inside/outside connections, between education and the rest of their lives, and between their lives and other people's lives. Each learner has a sense of their unique perspective and the contribution they can make in the learning context ... They share their knowledge and perspectives with others. They also come to rely on the knowledge of others ... They can work in groups with diverse experiences and knowledge, negotiating in such a way that the differences are the strength rather than a problem ... They can solve problems collectively that could not be solved individually. Collaborative learning, in sum, creates conditions for making social knowledge. Much more than the stuff that's in your head, the key to this kind of knowledge is in the social connections.

(Kalantzis & Cope, 2012, pp. 294–295)

This characterization of collaborative learning is compatible with UDL's principles (UDL-IRN, 2011) because this type of learning can facilitate representation (different perspectives and ways of learning are valued), expression and action (students are able to express their understanding to their peers and construct knowledge with them), and engagement (learners can monitor their own as well as the group's learning). Additionally, when students work together, they can develop their Four-Cs collaboration and communication skills, as well as their

critical thinking and problem solving and creativity and innovation (NEA, 2011; P21, 2011). Cooperative work can also promote L2 use in the three modes of communication—interpersonal, interpretive, and presentational—as learners can employ the target language when working within *L-by-D*'s knowledge processes to plan, organize, and present their work (with and to peers), express their perspectives, and complete specific tasks.

A vast body of research (e.g., see meta-analyses by Kyndt et al., 2013; Loh et al., 2020; and Rohrbeck et al., 2003) has provided evidence for the significant beneficial effects that result from learners' working in pairs or small groups. For example, the work of Barron and her colleagues (e.g., Barron, 2000a, 2000b, 2003; Darling-Hammond et al., 2008) and Johnson et al. (e.g., Johnson & Johnson, 1981, 1999; Johnson et al., 1994) has shown that, in individual assessments, students with the experience of working in groups outperform learners that have not done so, and that groups usually do better on learning tasks than individuals. Additionally, these scholars have reported benefits in terms of self-efficacy, negotiation and interactional skills, time on task, and empathy toward peers. Nevertheless, this research (e.g., Johnson et al.'s work) has also stressed the need for organization and structure if collaborative learning is to succeed. That is, students need to be provided with strategies and community rules or norms to ensure respectful and productive interactions and a fair division of labor, and educators need to develop tasks that require equitable collaboration in order to be completed.

Johnson et al. (1994) identify five essential conditions to achieve productive collaborative work. The first one is *positive interdependence*, which refers to the need for group members to understand that success depends on each person's active contribution to the collaborative work, as individual effort benefits individuals as well as the group as a whole. Johnson and his colleagues believe that positive interdependence "creates a commitment to other people's success as well as one's own, which is at the heart of cooperative learning" (p. 9). One way to ensure that this condition is met is to assign unique responsibilities or roles to each member of the group. Depending on the educational context, L2 teachers can take care of this task, or, alternatively, group members can democratically distribute responsibilities and choose members to act as group leaders, materials managers, time keepers, notetakers, presenters, etc.

The second important aspect of collaborative learning is *individual and group accountability*. This entails the need for the group to commit to the successful completion of the assigned activity and to assume collective responsibility for doing or not doing so. The same applies to each individual member, and the task(s) they are in charge of. In order to guarantee that both groups and individual members are accountable for their work, Johnson and his colleagues (1994) recommend establishing clear goals for the completion of the assignment (e.g., checkpoints) and developing criteria to

measure [the group's] progress towards achieving [their goal(s)] and ... the performance of each individual student [so that] the results [can be given]

to the group and the individual, [and they] can ascertain who needs more assistant, support, and encouragement in completing the assignment. (p. 9)

Again, depending on the instructional setting, the assessment could be carried out by the L2 instructor or by the members themselves and the rest of the group. In Table 3.4, I provide a sample template for students' group and self-assessment.

Table 3.4 Sample Form for Group and Self-Assessment

Step 1. Overall group assessment

1. Name three things your group is doing/did well when working together. Be as specific and descriptive as possible. Also, think of examples of these practices that you can share with your group members.
 - i. _____
 - ii. _____
 - iii. _____
2. Name one thing your group could do/could have done even better. Think of specific suggestions.
3. Write down something about each of your group members that has helped/helps the group be effective. Share your views with your group.

Step 2. Self-assessment

Assess your work using the following criteria. Please be fair, honest, and professional.

Criteria

- 5 points: Excellent work; my contribution was a crucial component to our group's success.
 4 points: Very strong work; I contributed significantly to our group.
 3 points: Sufficient effort; I contributed adequately to our group.
 2 points: Insufficient effort; I met minimal group standards.
 1 point: Little or weak effort; my work did not benefit our group.

Categories

1. Showed enthusiasm and interest in the assignment. Assessment: _____
2. Participated in project planning and contributed ideas. Assessment: _____
3. Listened to and respected the ideas of others. Assessment: _____
4. Compromised and cooperated with other group members. Assessment: _____
5. Took initiative, encouraged members' participation, and/or gave the group direction when needed. Assessment: _____
6. Did my share of the workload/tasks and/or fulfilled the role assigned to me. Assessment: _____

Share your self-ratings with your group, and explain why you rated yourself the way you did. Together with your fellow group members, plan any changes that might be needed for your and the group's future work.

The first part of the table has been adapted from information in "Cooperative Learning in the Classroom," by Johnson et al., 1994, p. 98.

This resource can be adapted to assess a group's ongoing or finalized work. Also, it could be modified for peer assessment.

The third important element in cooperative learning is *promotive interaction*. This aspect makes reference to the need for members of a group to work together, face-to-face, “promot[ing] each other's success by sharing resources and helping, supporting, encouraging, and praising [each individual's] efforts to learn” (Johnson et al., 1994, p. 10). These interactive exchanges and active collaboration are crucial for members' commitment to one another and the achievement of a common goal. In recent years, however, with the increase of online learning environments, students' face-to-face interaction has proved elusive. Nevertheless, existing literature (e.g., Smith Budhai & Brown Skipwith, 2022) has shown that online settings may be quite conducive to highly interactive collaborative learning, and they might even be essential for the development of a class community. To facilitate promotive interaction when organizing cooperative learning in a face-to-face or online environment, it is important that L2 instructors offer students the opportunity to create a social presence within the group. This can be achieved, for example, by requiring learners to create personal profiles through identity tasks like the one I introduced on pages [add page #], incorporating different modes of communication and/or creating a personal video. These individual presentations can give group members the chance to get to know their peers even before they start working as a group, and to identify shared interests and/or experiences. Additionally, formal opportunities (in terms of specific meeting days and times) should be organized for students to work together.

Johnson et al.'s (1994) fourth condition for cooperative learning is related to the previous one since it entails *the teaching of interpersonal and small-group skills* so that groups can function harmoniously and effectively. These skills include those that allow learners to “provide effective leadership, make decisions, build trust, communicate [respectfully and effectively], manage conflict, and be motivated to do so” (p. 11). To achieve this goal, L2 instructors can develop and provide learners with rules for group community interaction, or they can collaborate with learners to create them. Currently, however, there is a myriad of existing resources with norms for group communication and work, including some which are open, that practitioners can adapt to answer their specific students' needs.³ As a point of departure, I recommend Bosworth's (1994) *Taxonomy of Collaborative Skills*. I have adapted some of the categories and collaborative actions developed by this scholar in Table 3.5.

The final condition for successful cooperative learning is *group processing*. This component is related both to the previous and second elements discussed because it involves group members in the interactive discussion of “how well they are achieving their goals and maintaining effective working relationships ... [carefully analyzing] how members are working together and how group effectiveness can be enhanced” (Johnson et al., 1994, p. 11). To assess how the group is functioning, members can reflect on their work using categories like the ones I have included in Table 3.6. This resource is based on Watson and Michaelsen's (1988) research on the factors that influence effective group performance. Also, L2 instructors can create accountability and/or monitoring roles for students in each group, and assign these learners the task

Table 3.5 Interpersonal and Small-Group Collaborative Skills

Skills Category	Types of Skills
Interpersonal Skills	<ul style="list-style-type: none"> • Exhibit congenial and friendly overall attitudes/behavior • Make clear statements • Listen attentively and non-judgmentally • Address other members of the group respectfully • Avoid making assumptions about people and/or ideas • Make eye contact
Group Building/Management	<ul style="list-style-type: none"> • Organize work • Keep the group on task • Run a meeting • Participate in group processing • Show empathy
Inquiry Skills	<ul style="list-style-type: none"> • Ask for or offer clarification • Critique constructively • Probe assumptions and evidence • Probe implication and consequences • Elicit viewpoints and perspectives

Adapted from “Developing Collaborative Skills in College Students” by Bosworth, 1994, p. 27.

of scheduling, organizing, and documenting group processing sessions. The categories in Table 3.6 could be included in the group’s discussion. As with other aspects of learning, however, before carrying out their group self-assessment, students should be provided with specific instructions and guidelines (or criteria), objectives, and expectations.

In addition to the five components previously discussed, Johnson and his colleagues (1994) emphasize the need for the incorporation of specific instructional moves to ensure the success of collaborative learning. The following recommendations are based on their work, but also on my experience as an L2/HL instructor and teacher trainer:

Planning: L2 instructors

1. Formulate the reasons why students will be working collaboratively in terms of L2 use and meaning-making, *L-by-D* (work within epistemic moves), and UDL (benefits for all learners).
2. Establish clear objectives, expectations, and outcomes for learners’ work, and then tie them to curricular objectives/outcomes and L2 use for meaning-making.
3. Decide what students’ work will look like:
 - a. Are learners going to work in pairs or small groups? Why?
 - b. Are learners going to be assigned roles? If so, which ones? What will each role entail?
 - c. What will the outcome of learners’ work look like for each learner/for the group?

Table 3.6 Criteria for Discussion in Group Processing

	To a Very Great Extent	To a Great Extent	To Some Extent	To a Little Extent	To a Very Little Extent
We work well together.					
Everyone participates.					
We share high-performance expectations.					
Everyone has a chance to express their opinion.					
We listen to each individual's input.					
Members feel free to make positive and negative comments.					
Member diversity aids group problem solving.					
We organize our time well.					
An atmosphere of trust exists in our group.					
All members are prepared on a daily basis.					
We are comfortable with the roles we have in the group.					
We are on track in terms of achieving our goals and completing the assignment.					

Adapted from "Group Interaction Behaviors That Affect Group Performance on an Intellectual Task" by Watson & Michaelsen, 1988, pp. 501–502.

4. Create specific instructions for the task(s) to be carried out collaboratively, as well as activities and resources (e.g., guidelines, assessment rubrics) that will:
 - a. Offer students opportunities for the development of positive interdependence and interpersonal and small-group skills.
 - b. Facilitate promotive interaction.
 - c. Assist group members in the assessment of individual accountability, personal responsibility, and group processing.
5. Decide when collaborative work will take place (e.g., specific days and times), including instances for group and self-assessment, and how long students will be working in pairs/groups.

Implementation: In class, L2 instructors

1. Articulate the objectives of the collaborative task and the reasons why students are working in groups.

2. Tie these objectives to the overall goals of the lesson/unit/curriculum, as well as L2 use for meaning-making and *L-by-D*'s knowledge processes. The collaborative work should be meaningful and purposeful.
3. Explain to students what the collaborative task will entail, and provide detailed instructions (including length of planned group work), also making reference to what is expected in terms of individual and group work and overall results.
4. Create the pairs/groups. Depending on the type of task, class community, and educational setting, L2 teachers might want to let students form their own pairs/groups.
5. "Monitor students' learning and intervene in the groups to provide task assistance or to increase [learners'] interpersonal and group skills ... [as well as to ensure that] students do the intellectual work of organizing, explaining, summarizing and integrating material into existing conceptual structures" (Johnson et al., 1994, pp. 4–5).
6. Implement checkpoints for individual accountability and group processing.
7. Organize the presentation/sharing of students' work with the class community and/or audiences beyond the classroom.
8. Assess students' collaborative learning in terms of expected outcomes, L2 use, and *L-by-D*'s knowledge processes, and "help [learners] process how well their groups functioned" (Johnson et al., p. 4).

Not all these recommendations will apply to every educational setting and/or instructional sequence, and like *L-by-D*'s epistemic moves, not all of these steps need to be included in L2 teachers' practice. However, they might offer an evidence-based blueprint for the implementation of cooperative learning as envisioned by Kalantzis and Cope (2012).

Checkpoints and Assessment

As discussed in previous sections of this chapter, both *L-by-D* (Kalantzis & Cope, 2012; Kalantzis et al., 2005, 2016, 2019) and UDL (UDL-IRN, 2011) scholars recommend the inclusion of regular and diverse forms of formative assessment in teachers' practice. Additionally, it is clear that researchers who focus on collaborative learning (e.g., Johnson et al., 1994) consider this type of assessment essential for the success of group work. In L2 education, further support for formative assessment is found in the NCSSFL-ACTFL *Can-Do Statements*, in the parameters and descriptors in *ACTFL Performance Descriptors for Language Learners* and *World-Readiness Standards for Foreign Language Learning*, and in L2-performance assessment frameworks such as Integrated Performance Assessment (IPA; Adair-Hauck et al., 2006, 2013).⁴ For example, in IPA, assessment is implemented in a recurring learning-assessment cycle that involves modeling, practice, performance (assessment), and comprehensive and effective feedback. Feedback can be deemed effective when learners can clearly determine how their performance

compares to expected outcomes (i.e., what they have accomplished and what they need to work on), and they can set goals to get closer to the learning expectations. Chan et al. (2014, p. 97) believe that to “enhance the effectiveness of [their] feedback, [instructors] should focus on success ... rather than deficits, and [offer comments that are] immediate, specific, and actionable.” The information resulting from assessment will shape teachers’ feedback, and will also be incorporated into their practice, becoming part of the modeling for the next learning cycle (Adair-Hauck et al., 2013).

Besides formative assessment, Kalantzis and Cope (2012; Kalantzis et al., 2005, 2016, 2019) recommend the implementation of two other kinds of assessment, *diagnostic* and *summative*, for the adoption of *L-by-D*’s reflexive pedagogy and the achievement of the goals of a transformative curriculum. *Diagnostic assessment* is carried out before the implementation of instructional moves, and it is useful for determining what learners know (in terms of L2 performance and/or discipline-specific knowledge). Based on the data gathered, instructors can then establish new learning outcomes, or modify existing ones, and create content and activities that will specifically answer their students’ needs. Furthermore, teachers can combine this type of assessment with tasks like the one presented on page... [add page number] of this chapter to get a comprehensive view of who their students are (both at the personal and academic level). The second form of assessment, *summative*, can offer information about the overall results of students’ learning process not only to educators and parents, but also to other stakeholders (e.g., school districts, curriculum developers), which could lead to changes in curricula or the allotment of new resources to improve learners’ educational experiences.

Kalantzis et al. (2016) believe these three types of assessment—diagnostic, formative, and summative—need to be part of instruction based on *L-by-D* to:

- Support student learning by providing useful “before, during, and after” information to learners;
- Inform parents and friends of what students have been learning at school, and report on their progress;
- Inform teachers about what has been successfully taught and what they still need to teach; [and]
- Provide differentiated information about individual students so their learning programs can be customized to meet every learner’s particular needs. (pp. 502–503)

Regardless of the kind of assessment that is undertaken at a particular point in the learning process, when integrating *L-by-D* into L2 teaching and learning, it is also important to consider that the framework “takes a holistic and integrated approach to assessment” (Kalantzis et al., 2005, p. 94). Kalantzis and her colleagues offer key principles for instructors to bear in mind while developing assessment tools based on *L-by-D*. These principles, which I have adapted to L2 education, include:

- The idea that “it’s not (just) the test at the end.”
- Measuring learners’ multiliteracies and L2 active use in interpersonal, interpretive, and presentational tasks, as well as collaboration skills, problem solving, creativity-imagination-innovation.
- The assessment of L2 performance and L2 learners’ work over a whole instructional sequence, or a special assessment task, which tests the full range of knowledge processes required to complete the work assigned.
- The inclusion of more holistic assessment techniques such as project-based tasks (see Chapter 4) and ePortfolios.
- The assessment of personal knowledge and performance: Linguistic and multimodal, as well as experiential, conceptual, analytical, and applied.
- The assessment of students in a group context, with a focus on the ability to make productive social connections through the L2 (to texts and people, and collaboratively constructed knowledge).
- The incorporation of peer assessment (e.g., open, one-way blind, two-way blind, moderated).
- The utilization of qualitative judgments to justify quantitative ratings. (Adapted from Kalantzis et al., 2005, p. 94.)

These principles can be materialized in the L2 classroom by combining assessment criteria directly related to the *L-by-D* (Table 3.1) with those for collaborative learning (Tables 3.4 and 3.6), the NCSSFL-ACTFL *Can-Do Statements* (ACTFL- NCSSFL, 2017), and others created by practitioners based on L2 performance standards and descriptors for expected outcomes tied to performance level and/or provided by scholars working with assessment frameworks (e.g., IPA).⁵

Summary

In the first section of this chapter, I introduced the final dimension of *L-by-D*: Its notion of reflexive pedagogy. I discussed the classroom practices associated with it, which I adapted to reflect the needs of L2 instructors and learners, and I tied them to the other components of the framework, namely, the principles of *belonging* and *transformation*, the eight knowledge processes, the five metafunctions, and the goals of a transformative curriculum. In addition, I showed how UDL, an important current framework for equity education, is compatible with both reflexive pedagogy and the vision of L2 teaching and learning presented in Chapter 2. I proposed that UDL’s guidance for instructional planning and teaching can be integrated with *L-by-D*’s reflexive pedagogy and specific L2 performance-related outcomes to maximize diverse and equitable learning opportunities for L2 students.

In the second part of the chapter, I described four pedagogical practices that I consider essential for the success of L2 teaching and learning grounded in *L-by-D*. Specifically, I focused on the need for L2 instructors to explicitly introduce *L-by-D*

and its knowledge processes to their students and to provide clear instructional objectives for units, lessons, and tasks. Additionally, I discussed the importance of collaborative learning in *L-by-D*'s reflexive pedagogy, and I made reference to the five evidence-based components that need to be considered for this type of learning to be successful. To facilitate L2 teachers' work, I provided resources that could be adapted for use in different educational settings. In the final part of the section, I examined assessment in connection to reflexive pedagogy and L2 performance-based instruction, and I offered information about the principles that instructors should consider when developing assessment tools grounded in *L-by-D*. In the next two chapters, I transfer the theoretical content I have presented in this chapter and the previous two to the realm of L2 practice. In the chapter that follows, I describe two current teaching approaches that can be grounded in *L-by-D* and can facilitate L2 use in the three modes of communication. In the last chapter of the book, I provide detailed examples of multimodal tasks for L2 students of diverse ages.

Notes

- 1 Educators can use digital tools such as *Flipgrid* (Appendix B) to facilitate students' completion of the proposed task. Another possible alternative in lieu of solely a written assignment would be for students to prepare a multimodal digital poster or infographic with *Canva* (Appendix B) or a similar resource. See Chapter 5 for ideas.
- 2 L2 instructors who want to learn more about these practices can consult the two excellent volumes written by Glisan and Donato (2017, 2021) on the topic.
- 3 Teaching centers in institutions of higher education usually offer open resources that can be adapted for a variety of educational environments (e.g., see the document *Teamwork Skills: Being an Effective Group Member* by the Centre for Teaching Excellence at the University of Waterloo; <https://bit.ly/3kwPLUe>).
- 4 For detailed information on IPA, I recommend the comprehensive implementation guide developed by Adair-Hauck et al. (2013).
- 5 Another useful resource for L2 teachers is Race et al.'s (2005) book *500 Tips on Assessment*, which offers a myriad of practical guidelines for formative and summative assessment, as well as for students' group and self-assessment.

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