2 Multiliteracies Pedagogy

Theory to Practice for Scaffolding Sustainability Literacies

Kristen M. Turpin

Introduction

Content-based instruction (CBI) is a curricular approach that embeds language instruction in the context of meaningful content for learners (Brinton & Snow, 2017; Cammarata, 2016a; Met, 1999; Snow et al., 1989; Stoller, 2004). Because it offers a framework for creating cognitively engaging instructional materials that develop learners’ linguistic proficiency (Genesee & Lindholm-Leary, 2013), CBI is transforming L2 classrooms into a space where students use language to inquire about global issues that are most pressing to them, such as climate change. Fortunately, sustainability is a topic that lends itself to CBI and can be integrated at various levels. Sustainability studies can be connected to students’ daily lives yet demand that they engage in higher-order thinking, consider cultural differences, and make connections to other disciplines (Kautz, 2016). In terms of plausibility, teaching about sustainability in the L2 content-based classroom also has its advantages. CBI depends on the use of foreign language texts “to promote purposeful language use, understanding of complex meaning, and extended learning activities as beneficial to learner discovery of the multiple dimensions of language and culture” (Melin, 2019, p. 303). Because the internet abounds with infographics, short videos, articles, and government-sponsored information campaigns directed at populations with varying degrees of literacy, instructors can find relevant, accessible texts to provide a meaningful context in which students communicate purposefully about global sustainability issues.

Beyond providing the content and context in a sustainability-based course, multimodal texts of various genres play a central role in redesigning college-level foreign language education to meet the needs of 21st-century learners. As departments continue to integrate the study of language, literature, and culture at all levels of the curriculum, educators and researchers alike are reconsidering the types of texts that L2 learners should encounter and how, when, and why they should interact with those texts. The multiliteracies framework is one of the leading approaches because it integrates “the teaching of ‘communication’ with the teaching of ‘textual analysis’” (Kern, 2003, p. 43) in order to prepare foreign language learners “to participate in diverse discourse communities both at home and in the target culture” (Paesani et al., 2016, p. 3). The multiliteracies
framework (also known as ‘multiliteracies pedagogy’) emphasizes the socially- and culturally-situated nature of language and communication, inviting learners to analyze how texts are produced in their contexts of use (Kern, 2000). Consequently, multiliteracies pedagogy asks learners to make “connections between grammar, discourse, and meaning” (Kern, 2000, p. 46), which transforms instruction in two ways. First, learning objectives shift from the comprehension of key concepts to analyzing how and why different cultures, disciplines, news outlets, and stakeholders construct texts about humans’ relationship with the natural world. Second, grammar is no longer a list of rules to memorize but “a system of discourse tools” (Swaffar & Arens, 2005, p. 21) that writers/speakers use to describe, debate, and inquire about climate change and environmental justice.

After introducing the multiliteracies framework and justifying its relevance to sustainability-based instruction, this chapter illustrates how to combine CBI and multiliteracies pedagogy in a fifth-semester Spanish conversation course. Drawing examples from a unit on ‘Ecotourism and Environmental Conservation,’ I demonstrate how to reframe reading and writing as socially- and culturally-situated acts of meaning design. I explain how to move learners through the four knowledge processes that constitute literacy-based learning—experiencing, conceptualizing, analyzing, and applying (Kalantzis et al., 2016, p. 67)—as they explore competing and contradicting narratives of ecotourism in Costa Rica.

**Multiliteracies Pedagogy: Developing Sustainability Literacies**

It is well documented that CBI has a variety of faces. It encompasses a wide range of curricular models, from content-driven programs in which “student learning of content is of greater importance than language learning” to language-driven programs in which “content is a useful tool for furthering the aims of the language curriculum” (Met, 1999, para. 6). Although institutional and departmental structures often determine where content-based foreign language courses lie on Met’s spectrum of language-content integration, it is a valuable exercise to think hypothetically about the consequences of teaching about sustainability at various points along his spectrum. At one extreme, students in content-driven courses would gain information about how human activity affects the environment, but they might struggle to put their knowledge into practice and do something—with language—to enact change. In other words, they might lack sustainability literacy, or “the collection of skills” that allow individuals to participate effectively in efforts to build a “more sustainable self, community, society, and world” (Stibbe & Luna, 2009, p. 1). At the language-driven end of Met’s spectrum, “theme-based courses” and “language classes with frequent use of content for language practice” might also fall short of empowering students to take climate action. In a language-oriented classroom, students might not be held accountable for content
mastery (Met, 1999, para. 10). Furthermore, novice or intermediate learners might not be challenged to stretch their language proficiency beyond communicating about the self. Although the personal choices that we make to reduce our carbon footprint do impact the future of our planet, teaching and learning about sustainability in the L2 classroom should not stop there. In its most radical sense, sustainability literacy is collaborative and revolutionary; in addition to reducing our individual carbon footprints, we need to take on the systems of power that prevent real progress toward more sustainable futures.

In the middle of Met’s spectrum, there are CBI courses that equally prioritize content and language learning, and these often succeed in preparing students to participate in academic discourse communities (Met, 1999, para. 15). However, solving the climate crisis and pursuing climate justice requires buy-in from various constituent groups, both inside and outside of academia. Students need the ability to translate their content knowledge, present it persuasively in various contexts, and build relationships among groups with conflicting perspectives and competing interests. Especially in the context of sustainability, L2 learners need to develop a purpose-sensitive and agentive sense of multiple literacies—which is what empowers individuals to enter societies; to derive, generate, communicate, and validate knowledge and experience; to exercise expressive capacities to engage others in shared cognitive, social, and moral projects; and to exercise such agency with an identity that is recognized by others in the community.

(Swaffar & Arens, 2005, p. 2)

Content-based courses that prioritize academic literacy might fall short of empowering students in this multifaceted way. Therefore, this chapter argues that sustainability-based L2 education, regardless of the relative value assigned to the learning of language and content, should consider the different types of literacies that one may possess and the different contexts in which literacies practices take place (Paesani et al., 2016, pp. 11–12; The New London Group, 1996). To emphasize this key point, sustainability literacies will be referenced in the plural.

Given the conceptual compatibility of ‘sustainability literacy’ and ‘multiple literacies,’ L2 courses that aim to develop students’ sustainability literacies often complement CBI with models for multiple literacies teaching. One of these models is the multiliteracies framework, which embraces the plural, multifaceted definition of literacy mentioned in the previous paragraph and aims to reflect the “dynamic, socially-determined, and multidimensional uses of language encountered in daily life” (Center for Advanced Research on Language Acquisition, 2021). The origins of the multiliteracies framework can be traced to debates in the 1980s and 1990s about the limits of communicative language teaching (CLT), understood here as an instructional approach that focuses on interactive, transactional oral language usage in generic contexts.
One of the main critiques of CLT is the limited role of textual content. Viewed as secondary support skills, reading serves to deliver comprehensible input, and writing serves to practice language forms; neither modality offers the opportunity to interpret cultural content, create written texts with real social purposes, or develop thinking and intellectual abilities (Allen & Paesani, 2010, p. 122; Paesani et al., 2016, p. 7; Warner & Dupuy, 2018, p. 117). These critiques laid the groundwork for the New London Group’s seminal publication, which proposed a ‘pedagogy of multiliteracies’ that would enable students to negotiate linguistic and cultural differences in increasingly globalized societies (The New London Group, 1996).

Following the New London Group’s redefinition of language learners as “active designers of meaning” (p. 65), Kern (2000) provided practical models for teaching reading and writing as interconnected, dynamic acts of meaning design. When the Modern Language Association (MLA) punctuated the need to teach “language, culture, and literature as a continuous whole” (Modern Language Association, 2007), the multiliteracies framework offered a concrete method for implementing program-wide curricular reform. Swaffar and Arens (2005) implemented the multiliteracies framework to integrate the study of literature and culture into every level of the curriculum and redefine the role of foreign language programs within the humanities. Allen and Paesani (2010) explored its feasibility in introductory foreign language courses, and Byrnes et al. (2010) used genre-based literacies instruction to develop students’ advanced writing proficiency. Paesani et al. (2016) synthesized decades of scholarship in an accessible theory-to-practice guide for educators. Recently, Paesani (2018) and Warner and Dupuy (2018) have looked toward the future of multiliteracies pedagogy and identified new context and focal points, such as heritage language education and social justice education. By highlighting the relevance of multiliteracies pedagogy to sustainability-based L2 education, this chapter illustrates one such possibility for the future of multiliteracies.

Some sustainability-minded curriculum designers intuitively combine aspects of CBI and multiliteracies (de la Fuente, 2019; ter Horst & Pearce, 2010), whereas others explicitly and intentionally adopt practices from the multiliteracies framework (Kautz, 2016; Melin, 2013, 2019). Méndez Seijas and Luisa Parra (this volume) adapted select aspects of multiliteracies pedagogy to make complex sustainability content accessible for novice learners. Working at the intermediate level, Kautz (2016) supplemented a textbook with sustainability-themed CBI lessons to develop students’ multiple literacies—“the skills and attitudes that make learners able to participate fully in the life of different communities” (Kautz, 2016, p. 263). When Melin (2013) designed an upper-division course on Contemporary Germany, she recognized that “learning about environmental content would be just as important to the educational process as textual interpretation,” so she intentionally blended “models for multiple literacies teaching” and CBI (Melin, 2013, p. 187). In Foreign language teaching and the environment (2019), Melin advocated “attention to multifaceted
work on literacy instead of concentrating on speaking skills” when teaching sustainability and environmental humanities topics in language, literature, and culture courses (Melin, 2019, p. 5).

The following pages illustrate a theory-to-practice approach to using a multiliteracies framework to scaffold students’ development of sustainability literacies. This approach builds upon existing scholarship by rendering transparent key decisions that must be made in the process of multiliteracies curriculum development. In order to exemplify this decision-making process, I reference a unit about ecotourism in Costa Rica that was developed for a special topics section of a fifth-semester Spanish conversation course at Brandeis University. The course, which has the overarching goal of developing oral proficiency at the advanced-low level, is a “sustained content course” because students explored the theme of sustainability throughout the semester (Brinton & Snow, 2017, p. 9).

**Unit design: Instructional Approaches, Learning Objectives, L2 Texts**

In developing this 15-hour (approx.) instructional unit, backward design was used to determine learning objectives, design assessment tasks, and plan text-based instructional activities (Wiggins & McTighe, 2005). Strategies from CBI were implemented to determine the specific knowledge needed to be introduced in Phase 1, write content objectives that specified the depth of cognitive engagement, and identify the language needed for students to manipulate the targeted concepts (Cammarata, 2016b). In Phases 2 and 3, the multiliteracies framework helped strategize the day-to-day planning of instructional activities that moved students from literal comprehension to complex text-based thinking. Table 2.1 summarizes the learning objectives, L2 texts, and tasks of the unit. While the main objectives of each phase were directly assessed via formal task-based assessments and a pre-/post-unit survey, subsidiary objectives were assessed indirectly and informally via instructional activities.

Throughout the unit, students engage with foreign language texts that serve different purposes in developing students’ sustainability literacies. Students first encounter short, informational texts from the sciences and social sciences. The podcast, infographic, and websites in Phase 1 allow students to define ecotourism and then explain why Costa Rica is a popular destination. To be successful, sustainability projects need to be rooted in the local—the specific ecological, economic, and sociocultural factors that shape what is considered sustainable for a given community—and the texts in Phase 1 start to provide this local specificity. Students were not asked to produce their own podcasts, infographics, or websites, so these texts were not models of language usage but rather a means of introducing concepts. Given this focus on content, basic scaffolding techniques from CBI, such as activating prior knowledge and using graphic organizers, were sufficient to support student learning at the advanced-low level (Cammarata, 2016a).
<table>
<thead>
<tr>
<th>Phase</th>
<th>Learning objectives</th>
<th>Instructional texts</th>
<th>Tasks: activities and assessments</th>
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<tbody>
<tr>
<td>1: Introduction</td>
<td><strong>Main:</strong> Explain why C. Rica is a popular destination for ecotourism. <strong>Subsidiary:</strong></td>
<td>- Podcast about ecotourism.</td>
<td>• Formal interpersonal speaking: Work with a peer to plan a trip to the Caribbean Coast of C. Rica. Students record an improvised 10-minute conversation, and their performance is evaluated with an analytic rubric.</td>
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<td></td>
<td>What is ecotourism? Why is Costa Rica such a popular destination?</td>
<td>- Infographic on what is ecotourism.</td>
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<td></td>
<td></td>
<td>- Formal interpersonal speaking: Work with a peer to plan a trip to the Caribbean Coast of C. Rica. Students record an improvised 10-minute conversation, and their performance is evaluated with an analytic rubric.</td>
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<td>2: Deep Dive</td>
<td><strong>Main:</strong> Describe the specific challenges of implementing ecotourism in Costa Rica.</td>
<td>- Infographic from World Wetlands Day.</td>
<td>• Short, informal interpretive reading tasks related to <em>La loca de Gandoca</em>.</td>
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<td><strong>Subsidiary:</strong></td>
<td>- News video about the economic importance of wetlands in C. Rica.</td>
<td>• Formal interpretive listening: Listen to an interview with Rossi to inform your reading of the novel / hear another perspective about the challenges of implementing ecotourism.</td>
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<td>- Identify arguments for and against 'sustainably' developing the wildlife refuge Gandoca-Manzanillo.</td>
<td>- Brochure for tourists visiting Gandoca-Manzanillo.</td>
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<td></td>
<td>- Analyze interests and motives of different stakeholders in the debate about Gandoca-Manzanillo.</td>
<td>- <em>La loca de Gandoca</em>, a novel by A. Rossi.</td>
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<td></td>
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<td>- Interview with Rossi.</td>
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<td>3: Application</td>
<td><strong>Main:</strong> Argue different points of view in debates about ecotourism and environmental conservation.</td>
<td>- Model Spanish-language petitions from Change.org.</td>
<td>• Formal presentational writing: Assume the role of one of the characters in <em>La loca de Gandoca</em>; write a petition to argue for/against the development of the wildlife refuge. The task is formally graded (analytic rubric).</td>
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<td></td>
<td><strong>Subsidiary:</strong></td>
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<td>• In-class interpersonal speaking activity: Revise the trip you 'planned' to C. Rica to account for what you have learned about ecotourism. What would you have done differently?</td>
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<td>- Persuade others to share your opinion.</td>
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<td></td>
<td>- Reflect on your role as a tourist.</td>
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Beyond informational texts that present a single perspective on key concepts, it is essential that multiliteracies curricula also incorporate texts that invite students to analyze how language is used to construct a plurality of often contradicting perspectives on the same issue (Byrnes et al., 2010, p. 123). If students are to develop dynamic sustainability literacies that empower them to participate in a variety of discourse communities, they need to examine how meaning “is constructed through form in a cultural context” (Kern, 2000, p. 185). In this unit, a longer, literary text provided this crucial opportunity for textual analysis anchored in a sociocultural context.

Anacristina Rossi published the testimonial novel *La loca de Gandoca* (The Madwoman of Gandoca) in 1992 to recount her fight against the ‘sustainable’ development of the Gandoca-Manzanillo Wildlife Refuge, which encompasses lowland rainforests, wetlands, and mangrove swamps on the Caribbean Coast of Costa Rica (Rossi, 2009). The novel aligned well with the unit’s learning objectives because it allowed students to analyze how residents, conservationists, government officials, and foreign investors crafted different arguments about sustainable development in the name of ecotourism. Instead of formally assessing students’ comprehension as they were reading, multiliteracies pedagogy emphasized active, collaborative meaning-making processes. Engaging with the perspectives presented in *La loca de Gandoca* prepared students for the presentational writing task that concluded the unit: Students assumed the role of one of the characters in the novel and wrote a petition for/against the development of tourist infrastructure in the wildlife refuge.

Consequently, the learning objectives for Phase 2 require students to engage in more complex text-based thinking that recognizes the social, historical, and cultural dimensions of knowledge production and communication. In other words, students not only identify the arguments for and against ‘sustainably’ developing Gandoca-Manzanillo (the ‘what’) but also analyze how each argument gains or loses traction with community members (the ‘how’ and the ‘why’). The multiliteracies framework’s emphasis on context-sensitive, purpose-driven communication provides the theoretical coordinates and concrete instructional strategies necessary to scaffold the development of sustainability literacies in Phases 2 and 3 of the unit. The following two sections examine the pedagogical impact of two key instructional strategies: Defining reading as an act of meaning design and intentionally guiding students to engage in various knowledge processes as they interact with L2 texts.

**Multiliteracies Pedagogy: Reading about Sustainability as an Act of Meaning Design**

Within the multiliteracies framework, literacy extends beyond the static ability to read and write and encompasses the “dynamic, culturally and historically situated practices of using and interpreting diverse written and spoken texts to fulfill particular social purposes” (Kern, 2000, p. 6). Building upon Swaffar and Arens’ (2005) empowering notion of multiple literacies, which was quoted
earlier in this chapter, the multiliteracies framework uses the term ‘meaning design’ to emphasize how language users exercise their agency as they interact with texts and participate in society (Cope & Kalantzis, 2009; Paesani et al., 2016; The New London Group, 1996). In the context of this unit, students designed meaning as both readers and writers. In Phase 2, they created meaning through an interactive interpretation of La loca de Gandoca, and then, in Phase 3, they used the knowledge that they gained through textual interaction to design meaning as recognized members of various discourse communities.

Reframing the reading of this novel as an act of meaning design impacted instruction in two ways; first, instructional materials needed to consider the cognitive, linguistic, and sociocultural dimensions of reading, and second, students needed to engage in reading processes that honored the interactive nature of constructing meaning from a text (Paesani et al., 2016, pp. 143–144). To address the cognitive dimension of reading, students received explicit instruction on processes, skills, and problem-solving techniques that would facilitate a more productive interaction with the novel (Kern, 2000). For example, one of the cognitive challenges presented by the novel is that it recounts the attempt to develop the wildlife refuge through dialogue as opposed to narration. To address this, class time was dedicated to having students read the dialogue aloud, discussing the textual clues that helped them identify the speaker of each utterance, and then writing characters’ names in the margins. Although the novel poses linguistic challenges such as precise legal terminology and references to local plants and animals, instructors can prioritize the meaning-making tools that best align with the communicative needs of their students. For example, the reading guides for each section of the novel focused students’ attention on the lexical features used to construct arguments about ecotourism; these were the same lexical features that students would use to design meaning in the presentational writing task.

However, within the multiliteracies framework, reading extends beyond its cognitive and linguistic dimensions; “it is a set of patterned literacy practices that are tied to and reflect a group, community, or culture” (Paesani et al., 2016, p. 144). Instructional materials and in-class activities addressed the sociocultural dimension of reading by analyzing the choices that Anacristina Rossi makes in La loca de Gandoca. For example, the novel interweaves two parallel stories: A personal story, in which the author builds upon the literacy practices of poets to recount the destruction of her marriage, and a public story, in which the literacy practices of lawyers and public officials are transformed to recount the destruction of the wildlife refuge Gandoca-Manzanillo (Kearns, 1998, p. 315). Although students were able to identify the differences in content, style, and purpose of the personal and private stories, they struggled to correctly contextualize them within the literacy practices of a group, community, or culture. For example, students knew that the author/protagonist was a local resident, and that some local residents were English speakers of Afro-Caribbean descent; as a result, some students incorrectly assumed that Anacristina Rossi was Black and that she wrote La loca de Gandoca as a
member of the Afro-Caribbean community. This was a clear example of how meaning-making—both on the part of the text and the part of the reader—is contextually bound; texts and the way they are (mis)interpreted reflect and propagate cultural perspectives (Kern, 2008, p. 367; Rowland et al., 2014, p. 140). Listening to an interview with Anacristina Rossi (as an interpretive listening assessment task) helped students understand the communities with which the author identifies and then situate the literacy practices of the novel accordingly. In sum, by considering the cognitive, linguistic, and sociocultural dimensions of reading, instructors can design instructional materials that support students as they overcome the challenges that a text poses for meaning design.

The multiliteracies framework provides additional strategies for teaching challenging texts by emphasizing the interactive nature of constructing meaning with texts. Within the multiliteracies view of reading, readers actively negotiate with a text’s meaning by interacting with it: applying one’s background knowledge, making predictions, discussing the text with peers, doing additional research, and revisiting the text multiple times, all contribute to meaning construction (Paesani et al., 2016, pp. 141–142). In order to encourage active, interactive reading practices, the novel was divided into five sections, and focus questions were designated for each section; these questions centered students’ attention on the passages that would help them achieve the unit’s learning objectives (see Table 2.1). The class was organized into reading groups, each responsible for answering one of the focus questions and bringing textual evidence to class. During class time, each group had 15–20 minutes to refine their understanding of the focus question and prepare a summary for their peers. For the next 20–25 minutes, each group shared their summary with the class, cited textual evidence, and answered any follow-up questions. As the instructor, I intentionally gave the class the chance to co-construct meaning, and I only intervened to provide background knowledge that students could not deduce from textual analysis and needed to advance their discussion. After all groups presented, I debriefed their contributions by pointing students to key passages that would correct any misinterpretations and summarizing how their understanding of ecotourism and environmental conservation was evolving.

To review, the multiliteracies framework considers reading to be an act of meaning design and thus provides a framework for creating instructional materials that address the cognitive, linguistic, and sociocultural dimensions of active, interactive reading practices. Consequently, it supports L2 readers throughout the interpretation of longer, more complex texts that broach various perspectives in sustainability debates. The following section addresses the remaining important questions: How does the understanding of texts translate to the real-world ability to collaboratively build more sustainable futures? When students interact with teacher-generated literacy materials, how can we be sure they are engaging in the complex text-based thinking that develops sustainability literacies?
Multiliteracies Pedagogy: Meaning-Making Actions That Build Sustainability Literacies

In multiliteracies pedagogy, the Knowledge Process (KP) framework describes the concrete types of “thinking-in-action” that students do to design meaning as they interact with texts (Kalantzis et al., 2016, p. 74). This framework can be used as a tool for literacies-oriented course planning and materials design or to analyze existing instructional materials (Fterniati, 2010; Menke & Paesani, 2019; Rowland et al., 2014). According to this framework, the four “epistememic moves, or things students can do to know” as they interpret and create texts are experiencing, conceptualizing, analyzing, and applying (Kalantzis et al., 2016, p. 80). Experiencing involves “spontaneous, immersive learning without conscious reflection”; conceptualizing consists of students actively “unpack[ing] the language forms, conventions, organizational features, and form-meaning relationships that characterize texts”; analyzing entails “relating textual meaning to social, cultural, historical, or ideological contexts and purposes”; and applying occurs when students “use new understandings and skills and produce language in conventional or creative ways” (Menke & Paesani, 2018, p. 4). Although these four knowledge processes constitute different meaning-making actions, they are neither hierarchal nor sequential, and they can be implemented in whatever order best meets students’ needs (Kalantzis et al., 2016; Menke & Paesani, 2019).

For this project, I used this framework to design text-based instructional activities that would engage students in the meaning-making actions that would promote the development of sustainability literacies. Table 2.2 shows how students circled through various stages of literacies-oriented reading instruction, both inside and outside the classroom and across multiple class sessions (see Paesani et al., 2016). Most notably, students engaged in all four knowledge processes before, during, and after reading La loca de Gandoca. In contrast to communicative language teaching, in which experiencing predominates, literacies-oriented instructional materials should include an appropriate mix of knowledge processes to maximize proficiency gains, critical thinking, and student learning (Menke & Paesani, 2018).

The frequency of analyzing activities is fundamental for developing students’ sustainability literacies. In the two critical reading stages of the unit (after reading the first half of the novel, and then after finishing it), students analyze the sociocultural context in which beliefs about sustainability are produced and cemented. For example, the analyzing activity that students completed after reading Parts 1 and 2 of the novel asked them to connect each character’s views about ecotourism to their interests, experiences, and beliefs. Students identified competing ecological, economic, and sociocultural concerns, all of which must be addressed in truly sustainable projects. Additionally, they found numerous examples of racist conceptualizations of ‘development’ and ‘progress,’ as well as sexist power dynamics that determined whose views about ecotourism were legitimized and whose were not. Although
<table>
<thead>
<tr>
<th>Knowledge process</th>
<th>What students do</th>
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<tbody>
<tr>
<td>Pre-reading</td>
<td>Read an informational pamphlet about the wildlife refuge Gandoca-Mazánzillo; study an infographic about the importance of wetlands; watch a news report about the environmental importance of wetlands. Make a concept map that answers the question: What is the value of Gandoca-Mazánzillo? Why is it important? View the cover of the novel; make predictions about what the novel’s plot.</td>
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<tr>
<td>Initial reading</td>
<td>View a passage from the novel; identify textual clues that indicate whether this type of ecotourism exists in the region.</td>
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<tr>
<td>Detailed reading</td>
<td>Preview a passage from the novel; identify textual clues that indicate whether this type of ecotourism exists in the region.</td>
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<tr>
<td>Critical reading</td>
<td>Before reading the first part of the novel, read a list of key events and sequence them in logical order.</td>
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<tr>
<td>Knowledge application</td>
<td>After reflecting on the first half of the novel and listening to an interview with Rossi, make predictions about what will happen in the remainder of the novel.</td>
</tr>
<tr>
<td>Pre-reading</td>
<td>Read with a focus on the comprehension question assigned to the group.</td>
</tr>
<tr>
<td>Parts 1 and 2</td>
<td>With selections of Parts 1 and 2: Complete a collaborative text annotation activity to connect each character’s views about ecotourism to their interests and experiences.</td>
</tr>
<tr>
<td>Initial reading</td>
<td>With selections of Parts 1 and 2: Complete a collaborative text annotation activity to connect each character’s views about ecotourism to their interests and experiences.</td>
</tr>
<tr>
<td>Detailed reading</td>
<td>With selections of Parts 1 and 2: Complete a collaborative text annotation activity to connect each character’s views about ecotourism to their interests and experiences.</td>
</tr>
<tr>
<td>Critical reading</td>
<td>After reading Parts 1 and 2: Prepare notes for an in-class debate about ecotourism and conservation in Gandoca-Mazánzillo.</td>
</tr>
<tr>
<td>Knowledge application</td>
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<td>Detailed reading</td>
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<tr>
<td>Critical reading</td>
<td>With selections of Parts 3–5: Complete a collaborative text annotation activity; use the hashtags #GandocaVerde and #DesarrolloGandoca to summarize the arguments for and against the development of the wildlife refuge; include an explanation of why the character holds this belief; read peers’ annotations and respond with a counterargument.</td>
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<tr>
<td>Knowledge application</td>
<td>Read model Spanish-language petitions from Change.org; complete a collaborative text annotation activity to identify meaning-making strategies for writing a convincing petition; assume the role of one of the characters in the novel and write a petition to argue for/against the development of the wildlife refuge.</td>
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the novel establishes clear connections between fighting for environmental justice, dismantling the patriarchy, and ending white supremacy (Rhoden & Kearns, 2012, p. 168), students are not likely to make these connections unless they engage in analyzing activities that require them to frame textual meaning critically. If students are going to use their language proficiency and content knowledge to participate in real-world discourse communities, their education needs to illuminate the interests, beliefs, and power structures that collide in sustainability debates. Ensuring that students engage in the knowledge process of analyzing is one way to develop this aspect of sustainability literacies and prepare them to take on the systems of power that prevent real progress towards more sustainable futures.

We also know that sustainability literacies entail the ability to strategically negotiate meaning and build relationships with groups of people who may not share our beliefs and values. For this reason, the unit incorporated frequent applying activities that required students to design meaning in different settings. They participated in oral debates after reading the first half of the novel and, at the end of the unit, students applied their new knowledge about ecotourism and wrote a petition intended to persuade Costa Rican communities that have a stake in the debate about the wildlife refuge. Two different text annotation activities prepared them for this real-world task. First, students did a critical re-reading of selections from the novel in order to strategize the content of their petitions; they used Perusall, a social reading platform integrated into the university’s learning management system, to review the arguments for and against the development of the wildlife refuge. They tagged each argument with a hashtag (#GandocaVerde and #DesarrolloGandoca), analyzed the motives and the purposes of the character making the argument, and then brainstormed possible counterarguments. After the collaborative annotation activity had been completed, students could use the hashtags to locate relevant arguments in the text quickly and outline their petitions.

A second textual annotation task prepared students to creatively transform the arguments presented in La loca de Gandoca (which emerged in conversational exchanges among characters) and reframe them in a petition. After reading two model petitions from Change.org, the class collaborated on Perusall to conceptualize the meaning-making tools that make petitions persuasive. Teacher-initiated annotations drew students’ attention to key language forms and textual conventions, and students responded with their hypotheses about the effect that each choice had on meaning-making. Finally, in-class activities solidified the reading–speaking–writing link necessary for advanced writing development (Byrnes et al., 2010, p. 55).

When writing their own petitions, students transformed the content of La loca de Gandoca and the genre conventions of the model petitions they had studied. In a pedagogy of multiliteracies, students may find meaning-making resources (...) in representational objects, patterned in familiar and thus recognizable ways. However, these objects are
Kristen M. Turpin

Meaning makers do not simply use what they have been given: they are fully makers and remakers of signs and transformers of meaning. (Cope & Kalantzis, 2009, p. 175)

Students drafted their petitions and then completed a peer review activity that framed writing in this way—as a dynamic, purposeful, and context-bound act of meaning design (Turpin, 2019). As the instructor, I also commented on each rough draft, intentionally focusing my feedback on the meaning-making choices that helped or hindered students’ ability “to exercise [their] agency with an identity that is recognized by others in the community” (Swaffar & Arens, 2005, p. 2) and persuade their intended audience. Students addressed issues with content and organization in their peer review groups, and then, as a whole class, we addressed the linguistic issues that would detract from the petition’s effectiveness (Byrnes et al., 2010, p. 137). For example, students struggled to consistently and appropriately refer to the reader (mixing tú, usted, and ustedes), select sentence structures that indicate whom to blame for destructive actions (contrast of active and passive voice), and delineate which aspects of ecotourism and sustainable development exist, and which do not (contrast of indicative and subjunctive moods). Students used the feedback they had received from peers and the instructor to revise their meaning-making choices and prepare a final version. This genre-based assessment task aligned with the unit objectives because it held students accountable for the content knowledge they had gained about ecotourism and required them to put knowledge into practice in a real-world application of multiliteracies.

Conclusion

The multiliteracies framework can be used in any content-based foreign language class to scaffold students’ development of sustainability literacies. In this context specifically, it affords us the theoretical coordinates and practical procedures that we need to prepare students to take active roles in discourse communities committed to sustainability. By theorizing reading and writing as an act of meaning design, it emphasizes the sociocultural context in which texts are produced and interpreted. Instructors can leverage the context-driven and interactive nature of reading to prepare procedural and instructional scaffolding that supports readers through interpreting difficult texts. Furthermore, instructors can use the KP framework to ensure that students move beyond their own experiences with sustainability and have the opportunity to interpret and create texts in which content knowledge, linguistic competence, and sociocultural context intersect.

Applying multiliteracies pedagogy and sustainability education to our language classes may not be easy if we are bound by the confines of a textbook that emphasizes grammatical content and lacks meaningfully integrated texts (Allen & Paesani, 2010, p. 125; Warner & Dupuy, 2018, p. 122). Whether imposed by a textbook, program goals, or university requirements, external
pressure can limit the time that instructors and curriculum designers can devote to complex text-based thinking. Developing students’ multiple literacies requires extensive time and committed engagement—both of which diminished with the sudden onset of emergency remote instruction at the start of the COVID-19 pandemic. As we transition back to in-person instruction, practitioners are encouraged to leave ample time for multiliteracies instruction,⁴ which offers practical and impactful strategies to foreign language educators who aim to empower the next generation of sustainability activists.

Notes
1 The unit was designed to be five weeks long, with 50-minute classes meeting three times per week.
2 Anacristina Rossi is a Costa Rican writer and environmental activist. She was born in San José in 1952 and continues to publish today.
3 Some activities involve multiple knowledge processes. In a prediction activity, students draw upon their personal experience and background knowledge (experiencing) to come up with a list of possibilities, then use their knowledge of how texts create meaning in a given context (analyzing) to select the most likely possibility and formulate their prediction.
4 The use of social reading platforms (such as Perusall) promotes active and collaborative meaning-making practices. The Center for Advanced Research on Language Acquisition (CARLA) also offers online resources and summer institutes for practitioners who want to implement multiliteracies pedagogy at all levels of post-secondary instruction.

References


