

# Studies in Second Language Learning and Teaching

Department of English Studies, Faculty of Pedagogy and Fine Arts, Adam Mickiewicz University, Kalisz SSLLT 12 (4). 2022. 575-595 https://doi.org/10.14746/ssllt.2022.12.4.3 http://pressto.amu.edu.pl/index.php/ssllt

# Reexamining feedback on L2 digital writing

# Idoia Elola

Texas Tech University, Lubbock, USA https://orcid.org/0000-0003-0722-0332 idoia.elola@ttu.edu

Ana Oskoz University of Maryland, Baltimore County, USA https://orcid.org/0000-0003-2770-4844 aoskoz@umbc.edu

#### Abstract

The integration of digital multimodal composing (DMC) in the second language (L2) and heritage language (HL) classrooms has expanded our notion of writing, shifting from a focus on the written mode to include other modes of expression (e.g., visual, textual, or aural). Notwithstanding the increasing presence of L2 multimodal learning tasks, which combine different semiotic resources (e.g., language and visual components such as images or videos) as intrinsic elements used to generate meaning, instructors have not yet modified the way in which they provide feedback. That is, despite the increasing integration of different modes in a multimodal task, instructors still focus exclusively on language development - replicating the feedback behaviors modeled by non-digital writing assignments - rather than on all the components of multimodal texts. In digitally influenced environments and societies, however, there is a need to reconsider our approaches to feedback to pay greater attention to the linguistic and nonlinguistic elements of DMC. With the scarcity of research on feedback in DMC, this article first identifies a gap in multimodal teaching and research regarding the role and focus on feedback in DMC, and, second, provides an assessment rubric from which to base formative feedback that addresses both linguistic and nonlinguistic elements to help students develop their multimodal texts.

*Keywords*: digital multimodal composing; digital feedback for multimodal texts; nonlinguistic feedback; assessment rubrics; literacies

## 1. Introduction

The increasing inclusion of digital multimodal composing (DMC) in the second language (L2) and heritage language (HL) classroom, which expands traditional written forms to include other modes of expression (e.g., visual, textual, or aural), has brought new concerns to instructors and researchers alike. In recent years, L2 and HL learners have frequently explored and created multimodal texts, such as blogs and digital stories, in which the integration of semiotic resources (e.g., language and visual components, such as images or videos) are intrinsic elements used to generate meaning. Yet, the goal of creating synaesthetic texts (Kress, 2003), in which each component depends on the others for meaning creation, is often ignored during feedback provision (Oskoz & Elola, 2020). Regardless of the inclusion of DMC in upper-level (Fornara & Lomicka, 2019; Nelson, 2006; Mina, 2014; Oskoz & Elola, 2014, 2016b) or lower-level (Ruiz Pérez, 2022; see also Zhang et al., 2021) courses, the questions instructors are faced with and challenged by concern what the role and focus of feedback should be when covering both linguistic and nonlinguistic features.

In L2 learning environments, the provision of feedback, a familiar, wellestablished practice, generally concentrates on writing conventions (i.e., global issues, such as organization) and error correction (i.e., local issues, such as grammar) with the aim of learning to write or writing to learn (Manchón, 2011). Feedback, that is, stating a problem (e.g., an error or structural issue) and then inviting learners to try to fix it, is a traditional technique used to foster linguistic development that offers learners the opportunity to notice differences between their interlanguage and the target language. Despite the increasing prevalence of multimodal tasks in the L2 classroom and in DMC research (Caws & Heift, 2016; Oskoz & Elola, 2020), the emphasis of feedback provision continues to focus on the linguistic aspects of multimodal texts and often ignores nonlinguistic elements. This almost sole linguistic focus on feedback in multimodal tasks and genres may be the result of L2 instructors' lack of guidelines to assess multimodal texts, insecurity with the use and affordances of the digital tools, avoidance of nonlinguistic elements that seem to be learners' personal choices, or lack of curricular objectives that include the reason for using multimodal texts (Oskoz & Elola, 2020). However, echoing Caws and Heift (2016), the roles of instructors and peers as (digital) feedback providers in a digital context should be "radically changing while, at the same time, becoming more critical," with the goal of helping learners become "progressively digital[ly] literate" (p. 133). Feedback should "not only take into account the learner but, ideally, also the tool, the interactions as well as the outcomes" (Caws & Heift, 2016, p. 131). In line with these pressing changes, DMC demands a change in our feedback practices and focus. Thus, adapting feedback practices for multimodal texts raises important questions: What type of feedback and on which elements of multimodal composing should we provide feedback to our learners in DMC environments, and why is this important in current educational settings? How do we provide feedback on the interrelationships between language and the interconnection of modes that have traditionally not been considered part of the act of writing?

In this article, we address the importance of the largely unexplored role of feedback in the L2 DMC domain. First, by examining new definitions of literacies, theoretical and pedagogical frameworks, and digital genres, we argue that there is a need to maintain the traditional focuses of feedback (e.g., language, content, structure, and organization) but also to move towards a more multifaceted, comprehensive, and modern feedback method (e.g., multimodal issues related to identity, agency, and voice). Second, following Lamb's (2018) emphasis on formative feedback or "feedforward" (as he prefers to say), "where students are provided with correctional advice and guidance during the process of composition, rather than [after] the submission of coursework" (p. 6), we connect formative feedback to assessment. Whether coming from the instructor or their peers, providing formative feedback allows learners to focus on linguistic and nonlinguistic issues throughout the development of a multimodal text. Third, considering the purpose of multimodal compositions and the need to focus on both linguistic (e.g., orthography, verb tenses) and nonlinguistic issues (e.g., images, sounds), we address the different components that ought to be considered when providing feedback on multimodal texts and suggest criteria that instructors can use when offering feedback on multimodal tasks. Finally, acknowledging the limited research on feedback in digital contexts, we conclude by offering ideas for potential future studies that examine the role and impact of feedback in the development of multimodal texts and the creation of multimodal tasks.

# 2. Factors that shape feedback: Literacies and frameworks

# 2.1. A new understanding of literacy

There is no question, as Hafner and Ho (2020) point out, that even with relatively standard practices, like the writing of traditional argumentative and expository essays, for example, there is an increasing proliferation of multimodal texts. These include, among others, video methods articles in the life sciences (Hafner, 2018), visual abstracts in academic articles (Sancho Guinda, 2015), crowd-funding proposals for educational projects (Mehlenbacher, 2017), scholarly blogs engaging a wide audience (Luzón, 2013), and digital storytelling (Oskoz & Elola, 2014, 2016a, 2016b). These multimodal practices are the result of expanded definitions of literacies. It makes sense that, because of the internet revolution and the spread of social digital tools, *literacies* today are considered "social practices that are fluid, sociocultural, multimodal, and dynamic" (Chen, 2013, p. 143), which are implemented "by individuals as parts of larger groups" (Reinhardt & Thorne, 2011, p. 259) and that consider the goals of writers and audiences as well as the social relationships between them (Hafner et al., 2013). The term *digital literacy*, which pertains to internet- and technology-mediated learning (Chen, 2013, p. 143), converges with other literacies linked to communication skills; fits well within broader social, institutional, and historical domains; and may be described in the context of user practices – media, in particular (Barton, 2007). As a result of the expanded view of literacies, the inclusion of multimodality in meaning-making responds to the technological advances of society (Matthewman et al., 2004).

The call for including multiliteracies in our curricula is not new. As previous work has already pointed out, to effectively shift into current literacies, it is crucial for learners, instructors, and researchers to acknowledge the need to align instruction and research with learners' complex and multifaceted literacy skills (Carpenter, 2009), to assist learners with meeting the challenges of a global economy (Johnson & Kress, 2003), to equip learners with the creativity required in the workplace (Kimber & Wyatt-Smith, 2010), and to act in response to the current digital and multimodal nature of teaching (Jewitt, 2008). In terms of literacies instruction, Lamb (2018) identifies the close and important relationships that exist between multimodality, feedforward and assessment. In fact, if we want to understand the orchestration between the integration of diverse modes and semiotic resources (as a result of evolving tools and their affordances, the genres being produced, and the potential outcomes of multimodal tasks) as well as how multimodal texts will be assessed, the role of feedback becomes more relevant than ever. What is crucial, based on the expanded definition of digital literacies and the inclusion of DMC, is that the notion of what feedback needs to cover in this domain has changed and expanded to encompass the integration of different modes.

## 2.2. Feedback in connection to frameworks

Feedback for DMC is directly or indirectly shaped by the theoretical or pedagogical perspectives in which multimodal tasks are framed. Multimodal texts in the L2 classroom have been investigated from different theoretical perspectives, such as social semiotics (Oskoz & Elola, 2016a, 2016b) and multiliteracies (Ruiz Pérez, 2022). Each perspective triggers and provides a unique analysis of the different components of DMC, impacting the manner in which feedback provision is thought out and implemented.

Social semiotic theory, for instance, helps explain the affordances of different modes (e.g., visual, textual, or aural) and how those modes separately or collectively contribute to multimodal ensembles such as a digital story or an infographic (Bezemer & Kress, 2008; Kress, 2003). Social semiotics investigates how writers (re)design their texts by arranging "available meaning-making resources into a multimodal whole, making authorial decisions appropriately for specific audiences and purposes" (Shin et al., 2020, p. 2). The relationship between used modes and intended meanings is known as "synaesthetic semiosis:" the inclusion of oral, aural, and written modes, often combined, when composing multimodal ensembles (Kress, 2003, 2010). This synaesthetic semiosis can occur in two forms during the construction of a multimodal text (Kress, 2003, 2009): first, there is transformation, the actions that reorder and reposition semiotic resources within a particular mode, and, second, there is transduction, the reorganization of semiotic resources across modes. For instance, when developing a digital story through transformation, learners reconstruct "the syntax or structural complexity of sentences from a narrative (written) story into a digital story script," and through transduction, learners convert "written narration into spoken language and incorporat[e] images, music, and sound" (Elola & Oskoz, 2017, p. 55). From this perspective, feedback primarily emphasizes the content created within each mode, but it is also important to the interconnectivity between and across modes.

From a pedagogical perspective, the concept of multiliteracies in education (New London Group, 1996) is built upon the intersection of a broader definition of literacy, the evolution of technological tools, and diverse social, historical, and cultural contexts. The New London Group (1996) based its framework on the concept of design (i.e., schematic knowledge, the process of designing a text) and the idea that the redesigned text is the contribution to the world by the meaning-maker, who is engaged in an active, dynamic, transformative process of meaning-making. Therefore, multiliteracies position the learner at the center of the learning process, able to accept the critical role of agency in it with the objective of "creating a kind of person, an active designer of meaning, with a sensibility open to differences, problem-solving, change, and innovation" (Kalantzis et al., 2016, p. 226). To accomplish these literacies, learners must consider the form and function of design (i.e., the different meanings and purposes of a text) and how these meanings and purposes are impacted and altered by the designer and the audience (Mills, 2006; Kalantzis et al., 2016). From this perspective, digital feedback underscores the importance of the meaning-making process associated with writing and the learner as an agent in the process, thus, also validating Kress's (2003) notion of the learner as designer.

As L2 instructors and researchers, therefore, we see the need to expand our feedback repertoire beyond the focus on global (i.e., content, structure, organization) and local (i.e., grammar, vocabulary, editing) aspects of the language. As a way to expand feedback, we could consider research grounded in social semiotics (Oskoz & Elola, 2016a, 2020) and the perspectives of multiliteracies (Ruiz Pérez, 2022) that have illustrated how L2 learners shift fluidly across modes (e.g., language and visual images) and have also taken into account the development of coherent multimodal designs. It is therefore essential to include an assessment framework based on curricular objectives that considers multimodal texts by focusing on both linguistic features elicited, whether in the written or oral language modality, as well as in additional modes (e.g., visual), and the agency of the designer and the audience.

#### 3. New genres, new tasks

The inclusion of digital multimodal texts in the L2 classroom is, without doubt, the result of the increasing presence of digital genres in learners' professional and personal lives. As Heyd (2016) reminds us, some digital genres are not to-tally new and have gone through a process of remediation in moving from print to a digital environment, resulting in genres that "can be aptly described as 'hybrids' that incorporate both old and new aspects" (p. 95). These hybrid genres include entries in Wikipedia, for example. Other genres, however, are truly new or emergent. Tweeting, for instance, necessitates fully utilized technological advances to create communicative environments that do not have an equivalent in face-to-face communication (Heyd, 2016).

Therefore, the inclusion of digital genres and resulting multimodal texts challenges past feedback practices. What was considered appropriate just a few decades ago might not be enough when focusing on current digital multimodal genres; that is, digital genres, such as blogging and tweeting, call for modified conceptions of feedback. The development of a blog entry requires an understanding of the rhetorical and linguistic characteristics of the digital genre, while the composition of a tweet assumes knowledge of particular linguistic conventions and semantic connections, including the value of the hashtag. In these cases, balancing the development of L2 learners' writing skills, while addressing the evolving multimodal composing conventions through the provision of effective feedback, could be taxing for the instructor. It is for this reason that guiding instructors and helping them develop a multimodal metalanguage can help them and their learners tackle multimodal texts that are still less familiar in L2 contexts.

When providing feedback on multimodal texts, there is also a need to understand that not all of them present the same degree of multimodality. Following

Lim and Polio (2020), we can distinguish between a strong version of multimodal composing – for example, when "linguistic and nonlinguistic modes of expression contribute equally to building communication" (p. 2) – and a weak version, "in which nonlinguistic modes serve supporting roles for language development" (p. 2). Digital stories and infographics, for instance, could be considered examples of strong versions since visual, aural, or oral elements (among others) are needed to create meaning, whereas Wikipedia entries or blog posts, in which the images might support the written text, could be considered weak versions of multimodal texts. Rather than thinking of strong versions as better and weak versions as worse, instructors need to keep in mind that, when employed in the academic context, the integration of different semiotic resources in multimodal texts varies based on their instructional goal (Lim & Polio, 2020). Therefore, the feedback provided needs to consider the degree to which linguistic and nonlinguistic resources work together in the development of multimodal texts.

## 4. Feedback interplay with assessment

The aim of digital feedback provision is to help learners become efficient composers in a variety of DMC contexts. Thus, depending on the purpose of the digital multimodal text, feedback might also touch upon diverse components of the composition. These components include the goals of the task and the expected outcomes while considering the audience's expectations, the learner's choice of semiotic resources, as well as authorship – the individual and/or collaborative intellectual contributions, and ownership – the fair use and acknowledgement of external sources (e.g., ideas, images, and other semiotic resources). It is because of the inherent social nature of the texts created in L2 DMC classrooms that learners interact with each other, the instructor, and the wider community, providing a natural and conducive space for the use of feedback through, for example, the use of comments in a blog post, the feedback provided by other authors while developing a Wikipedia entry, or likes and dislikes in a digital story uploaded to YouTube.

For a better appreciation of the use of digital feedback, we need to understand that a digital multimodal dialogue that makes explicit the connection between technology, multimodality, feedback, and assessment is essential in DMC (Lamb, 2018). In the case of assessment, Hafner and Ho (2020) suggest that its design needs to run parallel with the tools used (e.g., blogs, infographics software) as well as with formative and summative rubrics. Moreover, they suggest that feedback on DMC requires an understanding of the goals of the task through assessment processes. Similarly, Kalantzis and Cope (2008) propose a model for assessment that includes identity and social cognition (the understanding that knowledge is the result of social interaction), provides formative assessment, fosters learning, and encompasses multimodal texts. There seems to be a growing consensus that feedback can and should be close to assessment procedures as learners create their multimodal texts through the scaffolding of instructors or peers. That is, feedback provided at various times (i.e., formative feedback) in the development process may draw attention to learners' semiotic selections (e.g., linguistic, musical, pictorial) and thus help them heighten semiotic awareness (Towndrow et al., 2013).

To move beyond the sole emphasis on linguistic components and focus on the complete integration of modes and corresponding semiotic resources, Yi et al. (2017) call for assessment procedures that are tailored to L2 writers' needs to master language in combination with other modes. Hung et al. (2013) further note that a rubric that focuses on the use of different modes may help learners understand the way in which the combination of these modes in the multimodal ensemble support meaning-making. The assessment criteria, as Hicks (2015) suggests, must be flexible enough to reflect the evolving nature of communication tools and technologies, which may initially call for generic criteria that can be adjusted to a range of different types of multimodal composition.

As instructors become more at ease with newer digital tools and genres, and begin to understand the impact that both linguistic and nonlinguistic elements have on the L2 composition process, they need to move away from feedback comments targeted purely at academic written genres and begin to use feedback aligned with semiotic resources or multimedia, to comment on, for example, the development of a digital story. Following Kress's (2003) notion of synesthesia with digital storytelling, instructors may provide feedback on whether the chosen images correspond to the topic of the digital story, whether there are too many literal (rather than implicit) images, whether the sound/music enhances or obstructs the story, whether the music volume overpowers the voice of the narrator, and other aspects related to a digital multimodal text (Jiang et al., 2022; Oskoz & Elola, 2016a, 2016b; Yang, 2012).

Using an assessment rubric (see Table 1) as a starting point for feedback provision can guide learners through consequent revisions (see Maqueda, 2020; for rubrics on composition as well as complexity and fluidity of semiotic resources; Jiang et al.'s (2022) rubric for a genre-based model). These types of rubrics help instructors and learners reflect critically and equip them with the metalanguage of multimodality, as well as with an understanding of the affordances of the modes and the media to produce different (digital) genres and texts. For instance, Hafner and Ho (2020) point out that although instructors seem to understand intermodal relations when assessing multimodal compositions, they do not explicitly acknowledge the notion of *semiotic harmony*, that is, the orchestration

(or best fit) of the selection of resources from different modes that indicates that the form has the requisite features to be the carrier of the meaning (Hafner & Ho, 2020) when developing a multimodal ensemble. Developing and explaining a rubric that considers traditional linguistics issues (e.g., grammar, vocabulary) but also audience expectations, choice of semiotic resources, authorship, and ownership helps L2 composers make informed selections of multimodal semiotic resources to support the overall meaning required for a specific genre and medium. The rubric will also help with the appropriate design of feedback.

| Category               | 4 Points*   | 3 Points   | 2 Points  | 1 Point  |  |
|------------------------|---|--|---|--|--|
|                        |   | Aud  | ience   |  |  |
| Engagement             | The pace fits the storyline   | The pace is occasionally                           | An attempt is made at                           | No attempt at pacing is                                |  |
| 5.5                    | and engages the audience.   | too fast or too slow.                              | pacing, but the audience is                     | made, and the audience is                              |  |
|                        |   |  | not fully engaged.                              | lost.  |  |
|                        | Semiotic resources  |  |   |  |  |
| Oral narration         | Narration is clear and well ed-<br>ited.  | Narration is fairly clear.                         | Narration is often hard to follow.              | Narration is missing.                                  |  |
| Music/sound effects    | Soundtrack complements  | Soundtrack often over-                             | Soundtrack is distracting.                      | There is no soundtrack.                                |  |
| (aural)                | and does not overwhelm nar-<br>ration.  | whelms the narration.                              |   |  |  |
| Visuals                | All images are dear (and/or origi-  | A few images are unclear,                          | Many images are unclear,                        | All images are unclear, lit-                           |  |
|                        | nal), and there is a good mix of lit-<br>eral and symbolic imagery.   | and few of them are used symbolically.             | and there is no symbolism.                      | eral, and/or inappropriate.                            |  |
| Grammar                | Wide range of L2 grammati-  | Adequate range of L2 gram-                         | Limited range of L2 struc-                      | Frequent, persistent L2                                |  |
|                        | cal structures with few or mi-  | matical structures; overuse                        | tures; poor control of                          | grammatical errors; text is                            |  |
|                        | nor errors.   | of simple constructions;<br>several minor errors.  | grammar; frequent errors.                       | difficult to understand.                               |  |
| Vocabulary             | Makes full use of the L2 vo-  | L2 vocabulary accurate but                         | L2 vocabulary limited, with                     | Very limited L2 vocabulary;                            |  |
|                        | cabulary about the topic pre-   | somewhat limited.                                  | overuse of imprecise and                        | overuse of imprecise and                               |  |
|                        | sented.   |  | vague terms.                                    | vague terms.   |  |
| Multilingual and       | Makes excellent use of sev-   | Makes fair use of several                          | Makes poor use of several                       | Makes confusing use of                                 |  |
| translingual practices | eral linguistic repertoires in a  | linguistic repertoires in a                        | linguistic repertoires.                         | several linguistic reper-                              |  |
| (if applicable)        | coherent manner.  | coherent manner.                                   |   | toires.  |  |
|                        | Genre characteristics   |  |   |  |  |
| Storytelling structure | Presents the rhetorical ques-   | Either the rhetorical ques-                        | Rhetorical question and                         | There is no clear narrative                            |  |
|                        | tion to be answered.  | tion or the answer is miss-                        | the answer are both miss-                       | in the story.  |  |
|                        |   | ing.   | ing.  |  |  |
| Motion and transi-     | Used at least 4 motion ef-  | Used at least 3 motion ef-                         | Used at least 1 motion ef-                      | Used no motion effects;                                |  |
| tions                  | fects; transitions are effective.   | fects; transitions are                             | fect; some transitions are                      | used no transitions.                                   |  |
| (organization)         |   | mostly effective.                                  | distracting.                                    |  |  |
| Mechanics              | The title appears at the be-  | Part of the title and/or some of the final credits | Either the title or the final                   | Both the title and the final                           |  |
|                        | ginning and the final credits   |  | credits are missing.                            | credits are missing.                                   |  |
|                        | at the end.   | are missing.                                       | orchin  |  |  |
| Collaboration          | Authorship  |  |   |  |  |
| (if applicable)        | Author communicated well<br>and participated in a discus-   | Author communicated<br>and participated in a dis-  | Communication with the authors was limited, but | Author either rarely com-<br>municated or tried to im- |  |
|                        | sion of ideas that led to a   | cussion of ideas that led to                       | they contributed to some                        | pose ideas without listen-                             |  |
|                        | jointly created product.  | the created product.                               | extent.   | ing to others in the group.                            |  |
|                        | joinity created product.  |  |   | ng to others in the group.                             |  |
| Credits and citations  | Ownership All original and non-original Some citations and credits Many citations and credits There are no citations or |  |   |  |  |
| Credits and ditations  | images and sounds are cred-   | are missing.                                       | are missing.                                    | credits.   |  |
|                        | ited and cited.   | are missing.                                       | are missing.                                    | u cuits.   |  |
|                        |   | Voice an   | d identity                                      |  |  |
|                        |   |  |   |  |  |
| resources              | sounds, and tone carefully  | images, sounds, and tone                           | images, sounds, and tone                        | The choice of language,<br>images, sounds, and tone    |  |
|                        | represent the author's voice.   | mostly represent the au-                           | vaguely represent the au-                       | do not represent the au-                               |  |
|                        |   | thor's voice.                                      | thor's voice.                                   | thor's voice.  |  |
|                        |   |  |   |  |  |

Table 1 Digital story rubric (summative and formative assessment)

| Overall digital story | The digital story provides a<br>complete account of the au-<br>thor's message. | The digital story provides<br>an adequate account of<br>the author's message. | The digital story vaguely represents an account of the author's message. | The digital story provides a superficial account of the author's message. |  |
|-----------------------|--|---|--|---|--|
|                       | Multimodal ensemble  |   |  |   |  |
| Transduction          | Combining the different modes  | Although combining differ-  | Despite combining modes,   | The story needs extensive   |  |
|                       | in a harmonic orchestration, the   | ent modes, the story is   | meaning is only duplicated   | editing to make the most  |  |
|                       | story is told with exactly the   | sometimes vague or in-  | (not enhanced). The story  | of using different modes.   |  |
|                       | right amount of detail and is not  | cludes unnecessary detail; it   | needsmore editing and is no-   |   |  |
|                       | too long or too short.   | seems to drag sometimes.  | ticeably too long or too short.  |   |  |
| Transformation        | The author maximizes each  | The author generally uses   | The author minimally uses  | The author does not use   |  |
|                       | mode's potential to tell the   | each mode's potential to  | each mode's potential to   | each mode's potential to  |  |
|                       | story with images (e.g., size,   | tell the story with images  | tell the story with images   | tell the story with images  |  |
|                       | color), sound (e.g., volume),  | (e.g., size, color), sound  | (e.g., size, color), sound   | (e.g., size, color), sound  |  |
|                       | and oral narrative (e.g.,  | (e.g., volume), and oral nar-   | (e.g., volume), and oral nar-  | (e.g., volume), and oral nar-   |  |
|                       | pauses, tone).   | rative (e.g., pauses, tone).  | rative (e.g., pauses, tone).   | rative (e.g., pauses, tone).  |  |
|                       | Task completion  |   |  |   |  |
| Multimodal task       | Learner has followed the   | Learner has followed the  | Learner did not follow the   | Learner did not follow the  |  |
| completion;           | prompt, and the task ad-   | prompt, and the task ad-  | prompt closely, and the  | prompt, and the task does   |  |
| following the prompt  | dresses all multimodal re-   | dresses some of the multi-  | task addresses few of the  | not address the multi-  |  |
|                       | quirements.  | modal requirements.   | multimodal requirements.   | modal requirements.   |  |

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*Note.* \*Points in the rubric are subject to change depending on the objectives and goals of the exercise

Providing comments on learners' multimodal work during the formative stages (i.e., formative feedback) can also result in prompt revisions. This effect, as Campbell and Feldman (2017) have observed, is much more suggestive of learning than assigning a grade or circling an achieved outcome on an assessment rubric (Lamb, 2018). Lamb's (2018) emphasis on feedforward means that the instructor's comments are timelier, enabling learners to take corrective action to improve the quality of the assignment being submitted for a grade. The provision of feedforward can be more effectively provided through the use of formative assessment exercises, in which learners are able to gauge their progress and understanding in a low-stakes setting (Hounsell et al., 2007). If formative feedback is considered an evolving digital conversation between learners and instructors, as well as between learners and other learners, it can promote regular opportunities for encouragement and discussion around DMC production and assessment. Furthermore, the social dimension of emergent technologies, such as wikis and blogs, presents greater opportunities for rich dialogue, facilitating students' participation, and student-focused interventions that can support ongoing feedback and formative assessment (Hatzipanagos & Warburton, 2009).

The rubric in Table 1 (adapted from Oskoz & Elola, 2020), for instance, was designed to assess a digital story, a storyline that integrates text, images, and sounds in an online environment, and which is often conceived as a personal narrative (e.g., intercultural experiences when studying abroad; identity awareness as heritage speakers). Given that the digital story is a multimodal text, the rubric needs to cover linguistic issues, such as grammar, vocabulary, and rhetoric (e.g., content, structure, and organization), as well as additional semiotic resources and the processes of transformation and transduction. Engagement with the audience, as well as learner voice and authorship, are also included. The criteria proposed are by no means exclusive or exhaustive of what can be assessed in different types of multimodal compositions.

## 5. Feedback in multimodal tasks

Using the digital story assessment rubric provided above as an example, the guestion that remains is what shape and focus the formative feedback will have when L2 learners develop their multimodal compositions. Following Oskoz and Elola (2020), we propose a series of questions that address the criteria for digital stories identified in Table 1 and include rhetorical, linguistic, and nonlinguistic elements, as well as focus on the process of the multimodal ensemble (i.e., transformation and transduction), learner voice, and authorship. Let us keep in mind that as with any other task that we teach in the L2 classroom, we are using the rubric as a guideline that instructors could provide to students to compose the digital story, which include the linguistic and nonlinguistic elements as well as considerations of audience and issues of authorship and ownership, among others. Using this guideline for formative feedback purposes, instructors could reinforce and call students' attention to, for example, the extent to which they have acknowledged the audience, how successfully they have used semiotic resources, or whether they have followed the genre characteristics. Thus, below we present the main seven components of the guidelines with some example questions to direct instructors in the provision of feedback in multimodal texts.

## Audience

Today, composers develop and re-develop content for social networking sites such as Instagram and blogs, either for a real or imaginary audience, with the purpose of creating text that will encourage responses. Taking an audience into account, feedback might include questions such as the following:

- Who is your audience? For whom are you writing?
- What semiotic resources are you employing to attract your audience? How are you using them?
- How do you react to and engage with your audience's feedback?
- What changes will you make based on your audience's feedback (or lack thereof)?

## Semiotic resources

The multimodal character of digital texts requires learners to integrate different semiotic resources in a meaningful manner. As McGrail and Behizadeh (2017) pointed out, L2 learners must understand "the unique conventions for creating such divergent multimodal compositions" (p. 34) and learn what elements are pertinent to the multimodal genre or their interests. L2 learners also need to learn how to apply "these particular elements and procedures in their own multimodal

designs" (Oskoz & Elola, 2020, p. 174). Feedback, therefore, needs to go beyond the local and global aspects of the language and encompass the additional semiotic resources included in a multimodal composition, such as images or sounds. Feedback regarding different semiotic resources employed in, for example, a digital story might include some or all of the following questions.

Oral

- Does clear articulation and pronunciation from the narrator help the audience follow the story?
- Does the author use meaningful repetitions or pauses in telling the story?
- Does the oral narration facilitate the telling of an engaging story?
- Does the oral narration have an emotional effect on the audience?

#### Aural (music, sounds)

- To what extent does the music tie in with the theme or the emotional atmosphere of the story?
- Does the volume of the music (e.g., soft, loud) or interludes of silence help express the meaning of the story?
- Do the sound effects, if any, complement the narrative flow of pictures and words throughout the story?
- How do music and sounds reflect and augment the purpose of the story?

#### Visual

- Do the selected images correlate with the story being told, and are they integrated meaningfully throughout the story?
- To what extent does the quality of the images interfere with or support the message conveyed?
- Do images support the theme of the story and help the audience see the story's main points?
- To what extent do the images add to the story rather than merely repeat the written or oral text?

## Textual

- What is the purpose of including written text (e.g., subtitles, words)?
- To what extent does the text support or clarify the author's meaning?

Does the text suit the still or moving pictorial elements that come before, after, or during it?

- How does the positioning, font, style, color, and content of the text support the message the author wants to convey?
- If text is necessary, is it shown on screen long enough for the viewer to read it?

## Language

- Is the story told with an appropriate amount of detail; that is, is it not too long or too short?
- Is a range of (multi)linguistic structures (e.g., verb tenses, subordination, or lack of subordination) evident in the narration of the story?
- To what extent does the author use varied vocabulary to enhance and enrich the story?

## Genre characteristics

Multimodal texts have their own idiosyncrasies and diverse practice criteria, which often do not correspond to those of the printed text. When providing feedback for digital genres, there is a need to define the characteristics that make, for example, a good Wikipedia entry or an interesting travel blog, or the rhetorical characteristics of an engaging tweet. If these characteristics are clearly defined in the curriculum, we can then provide feedback for the development of different multimodal genres. Following McGrail and Behizadeh's (2017) set of questions for creating and evaluating multimodal composition, we propose the following feedback questions for a digital story:

- How do you determine what constitutes a good digital story?
- How do you effectively integrate different semiotic sources (e.g., visual, textual, aural, gestural) to develop a storytelling genre?

# Authorship

While not always the case, multimodal digital projects tend to be collaborative endeavors that "[call] into question the dimension of content production" (Lotherington & Ronda, 2014, p. 22). This expanded concept of authorship implies the need to include feedback practices that foster and value the achievements and contributions of collective authorship. Providing feedback implies considering both individual and joint contributions. This is perhaps best achieved by combining peer feedback with traditional instructor feedback. Questions that can help instructors or peers provide feedback on authorship might include the following:

• To what extent does this project reflect your equal intellectual contribution?

- How has the collective group integrated the voices of all members?
- How has communication among all group members resulted in a respectful discussion of different ideas and led to a jointly produced product?
- To what extent have you played to your own strengths (e.g., linguistic, visual, or aural knowledge) to enhance the quality of the product?

## Ownership

Not to be confused with authorship, it is crucial to acknowledge digital writing ownership through the reuse and remix of semiotic resources. Ownership thus refers to the fair use of external sources by acknowledging and crediting ideas, images, and the eclectic range of semiotic resources that might be included in L2 learners' multimodal projects. Providing feedback on the ownership of the resources provided is of relevance given that "many young people today consider what exists on the Internet as freely available raw material to be used however they see fit" (Chun et al., 2016, p. 69). As Chun et al. (2016) point out, borrowing content from others is not the problem per se but "rather the sense that borrow-ing does not require any acknowledgment" (p. 69). Questions we might ask that focus on intellectual property, copyright, and fair use could include the following:

- Have you properly cited sources and credited those whose ideas you have included in your work?
- Did you include websites to confirm that the source material was publicly available?
- What steps did you follow to obtain permission to use copyrighted material?

## Voice and identity

Another goal of multimodality in the L2 classroom is to provide a space for learners' authorial voices and identities (Cimasko & Shin, 2017). Instructor feedback can help learners find their voices and express their identities by asking them to reflect on their choices of, for example, images, language(s), and colors. When looking at semi-otic resources and the role of synesthesia, research has examined the essential role of multimodality in shaping a learner's authorial voice and identity (e.g., Cimasko & Shin, 2017; Jiang, 2018; Smith et al., 2017). When a learner is trying to find their voice, the feedback we provide can help them reflect on whether their choice of semiotic resource is appropriate. Questions that we might ask include the following:

- Why have you chosen these images as representative of your story?
- How does the music you selected represent your feelings and mood?
- How does the digital story represent who you are?

• To what extent does this digital story express your voice based on language choice (e.g., vocabulary), images, sounds, and/or tone?

## Multimodal ensemble

To help learners develop a multimodal ensemble, we need to consider how we provide feedback on multimodal texts and be aware that the process of synaesthetic semiosis occurs in two forms during the construction of such a text (Kress, 2003, 2009). *Transformation* consists of actions that reorder and reposition semiotic resources within a particular mode, whereas *transduction* involves the reorganization of semiotic resources across modes. In essence, we need to consider whether there is semiotic harmony; as we address below, it is important to obtain an orchestration of the diversity of resources from different modes, verifying that the form has the features needed to be the transferor of meaning.

## Transduction

When developing a digital story, users combine, for example, visual (images), aural (sounds, spoken words, music), and textual (subtitles) modes. In general, learners start with a narrative of the story they want to tell. Once they have written the story, or as they are writing it, they think of how different modes (e.g., aural, textual) will help create the meaning they want to convey.

The feedback provided upon completing the first draft focuses on how the composer can combine different semiotic resources to convey their intended meaning. Because the goal of a multimodal text is to create synaesthetic harmony, it is important that the learner understand that the integration of modes is directed at meaning and not at enhancing or describing the story. In this case, the composer reorganizes semiotic resources (text, images, sounds) across modes (textual, visual, aural) through transduction.

- Are your pauses, sounds, or special effects used judiciously to convey meaning in to your story?
- How are you combining different semiotic resources to reflect a digital story?
- Is the merging of modes relevant to the meaning of the story? Are the modes balanced with each other?

## Transformation

In addition to combining the different semiotic resources, L2 learners also reorder and reposition them within a particular mode (visual, aural, oral, or textual). Learners might reconstruct the syntax or structural complexity of sentences from a written narrative into a digital story script or play with the size and colors of an image to express their intended meaning. Questions that might help learners maximize the use of the different modes include the following:

- How do you play with the size and color of images to express your intended meaning?
- How are you using changes in the volume of your soundtrack to reflect your mood?
- How does the use of pauses and changes in tone in your oral narrative convey meaning in your story?
- Does the transformation from narrative to script work?

It is worth clarifying that feedback on multimodal texts is not, by definition, richly multimodal; on the contrary, many examples of peer and instructor feedback predominantly or entirely depend on comments or guidance expressed through words in isolation. When multimodal feedback is provided, however, it is not restricted to the digital form either; such an idea is immediately dispelled by watching how class-room teachers offer correctional advice or guidance through a varied assemblage of spoken language, silence, gestures, eye contact, and more (Lamb, 2018).

## 6. What is next?

This article has first identified a gap in multimodal teaching and research regarding the role and focus of feedback in DMC and, second, has provided an assessment rubric and examples of formative feedback that addresses both linguistic and nonlinguistic elements to help students develop their multimodal texts. The truth is that the digital world we inhabit calls for the expansion of the role of feedback in response to the affordances of moods, tools, and task outcomes. Reasons why we might have not broadened our feedback type and form might be due to the following: that our view of multimodal composing is still limited to written texts; that the provision of feedback for multimodal texts is challenging; that we lack familiarity with producing multimodal ensembles; or that DMC is not always aligned with curricular learning outcomes. We argue that feedback for DMC needs to be modeled following theoretical and pedagogical frameworks, genres, and tasks. Most importantly, feedback must be articulated in conjunction with multimodal assessment rubrics that guide the way for feedback (re)design. It is important, then, to align feedback with the particular assessments, learning contexts, and knowledge that the learner is attempting to convey. Thus, based on these multimodal ensemble rubrics, feedback can be more clearly tailored to the goals of the multimodal task.

Overall, without disregarding print-based approaches to feedback, there is a need in digitally influenced learning environments and society to consider when,

where, and how our approaches to formative feedback should enhance the L2 multimodal representation of academic knowledge (Lamb, 2018). Although we traditionally use print-based or digital feedback for linguistic elements of multimodal composition, this article advocates for the expansion of our notions of feedback, which should be formative and include nonlinguistic elements, and, more importantly, should cover the multimodal ensemble as a whole. The main guestions that remain are how formative feedback on multimodal texts can help learners utilize semiotic modes to advance their multimodal writing abilities and whether feedback on multimodality can help L2 language development (Manchón, 2017). In Oskoz and Elola (2014, 2016a), we saw linguistic improvement as a result of the use of digital stories in the L2 writing class, but this was likely fostered by the task-based approach of the digital story assignment (i.e., the phased instruction that involved the change from an academic narrative to an oral script populated with images and sounds that helped create meaning). Although some feedback guidelines have been proposed here, there is an urgent need for empirical evidence on how to tailor productive formative feedback to multimodal texts. There is also a need for research on the impact of feedback on linguistic and nonlinguistic development as well as on multimodal ensembles as a whole.

Without a doubt, digital multimodal texts are here to stay and will increasingly populate diverse academic contexts. It is not far-fetched to affirm that research about feedback on DMC is nonexistent. In the L2 classroom, formative feedback is included because it is part of the learners' scaffolding and revision processes when writing compositions (Oskoz & Elola, 2014, 2016a), but there is no evidence of the impact of having used instructor or peer feedback on DMC. Furthermore, although feedback in general is not necessarily multimodal, there has been an effort to investigate whether different stages of the composing process and/or final product can be better addressed by multimodal feedback (Ducate & Arnold, 2012; Elola & Oskoz, 2016). It is also imperative to create a research agenda that explores and provides guidelines that are specific to the feedback type (e.g., explicit or less explicit multimodal feedback for different stages of the composing process, such as drafting the script, choosing images and sounds, integrating different semiotic resources, rehearsing the oral narrative, and polishing the final product).

The current scarcity of knowledge regarding DMC feedback may be discouraging; however, the potential for L2 multimodal research and teaching exploration is vast. Pursuing this line of inquiry is exciting not just because of the relevance of these multimodal texts but, more importantly, because of their intrinsic evolutionary nature, which calls for new ways to visualize feedback for multimodal texts and encourages us to redefine the notion of feedback as we know it.

#### References

Barton, D. (2007). Literacy: An introduction to the ecology of written language. Wiley.

- Bezemer, J., & Kress, G. (2008). Writing in multimodal texts: A social semiotic account of designs for learning. *Written Communication*, *25*(2), 166-195.
- Campbell, B. S., & Feldmann, A. (2017). The power of multimodal feedback. *Journal* of Curriculum, Teaching, Learning and Leadership in Education, 2(2), 1-6.
- Carpenter, R. (2009). Boundary negotiations: Electronic environments as interface. *Computers and Composition*, *26*(3), 138-148.
- Caws, C., & Heift, T. (2016). Evaluation in CALL: Tools, interactions, outcomes. In F. Farr & L. Murray (Eds.), *The Routledge handbook of language learning and technology* (pp. 127-140). Routledge.
- Chen, H. I. (2013). Identity practices of multilingual writers in social networking spaces. *Language Learning & Technology*, *17*(2), 143-170.
- Chun, D., Kern, R., & Smith, B. (2016). Technology in language use, language teaching, and language learning. *Modern Language Journal*, *100*(S1), 64-80. https://doi.org/10.1111/modl.12302
- Cimasko, T., & Shin, D. S. (2017). Multimodal resemiotization and authorial agency in an L2 writing classroom. *Written Communication*, *34*(4), 387-413.
- Ducate, L., & Arnold, N. (2012). Computer-mediated feedback: Effectiveness and student perceptions of screen-casting software versus the comment function. In G. Kessler, A. Oskoz, & I. Elola (Eds.), *Technology across writing contexts and tasks* (pp. 31-56). CALICO.
- Elola, I., & Oskoz, A. (2016). Supporting second language writing using multimodal feedback. *Foreign Language Annals*, *49*(1), 58-74.
- Elola, I., & Oskoz, A. (2017). Writing with 21st-century social tools in the FL classroom: New literacies, genres, and writing practices. *Journal of Second Language Writing*, *36*, 52-60.
- Fornara, F., & Lomicka, L. (2019). Using visual social media in language learning to investigate the role of social presence. *CALICO Journal*, 36(3), 184-203. https://doi.org/10.1558/cj.37205
- Hafner, C. A. (2018). Genre innovation and multimodal expression in scholarly communication: Video methods articles in experimental biology. *Ibérica*, *36*, 15-41.
- Hafner, C. A., & Ho, W. Y. J. (2020). Assessing digital multimodal composing in second language writing: Towards a process-based model. *Journal of Second Language Writing*, *47*, 100710. https://doi.org/10.1016/j.jslw.2020.100710
- Hafner, C. A., Chik, A., & Jones, R. H. (2013). Engaging with digital literacies in TESOL. *TESOL Quarterly*, *47*(4), 812-815. https://doi.org/10.1002/tesq.136

- Hatzipanagos, S., & Warburton, S. (2009). Feedback as dialogue: Exploring the links between formative assessment and social software in distance learning. *Learning, Media and Technology, 34*(1), 45-59.
- Heyd, T. (2016). Digital genres and processes of remediation. In A. Georgakopoulou & T. Spilioti (Eds.), *The Routledge handbook of language and digital communication* (pp. 87-102). Routledge.
- Hicks, T. (Ed.). (2015). Assessing students' digital writing: Protocols for looking closely. Teachers College Press.
- Hounsell, D., Xu, R., & Tai, C.-M. (2007). Balancing assessment of and assessment for learning. (Scottish enhancement themes: Guides to integrative assessment, N. 2). Gloucester: QAA. https://www.enhancementthemes.ac.uk/docs/ethe mes/integrative-assessment/guide-no-2---balancing-assessment-of-and-ass essment-for-learning.pdf?sfvrsn=8e2cf981\_10
- Hung, H.-T., Chiu, Y.-C. J., & Yeh, H.-C. (2013). Multimodal assessment of and for learning: A theory-driven design rubric. *British Journal of Educational Technology*, 44(3), 400-409. https://doi.org/10.1111/j.1467-8535.2012.01337.x.
- Jewitt, C. (2008). Multimodality and literacy in school classrooms. *Review of Research in Education*, *32*(1), 241-267.
- Jiang, L. (2018). Digital multimodal composing and investment change in learners' writing in English as a foreign language. *Journal of Second Language Writing*, 40, 60-72.
- Jiang, L., Yu, S., & Lee, I. (2022). Developing a genre-based model for assessing digital multimodal composing in second language writing: Integrating theory with practice. *Journal of Second Language Writing*, *57*, 100869.
- Johnson, D., & Kress, G. (2003). Globalisation, literacy and society: Redesigning pedagogy and assessment. *Assessment in Education: Principles, Policy & Practice, 10*(1), 5-14.
- Kalantzis, M., & Cope, B. (2008). Language education and multiliteracies. In S. May & N. H. Hornberger (Eds.), *Encyclopedia of language education* (2nd ed., Vol. 1, pp. 195-211). Springer. https://doi.org/10.1007/978-0-387-30424-3\_15
- Kalantzis, M., Cope, B., Chan, E., & Dalley-Trim, L. (2016). *Literacies* (2nd ed.). Cambridge University Press.
- Kimber, K., & Wyatt-Smith, C. (2010). Secondary students' online use and creation of knowledge: Refocusing priorities for quality assessment and learning. Australasian Journal of Educational Technology, 26(5), 607-625. https:// doi.org/10.14742/ajet.1054
- Kress, G. (2003). *Literacy in the new media age*. Routledge. https://doi.org/10. 4324/9780203299234
- Kress, G. (2009). What is a mode? In C. Jewitt (Ed.), *The Routledge handbook of multimodal analysis* (pp. 54-67). Routledge.

- Kress, G. (2010). *Multimodality: A social semiotic approach to contemporary communication*. Routledge. https://doi.org/10.4324/9780203970034
- Lamb, J. (2018). To boldly go: Feedback as digital, multimodal dialogue. *Multimodal Technologies and Interaction*, 2(3), 49. https://doi:10.3390/mti2030049
- Lim, J., & Polio, C. (2020). Multimodal assignments in higher education: Implications for multimodal writing tasks for L2 writers. *Journal of Second Language Writing*, 47, 100713.
- Lotherington, H., & Ronda, N. (2014). 2B or not 2B? From pencil to multimodal programming: New frontiers in communicative competencies. In J. Guikema & L. Williams (Eds.), *Digital literacies in foreign language education* (Vol. 12, pp. 9-28). CALICO.
- Luzón, M. J. (2013). Public communication of science in blogs: Recontextualizing scientific discourse for a diversified audience. *Written Communication*, *30*(4), 428-457. https://doi.org/10.1177/0741088313493610
- Manchón, R. (Ed.). (2011). *Learning-to-write and writing-to-learn in an additional language* (Vol. 31). John Benjamins
- Manchón, R. (2017). The multifaceted and situated nature of the interaction between language and writing in academic settings: Advancing research agendas. In Bitchener, J., Storch, N., & Wette, R. (Eds.), *Teaching writing for academic purposes to multilingual students* (pp. 183-200). Routledge.
- Maqueda, C. H. (2020). *Heritage and L2 writing processes in individual and collaborative digital storytelling* (Unpublished doctoral dissertation). Texas Tech University.
- Matthewman, S., Blight, A., & Davies, C. (2004). What does multimodality mean for English? Creative tensions in teaching new texts and new literacies. *Education, Communication & Information, 4*(1), 153-176.
- McGrail, E., & Behizadeh, N. (2017). K-12 multimodal assessment and interactive audiences: An exploratory analysis of existing frameworks. *Assessing Writing*, *31*, 24-38.
- Mehlenbacher, A. R. (2017). Crowdfunding science: Exigencies and strategies in an emerging genre of science communication. *Technical Communication Quarterly*, *26*(2), 127-144. https://doi.org/10.1080/10572252.2017.1287361
- Mills, K. A. (2006). Mr Traveling-at-will Ted Doyle: Discourses in a multiliteracies classroom. *Australian Journal of Language and Literacy*, *29*(2), 132-149.
- Mina, L. (2014). Enacting identity through multimodal narratives: A study of multilingual students. In J. G. Guikema & L. Williams (Eds.), *Digital literacies in foreign language education: Research, perspectives, and best practices* (pp. 141-158). CALICO.
- Nelson, M. E. (2006). Mode, meaning, and synesthesia in multimedia L2 writing. *Language Learning and Technology*, *10*(2), 56-76.

- New London Group. (1996). A pedagogy of multiliteracies. *Harvard Educational Review*, *66*(1), 60-93. https://doi.org/10.17763/haer.66.1.17370n67v22j160u
- Oskoz, A. & Elola, I. (2014). Integrating digital stories in the writing class: Towards a 21st century literacy. In J. G. Guikema & L. Williams (Eds.), *Digital literacies in foreign language education: Research, perspectives, and best practices* (pp. 179-200). CALICO.
- Oskoz, A., & Elola, I. (2016a). Digital stories: Bringing multimodal texts to the Spanish writing classroom. *ReCALL*, *28*(3), 326-342.
- Oskoz, A., & Elola, I. (2016b). Digital stories: Overview. CALICO Journal, 32(2), 155-173.
- Oskoz, A., & Elola, I. (2020). *Digital literacies for writing in the 21st Century FL classroom*. Equinox.
- Reinhardt, J., & Thorne, S. L. (2011). Beyond comparisons: Frameworks for developing digital L2 Literacies. In N. Arnold & L. Ducate (Eds.), Present and future promises of CALL: From theory and research to new directions in language teaching (pp. 257-280). CALICO.
- Ruiz Pérez, S. (2022). *Multimodal voices in the L2 classroom: Redesigning a digital story, a formative experiment* (Unpublished doctoral dissertation). Texas Tech University.
- Sancho Guinda, C. (2015). Genres on the move: Currency and erosion of the genre moves construct. *Journal of English for Academic Purposes*, *19*, 73-87.
- Shin, D. S., Cimasko, T., & Yi, Y. (2020). Development of metalanguage for multimodal composing: A case study of an L2 writer's design of multimedia texts. *Journal of Second Language Writing*, 47, 100714.
- Smith, B. E., Pacheco, M., & de Almeida, C. R. (2017). Multimodal code-meshing: Bilingual adolescents' processes composing across modes and languages. *Journal of Second Language Writing*, 36(2), 6-22.
- Towndrow, P. A., Nelson, M. E., & Yusuf, W. F. B. M. (2013). Squaring literacy assessment with multimodal design: An analytic case for semiotic awareness. *Journal of Literacy Research*, *45*(4), 327-355.
- Yi, Y., King, N., & Safriani, A. (2017). Reconceptualizing assessment for digital multimodal literacy. *TESOL Journal*, 8(4), 878-885. https://doi.org/10.1002/tesj.354
- Yang, Y.-F. (2012). Multimodal composing in digital storytelling. *Computers and Composition*, *29*(3), 221-238. https://doi.org/10.1016/j.compcom.2012.07.001
- Zhang, M., Akoto, M., & Li, M. (2021). Digital multimodal composing in postsecondary L2 settings: A review of the empirical landscape. *Computer Assisted Language Learning*, 1-28.