Castledown

OPEN ACCESS

Technology in Language Teaching & Learning
ISSN 2652-1687
https://www.castledown.com/journals/tltl/

Technology in Language Teaching & Learning, 6(4), 1720 (2024)
https://doi.org/10.29140/tltl.v6n4.1720

Affective Affordances in Technology-Mediated Language Teaching and Learning

ANWAR AHMED

University of British Columbia, Canada
anwar.ahmed@ubc.ca

Abstract

This article focuses on the intersection of technology and pedagogy through the lens of affect/emotion. It highlights why technology-mediated teaching and learning require new ways of thinking about emotionality in educational contexts. To develop a nuanced understanding of what technology can and cannot do, we can draw insights from the recent *affective turn* in humanities and the social sciences, which wants us to look at human emotions as socially constructed, biologically rooted, physically distributed, and agentically complex. Building on the recent scholarship on critical affect/emotion studies, I advocate a view of human emotionality that rejects the idea of emotion as an individual's internal property or as a total social force outside the individual. The goal of this discussion is to bring more attention to affective affordances that will hopefully provide some pedagogical implications for technology-mediated spaces.

Keywords: technology, affordance, affect, emotion, language, pedagogy

Introduction

Most discussions about computer-assisted language learning begin with the assumption that technology always assists language learners. In other words, digital technology is believed to afford language learning and teaching. This assumption needs to be interrogated if we want to develop a deeper and more nuanced understanding of technological affordances in the contexts of language education. In this article, I examine the intersection of technology and pedagogy from an affective perspective, arguing that technology-mediated teaching and learning calls for a re-evaluation of emotionality within our

complex educational contexts. To better understand technology's potential affordances and its limitations, we should adopt a view of emotionality that transcends the notion of emotions as either solely internal or entirely social forces. Because emotions structure our feelings, activities, and sense of agency, what digital tools can and cannot do depends on a complex environment in which pedagogical possibilities are always emergent and attuned to (often unpredictable) affective relationships. The goal of this article, therefore, was to explore affective affordances that can prompt teachers and researchers to reassess pedagogical tools and imagine new possibilities within an evolving digital landscape.

The article is organized into six sections. The first section defines "affordance" and its significance in educational contexts. The second section emphasizes the importance of examining affordances through an affective lens. The third section addresses the role of affect and emotion in the teaching and learning of additional languages. In the fourth section, I introduce and discuss the concept of *critical affective literacy*. The fifth section explores how a critical affective literacy approach can deepen our understanding of affordances in technology-mediated language education. Finally, in the conclusion section, I summarize the main arguments of the article and offer some provisional insights for educators and researchers interested in digital technologies and their affordances in language and literacy education.

Understanding Affordance

The first question we should ask is: what do we mean by *affordance*? Originated and developed primarily in the fields of environmental studies and ecological psychology, *affordance* is now a major concept in educational theory, research, and practice. Like many authors who have written about this concept, I would like to begin with the psychologist J. J. Gibson (2014), for whom, "the *affordances* of the environment are what it *offers* the animal, what it *provides* or *furnishes*, either for good or ill" (p. 56, italics in original). In this sense, affordance "refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment" (Gibson, 2014, p. 56). According to this conceptualization, the animal and the environment develop a system and a particular kind of relationship in which certain actions become possible. The possibilities of action can be realized only in this relationship. Neither the actor nor the environment will contain those possibilities of action individually. In other words, the emergence of affordance is possible only in that relationship. This is because affordances are greater than the sum of the properties/abilities of the actors that constitute the system. We can summarize this by saying that "affordances are emergent properties of the animal–environment system" and they "do not inhere in either the animal or the environment, taken separately, but emerge only out of relations between the animal and environment" (Stoffregen, 2004, p. 80).

It follows that when an actor uses a tool, they establish a kind of relationship with the tool within a specific environment. In this relationship, there are usually multiple meanings and possibilities of action. What kinds of affordance will be produced will depend on the kinds of relationship that exist. While a tool will always have some internal properties that will invite certain kinds of action, its uses cannot be limited (and fully anticipated) to the possibilities envisioned at the time of its design. For example, a chair is designed to be sat on. An empty chair will, first of all, invite the action of sitting. However, an actor may decide to stand on the chair to change a light bulb (see Chapter 2 of Ahmed (2022) for a discussion of this example and its relevance for language teaching). In short, any relationship between the actors and the tools or the environment can have varied and unpredictable effects on possibilities of action. For instance, Davis and Chouinard (2016) listed six different actions that artifacts can potentially afford: request, demand, allow, encourage, discourage, or refuse. There is no reason to believe that digital tools and software programs will always produce affordances that will be pedagogically beneficial for teachers and learners in the contexts of language education. We therefore need to recognize "the constraining, as well as enabling, materiality of artefacts" (Hutchby, 2001, p. 441).

Affordances and Affect/Emotions

In technology-mediated pedagogical spaces, we need to pay more attention to the affective dimensions of affordance. This kind of attention is likely to help us understand the affordances in their complexities and variable responsiveness to the environment. Stoffregen's (2004) example of a person climbing stairs can illustrate the importance of the affective dimension. Here, the person, the staircase, and the action of climbing form a system. In this system, climbability (affordance) results from the environment where the stairs are clear and safe, and the height of the steps and the length of the person's legs are appropriate. The environment invites the action of climbing. In other words, the most obvious possibility of action in this environment is to climb the stairs. However, I would like to argue that the person needs to have a desire (in addition to the physical ability) to climb the stairs. Otherwise, the possibilities of action of this environment will not materialize. An affective approach to understanding affordances will be helpful to understand this *desirability* because it will shed light on how artifacts and digital tools may enable or constrain affordances.

In terms of students' learning, research suggests that student agency is not only about activities and engagement, but – more importantly – it is also about the quality of the students' activities and interactions. As Klemenčič (2015, p. 13) wrote, student agency is about "a process of students' self-reflective and intentional actions and interactions during studentship, which encompasses variable notions of agentic possibility ('power') and agentic orientation ('will')." Thus, a question worthy of investigation is how technologically mediated spaces can create both possibilities of action (affordances) and willingness (i.e., a strong desire) to pursue those possibilities.

The contemporary scholarship on affect and education (e.g., Dernikos et al., 2020; Zembylas, 2021) should be instructive for us. In the interest of space, I focus specifically on affect's effect on the subject's desire and agency. Rather than focusing on the definition of and distinction between affect and emotion, I use the terms synonymously and focus more on what affect/emotions do, instead of what they are. The first step toward understanding what emotions do should be to ask where emotions "reside." In other words, what is/are the location(s) of our emotions? Historically, emotions have been understood as an internal property of the experiencing subject. This has been the dominant idea in psychology and philosophy. An alternative view is that emotions are located outside of the individual. This so-called de-privatization of emotions has been dominant in fields such as sociology and anthropology. Here, emotions are believed to reside in the "crowd," in the environment. Ahmed (2012) described these two views as the inside-out and the outside-in models of emotion.

The third, and perhaps the most recent, view is that emotions are complex, unpredictable, and ambivalent encounters of individuals, material entities, and discourses (Ahmed, 2017). They are neither inside nor outside the subject. They are both. They are more than the sum of the two. As Ahmed (2012) wrote:

> Emotions create the very effect of the surfaces and boundaries that allow us to distinguish an inside and an outside in the first place. So emotions are not simply something 'I' or 'we' have. Rather, it is through emotions, or how we respond to objects and others, that surfaces or boundaries are made: the 'I' and the 'we' are shaped by, and even take the shape of, contact with others. (p. 10)

Thus, Ahmed departed from both the psychological and the sociological models of emotion. Her theorization points to how emotions work as orientation devices. Emotions participate in the environment where the subject negotiates affordances that may be potentially available. As orientation devices, emotions "involve bodily processes of affecting and being affected"; in this way, emotions become "a matter of how we come into contact with objects and others" (Ahmed, 2012, p. 208). This rethinking

of what emotions do (i.e., the possibilities of action) shows "how emotions operate to 'make' and 'shape' bodies as forms of action, which also involve orientations towards others" (p. 4). In this view of emotionality, there are various affective forms of (re)orientation. Such forms of (re)orientation make emotions inherently relational. These should be understood primarily in their affective capacities and in the subject's relation to objects. In summary, we can say, in response to the question of what emotions do, that emotions "involve (re)actions or relations of 'towardness' or 'awayness' in relation to such objects" (Ahmed, 2012, p. 8).

Affect and the Teaching and Learning of Additional Languages

In contexts of language teaching and learning, the sociality of emotions (Ahmed, 2012) can help us understand the concept of affordance in light of the recent development of digital technologies such as artificial intelligence (AI). For example, various AI tools are now being used as writing tutors (e.g., Strobl et al., 2024). A potential challenge of using these tools is the erasure of the processes of writing (thinking, collecting information, and drafting) as a cognitive, emotional, and embodied practice. The speed at which AI can generate written texts is a potential threat to the kind of slow thinking and activities and corporeal presence historically required for writing as a scholastic practice. In other words, AI poses significant challenges to disrupt the notion of what Vandenberg et al. (2006) described as *writing as relationship building*. In the face of such challenges, it is important to reconceptualize language use as relationship building and to reconsider what the notion of affordance can teach us. As van Lier (2004) wrote:

> Affordances are those relationships that provide a 'match' between something in the environment (whether it's a chair or an utterance) and the learner. The affordance fuels perception and activity, and brings about meanings – further affordances and signs, and further higher-level activity as well as more differentiated perception. (p. 96)

While the idea of affordance has been looked at from multiple perspectives (e.g., cultural or cognitive affordances), there is an urgency to understand it from an affective perspective as well. This is urgent because, as Hayashi, Arpetti, and Baranauskas (2016) wrote, "an affective affordance produces an emotional state that can or cannot precede the eventual psychological choice of implementing a behavior" (p. 47).

According to the interdisciplinary literature on affect/emotion, affordance, and technology, I believe that in contexts of teaching and learning additional languages, what can and cannot be accomplished with the assistance of digital technology will depend on the affective affordances of the environment where the human actors and the digital tools create a system that may or may not support organic ways of language learning and acquisition. As participants in that environment, both the teacher and the learner may benefit from an awareness of emotion's role in constructing the environment's affordances. To pay such attention to emotions, we should begin with the recognition that human emotions are socially constructed and biologically rooted, physically distributed, and agentically complex. With the recognition that understanding the nature, origin, and impact of emotions is not an easy task, I propose that learners, teachers, and researchers should develop a critical affective literacy. While this kind of literacy should not be treated as a panacea for all pedagogical problems, I believe – with epistemic humility – that it holds considerable potential to develop a nuanced understanding of what can be done with the help of technology in language teaching and learning.

Critical Affective Literacy

The notion of critical affective literacy was originally proposed as an actionable pedagogical framework in contexts of moral dilemmas about how best to respond to the suffering (both physical and

mental) of others through literate and discursive practices (Ahmed, 2016). The framework comprised four principles:

1. Examining why we feel what we feel,
2. Striving to enter a relation of affective equivalence,
3. Interrogating the production and circulation of objects of emotion in everyday politics, and
4. Focusing on the performativity of emotions to achieve social justice.

This framework has been applied to a number of different contexts, ranging, for example, from boyhood studies to civic literacy education (Keegan, 2021; Stahl & Keddie, 2020). As a critical self-reflexive practitioner, I look at this framework as being continually informed by the nexus of local priorities and global forces. The original framework was meant to be always in need of contextualization, and critical educators were encouraged to prepare a creative space within their teaching/learning environment for realizing the transformative potential of the framework.

Responding to this call for recontextualization, several authors have revised and reconceptualized the original framework in light of their local pedagogical needs. For example, Mendelowitz and Govender (2024) have recently revised the "framework by refining principles 2 and 4 in relation to [their] discussion of empathy as affective solidarity and the critical-creative-affective nexus: (2) Striving to enter a relation of affective solidarity, and (4) Focusing on performativity of emotions in critical-creative redesign toward social justice" (p. 5). These researchers have reconfigured the framework to make room for creativity in their critical work. Of particular importance in this reconfiguration was Mendelowitz and Govender's (2024) addition of "the concept of affective solidarity … for understanding the role of the readers' identification/disidentification with representations in texts, [which] allows for a more nuanced understanding of the role of empathy as enabling critical and affective moves" (p. 10).

With an emphasis on criticality and creativity, and against the backdrop of contemporary social–political–pedagogical contexts, I propose a slight revision of the four principles originally set forth in 2016. In our time of unprecedented global crises such as social, economic, and educational inequality; war; displacement; xenophobia; and the evolving role of digital technology in these issues, a reconceptualization of critical affective literacy should consist of:

1. Examining why we feel what we feel,
2. Interrogating the (re)production of objects of emotion in everyday life,
3. Understanding how the circulating objects of emotion construct historically and socially situated subjectivities, and
4. Striving to enter a relation of affective solidarity for pedagogical social justice.

These slightly revised principles will more accurately reflect the contemporary problems in educational theory and practice, especially in the contexts where affordances are debated and variously conceptualized by researchers and practitioners. In particular, they will help us understand how teachers and students become "agentic" in affecting and being affected by others in the complex environments of teaching, learning, and living.

Critical Affective Literacy and Additional Language Learning

In the present age of additional language education, foundational concepts such as language proficiency and communicative competence are going through a radical reconceptualization. Educators

and students are now more aware of the need to develop a variety of language proficiencies because there is no unitary model of language use in different educational, social, and professional domains (Leung, 2023). The learning and uses of additional languages are increasingly seen as adding to the linguistic repertoires of multi/plurilingual speakers. Earlier assimilationist views of people's identities and their implications for second/additional language learning no longer apply to the new context of transnational mobility, education, and belonging. In increasingly ethno-linguistically diverse contexts around the world, additional language learning and uses are not simply tied to instrumental motivation and rational decision-making. They are deeply connected to the affective domains and people's place-based identities (Ahmed, 2024). There are growing concerns, especially from an affective perspective, about the loss and marginalization of heritage languages in unequally multilingual settings (e.g., Ahmed & Morgan, 2021). In this new reality, I agree with Kordt (2018) that "affordance theory with its focus on the individual, the environment and the emergent character of language learning opportunities is particularly well-suited for dealing with the complexity of individual and societal multilingualism" (p. 135). However, for that, the concept of affordance needs to be rethought through the affective lens.

Van Lier's (2011) ecological–semiotic approach to language learning, which wants us to be concerned with the situated nature of cognition and agency, provides further justification for why we need to rethink the concept of affordance. Van Lier's theorization is helpful because it shows that how teachers teach languages depends, to a large extent, on what they believe language is. Contrary to the popular notion of language as a rules-governed system used to communicate meanings, van Lier promoted a historical and social perspective of language. Bakhtin's (1981) view of language is probably the most productive conceptual lens to understand this notion of language. For Bakhtin, language is social because it always responds to other linguistic acts (utterances) that precede and that will follow. In this sense, the meanings of an utterance or other language act is not static; they derive not from the content of its words, but rather from its interplay with what was said and what is anticipated to be said. Thus, "when language is viewed as part of an ongoing dialogue, as part of how people act and react to each other, then it is seen not as meaning per se but as meaningful, strategic action that is materially realized" (Bloome & Egan-Robertson, 1993, p. 309).

Van Lier's (2011) ecological–semiotic approach to language (learning) is inspired by this Bakhtinian notion of language. His example of the term "knight" in the context of playing chess can be illustrative here. "Knight" gains its meaning through its relationship to the other pieces on the board (such as the king, queen, and bishop) and its role in the game is defined by its unique moves. Its physical appearance, like the shape of a horse's head, is less consequential here. If a knight piece is missing from the set, any available object, such as a bottle cap or a bead, can serve as a knight, provided that there is consensus about this object's function as the knight. The physical attributes of the substitute are unimportant as long as it is agreed upon as representing the knight in the chess game.

This dialogical, social, and use-based (rather than rule-based) view of language points to the importance of taking a relational view of affordance where a tool does not contain particular affordances. Like a language that has meaning potentials, a digital tool has affordance potentials. Specific affordances are imagined at the time of designing the tool, but such affordances are only realizable in an environment where successful negotiation among the users, tools, and the context is possible regarding the affordance in question. As van Lier (2011) emphasized, affordance is "dynamically related to mediation or tool/sign use. [It] ties perception and attention to activity, and relates the agent to the environment in purposeful ways" (p. 387). The four principles of critical affective literacy presented above can train us to pay attention to activities and environments in ethical, anti-oppressive, and pedagogically transformative ways. As Berlant (2017) said, "…what affect theory best helps us see are the contradictions and ambivalences in our projects and attachments. It is a training in paying attention…" (p. 13).

Provisional Conclusions

In summary, I have argued that the concept of affordance continues to remain highly relevant to the contexts of language teaching and learning that are increasingly mediated by digital technologies. However, given the complexity of human cognition and agency, we need to look at the concept of affordance through an affective lens. The recent scholarship on affect in education, humanities, and the social sciences has highlighted the importance of affect and emotion in all human endeavors (Zembylas, 2021). Building on earlier works (Ahmed, 2016, 2022), I propose that we take an affective approach to understanding and applying the concept of affordance to pedagogical contexts, and that the four principles of critical affective literacy are likely to be beneficial for teachers and learners.

- The first principle calls for an understanding of the roots of our feelings in relation to our social positions and histories, fostering a critical awareness of why we feel what we feel. Through such an examination, we may gain a more holistic understanding of our interactions with each other. This will foster emotional literacy and prepare teachers and learners to navigate the complex and often emotionally charged environment of the classroom.
- The second principle wants us to scrutinize how emotions are generated and disseminated in everyday interactions. It examines the creation and flow of emotional objects (like symbols or narratives) within social encounters (e.g., how media narratives construct fear about specific groups, or how cultural symbols evoke patriotism). This principle also calls us to interrogate how emotional triggers are perpetuated, reinforced, or challenged through curricular policies and pedagogical practices.
- The third principle encourages us to explore how circulating objects of emotion contribute to the formation of identities. It looks at how emotions intersect with various aspects of identity (such as race, gender, class, nationality, mother tongue) and shape subjectivities, which are often historically and socially situated and culturally conditioned.
- The final principle advocates for building emotional awareness and connections that support social justice in (language) educational contexts. It emphasizes the importance of affective solidarity—recognizing and supporting others in collective struggles for personal and social transformation—as a foundation for just and equitable pedagogical practices.

Taken together, these principles aim to integrate emotional awareness into critical literacy by enhancing our understanding and engagement with the emotional dimensions of teaching and learning. In other words, critical affective literacy emphasizes that feelings are not just personal or individual experiences but are deeply connected to social, cultural, material, and political contexts.

The primary goal of the critical affective literacy framework was to "question the privileging of the notion of education as an individualistic, unmediated, and calculable intellectual development" and to create the kind of "consciousness that acknowledges the emergent and unpredictable nature of learning that takes places in zones of affective contact between subjects and objects" (Morgan & Ahmed, 2023, p. 866). This goal is aligned with van Lier's (2004, 2011) ecological–semiotic approach to language (and) learning. From this ecological–semiotic perspective, affordance is not static and universal. It is contextual and continually negotiated by multiple – and often competing – actors within specific cultural and material contexts. It is difficult to predict affordances with certainty. Therefore, I propose that we look at the notion of affordance through an affective lens because emotions help us understand how we – as one of the actors in a complex ecology of learning and development – may affect and be affected by others. Despite utopian promises made by the designers and producers of new digital tools, we have reasonable grounds to question the affordances of those tools, especially

in the context of pedagogy. One way of tackling the unpredictability of technological affordances in human learning and engagement is to pay more attention to the affective dimensions of motivation, agency, identity, and the environment. I have highlighted this need as well as the possibility of reconceptualizing the notion of affordance by inviting our collective attention to the four (revised) principles of critical affective literacy.

References

Ahmed, A. (2016). Why critical literacy should turn to "the affective turn": Making a case for critical affective literacy. *Discourse: Studies in the Cultural Politics of Education, 37*(3), 381–396. https://doi.org/10.1080/01596306.2015.1042429

Ahmed, A. (2017). Emotions in the curriculum of migrant and refugee students. *Curriculum Inquiry, 47*(1), 112–124. https://doi.org/10.1080/03626784.2016.1255936

Ahmed, A. (2022). *Exploring silences in the field of computer assisted language learning*. Palgrave Macmillan.

Ahmed, A. (2024). Toward an emotional geography of language for rethinking Canadian identity in a transnational world. In V. Tavares & M. J. Maciel Jorge (Eds.), *Reconstructions of Canadian identity: Towards diversity and inclusion* (pp. 55–72). University of Manitoba Press.

Ahmed, A., & Morgan, B. (2021). Postmemory and multilingual identities in English language teaching: A duoethnography. *The Language Learning Journal, 49*(4), 483–498. https://doi.org/10.1080/09571736.2021.1906301

Ahmed, S. (2012). *The cultural politics of emotion*. Routledge.

Bakhtin, M. M. (1981). *The dialogic imagination: Four essays* (M. Holquist, Ed.; C. Emerson & M. Holquist, Trans.). University of Texas Press.

Berlant, L. (2017). Affective assemblages: Entanglements & ruptures—An interview with Lauren Berlant. *Atlantis: Critical Studies in Gender, Culture & Social Justice, 38*(2), 12–17.

Bloome, D., & Egan-Robertson, A. (1993). The social construction of intertextuality in classroom reading and writing lessons. *Reading Research Quarterly, 28*(4), 305–333. https://doi.org/10.2307/747928

Davis, J. L., & Chouinard, J. B. (2016). Theorizing affordances: From request to refuse. *Bulletin of Science, Technology & Society, 36*(4), 241–248. https://doi.org/10.1177/0270467617714944

Dernikos, B., Lesko, N., McCall, S., & Niccolini, A. (Eds.). (2020). *Mapping the affective turn in education: Theory, research, and pedagogy*. Routledge. https://doi.org/10.4324/9781003004219

Gibson, J. J. (2014). The theory of affordances. In J. J. Gieseking, W. Mangold, C. Katz, S. Low, & S. Saegert (Eds.), *The people, place, and space reader* (pp. 56–60). Routledge (original work published in 1979).

Hayashi, E. C. S., Arpetti, A., & Baranauskas, M. C. C. (2016). Preliminary reflections on affective affordance in HCI: A semiotic-informed perspective. In M.C.C. Baranauskas et al. (Eds.), *Socially Aware Organisations and Technologies. Impact and Challenges. ICISO 2016. IFIP Advances in Information and Communication Technology 477* (pp. 43–52). Springer. https://link.springer.com/chapter/10.1007/978-3-319-42102-5_5

Hutchby, I. (2001). Technologies, texts and affordances. *Sociology, 35*(2), 441–456. https://doi.org/10.1177/S0038038501000219

Keegan, P. (2021). Critical affective civic literacy: A framework for attending to political emotion in the social studies classroom. *The Journal of Social Studies Research, 45*(1), 15–24. https://doi.org/10.1016/j.jssr.2020.06.003

Klemenčič, K. (2015). What is student agency? An ontological exploration in the context of research on student engagement. In M. Klemenčič, S. Bergan, & R. Primožič (Eds.), *Student engagement in Europe: Society, higher education and student governance* (pp. 11–29). Council of Europe.

Kordt, B. (2018). Affordance theory and multiple language learning and teaching. *International Journal of Multilingualism, 15*(2), 135–148. https://doi.org/10.1080/14790718.2016.1223081

Leung, C. (2023). English language proficiencies – Recasting disciplinary and pedagogic sensibilities. *Critical Inquiry in Language Studies, 20*(4), 426–447. https://doi.org/10.1080/15427587.2023.2292185

Mendelowitz, B., & Govender, N. (2024). Critical literacies, imagination and the affective turn: Postgraduate students' redesigns of race and gender in South African higher education. *Linguistics and Education, 80*, 101285. https://doi.org/10.1016/j.linged.2024.101285

Morgan, B., & Ahmed, A. (2023). Teaching the nation(s): A duoethnography on affect and citizenship in a content-based EAP program. *TESOL Quarterly, 57*(3), 859–889. https://doi.org/10.1002/tesq.3213

Stahl, G., & Keddie, A. (2020). The emotional labor of doing 'boy work': Considering affective economies of boyhood in schooling. *Educational Philosophy and Theory, 52*(8), 880–890. https://doi.org/10.1080/00131857.2019.1699403

Stoffregen, T. A. (2004). Breadth and limits of the affordance concept. *Ecological Psychology, 16*(1), 79–85. https://doi.org/10.1207/s15326969eco1601_11

Strobl, C., Menke-Bazhutkina, I., Abel, N., & Michel, M. (2024). Adopting ChatGPT as a writing buddy in the advanced L2 writing class. *Technology in Language Teaching & Learning, 6*(1), 1–19. https://doi.org/10.29140/tltl.v6n1.1168

Vandenberg, P., Hum, S., & Clary-Lemon, J. (Eds.). (2006). *Relations, locations, positions: Composition theory for writing teachers*. National Council of Teachers of English.

van Lier, L. (2004). *The ecology and semiotics of language learning: A sociocultural perspective*. Springer.

van Lier, L. (2011). Language learning: An ecological–semiotic approach. In E. Hinkel (Ed.), *Handbook of research in second language teaching and learning* (pp. 383–394). Routledge.

Zembylas, M. (2021). The affective turn in educational theory. *Oxford Research Encyclopedia of Education*. Retrieved from https://oxfordre.com/education/view/10.1093/acrefore/9780190264093. 001.0001/acrefore-9780190264093-e-1272