

“I feel like I'm not dealing with people”: Posthumanism, agency, and language teaching

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ABSTRACT

Language research has displayed a long-standing interest in evaluating the practical utility of particular digital tools, but this area remains under-theorized in a broader sense. A posthumanist perspective, or one that de-centers humans in a given context and reveals the diffusion of agency among various actors (human and non-human), assists in establishing how educators are enabled to act and are acted upon within a teaching event. By applying this concept to digital technologies in the EFL classroom, an area in which little posthumanist work has been done, it becomes possible to elicit how a teacher's agency is affected by particular interfaces. In pursuit of this, we conducted 21 in-depth interviews with English as a Foreign Language instructors about their interactions with specific teaching technologies, the results of which were open coded and then focus coded for themes relevant to posthumanist concerns. The results expose the extent to which technologies can decrease an educator's capacity of agency, limiting their ability to effectively monitor students and manage classrooms to a sufficient degree of satisfaction. Digital tools are also revealed to increase capacity of agency, particularly when used for real-time collaboration and to provide evidence of students' comprehension and retention. Collectively, these examples indicate how teachers' desired intent is expressed through, and sometimes limited by, non-human actors, thus justifying a perspective that argues for a more diffuse notion of agency. For the field of TESOL and education at large, this study provides practical examples of how teachers' use of technology in their classrooms both increased and decreased their capacity of agency, encouraging all educators to consider their entire educational environment when planning to implement new technologies in their classrooms.

Keywords: Capacity of agency; digital technology; English as a Foreign Language; online teaching; posthumanism

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INTRODUCTION

While concepts related to posthumanism have spread throughout the academy to the extent that academics are discussing what shape the posthumanities should take (Braidotti & Fuller, 2019), they have not been extensively examined in the field of teaching English to speakers of other languages (TESOL). Central to posthumanism (broadly understood to relate to how humans relate to machines, animals, and the physical

environment), and its related field of new materialism, is that it “de-privileges human agency, focusing instead upon how assemblages of the animate and inanimate together produce the world” (Fox & Alldred, 2015, p. 399). New materialism also focuses on the agency of matter (Jackson & Mazzei, 2012), otherwise understood as how material objects influence individuals and their thinking rather than examining events through a traditional anthropocentric view.

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Pennycook (2018a, 2018b) has outlined and introduced general posthumanist concepts relevant to TESOL, yet his aforementioned work principally describes posthumanist theory and does not outline an agenda for specifically analyzing how posthumanist concepts relate to analyzing teaching English as a foreign language (EFL) in the classroom or how posthumanist concepts may aid in analyzing how teachers are using technology in those EFL classrooms. This study aims to redress this absence by attempting to trace the mutual interaction, or intra-action, of matter in EFL classrooms, especially focusing on relationships that encompass digital artifacts and individuals in EFL teaching environments. Our aim is to explore and explain how the various assemblages of matter and technology(ies) reveal evidence of unexpected and diffused agency. More specifically, the principal concern is tracing how technology aids or inhibits thinking processes and action in the EFL classroom.

Significantly for this project, and for the future of the EFL discipline more broadly, the general return to face-to-face classroom environments has not eliminated the need or desire for online or digitally-assisted education. Technological holdovers from the pandemic remain, while new artificial intelligence tools, including large language models such as Chat-GPT, have added new layers to ongoing debates about potential benefits and consequences of using specific digital tools in education. The pandemic catalyzed the widespread adoption of online teaching, an activity that was previously done by much fewer instructors. As such, it marks an inflection point at which online teaching became a standard tool in most teachers' educational toolkits, at least for institutions of higher education, rather than just something practiced by a small number of instructors. Moorhouse et al. (2022) have examined affordances and constraints of technology in synchronous online language lessons from a more static view of technology rather than a posthumanist perspective, which views agency as constantly in flux and a product of all of the items in an assemblage rather than solely being exercised by students and teachers. A posthumanist perspective on online teaching thus has particular salience for the present and foreseeable future as it may help uncover aspects of technology use that are unexamined. Drawing on posthumanist and new materialist concepts, Pennycook (2018a) calls for applied linguists to consider how assemblages play a role in language learning and teaching, and Fox and Alldred (2022) provide a "conceptual toolkit of assemblage, affect and capacity" (p. 635) that can be used in a posthuman analysis. While there have been some applications of posthumanism to an EFL teaching environment (Pennycook, 2024; Razavipour, 2023), not much work has been done analyzing how capacity of agency varies in assemblages within EFL online teaching

environments, a gap which this article seeks to fill. Following Bodén et al. (2021), we suggest that change in education is an entangled process that "has to be explored as an enactment, a doing" rather than a "mere linear progression" (p. 4), and such change is located within particular entanglements of agency, both human and non-human.

Posthumanism and the EFL classroom

Recent scholarship originating in the pandemic and continuing into the post-pandemic transitional period suggests that while educators' technological competencies can prove problematic, the forced use of computer-mediated instruction can be a catalyst for innovation. Reflecting on early stages of the pandemic, Kidd and Murray (2020) balance a recognition of difficulties inherent to a sudden transition to online teaching with a statement that socially-distanced, computer-mediated educational spaces can also become "sources of innovation and agility" (p. 9), citing several examples of novel teaching practices that emerged through necessity in the COVID-19 context (see also Moorhouse & Wong, 2021). Jeon et al. (2022) provide examples of such innovations, such as switching between multiple software apps in a single class session as a method of sustaining students' attention. Darwin and Hafner (2022) directly connect posthumanism to teaching online:

By understanding the entanglement of human and nonhuman interactants in the enactment of digital practices, we are able to recognize that it is not high-tech solutions that matter in the teaching of such literacies, but the way teachers are able to draw on diverse available resources for learning to take place. (p. 875)

Our own research reflects and extends some of the arguments presented by these scholars, while making the case that the attention given to the relationship between technology and agency should continue beyond the unique context of the COVID-19 pandemic and into an era in which opportunities and concerns surrounding artificial intelligence are certain to affect a multitude of educational disciplines, including EFL.

Agency and Assemblages: Understanding the Posthumanist Perspective

Posthumanism, as its moniker implies, is primarily concerned with how to view the world after humanism, and more specifically, how to re-envision the world in a way that no longer privileges the human perspective (Barad, 2003; Taguchi, 2017), instead viewing animal, biological, material, environmental, technological, and human agents as equal participants who affect all events in the world in concomitant, contingent ways (see Barad, 2007; Haraway, 2007; Schneider & Heyd, 2024). Two overlapping schools of thought that have contributed

much to posthumanist thought are affect theory (Gregg & Seigworth, 2010; Siffrinn & Coda, 2024), which focuses on the (extreme) difficulty of tracing the causality of any action, and new materialism (Dolphijn & van der Tuin, 2012; Razavipour, 2023), which considers material items to play roles concomitantly with human actors in events, though the two schools of thought overlap in many areas. According to affect theory, all of the factors in an environment can influence any action, even non-sentient physical objects, which offers a challenge to traditional notions of agency that insist a sentient actor must be the cause of any action (Connolly, 2013; Coole, 2013; Fox & Alldred, 2015). Furthermore, all of these human and other agents, or *mediants* using Appadurai's (2015) terminology, are in a state of constant change, or perpetually *becoming* (Deleuze & Guattari, 1987), as parts of an *assemblage* that produce results, or *affects* that are the result of the interaction between all of them rather than any direct agency that could be attributed to any one *actor* in an environment. As it is impossible to determine the causality of any action, Barad (2007) has coined the term *intra-action* to describe this process of multiple objects in an environment mutually affecting each other.

Bhatt and de Roock (2014) extend Barad's notion of agency to investigate "the interpenetration of humans and technical artefacts in digital literacies" (p. 15) on learning events as part of the assemblage that should be considered when reflecting on teaching and learning events. Ehret (2018), following Stewart (2011, 2014), applies posthumanism to the field of education and employs the concept of *affective pedagogies*, or pedagogical processes attuned to affect, in examining both teaching and research, or "what assemblages of place, texts, talk, and postures drained and stultified.... [and] what assemblages had energizing impacts upon our bodies and moved us to continue making, doing, and learning" (p. 57). Healy and Mulcahy (2021) specifically consider the *capacity of agency* in education:

Pedagogic forces in a given learning assemblage may act on learner bodies to augment or diminish, assist or restrain their powers of action and thought... Correspondingly, agency is no longer a matter of identity but of capacity realised through the co-implication of humans and materiality. (p. 559)

To phrase it otherwise, these posthumanist investigations in education are interested in how assemblages in the educational event affect the actors involved, or how students' and teachers' capacity to act is increased or diminished throughout an educational event or intervention.

Conceptualizing the EFL Classroom from a Posthumanist Perspective

While scholars have been utilizing affect theory and new materialist concepts in the field of TESOL for a number of years (e.g., Benesch, 2012; Craig & Porter, 2014; Porter, 2013; Porter & Tanghe, 2016; Toohey & Dagenais, 2015; Toohey et al., 2015), the term posthumanism only recently appeared in the literature. Pennycook (2018a; 2018b) outlines how posthumanism can be applied to research and practice in the understanding of languages as well as language learning and teaching, and extends the discussion to include notions of distributed language and cognition, the senses, and the relationship(s) between humans, objects, animals, and machines (see Canagarajah, 2018; Porter & Griffo, 2021; Toohey, 2019). The most productive insight that has resulted from applying posthumanism to applied linguistics is that (successful) communication is seen as the result of the use of all animate and inanimate items in an environment working together (Pennycook, 2018a, 2018b; see also Canagarajah, 2013), a situation characterized as one "in which language users (all of whom are material) are in intra-action with many other materials, all of whom are intra-acting and becoming" (Toohey, 2019, p. 944). Pennycook succinctly sums up how posthumanist ideas offer a new vision of language learning and teaching:

Posthumanist applied linguistics does not assume rational human subjects engaged in mutually comprehensible dialogue; the multimodal and multisensory semiotic practices of the everyday include the dynamic relations between semiotic resources, activities, artefacts, and space. No longer, from this point of view, do we need to think in terms of competence as an individual capacity, of identity as personal, of languages as entities we acquire, or of intercultural communication as uniquely human. Posthumanist thought urges us not just to broaden an understanding of communication but to relocate where social semiotics occurs. (2018b, p. 2)

He also emphasized that "meaning-making occurs in relational terms rather than in linguistic or cognitive systems—and semiotic assemblages—the coming-together of diverse groupings of vibrant materials" (2018a, p. 106).

The insight that all physical, biological, or technological actors in an environment affect the outcome of an event influences how the *teaching interventions*, a mainstay of educational praxis and research, are viewed. While the traditional conception of a teaching intervention is that it is controlled by the teacher and the results, for the most part, replicate the teacher's desired intent, posthumanist/affect theory posits that the process is

distributed between the teacher's intention, the matter employed so that the teacher's intentions can be realized, the matter's affect on the students, the product(s) that results from the students' utilization of that matter, the affect of each student's products on the class (and the collective effect of all of the students' products on the class), the affect of these products on the teacher, and the teacher's response to this affect. This understanding extends to the classroom, where affects between individual students, their products, and the teacher constantly flow between all agents and mutually affect one other. In such an approach, the term *teaching intra-vention* is preferable to the traditional term *teaching intervention* as it recognizes the mutual affectivity of all the items in any educational event and focuses on the assemblage of biological, material, and digital elements involved.

The application of posthumanism to educational contexts, while still a relatively recent undertaking, has begun to research teaching events in which humans are present but do not possess exclusive agency. For example, Strom and Porfilio's (2019) research related to student experiences in blended courses led them to see their *teaching as assemblage*:

Rather than seeing ourselves as separate from machines and the virtual world of the Internet, studying our use of technology through a posthuman lens helps us see that, whether we like it or not, we are always already technologically mediated. (p. 11)

An important aspect of their method was that it was "open to what emerges unpredictably from that different composition of students-technology-pedagogy-and so-on," with their goal being to "help faculty improve their teaching practice as well as assist them to think deeply about how their subjectivities are mediated via various technologies" (Strom & Porfilio, 2019, pp. 6&12). We are similarly interested in tracing the affective classroom events that led teachers to develop teaching intra-ventions, and the affects that such acts had on their classrooms and teaching environments, inclusive of the human and other actors within the environment.

METHODS

We desired to investigate how new materialist and posthumanist concepts could be productively employed to analyze EFL teachers' classroom processes but also realized that most EFL teachers are not familiar with new materialist theory. As such, we devised a semi-structured interview protocol that could be answered by teachers who were not familiar with new materialist/posthumanist concepts while intending to reveal how new materialist concepts could be employed to better

understand online classroom activity. Subsequently, we performed multiple rounds of interview transcript coding, then analyzed the resulting material with the intention of uncovering the relationships between digital matter, language teaching, and posthumanist theory in contemporary educational contexts.

Interviews

Guided by posthumanist perspectives, this study investigates the roles of digital matter in, with, and to the EFL classroom, as well as the outcomes of these intra-actions. Specifically, we aimed to map how technology shapes teachers, students, and classroom dynamics. To this end, we conducted interviews with 21 experienced TESOL professionals working in EFL contexts (see Appendix A). They are currently or were previously engaged in the EFL field in Asia, most of whom have experience in the tertiary sector in South Korea. These participants were recruited through the researchers' professional networks, a sampling approach previously employed by Jin et al. (2021). While this method allowed us to access informed perspectives, it carries the limitation of potential selection bias. The interviews focused on participants' use of technology in the classroom and how it influenced their teaching practices, interactions with students, and overall classroom dynamics.

Particular emphasis was placed on unexpected positive or negative effects of the technology on specific teaching events. All participants were provided with a description of the research project and were interviewed via Zoom by either of the researchers for approximately 1 hour. Subsequently, all quotations were member-checked for accuracy. Informed consent was provided in all cases.

Conducting research and analysis under a posthumanist banner involves a recognition that any final research product is a result of an "assemblage of researcher-data-participants-theory-analysis" (Mazzei, 2013, p. 734). As such, we see the interview and its subsequent analysis as an intra-action between all the material and human medians in an interview situation. Petersen (2014), following Barad (2007), uses the term *relata* to refer to data gathered from an interview to emphasize how this data emerges from the interview as a result of the relations between human and non-human medians in the interview environment and analysis stages that produced such data. We will follow this convention and refer to the data gathered from our interviews and analyses as *relata* throughout this paper. Given that we wanted to directly witness how material assemblages of the human and non-human affected teaching practice, we encouraged participants to speak to us in their regular teaching spaces, to show and describe their surroundings, making reference to specific pieces of the

assemblage throughout the interview and emphasizing the material dimension of their practice. This was better enabled by the fact that we conducted interviews via Zoom, and many teachers were at that time teaching wholly or at least partially online. Some were conducting hybrid online/face-to-face classes on their respective campuses, but the majority were teaching through videoconferencing software. Participants were therefore able to offer and show us descriptions of their teaching environments, emphasizing the degree to which teaching is an embodied, sensorial practice, constrained and enabled by the physical conditions in which it is performed (see Ehret & Posada, 2022).

Initiating contacts through our existing networks, in some cases interviewing colleagues with whom we have long-standing professional relationships, produced conversations that were sometimes digressive, with varying degrees of formality and adherence to the semi-structured format. We view this as an overall benefit, resulting in wide-ranging conversations and, frequently, a comfort level that encouraged frank and honest communication. We are aware, however, that this approach may have contributed to a selection of interviewees whose experience and opinions may reflect the biases of their professional and demographic categories. We have tried to counter this by ensuring a range of participants with diverse characteristics, both demographic (age, gender, nationality) and professional (years of experience, qualifications) (see Appendix A).

Coding and Analysis

Despite being involved in a posthumanist project, we thought the traditional tools of qualitative inquiry could be used to glean traces of posthumanist affect. As such, audio, video and transcripts of the interviews were analyzed and open-coded using each researcher's preferred computer-assisted qualitative data analysis software program (Taguette and QDA Miner). The first cycle of codes and relata were compared and then focus coded for the most salient themes (Saldaña, 2013). Notable themes that emerged from this initial round of coding revealed how online teaching

- inhibited or encouraged rapport between teachers and students,
- incorporated items in the teaching assemblage that limited or better enabled communication,
- affected how teachers and students projected their individual identities,
- involved multimodal matter specific to teaching environment, such as employing different backgrounds to match teaching objectives when using specific technologies such as Zoom,

- made teachers feel that they needed to employ different tools to monitor student activity than they were used to when teaching in physical spaces,
- was affected by the environment from which students and teachers logged on and participated in throughout a class,
- was affected by student participation and activity/products produced throughout the class,
- was affected by the (type of) technology employed,
- could demand of teachers more preparation and execution time,
- involved a hybridity of human and machine activity, such as when employing search engines or translation tools,
- sometimes aroused resistance, negative feelings, and/or involved negative experiences with technology on the part of students and teachers, and
- sometimes involved using technology unsuccessfully.

Once the open coding was concluded, the researchers then met to discuss how the codes relate to posthumanist/new materialist concerns. More specifically, we looked for discursive evidence in the intra-view relata of intra-actions between digital matter and classroom actors (humans) that produced different *becomings*, contingencies, or ways of being in the classroom (see Mazzei & Jackson, 2016). A comparison of the codes concluded with both researchers deciding that *increased and decreased capacity of agency* emerged as the predominant theme. The relata were then coded yet again for factors that led to increased or decreased capacity of agency with the subthemes of *monitoring* and *classroom management* emerging as relating to a multitude of teacher experiences and observations. Our choice to frame the research around the concept of increased/decreased agency of teachers was a result of intra-actions between the researchers and interviewees, the relata that was a product of the interviews, the theory that researchers thought most applicable to analysis of this set of relata, individual researchers' reflections on the relata, and discussions about the relata.

The resulting insights meet our goal of determining how certain external interventions, such as digital tools or the layout of a classroom, can increase or decrease a teacher's capacity of agency. However, as Dey (1999, as cited in Saldaña, 2013) notes, shared features in such broad categorizations can mask internal differences, and there is a risk that in forcing attachment to a category, nuance is elided. We have therefore tried to address some of this nuance in the discussions that follow.

RESULTS AND DISCUSSION

As the first phase of this research was, albeit inadvertently, conducted in an ERT setting, many of the interviewees emphasized the transitional phase of their experiences with teaching in a virtual classroom as they were learning how to best function in this new online environment, much like new teachers must learn how to teach in a physical classroom (see Yuan & Liu, 2021). Research participants reported collectively using a mix of synchronous online classes, pre-recorded videos, and learning management systems (LMSs) to deliver their course content. While interviewees reported that the *physical* environments in which they conducted their online classes were occasionally problematic (due to interruptions, restricted movement, and other factors), they also

commented with some frequency that technology itself was not a panacea as the properties of specific digital interfaces limited the agency of teachers to perform to their own expectations. Our findings therefore support Pennycook's (2018a) assertion that teaching is a more-than-human activity, and communication an assemblage of "dynamic relations between semiotic resources, activities, artefacts and space" (p. 107) for which a posthumanist perspective aids in revealing some of these intra-active components. As will be seen in the results, EFL educators were blunt about technology's capacity to reduce their own sense of agency but also found ways their agency was expanded through employing technological tools (Table 1).

Table 1

Reported factors that increased and decreased a teacher's capacity of agency

Factors	Affective agent
Factors that decreased a teacher's capacity of agency	
Limited ability to monitor or see students online	Blank screens, Breakout Rooms
Difficulties with online classroom management	Activities take longer online, students more reticent
Factors that increased a teacher's capacity of agency	
Designing activities that foster and monitor student activity	Edublog, Google Classroom, Google Docs, Jamboard, Microsoft Teams, Padlet
Synchronous viewing of shared documents with students and teacher	Google Classroom, Google Docs
Using apps that allow tracking student progress	Kahoot!
Viewing editing histories	Google Docs
Asking students to post to class forums	LMS, Google Classroom
Asking students to fill out forms related to other students' participation in online activities	Google Forms

Decreased Agency Due to Limited Ability to Monitor Students

Most interviewees had experience using Zoom for live classes, and the issue of interaction (both teacher-student and student-student) proved to be a major concern. Students' use of cameras while logged into Zoom, while generally considered to be an effective tool for promoting productive communication, also became a source of frustration for teachers when not used in a consistent manner by all class participants, a frustration reflected in other studies (Jeon et al., 2022; Yuan & Liu, 2021). Some universities imposed requirements for camera use, but even when turning on cameras was mandated, teachers found this policy difficult to enforce as shown in the excerpt from Aaron's interview below:

The majority of our students do not use cameras... I found that without a camera there was no real way to ensure that students were actively engaged... The course itself starts to become a little transactional and I don't feel that I've been able to develop a rapport with the students, even the very few students that use cameras. (Aaron)

Clearly, not being able to (fully) see these students has affected these teachers' sense of agency to the extent that they feel the class is transactional rather than interactional and even that they are not dealing with actual people. The condition described is one in which the role of technological mediation is rather obvious. When teachers discussed classroom experiences that were less associated with specific technological functions (i.e., the ability to see students' faces), and more about generalized perceptions, we can more clearly understand the virtual classroom as an assemblage wherein the teacher's intentions and actions are simply one of many forces that determine the outcome of a teaching event. Students may be demonstrating a resistance to the virtual classroom by turning off their cameras, a simple *physical* act that profoundly affects the digital matter with which a teacher works, and can in turn have a profound effect on teachers' and students' affective responses to a learning event. Moreover, a camera's functionality may at times be beyond a student's control, thus limiting the student's own agency and demonstrating how matter manifests its own agency.

While Aaron's comments indicate a frustration with their inability to read and react to students

while teaching online, some teachers also remarked upon a diminished capacity for projecting their own identities or gestures of approachability, seen as crucial to building a rapport necessary to feel satisfied with their own teaching performance (on rapport with EFL students, see Ashton, 2022; Jennings & Greenberg, 2009; Taghizadeh & Amirkhani, 2022; Yang & Yin, 2022).

I feel like I'm less interactive online... I don't force cameras because [of] roommates and siblings and some of them are just in unpleasant environments, so I don't want those distractions. I don't want them to expose something they don't want people to see. So the blank screens that I'm always staring at make me feel a little like [I'm] talking to nobody. (Claudia)

The difficulty in building “rapport” and “connections” with students validates the inclusion of posthumanist theory in educational research, revealing how non-human actors, in this case the environment in which teaching occurs, exercise agency and influence teaching events. One interviewee, Theo, described “a kind of energy” that he confidently projects in offline classes, resulting in a “positive feedback loop” when he feels that a similar kind of energy is returned by his students (an energy also noted by one of the participants studied by Jin et al., 2021). With some Zoom classes, however, Theo felt that “it can be hard to get that because sometimes students don't know when they're allowed to talk or even when they have to type.” Although the language that teachers use to express such sentiments varies, there remains a consistent sense that the lack of an enclosed physical space has challenged teachers' attempts to build satisfactory relationships with students or at least changed the nature of student-teacher and teacher-class relationships.

Employing camera feeds while videoconferencing clearly provides teachers with a method of surveillance that also informs their sense of engagement, and by extension, control in a virtual classroom. However, while this may work for direct teacher-student communication, a teacher's sense of control can quickly diminish when students are separated from the main classroom interface and assigned group or pair work. The design of Zoom's Breakout Rooms, for example, allows a meeting host to visit only one Breakout Room at a time, thus leaving the rest of the class without any form of teacher surveillance. For numerous interviewees, this had a distinctly disempowering effect.

There are certain activities that I tried to translate to Zoom using the Breakout Rooms that were totally successful in normal classrooms and just not at all [using Zoom]. And they're the kind of things that theoretically could work, because all you're really asking the

students to do is talk to each other, but for whatever reason... it just doesn't really work successfully. (Theo)

Although private rooms allow the meeting host to enter and participate or monitor, some teachers felt that their presence affected students' behavior within the rooms, leaving them uncertain as to the nature of interactions therein.

When I'm dropping in on Breakout Rooms, a lot of the time as soon as you get into the Breakout Room the whole dynamic just changes. It's not the same conversation that they were having five minutes ago, before you were in there, so I don't really see their true interaction. (Sarah)

Another interviewee expressed similar sentiments:

On the one hand, in a classroom situation where I'm not going to bug them unless there's a reason [to], I'll use my ears as best I can to figure out where there's a problem—you know, the art of monitoring so you're not getting in the way of what they're doing in groups or whatnot... I think with the Breakout Rooms, as soon as you invade the space by visiting [one], there's a noticeable kind of “Professor's here!”.... And that just doesn't happen in the classroom as much.... [As such,] I don't spend a lot of time in the Breakout Rooms. (Neil)

Neil's experience reflects a language teaching problem identified by Krish (2008), where “an online synchronous mode lacks the nonverbal and paralinguistic signals that are normally present in a face-to-face classroom” (p. 113). Another interviewee, Claudia, expressed similar feelings about using Zoom to observe student activity:

The ability to just put [students] in groups and monitor and check and watch them speak... [In Zoom] It's nowhere near as easy to just pair them up and tell them to go talk... and you don't know which ones are not actually there or who's decided their mic's not working today. And if you try to go through all 20 breakout rooms on Zoom, it takes forever.

This remark bridges two of the main complaints that teachers had about their recent experiences with digital technology in the EFL classroom. First, the online synchronous interface limits the ability of teachers to effectively monitor what their students are doing while ostensibly attending class, which creates a degree of uncertainty about the quality of instruction and the extent of student learning. Second, coordinating activities within this interface requires extra time and the adoption of innovative classroom

management skills, what Moorhouse et al. (2021) have called *classroom interactional competence in online contexts*, something for which many teachers, especially early in the pandemic, found themselves unprepared (Jin et al., 2021; Yuan and Liu, 2021). Competence, however, arguably signifies a human-centered perspective, implying that competence is malleable with knowledge and training. Without denying that suggestion, we would encourage a broader view, incorporating multiple sources of agency. In an assemblage where agency is diffused among varied human and non-human actors, attention to how teachers are *acted upon* is critical to determining how competence could be improved once one acknowledges that competence is contingent on all agents in a teaching assemblage.

Decreased Agency Due to Difficulties with Classroom Management

Multiple interviewees expressed frustration that activities and general class administration tasks took considerably longer in a virtual environment, a fact that frequently impacted their ability to achieve teaching goals (see Chen, 2022):

When I went into designing my classes, I'm like, there's no way in a class of 30 students, anyone's going to feel like it's their right and their turn to speak without [me] taking 30 minutes to call on everyone. (Claudia)

While many instructors restructured their classes as they gained more experience with teaching technology, the classroom management complications imposed by that technology posed a major challenge to educational efficacy (on classroom management in EFL settings, see Macías, 2018; Weinstein et al., 2004).

Can you cover the same amount of material online and in person?... The stuff I'm teaching [now], it's more surface level.... Half of the class in Zoom feels like I'm managing students. A three-minute activity, now it takes 10 minutes or so. I'm planning my classes with less content, but the same amount of time. And there's just so much to do... sometimes... I can't watch or give as much personal attention to a student. (Geoff)

The issues with classroom management expressed here, and in the quotes below, reveal how teachers' agency is directly influenced by other non-human actors within their working environments, and how teachers are themselves acted upon by assemblages of software, devices, curricular materials and students, including their attitudes and behaviors.

Well, I think, in my case, things that came more spontaneous in the past, I now.... must have a plan on how they're going to do it in the

online class because, in the face-to-face life, I would just say, "Okay move into four groups, and this is your question—discuss!" Online that's not possible. If I want them to work, to do something in the Breakout Room together, it's much more structured. I think that's exactly the difference between online and offline classes—that your instructions must be clearer and every exercise, every action that you want to take place in the class needs to be planned. (Martin)

Such observations recall Ehret's (2018) analysis of the human and non-human factors that "drained and stultified" a teaching environment as opposed to those that energized. Moorhouse et al. (2022) mention the difficulty of monitoring students in breakout rooms, but they do not elaborate on these difficulties other than to suggest that teachers needed to be explicit about what activities would be done in the breakout rooms and share a document detailing such instructions. While the authors regard "providing time for informal interactions with and between students so they can develop rapport" (p. 939) as part of a teacher's classroom interactional competence in synchronous online contexts, the examples above show that the ability to develop rapport depends on much more than just the teacher's competence as students, and technology must be willing to cooperate in developing that rapport (see Sharma, 2020, for an analysis of material factors involved in developing rapport with students during lectures).

Examining teachers' intra-ventions designed to improve their online teaching provides clear examples of how teachers' capacity of agency is impacted by multifarious actors within the social and technological environments in which they work. These responses reveal connections between desired intent (goals of teaching intra-ventions), assemblages (the human and non-human factors that influence a teaching event) and capacity of agency (the power to implement the former within the latter) as well as evidence of mediants' resistance to those intra-ventions. Thus far, we have focused on the ways that digital matter can have a disabling effect on teachers' capacity to act. However, the responses of teachers to that effect, along with the adoption of technologies that are perceived to improve monitoring and management, reveal the potential for digital matter to act in an enabling capacity as well.

Increased Capacity of Agency

Teachers responded to their feelings of diminished capacity of agency while engaged in online teaching in a variety of ways, which involved adapting their classroom management techniques and strategies to alter intra-action between students, teachers, and technology in their individual teaching

environments. Some teachers sought to increase their capacity of agency by designing activities that would foster intra-action in virtual classrooms and facilitate better (classroom) management by using virtual tools to monitor intra-actions (e.g., Eugene, Rosa). These teachers hoped that improved online monitoring techniques would increase student participation. They increased their agency to monitor student activities (a) by having students work on real time projects involving programs or apps (e.g., Edublog, Google Classroom, Google Docs, Jamboard, Microsoft Teams, Padlet) that allow synchronous viewing of shared documents and the teacher to monitor the students' work in real time (Anton, Douglas, Keith), (b) by viewing editing histories in Google Docs (Theo), (c) by asking students to post to various LMS forums (Adam), and (d) by asking students to fill out Google Forms about other students' participation in group projects (Sarah).

Most of the teachers who used real-time shared documents were positive about the intra-action their use enabled, sentiments summarized by Theo:

From one space, I can keep track of every single student easier than if I were in the classroom and they had paper and [were] writing. Cause then I'd have to... walk up and down the class and... peer down at the paper to see what's going on, whereas with Google Docs, I can just intervene at any moment that I need to.... If they're on the wrong track or something, then I can get that specific student fixed up without having to call them out.

Theo's assemblage increased his capacity of agency but also allowed him to improve his affective relations/rapport with students as he could help them without embarrassing them in front of a whole class. Moorhouse et al., 2022, also discuss teachers' use of shared documents online, but focus mainly on positive aspects of such teaching intra-ventions. Some of the teachers in the current study had reservations concerning how much their capacity of agency was increased by using shared online documents with different assemblages of students and activities:

I once tried [to get] the class to work on one Google document simultaneously. That didn't work because if everyone doesn't know exactly what you want them to do, then they mess up.... Then you... have to switch off the sharing right there (Martin)

The use of shared documents appears to increase some aspects of teachers' online capacities but does not provide teachers with the same agency that they possess in a physical classroom and may require more precise task description depending on the specific task and assemblage of technology and classroom. The affective flow of the assemblage

Martin mentions above returned to him and appeared to make him stop using Google Docs simultaneously with a whole class. Other teachers would benefit from paying close attention to when their teaching intra-ventions are less productive than anticipated.

One unexpected result of monitoring Google Docs is that Lillian felt it allowed her to see when students were employing online translators:

I can see what they're doing on Google Docs, so often there they seem to be typing it in as they go. However, I have seen... one instance that was so obvious.... The student finished in... two seconds because he copied... something from Google translate.

The student here added an unexpected element to the assemblage, a translator, which surprised the teacher but also resulted in a number of affects: (a) recognition by the teacher that students may be using translators and (b) realization that monitoring can increase her agency to spot this type of activity, thereby increasing this teacher's capacity to observe her classroom. With ChatGPT already affecting classroom life, techniques to increase the teacher's ability to spot the use of AI will be increasingly needed in online teaching domains, perhaps even in real-time discussions soon when comments are posted rather than spoken.

Neil felt monitoring student writing through Google Docs was superior to the traditional in-person EFL writing class correction format:

For writing it's a game changer for me... I think I'll use a computer lab in the future where I can [use Google Docs]... In a regular classroom situation that doesn't have computers or they're not working on computers, I'm just kind of reading over their shoulders, which is odd and uncomfortable for everybody, right?

Neil here raises an issue which every writing teacher has felt while wandering around the class and contorting themselves into continuously more awkward positions to avoid invading students' personal spaces: it is an *odd* social interaction that is *uncomfortable* for both teacher and student as it involves flouting social conventions. This issue displays a benefit of applying affect theory to the field of education: considering affective dimensions of teaching situations can uncover aspects that were under-examined before, such as the awkwardness of traditional monitoring in a writing classroom, an issue every writing teacher is aware of but likely rarely discusses with her/his colleagues.

Some teachers turned to technology to monitor yet more intra-actively, such as Martin's use of the online quiz app Kahoot!:

So, it's obvious that you can... gauge a level of participation or interaction when students are actually using [Kahoot!] because... you can... see how many people are signed in and participating.... when they're on the black screen and I present something, there's no interaction, and I don't know if they are even following me or listening. The moment I bring in a Kahoot! there is interaction. [There] are sometimes students who still don't interact, but usually those are the problem students. And right after two or three Kahoot!s, if I see one student is continually... at the bottom, because you get that score sheet at the end, then I know I should look at these two students—they're not with me. So, it's a way to... pick up the students who are, maybe, on a lower level, or falling behind, or they have some other issues.

Martin sometimes structures his classes with Kahoot!, using quizzes to introduce and/or test students' familiarity with target language (also done by Frances), test if students understood language after being taught it, and review target language at the end of class (see Reynolds & Taylor, 2020). Martin also frequently pauses a Kahoot! after a question or two to ensure students fully understand, then continues with the Kahoot! once he is satisfied that they do. The intra-action Martin describes between Kahoot! and his class is very pertinent to a posthumanist approach as Martin has given up achieving a standard interaction with his class for an intra-action mediated by Kahoot! Further, he employs Kahoot! to not only facilitate classroom interaction but also to monitor how students are intra-acting with the material in terms of their knowledge base, their level of engagement, and their progress in the course. A complex intra-action is occurring between teacher, student, and Kahoot! quizzes that has increased Martin's capacity to engage students in the classroom and has inadvertently increased his capacity to monitor students' engagement with the material.

Among monitoring-based intra-ventions in the *relata*, Abby's use of Google's digital whiteboard program, Jamboard, stood out for the variety of intra-actions which it engendered that involved collaborative learning. After presenting students with a Jamboard template related to activities covered in her textbook that week, a prompt, and an example of a filled-in Jamboard that she had designed, Abby informed students about the various Jamboard tools that were likely to help them fulfill their task. She then sent students into Zoom Breakout Rooms to work collaboratively on their Jamboards while she monitored each group's Jamboard documents.

[A Jamboard is] a great... prompt for them to talk They all interact, drawing and writing on the board together.... [When they come

back], each person has to talk about what they contributed to the board or one person can speak on behalf of the board.... It was quite good for helping ... not confident students as well.... They could go and think about things, rather than just giving a really kind of formula[ic]... response, or something completely out of the book. (Abby)

In this activity, students intra-acted with the in-class explanation of the task and the teacher's sample artifact/Jamboard in addition to the language focused on in the textbook lesson, which then led to group discussions about how to best fulfil the task objective(s). Abby was unique among interviewees in that being *au courant* with translingual approaches (Canagarajah, 2013; see also Cenoz & Gorter, 2020; Tian & Shepard-Carey, 2020), she did not insist on students solely using L2 (English) or police language use in Breakout Rooms. Rather, she recognized that the presentation of the final product would incorporate a multitude of target language, as well as incidentally learned vocabulary (see Ramezanali et al., 2021) acquired through group conversations that were primarily in L2 but may have included portions that incorporated L2 target terms while groups discussed the topic in their L1 (see Celic & Seltzer, 2011). Asking students to discuss their contributions, or to "speak on behalf of the board," is a very clever move on the part of this teacher as it distances the student speaking from the digital product, thereby encouraging shyer students to speak in class. From a posthumanist perspective, the language of the contributing student emerges as an intra-action between the initially set task; the multiple conversations, events, and contributions that led to the construction of the Jamboard; conversations between multiple students and/or the teacher during the construction of the Jamboard as well as their multiple incursions into the internet; and the environment and circumstances that surround the final discussion of the Jamboard with the full class as well as each individual student's discussion of her/his contribution to the Jamboard. All of these factors are considered in tandem by the presenter as s/he discusses the Jamboard and accesses various memory nodes while considering which are best to employ (or not) in the present discussion for best rhetorical effect, echoing Pennycook's (2018b, 2024) assertion that language competency is not solely based in the individual; rather, competency is relational and contingent upon how an individual relates to all of the animate and inanimate agents in the environment. Practically speaking, this teaching intra-vention suggests teachers would profit by considering how material and digital items in the teaching environment can aid their students in their communicative endeavors.

IMPLICATIONS AND CONCLUSION

Our research sought to uncover what kind of teaching intra-ventions EFL teachers used that involve technology, how these were shaped by the teaching environment and how the particularities of a given technological tool influenced, intra-acted with or otherwise affected teachers and learners. More specifically, we were interested in how the concept *capacity of agency* bore on EFL teaching intra-ventions that involved technology in tertiary EFL teaching situations in Asia. The reflections offered by teachers in this study reveal both enabling and disabling potentialities of technology in general, and specific technologies in particular.

One aspect of this research directly related to posthumanism is how assemblages affect teaching. The various assemblages of teachers + technology + students + teaching environment increased some teachers' capacity to monitor their students (e.g., when using Google Docs), but also limited some teachers' ability to monitor students (e.g., when using Zoom). We suggest future studies ask participants to consider this question: "How does this technology increase or decrease your ability to teach?"

Another take-away from this research project is how the use of technology led to new assemblages that altered teachers' and learners' capacity of agency. In response, teachers and learners modified their intra-action styles with each other and with the technology, which in turn created new assemblages, in a recursive fashion, with different capacities of agency for all mediants involved. From a practical teaching perspective, teachers should consider not just how to use a piece of technology in their classrooms but also how that technology may increase and decrease both teachers' and students' capacity to act as well as their intra-action styles in the classroom.

While the intra-action of teachers, students, and technology changed in a variety of ways, we suggest future studies that incorporate technological intra-ventions ask participants to consider this question: "How do intra-action styles between teachers, students, and technology change when using this technology?" It would be fruitful to conduct an investigation that aimed to ascertain both teachers' and students' perspectives on how their capacity of agency changes with the introduction of new technology. Other areas of investigation ripe for investigation are the long-term impact of specific technological intra-ventions as well as how institutional policies shape teachers' agency in digital environments. This would apply to fields outside of EFL and, when considered in the context of varied teaching objectives, require attention to the challenges, nuances and unpredictability that we have described above. Our population sample, having been drawn from our own field and extended professional networks, will reveal biases and

dispositions that are not universal; therefore, a wider application of these ideas is desirable.

The research results above offer examples of how teachers were frustrated by various assemblages of technology and classrooms but also practical examples of how they responded and adapted to the new teaching environment and used technology to provide more efficacy to both the teachers themselves and students. Teaching is a socially and materially mediated event, and we posit that digital matter can significantly affect capacity of agency for teachers and students alike by acting in and on a particular environment. This research provides one model for analyzing the relationship between teaching professionals and digital matter focused on analyzing capacity of agency in teaching environments that should be applicable elsewhere as long as researchers consider what assemblages are in play in the various and varying teaching environments that are being researched. It is hoped that other researchers will also uncover different ways to analyze the multitude of intra-actions teaching professionals, students, and digital matter share.

ETHICAL STATEMENT

This research project was approved by the IRB committee of Seoul National University and conducted according to their regulations, which required all participants to provide informed consent forms. All names used within are pseudonyms. The authors have no known conflicts of interest.

REFERENCES

- Appadurai, A. (2015). Mediants, materiality, normativity. *Public Culture*, 27(2), 221–237. <https://doi.org/10.1215/08992363-2841832>
- Ashton, K. (2022). Language teacher agency in emergency online teaching. *System*, 105, Article 102713. <https://doi.org/10.1016/j.system.2021.102713>
- Barad, K. (2003). Posthumanist performativity: Toward an understanding of how matter comes to matter. *Signs: Journal of Women in Culture and Society*, 28(3), 801–31. <https://doi.org/10.1086/345321>
- Barad, K. (2007). *Meeting the universe halfway: Quantum physics and the entanglement of matter and meaning*. Duke University Press.
- Benesch, S. (2012). *Considering emotions in critical English language teaching: Theories and praxis*. Routledge.
- Bhatt, I., & De Roock, R. (2014). Capturing the sociomateriality of digital literacy events. *Research in Learning Technology*, 21. <https://doi.org/10.3402/rlt.v21.21281>
- Bodén, L., Ceder, S., & Sauzet, S. (2021). Editorial: Posthuman conceptions of change in empirical

- educational research. *Reconceptualizing Educational Research Methodology*, 12(1).
<https://doi.org/10.7577/erm.4215>
- Braidotti, R., & Fuller, M. (2019). The posthumanities in an era of unexpected consequences. *Theory, Culture & Society*, 36(6), 3–29.
<https://doi.org/10.1177/0263276419860567>
- Canagarajah, S. (2013). *Translingual practice: Global Englishes and cosmopolitan relations*. Routledge.
- Canagarajah, S. (2018). Materializing ‘competence’: Perspectives from international STEM scholars. *The Modern Language Journal*, 102(2), 268–291.
<https://doi.org/10.1111/modl.12464>
- Celic, C., & Seltzer, K. (2011). *Translanguaging: A CUNY-NYSIEB guide for educators*. The Graduate Center, The City University of New York.
- Cenoz, J., & Gorter, D. (2020). Pedagogical translanguaging: An introduction. *System*, 92, Article 102269.
<https://doi.org/10.1016/j.system.2020.102269>
- Chen, M. (2022). Digital affordances and teacher agency in the context of teaching Chinese as a second language during COVID-19. *System*, 105, Article 102710.
<https://doi.org/10.1016/j.system.2021.102710>
- Childers, S. M. (2014). Promiscuous analysis in qualitative research. *Qualitative Inquiry*, 20(6), 819–826.
<https://doi.org/10.1177/1077800414530266>
- Connolly, W. E. (2013). The ‘New Materialism’ and the fragility of things. *Millennium: Journal of International Studies*, 41(3), 399–412.
<https://doi.org/10.1177/0305829813486849>
- Coole, D. (2013). Agentic capacities and capacious historical materialism: Thinking with new materialisms in the political sciences. *Millennium: Journal of International Studies*, 41(3), 451–469.
<https://doi.org/10.1177/0305829813481006>
- Craig, M., & Porter, C. (2014). “Speaking back” from the English periphery: Art-work in a South Korean high school English classroom. *English Teaching: Practice and Critique*, 13(2), 35–54.
<http://education.waikato.ac.nz/research/files/etpc/files/2014v13n2art3.pdf>
- Darvin, R., & Hafner, C. A. (2022). Digital literacies in TESOL: Mapping out the terrain. *TESOL Quarterly*, 56(3), 865–882.
<https://doi.org/10.1002/tesq.3161>
- Deleuze, G., & Guattari, F. (1987). *A thousand plateaus: Capitalism and schizophrenia* (B. Massumi, Trans.). University of Minnesota Press.
- Dey, I. (1999). *Grounding grounded theory: Guidelines for qualitative inquiry*. Academic Press.
- Dolphijn, R., & van der Tuin, I. (2012). *New materialism: Interviews & cartographies*. Open Humanities Press.
- Ehret, C. (2018). Moments of teaching and learning in a children’s hospital: Affects, textures, and temporalities. *Anthropology & Education Quarterly*, 49(1), 53–71.
<https://doi.org/10.1111/aeq.12232>
- Ehret, C., & Becerra Posada, T. (2022). Considering affective geographies in critical digital literacy pedagogies: How Colombian, English language teachers mitigated “feeling at a distance” during remote instruction. *TESOL Quarterly*, 56(3), 1041–1051.
<https://doi.org/10.1002/tesq.3139>
- Fox, N. J., & Alldred, P. (2015). New materialist social inquiry: Designs, methods and the research-assemblage. *International Journal of Social Research Methodology*, 18(4), 399–414.
<https://doi.org/10.1080/13645579.2014.921458>
- Fox, N. J., & Alldred, P. (2021). Doing new materialist data analysis: A Spinozo-Deleuzian ethological toolkit. *International Journal of Social Research Methodology*, 25(5), 625–638.
<https://doi.org/10.1080/13645579.2021.1933070>
- Gregg, M., & Seigworth, G. (Eds.). (2010). *The affect theory reader*. Duke University Press.
- Haraway, D. J. (2007). *When species meet*. University of Minnesota Press.
- Healy, S., & Mulcahy, D. (2021). Pedagogic affect: Assembling an affirming ethics. *Pedagogy, Culture & Society*, 29(4), 555–572.
<https://doi.org/10.1080/14681366.2020.1768581>
- Jackson, A. Y., & Mazzei, L. A. (2012). *Thinking with theory in qualitative research: Viewing data across multiple perspectives*. Routledge.
- Jennings, P. A., & Greenberg, M. T. (2009). The prosocial classroom: Teacher social and emotional competence in relation to student and classroom outcomes. *Review of Educational Research*, 79(1), 491–525.
<https://doi.org/10.3102/0034654308325693>
- Jeon, J., Lee, S., & Choe, H. (2022). Teacher agency in perceiving affordances and constraints of videoconferencing technology: Teaching primary school students online. *System*, 108, Article 102829.
<https://doi.org/10.1016/j.system.2022.102829>
- Jin, L., Xu, Y., Deifell, E., & Angus, K. (2021). Emergency remote language teaching and US-based college-level world language educators’ intention to adopt online teaching in postpandemic times. *The Modern Language Journal*, 105(2), 412–434.
<https://doi.org/10.1111/modl.12712>

- Kidd, W., & Murray, J. (2020). The Covid-19 pandemic and its effects on teacher education in England: How teacher educators moved practicum learning online. *European Journal of Teacher Education, 43*(4), 542-558. <https://doi.org/10.1080/02619768.2020.1820480>
- Krish, P. (2008). Language learning in the virtual world: Instructors' voices. *International Journal of Pedagogies and Learning, 4*(4), 113-129. <https://doi.org/10.5172/ijpl.4.4.113>
- Macías, D., F. (2018). Classroom management in foreign language education: An exploratory review. *Profile: Issues in Teachers' Professional Development, 20*(1) 153-66. <https://doi.org/10.15446/profile.v20n1.60001>
- Mazzei, L. A. (2013). A voice without organs: Interviewing in posthumanist research. *International Journal of Qualitative Studies in Education, 26*(6), 732-740. <https://doi.org/10.1080/09518398.2013.788761>
- Mazzei, L. A., & Jackson, A. Y. (2016). Voice in the agentic assemblage. *Educational Philosophy and Theory, 49*(11), 1090-1098. <https://doi.org/10.1080/00131857.2016.1159176>
- Moorhouse, B. L., & Wong, K. M. (2021). The COVID-19 Pandemic as a catalyst for teacher pedagogical and technological innovation and development: Teachers' perspectives. *Asia Pacific Journal of Education, 42*(sup1), 105-120. <https://doi.org/10.1080/02188791.2021.1988511>
- Moorhouse, B. L., Li, Y., & Walsh, S. (2021). E-classroom interactional competencies: Mediating and assisting language learning during synchronous online lessons. *RELC Journal, 54*(1), 114-128. <https://doi.org/10.1177/0033688220985274>
- Moorhouse, B. L., Walsh, S., Li, Y., & Wong, L. L. C. (2022). Assisting and mediating interaction during synchronous online language lessons: Teachers' professional practices. *TESOL Quarterly, 56*(3), 934-960. <https://doi.org/10.1002/tesq.3144>
- Pennycook, A. (2018a). *Posthumanist applied linguistics*. Routledge.
- Pennycook, A. (2018b). Posthumanist applied linguistics. *Applied Linguistics, 39*(4), 445-461. <https://doi.org/10.1093/applin/amw016>
- Pennycook, A. (2024). After words: There is no language without materiality. *Signs and Society, 12*(1), 109-123. <https://doi.org/10.1086/728090>
- Petersen, K. S. (2014). Interviews as intraviews: A hand puppet approach to studying processes of inclusion and exclusion among children in kindergarten. *Reconceptualizing Educational Research Methodology, 5*(1), 32-45. <https://doi.org/10.7577/rem.995>
- Porter, C. (2013). Political expression in a digital landscape: Exploring aesthetic foundations for critical literacy practices. *Multimedia-Assisted Language Learning, 16*(2), 118-137. <https://doi.org/10.15702/mall.2013.16.2.117>
- Porter, C., & Griffo, R. (Eds; 2021). *The matter of practice: New literacies and new materialisms in linguistically diverse classrooms*. Information Age Publishing. <https://www.infoagepub.com/products/The-Matter-of-Practice>
- Porter, C., & Tanghe, S. (2016). Emplaced identities and the material classroom. *TESOL Quarterly, 50*(3), 769-778. <https://doi.org/10.1002/tesq.317>
- Ramezanali, N., Uchiyara, T., & Faez, F. (2021). Efficacy of multimodal glossing on second language vocabulary learning: A meta-analysis. *TESOL Quarterly, 55*(1), 105-133. <https://doi.org/10.1002/tesq.579>
- Razavipour, K. (2023). Classroom writing assessment and feedback practices: A new materialist encounter. *Assessing Writing, 57*, Article 100760. <https://doi.org/10.1016/j.asw.2023.100760>
- Reynolds, E. D., & Taylor, B. (2020). Kahoot!: EFL instructors' implementation experiences and impacts on students' vocabulary knowledge. *Computer-Assisted Language Learning Electronic Journal, 21*(2), 70-92. <http://callej.org/journal/21-2/Reynolds-Taylor2020.pdf>
- Saldaña, J. (2013). *The coding manual for qualitative researchers* (2nd ed.). Sage.
- Schneider, B., & Heyd, T. (2024). Introduction: Unthinking language from a posthumanist perspective. *Signs and Society, 12*(1), 1-13. <https://doi.org/10.1086/728243>
- Sharma, B. K., (2020). A new materialist perspective to studying L2 instructional interactions in engineering. *International Journal of Bilingual Education and Bilingualism, 26*(6), 689-707. <https://doi.org/10.1080/13670050.2020.1767030>
- Siffrinn, N., & Coda, J. (2024). A literature review of posthumanist and new materialist research in applied linguistics. *Critical Inquiry in Language Studies, 1*-12. <https://doi.org/10.1080/15427587.2024.2415619>
- Stewart, K. (2011). Atmospheric attunements. *Environment and Planning D: Society and Space, 29*(3), 445-453. <https://doi.org/10.1068/d9109>
- Stewart, K. (2014). Road registers. *Cultural Geographies, 21*(4), 549-563. <https://doi.org/10.1177/1474474014525053>

- Strom, K., & Porfilio, B. (2019). Critical hybrid pedagogies: A self-study inquiry into faculty practices in a blended educational leadership EdD program. *E-Learning and Digital Media*, 16(1), 1–14.
<https://doi.org/10.1177/2042753018811871>
- Taghizadeh, M., & Amirkhani, S. (2022). Pre-service EFL teachers' conceptions and strategy use in managing online classes. *System*, 104, Article 102671.
<https://doi.org/10.1016/j.system.2021.102671>
- Taguchi, H. L. (2017). "This is not a photograph of a fetus": A feminist reconfiguration of the concept of posthumanism as the ultrasound fetus image. *Qualitative Inquiry*, 23(9), 699–710.
<https://doi.org/10.1177/1077800417732644>
- Tian, Z., & Shepard-Carey, L. (2020). (Re)imagining the future of translanguaging pedagogies in TESOL through teacher–researcher collaboration. *TESOL Quarterly*, 54(4), 1131–1143.
<https://doi.org/10.1002/tesq.614>
- Toohy, K. (2019). The onto-epistemologies of new materialism: Implications for applied linguistics pedagogies and research. *Applied Linguistics*, 40(6), 937–956.
<https://doi.org/10.1093/applin/amy046>
- Toohy, K., & Dagenais, D. (2015). Videomaking as sociomaterial assemblage. *Language and Education*, 29(4), 302–316.
<https://doi.org/10.1080/09500782.2015.1006643>
- Toohy, K., Dagenais, D., Fodor, A., Hof, L., Nuñez, O., Singh, A., & Schulze, L. (2015). "That sounds so coool": Entanglements of children, digital tools, and literacy practices. *TESOL Quarterly*, 49(3), 461–485.
<https://doi.org/10.1002/tesq.236>
- Weinstein, C. S., Tomlinson-Clarke, S., & Curran, M. (2004). Toward a conception of culturally responsive classroom management. *Journal of Teacher Education*, 55(1), 25–38.
<https://doi.org/10.1177/0022487103259812>
- Yang, X., & Yin, S. (2022). Interpersonal projection as EFL teachers' discourse strategy to enhance students' willingness to communicate: A systemic-functional perspective. *System*, 104, Article 102687.
<https://doi.org/10.1016/j.system.2021.102687>
- Yi, Y., Cho, S., & Jang, J. (2022). Methodological innovations in examining digital literacies in applied linguistics research. *TESOL Quarterly*, 56(9), 1052–1062.
<https://doi.org/10.1002/tes.3140>
- Yuan, K., & Liu, S. (2021). Understanding EFL instructor identity changes during online teaching in the COVID-19 pandemic: A case study in China. *RELJ Journal*, 55(1), 46–62.
<https://doi.org/10.1177/00336882211066622>

Appendix

Participant profiles

Pseudonym	Age	Gender	Nationality	EFL University Teaching Experience (Years)	Degrees Held	Teaching certificates
Aaron	41	Male	Canada	14	BFA, MA (TESOL)	CELTA, TESOL IV
Abby	42	Female	UK	2	BA, MA (TESOL)	TEFL
Adam	35	Male	UK	11	BA, MA (TESOL)	TEFL
Alex	59	Male	USA	16	BA (English Literature), MA (TESOL)	CBEST
Andrea	Undisclosed	Female	Undisclosed	10	BA, MA, PhD	
Anton	45	Male	South Africa	3.5	BA, MA, PhD	
Claudia	33	Female	Canada	4.5	MA (TESOL)	
Douglas	41	Male	Canada / USA	8	BA, MA (English Literature)	
Eugene	48	Male	USA	6	BA, MA	TESOL
Frances	44	Female	Canada	8	BA, MBA, JD	
Gareth	50	Male	Canada	12	MA (Education), MA (TESOL)	
Geoff	35	Male	USA	5	MA (English), MA (TESOL)	TESOL
Harold	63	Male	USA	16	BA, MA, PhD	
Keith	50	Male	UK	<1	BSc, MA (TESOL)	CELTA
Lillian	35	Female	USA	7	BA (English Education), MA (TESOL)	State Teaching Certificates: TESOL K-12 and Elementary Education K-6
Martin	53	Male	South Africa	5	BA, MA, PhD	CELTA
Neil	54	Male	USA	16	BA, MA (TESOL)	TESOL and Advanced TESOL
Patrick	53	Male	Australia	8	BA, MA (TESOL)	TESOL Certificate
Rosa	46	Female	South Africa	3	BA (2), MA (TESOL)	PGCE
Sarah	35	Female	Canada	6.5	BA, MA (Applied Linguistics)	
Theo	33	Male	Canada	1.5	MA (TESOL)	