

“Write a Greeting for Your Email Here”: Principles for Assessing Interpersonal Workplace Email Communication

Bethany Aull, *Universidad de Sevilla*

Laura Aull, *University of Michigan*

Structured Abstract

- **Background:** The emergence of business communication training, with special emphasis on digitally delivered simulation involving complex tasks, suggests that professional preparedness relies not only on work-related knowledge, but on communicative competencies as well. In fact, the American Management Association’s 2010 Critical Skills Survey identified “effective communication,” or “the ability to synthesize and transmit your ideas both in written and oral formats,” as one of the four central skills employers value (2019). These competencies are complex, ranging from face-to-face to email correspondence, and from inter-colleague to cross-hierarchical interaction. In the workplace, these multifaceted communicative demands are often tacit, but various realms contribute to their elucidation, including research addressing workplace communication, training methods, and assessment measures. In particular, investigations of business interactions in English have highlighted both transactional—e.g., work-related—and interpersonal—i.e., relational—discourses (Koester, 2006), and further study has shown that these discourses differ according to the interactants’ relationship (e.g., Vine, 2004), the workplace environment (e.g., Waldvogel, 2007), and the medium and genre (e.g., Gains,

1999; Yates & Orlikowski, 1992). Research has highlighted email not only as a prominent workplace communication medium, but one with different characteristics from those of spoken conversation. Importantly for professionals, appropriate use of these features in different email situations and genres is often central to effective task realization, collaboration, and interpersonal relations. These demands propel various employee training initiatives incorporating email communication and requiring adequate measures of learning. One such initiative, a prototype named Kitchen Design (KD), emphasizes email writing in various simulated workplace situations. It moreover gives explicit attention to both primarily transactional discourse, such as a meeting content summary, and primarily interpersonal discourse, like an email's greeting and audience-specific formality. The KD prototype highlights necessary connection between training initiatives, on one hand, and communication data and effective assessment design, on the other. This article seeks to bridge research findings on English workplace communication, teaching, and assessment along with KD task examples, offering a meta-analytic synthesis to help guide pedagogy and assessment of email workplace communication.

- **Questions Addressed:** We pose two exploratory questions: First, what is the nature of workplace email communication, and what are its goals? Answering this question is relevant to workplace training and involves attention to the diverse knowledge domains employees may be explicitly, and even implicitly, asked to master. In particular, interpersonal, rhetorical, and genre knowledge may be expected upon hiring, but often remains vaguely defined. To address these more tacit dimensions, we review relevant research on workplace emails and identify several considerations which can inform and enhance such communications' teaching and assessment. Specifically, these considerations underscore workplace email's multifaceted and often unique aspects in terms of discourse and genre features, transactional and interpersonal goals, and participant and relationship factors. We use several examples from KD tasks to demonstrate how to connect linguistic research with workplace communication training, and how we can ensure professional learners are equipped with an understanding of these ranging aspects. We discuss *learners* as professional trainees and future employees who undergo instruction in English-language workplace communication. More specifically, and hence more briefly, we explore a second question: What are possible approaches and challenges for assessment of workplace email communication? Here, we consolidate existing assessments from professional training programs as well as from academic disciplines like English for specific purposes. Informed by these practices, and by our previous observations on the

nature of workplace email communication, we reflect on considerations for assessment designers, especially when approaching elicited workplace emails and their interpersonal aspects. These reflections recognize the importance of renewed evidence for formative assessment models such as KD. They moreover emphasize the need for ongoing workplace email data collection. At the same time, they underscore the epistemic role of all models in asserting what knowledge and skills are assessment-worthy.

- **Conclusions:** In closing, we propose a number of principles to guide assessment of workplace email communication. We outline three overarching principles for assessing English-language workplace email communication along with related implications. These invoke (1) the importance of addressing, in workplace communication development, the particular, multifarious characteristics of these communications through email and their interpersonal aspects; (2) the need to inform and update assessment with ongoing investigation of authentic data; and (3) responsible assessment design and use of results as informative data.

Keywords: assessment design, email, interpersonal discourse, meta-analytical synthesis, professional training, Workplace English Communication (WEC), writing analytics

1.0 Background

Over 25 years ago, John Johnson (1994) argued that limited understanding of human communication persisted because researchers had “avoided seriously looking at how the various levels and forms (e.g., intrapersonal, interpersonal, public)” interface with each other (p. 170). In turn, Johnson proposed a new schema, categorizing spoken language as “intrapersonal” versus “extrapersonal,” with additional subcategories for each. By the 21st century, new labels categorized internet-mediated communication clearly between spoken and written communication: Crystal (2001) used the term “Netspeak,” Yus (2011) referred to “oralized written text” features (p. 225), and Tagliamonte and Denis (2008) described a “unique new hybrid register” (p. 3). More recently, Gretchen McCulloch (2019) opened her book *Because Internet* with four quadrants of human communication: informal speaking, formal speaking, informal writing, and formal writing. McCulloch places internet writing in the “informal writing” quadrant and underscores its wide accessibility and its focus on efficiency and spontaneity.

Research specifically concerned with workplace communication likewise identifies categories for a range of communicative tasks. Goal-oriented categories include “transactional” versus “interpersonal” (or “relational”) discourses. Examples of the former include “briefing” (Koester, 2006) and “information sharing” (Keyton et al., 2013). The latter includes communication focused on “relationship management,” such as joking or small talk (Keyton et

al., 2013). In these and other sources over time, linguists and educators take pains to create categories that explain the nature and demands of different kinds of human communication, not because they can be cleanly separated but because it can be analytically and pedagogically useful to try. Differentiating communicative goals can help highlight competencies we might take for granted in habituated tasks. The National Academies of Sciences, Engineering, and Medicine (2017), for instance, have identified core interpersonal and intrapersonal competencies integral to workplace and academic success and to economic attainment, health, and civic engagement.

Delineating varied discourse goals is particularly important for fair and accurate assessment. In contemporary workplace communication, different tasks entail different expectations, and the stakes are high for employees striving to obtain and maintain jobs. *Education Week* reported that employers value oral and written communication as among the most important skills for employees (Gewert, 2018). The National Association of Colleges and Employers likewise has emphasized the crucial role of oral and written communication (Nunamaker et al., 2017). Lentz (2013) reported that writing skills must become an employee's "habit" if they are to succeed in contemporary workplaces. Meanwhile, myriad concerns from national organizations like the American Management Corporation and regional and statewide business organizations suggest that many new employees are not fulfilling these expectations (Kleckner & Marshall, 2014). It is not only the employees but also employers who suffer in these instances: Poor communication skills can negatively impact businesses in a range of ways, including by tarnishing a brand image, decreasing employee productivity, and causing ineffective or erroneous decision-making, misinterpretations, and mismanagement (Kleckner & Marshall, 2014). Many employers therefore seem to expect new hires to come with considerable communication skills, even if those skills remain implicit or only vaguely stated.

Of key importance is that workplace communication includes not only written and oral skills traditionally addressed in schooling but also internet-mediated forms like email, which are often addressed in professional and technical writing courses but not always addressed in general English writing courses. Judging by the number of online resources offering advice about workplace email, this kind of communication is not only crucial for employee and workplace success but also entails language use somewhere between written and oral registers and formal and informal discourse (e.g., Sun, 2019; University of North Carolina Writing Center, n.d.). Add to that various transactional and interpersonal considerations—the particular goal, hierarchy, and context of a given email in a given workplace for a given employee—and it is clear that navigating workplace email communication requires adaptive and varied knowledge. As in other communication, email tasks draw on multiple competencies as well as metacognitive recognition of one's own needs and skills with respect to those competencies.

These increasingly complex demands have led to increasingly sophisticated approaches for preparing employees through instruction. Various branches of communication research have opened up channels between investigative findings and professional training; for instance, corpus linguists like Almut Koester, Michael McCarthy, and Michael Handford have offered insights

into workplace communication tendencies which can serve instruction and assessment design (for a review, see Handford, 2012). Other organizational communication research such as the Wellington Language in the Workplace Project has also been directly applied to several workplace communication courses (Holmes, 2000c; Riddiford & Joe, 2005). Though workplace email communication is complex and consequential for professional success and business relationships (Mulholland, 2014), evidence shows that it can be improved through instruction (e.g., Christner et al., 2010).

In turn, training learners entails assessment which accounts for these varied expectations. Innovations in assessment including Evidence-Centered Design and automated scoring reflect growing awareness of the need to be able to effectively and efficiently assess intricate tasks (Foltz et al., 2020). Initiatives like the Organisation for Economic Co-operation and Development's (OECD) Framework for Collaborative Problem Solving, the Assessment and Teaching of 21st Century Skills (ATC21s), and the Partnership for 21st Century Skills address measurement of complex, higher-level skills such as critical thinking and collaboration (for a review, see Foltz et al., 2020). The Society for Technical Communication (STC) supports building a body of knowledge to connect technical communication research and its development and assessment (e.g., Coppola, 2010). These assessment models reflect increasing attention to “soft skills,” like interpersonal communication, as complementary to the “hard skills,” or particular subject knowledge, required for an occupation (Schulz, 2008).

Still, these models take a broad approach, potentially disattending the particular demands of interpersonal workplace communication through email. One training program focusing on Workplace English Communication (WEC)—defined as a form of sophisticated discourse in which organizational and disciplinary norms for framing and communicating information are used for a variety of aims—is a prototype named Kitchen Design (KD). KD is a digitally delivered simulation involving complex tasks. Between 2018 and 2020, a prototype was developed using a scenario-based approach in which modules present opportunities for students to learn WEC by working in a fictitious company that specializes in designing and overseeing the construction of commercial and private kitchens. (For more on the prototype, see in this issue: Oliveri, Mislevy, & Slomp, 2021; Oliveri, Slomp, Elliot, et al., 2021; Oliveri et al., 2021a, 2021b; Slomp et al., 2021.) KD focuses specifically on communicative business skills and placing notable emphasis on email communication. The KD prototype comprises progressive modules, starting with a foundation-laying lesson on email writing and then moving into the KD story. This story sets up a virtual roleplay in which the learner works on a team project to propose and design a model kitchen. Along with team members Amy, Victor, and Dmitri, the learner also interacts with other office members, including a manager (Volk) and a client (Miguel). Through a thread of scenarios, the tasks first emphasize recognition—e.g., organizing received emails in order of importance and identifying un/necessary information to be included in a given email. The tasks build to production—e.g., composing a scheduling email—and at each stage they elicit reflection on choices made by the learner. These tasks together create the

module's assessment in which task realization is evaluated progressively, from multiple choice options to rubric-scored writing.

Yet the work of assessing workplace email communication does not stop with the one-time creation of tasks such as the KD prototype. It requires ongoing efforts, including reviewing and validating assessments like the KD tasks alongside other research on workplace communication. This dynamic approach supports assessment research and design that is attentive to evolving characteristics and demands of workplace email communication.

This brings us back to our opening: It is no small task to categorize human communication, let alone clarify and assess its corresponding expectations for workplaces. It is in response to this exigency that the current special issue brings together workplace communication research, training, and assessment perspectives, to consider how to better prepare learners for professional communicative demands. By way of example, we draw from the KD initiative, which responds to these demands by creating progressive communicative tasks situated in simulated business scenarios. Using these examples alongside our review of existing research, we speak to how these assessments can be responsibly addressed and themselves assessed.

2.0 Questions Addressed

In this article, we offer a literature review and discussion of research on workplace communication and assessment, then outlines principles for contemplating and assessing workplace email communication that can be adapted and extended for future tools. The first part takes the form of a meta-analytic synthesis, meaning it compiles relevant research findings and draws a number of considerations for assessment, both of which it exemplifies through prototype KD modules. The considerations extracted pertain to two questions which we explore in the following order:

1. What is the nature of workplace email communication, and what are its goals?
2. What are possible approaches and challenges for assessment of workplace email communication?

We begin our synthesis broadly, offering a conceptual map of related competencies and knowledge, before continuing vis-à-vis what characterizes workplace email communication and its corresponding possibilities and challenges for learning and assessment. In answering these questions, we consolidate relevant research in order to innovate workplace communication teaching, in the case of the first question, and assessment, in the second. We close by offering working principles for future efforts to analyze and assess workplace email communication. To help illustrate the competencies, characteristics, and principles we describe, we draw on examples from KD tasks. In particular, we use these example tasks to highlight how workplace email communication engages *interpersonal* goals and discourse, rather than only *transactional* goals and discourse that may be more obvious. While a meta-analysis of this kind is only an initial step toward a comprehensive taxonomy for analyzing and assessing workplace email

communication, it encourages ongoing, thoughtful connection between research, practice, and assessment design. This approach can offer insight to formative assessment development, and the range of contemporary research, existing tools like the KD tasks, and the importance of adaptive, practical support for learners make such an initial step valuable and timely.

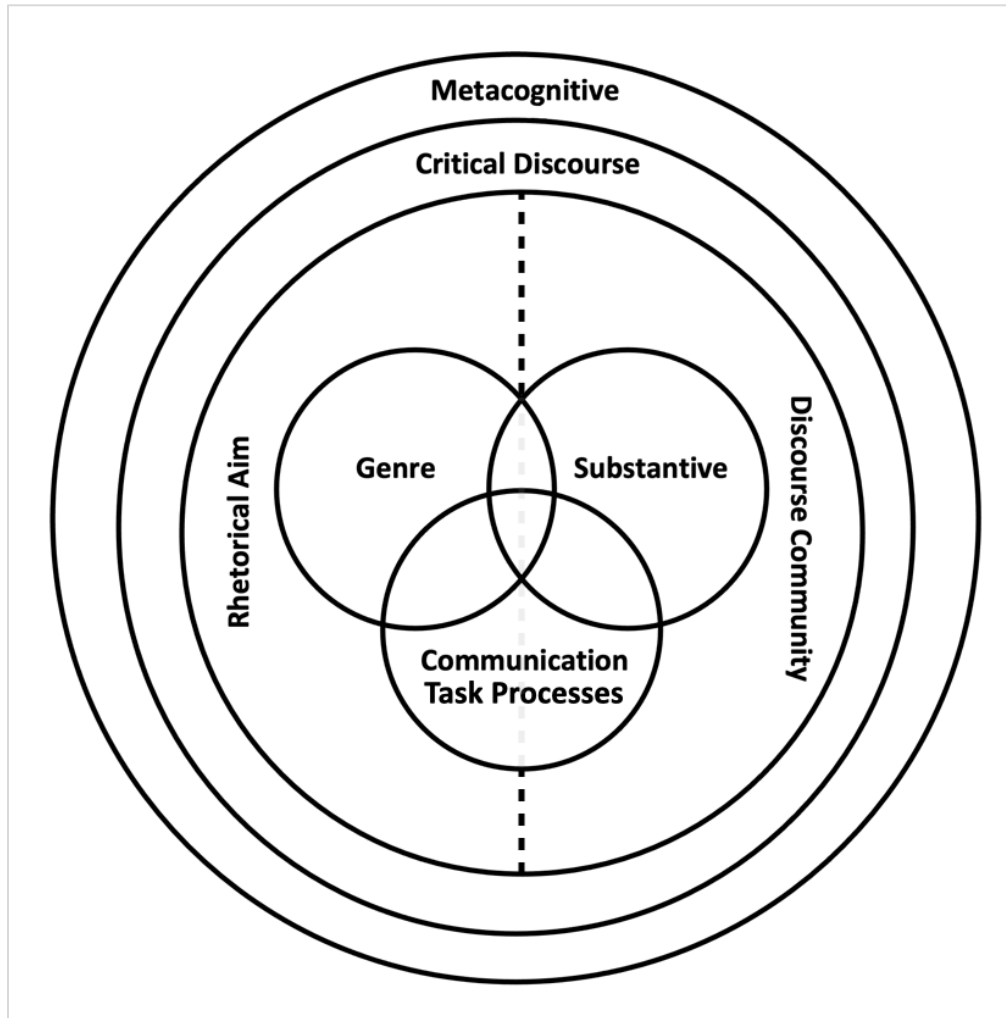
2.1 Question 1: What Is the Nature of Workplace Email Communication, and What Are Its Goals?

Workplace email communication today engages a variety of purposes and audiences. The KD tasks, for instance, incorporate diverse emailing situations: purposes from scheduling meeting times, submitting proposals, informing, and making requests, and audiences from a supervisor, to team members, to a client. Through these diverse tasks, learners are expected to develop and enact relevant discourse community knowledge. According to Slomp et al. (2018), discourse community knowledge involves the “ability to identify and respond to the unique constellation of values and expectations of the communities within which or for which one is writing”—in this case, those relevant to professional businesses (p. 85).

When it comes to workplace email communication, the “unique constellation of values and expectations” may be very new even for learners with knowledge from other discourse communities such as those from family or school. What is more, aspects of these discourses, such as the genres, linguistic features, and pragmatic norms of email, evolve as participants adapt them to their discourse community’s needs. It can be helpful, then, to break down discourse community knowledge into more specific components, while also recognizing that metacognition—self-awareness and self-regulation with respect to related abilities and practices—can help guide learners. Figure 1 below visually captures the subcomponents of rhetorical and discourse community knowledge, nested within related metacognitive and critical discourse knowledge. (For more on the design and development of Figure 1, see Corrigan & Slomp, 2021, this issue.)

Figure 1

Sociocognitive Construct Model of Writing Expertise (Corrigan & Slomp, 2021, this issue)



As the figure shows, Corrigan and Slomp (2021) represent rhetorical aim and discourse community knowledge as balanced components. Rhetorical aim knowledge involves awareness of audience and correspondent relationships, and discourse community knowledge involves taking these factors into account to communicate with appropriate information, format, formality, and politeness. Based on the KD model, these aspects subsume three overlapping subcomponents: genre knowledge, substantive or subject-matter knowledge, and knowledge of the communication task process. Genre knowledge involves an understanding of how the community uses textual choices such as appropriate organization and formality for different tasks which, though not clean-cut or exclusive, demonstrate “family resemblances” within genres (Swales, 1990). Knowledge of genre also involves mastery of content and vocabulary, which

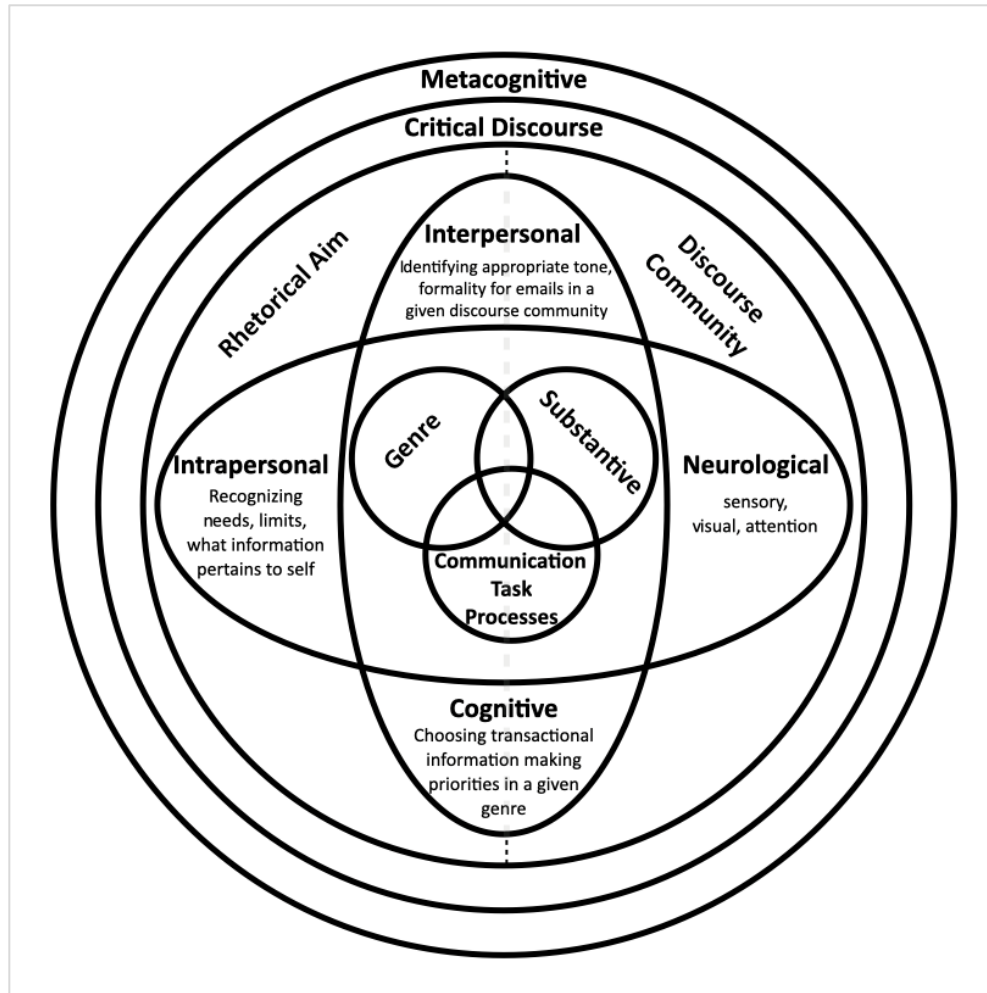
simultaneously forms a part of substantive knowledge. Writing process knowledge relates to how to carry out various stages of composition, from planning to proofreading. Thus each subcomponent overlaps with and is relevant to the others, and all come into play when communicating.

In workplace email communication, all of these knowledge subcomponents involve work-related as well as relationship-dependent values and expectations. And some of these may be more obvious than others for learners new to business discourse communities. For instance, while writing process steps may feel familiar for learners accustomed to writing in school, rhetorical and relational demands related to workplace audiences may be less salient but equally important.

If we connect these ideas to broader competencies—or what the National Research Council (2012) and White et al. (2015) call knowledge domains—we gain additional ways to consider the range of cognitive, interpersonal, intrapersonal, and neurological competencies involved in workplace email communication (see also Elliot & Aull, 2021). In Figure 2, we have combined Corrigan and Slomp's (2021, this issue) knowledge map with White et al.'s (2015) domains in order to illustrate how we might simultaneously consider multiple competencies and discourse community knowledge subcomponents in a single taxonomic map (see also Elliot & Aull, 2021).

Figure 2

Competencies Involved in Workplace Email Communication



Drawing from this model, workplace email communication depends on cognitive abilities, such as selecting appropriate vocabulary and content and producing coherent genre structure, as well as interpersonal abilities, such as making apt rhetorical distinctions in addressing peer colleagues versus superiors. Thus, one important challenge for developing learning and assessment opportunities is to ensure that learners gain practice in perceiving and carrying out these varied expectations. The sections below detail three sets of characteristics and considerations of workplace email communication, based on inferences drawn from the research we review. Of course, these three considerations will be influenced by particular workplace contexts; some contexts, for example, may have email communication length limits or a preponderance of younger or older workers (Turnage, 2007). Contextual details will influence the realization of the following considerations, which highlight varied expectations.

2.1.1 Consideration 1: Workplace Email Communication Includes Diverse and Distinctive Features

Research specifically focused on workplace email is still limited, so we consider characteristics of workplace email by drawing inferences from a few related areas of research. These areas address (a) spoken workplace interaction, (b) non-electronic written workplace communication, and (c) email communication generally. Complementary findings across these areas suggest that workplace emails blend genre expectations from both spoken and non-electronic written communication while also displaying unique, medium-specific features.

First, research into spoken workplace interaction shows that it differs from non-work spoken interaction. Early work by Drew and Heritage (1992) and Yates and Orlikowski (1992) laid important foundations for this inquiry. Drew and Heritage have argued that workplace communication is more restricted because its use and interpretation are more oriented toward specific goals. Koester's (2006, 2010) later findings further demonstrate that spoken workplace communication includes distinctive features in terms of structure, lexico-grammatical features, communicative goals, and constitutive *genres*, or what Yates and Orlikowski define as “typified communicative actions invoked in recurrent situations and characterized by similar substance and form” (1992, p. 319). In organizational settings, these authors identify a number of specific workplace genres, such as memos and meetings, which “serve as an institutionalized template for social action—an organizing structure—that shapes the ongoing communicative actions of community members through their use of it” (Orlikowski & Yates, 1994, p. 542). Delineating genres in this sense (as opposed to, for example, Miller's [1984] broader conceptualization), Koester (2006) identified 11 genres in her corpus of spoken business English, listed here in order of frequency: decision-making, procedural and directive discourse, briefing, arrangements, small talk, service encounters, office gossip, reporting, discussing and evaluating, requesting, and “liminal talk” for gradually exiting a conversation.

As in spoken interactions, workplace email communications involve a plurality of genres which interplay with unique medium factors. Several scholars have simplified this complexity by classifying email communication as a single genre (e.g., Baron, 1998). This view conflates medium with genre, but other researchers (e.g., Yates & Orlikowski, 1992) take the two to be separate, albeit interacting, aspects. While medium practices and affordances can favor or disfavor certain genres, medium generally provides the “physical means” by which genres are generated (Yates & Orlikowski, 1992, p. 319). The precise genres of email have not been named, in part because email is perceived as “more a moving linguistic target than a stable system” (Baron, 1998, p. 144). Nevertheless, there are apparent differences in how users compose emails aimed at distinct communicative actions. Gains (1999) has identified several recurring “tasks” of this kind, many of which coincide with Koester's spoken workplace genres. Gains' small-scale study focused on email communication in two workplaces, where he found that senders typically used email to inform, request, respond, promote, praise or scold, direct, and “occasionally to

have fun” (p. 97). Notably, the communicative actions informing/briefing, requesting, and directing appear in both Gains’ email “tasks” and Koester’s spoken workplace “genres.”

Unlike Koester (2006), Gains’ (1999) email tasks did not include decision-making, and this divergence may hint at email’s use for more unidirectional goals (Koester, 2006). In other words, email may be especially useful when transacting across workplace hierarchies. Sproull and Kiesler (1986) made such a discovery in their early workplace email study, in which employees preferred to use email for correspondence *up* the hierarchy. The authors suggested this may be owing to some “status equalization” afforded by email’s diminished visual reminders as compared to face-to-face communication (p. 1507). The written medium may also serve a documentation function particularly useful for cross-hierarchical, unidirectional activities like report- and memo-distributing (Orlikowski & Yates, 1994). By the same token, more recent research has suggested that workplace authority figures also benefit from this equalizing effect to show solidarity toward subordinates (Skovholt et al., 2015). We return to considerations of workplace roles and hierarchies later in this section.

Research has also indicated that workplace email communication resembles offline workplace writing in some ways. In fact, Gains (1999) reported that his commercial-sector email corpus overwhelmingly followed business-letter conventions. In particular, he found high levels of formality and hardly any a-grammatical or “conversational” features, as have been associated with email as online discourse (e.g., Herring, 2001). Abbasian and Tahririan (2008) made similar observations of professional emails between biologists. Moreover, when analyzing these emails in contrast with emails between English as a foreign language (EFL) educators to identify genre patterns, they were able to identify an overarching move structure. This comprised six common and ordered moves: establishing the communication information chain, establishing the territory, providing information or answers, requesting for information or action, evaluating, and closing.

Besides these observations, however, the corpora analyzed by Abbasian and Tahririan (2008) and Gains (1999) showed considerable variation. Gains compared his commercial emails to professional emails among academics and concluded that the emails “[do] not constitute a single, recognizable genre” in that “it neither represents a single discourse community, nor encompasses communicative events which share a common purpose” (p. 99). More specifically, Gains found that in contrast to the business-letter emails of the commercial-sector corpus, the academics’ emails included a broader range of conventions and informal features. The teachers’ emails in Abbasian and Tahririan’s study showed similar flexibility. That is, rather than presenting new workplace genres, email communication from different workplaces may allow for distinct characteristics and a broader or more narrow range of features. This dynamism may, in fact, be constitutive of email: It may allow for a wider range of formality and informality, and blurred boundaries between each, than in traditional non-electronic writing. Abbasian and Tahririan suggested that their findings, in which variation itself varied, may result from the “dynamic nature” of email’s response to “the rhetorical and functional needs of the discourse communities and purposes” (2008, p. 16). In other words, each community adapts a “genre repertoire” whose

resources are recognizable but also specialized for its members (Orlikowski & Yates, 1994; Swales, 1990).

Thus, different workplaces can form diverse discourse communities, or what Waldvogel (2007) has referred to as different “workplace cultures.” In her email analysis across two New Zealand workplace sectors and environments, Waldvogel (2007) found divergent approaches to email openings and closings: The “familiar workplace culture” gave rise to more interpersonal aims in the form of phatic opening and closing remarks, while this was not the case in the company in which hierarchy was emphasized. In both cases, these interpersonal sequences were infrequent, but they were scarcer in the markedly hierarchical setting. On the other hand, almost all of the emails in Bou-Franch’s (2011) study contained openings and closings. These emails, though workplace-internal, came from a university setting in Spain and may have reflected a “people first, business second” style in the Spanish language and culture. Hence, in addition to Abbasian and Tahririan’s (2008) and Gains’ (1999) findings of cross-occupational variation in email norms, Waldvogel’s and Bou-Franch’s studies offer initial evidence that workplace discourse communities may vary according to culture both in a broad and local sense.

Other research in electronic workplace communication shows a range of features commonly associated with online discourses. For instance, several accounts have identified more informal features, such as abbreviations and non-standard spelling, in electronic as opposed to non-electronic workplace writing (Gimenez, 2000). In his study of commercial business emails, Gimenez (2000) observed a number of informality indicators, including spoken-language features, syntactic simplicity, demonstrative modifiers, and ellipsis, which he interpreted as indicating a “tendency towards a more flexible register” (p. 237). Skovholt et al. (2014) also found emoticons in their workplace email analysis. According to the authors, these emoticons served as contextualization cues in three ways: signaling positive affect, marking humor, and modifying illocutionary force (e.g., strengthening or softening speech acts). In turn, the authors suggest, these cues’ informality contributes to their function as “solidarity markers” (p. 793). Previous email communication research has underscored that women, particularly, exploit emoticons for such purposes (Wolf, 2000). Emoticons are not just observed in research, but defended as acceptable in *The New York Times*’ “Work Friend” advice column. In response to a question about emoticons’ appropriacy in work emails, columnist Alison Green (2019) wrote, “An occasional smiley face at the end of a message can help convey tone when it might otherwise be misinterpreted and is usually fine in all but the most formal of offices.”

In a non-work study, Maíz-Arévalo (2015) has nevertheless argued that emoticons do not necessarily render communication informal. Maíz-Arévalo’s participants, unacquainted students engaging in task-based interaction through an e-forum, made frequent use of emoticons and considerably less use of “typographic alterations” such as vowel elongation and repeated punctuation. Moreover, emoticons emerged both early on in the study and in several phases of interaction. Typographic alterations, on the other hand, occurred mostly in the latter stages of the exchange and in opening and, especially, closing phases of interaction. Maíz-Arévalo therefore

implies that emoticons are pragmatically useful and unmarked in formal contexts, while typographic alterations do introduce greater informality which is appropriate at certain points in conversation. She attests to these cues' primarily interpersonal use to "boost rapport, face save and occasionally express . . . emotions" (p. 144). These considerations relate to multiple knowledge domains portrayed in Figure 2; emoticons are visual elements which involve neurological competence, but knowing when and how to use them entails cognitive, intrapersonal, and interpersonal competencies in order to engage the appropriate rhetorical and genre knowledge.

Other more clearly informal features, such as phrasal shortcuts and typos, also attest to multiple domains at play in workplace email communication. Jensen (2009) found that phrasal shortcuts were most frequent in the final phase of his study. Furthermore, though there appeared to be no external email editing or supervision in any phase, Jensen also reported an increase of seemingly unintentional cues, e.g., "typos": Businesspeople were less vigilant of errors in their emails once they had secured a firm business relationship with their receivers.

In sum, the above research suggests that workplace email communications (a) include features and tasks similar to spoken and non-electronic written workplace communication, but may be particularly useful for unidirectional and cross-hierarchical communications, (b) may include more informal features than offline work-related letters, and (c) show considerable variation depending on a number of factors such as the writers' relationship and workplace environment. Just as these varying features, from email opening strategies to emoticon use, form part of these communications and their multiple knowledge domains, they can have a place in their instruction and assessment.

2.1.2 Consideration 2: Workplace Email Communication is Interpersonal and Transactional

In addition to indicating email's particular characteristics, the above research reflects that workplace communication encompasses discourses driven by both work-related or "transactional goals" and interpersonal or "relational goals" (Koester, 2006, p. 26). Transactional goals refer to those aims focused on work-related tasks, such as noting specifications for a product or making a timeline for a project, while interpersonal goals refer to those focused on relationship management and are associated with workers' emotional wellbeing and engagement (Hynes, 2012). Since these distinctive goals are manifest through linguistic features and patterns, we focus on what we will call *transactional discourse* and *interpersonal discourse*.

Transactional discourse has taken center stage in workplace communication research, likely influenced by ground-laying scholars like Drew and Heritage (1992), who named it a constitutive feature. Numerous studies have analyzed transactional discourse such as informing, reporting, and requesting in intra-organizational activities like meetings (e.g., Asmuß & Svennevig, 2009; Svennevig, 2012) and memo writing (e.g., Orlikowski & Yates, 1994). Koester's (2006) analysis of workplace communication genres also supports transactional discourse's prominence: It made

up 86 percent of her corpus, leaving interpersonal discourse as a leftover “non-transactional” category (p. 21).

To briefly illustrate transactional discourse, we look at some work-oriented tasks in the KD prototype. For example, one task involves composing an email to a client, Miguel, regarding the model kitchen project. The task displays a prompt for each section of the email, so an initial prompt asks the learner to *inform* by providing “an opening statement” which signals the transactional purpose of the email. The subsequent prompt introduces the central aim of *requesting information* from the client, which requires *summarizing* the questions gathered from the team. Later email tasks introduce further transactional goals and discourse, such as consolidating background research on a kitchen robot to determine its usefulness, and *explaining* this position.

To contemplate interpersonal discourse, we likewise look to research findings and a brief KD example. For example, some scholars have given special attention to interpersonal discourse in workplace settings. In one early study of spoken workplace communication, Whittaker et al. (1994) found that 31 percent of one office’s communications could be categorized as “informal” talk, by which they refer to conversation which dealt with interpersonal as opposed to work topics, such as the phatic opening and closing phases. Brown and Lewis’ (2003) study of conversations in the pay office of a New Zealand factory observed an even higher proportion of interpersonal interaction. Approximately half of the authentic conversations they recorded for their study related to non-work topics, including “often highly personal” topics (p. 95). Holmes’ (2000a) work has highlighted the role of workplace small talk in rapport-building, a function which can be especially important for professionals using English as a lingua franca (Holmes, 2005; Pullin, 2010). Though interpersonal discourse is prevalent, Keyton et al. (2013) noted that “[t]oo frequently, relationally oriented communication at work is eschewed over task-related communication” (p. 164).

These studies reflect that both discourses are at play in workplaces. It is thus unsurprising that they often co-occur, and many scholars have offered classifications acknowledging their distinct goals. For instance, we have mentioned that Koester (2006) sorted the genres identified in her corpus along these lines. These genres fell into primarily “transactional genres” (e.g., briefing, procedural and directive discourse, requesting, reporting, decision-making) and primarily “relational genres” (e.g., office gossip and small talk). This echoes McCarthy’s (2000) study of conversations between service providers and customers: He classified the range of topics between “transactional talk” and “interpersonal talk.” Holmes (2000a) has broken this gradation down in four types: (1) core business talk (task-focused), (2) work-related talk, (3) social talk, and (4) phatic communion (interpersonally-focused).

Often, however, these discourses are highly blended. Even when handling transactional goals, interactants curate *face*, or “public self-image” (Brown & Levinson, 1987, p. 61), through interpersonal discourse. Tasks like this that solicit interpersonal discourse can be related to sociolinguistic concepts of *face-work* (Goffman, 1967), *politeness strategies* (Brown &

Levinson, 1987), *rappport management* (Spencer-Oatey, 2000), *relational practice* (Holmes & Marra, 2004), and *relational work* (Locher & Watts, 2005). In all of these approaches, interpersonal work is conceptualized not as separate or secondary to information transaction—rather, it is integral to it. Further investigation underscores that transactional and interpersonal discourses intermix in spoken workplace communication. In view of its frequently interwoven occurrence, interpersonal discourse can often be detected on a micro-level, such as in speech acts, or utterances that do not just convey information but perform actions. In one study on spoken workplace interactions, Vine (2004) identified three speech acts which are characteristic of transactional discourse: directives, requests, and advice. She referred to these as “control acts” by which an addresser “attempt[s] to get someone to do something” (Vine, 2004, p. 27). While these acts do “get work done,” they highlight interpersonal discourse’s integrative nature: As “face-threatening acts,” or acts that inherently impose on an addressee, they normally require linguistic modification through redressive politeness strategies (Brown & Levinson, 1987). Consequently, the control act producers in Vine’s study consistently sought to minimize threat through mitigative interpersonal strategies which often occurred syntactically and lexically interlaced with the transactional discourse.

Furthermore, Keyton et al.’s (2013) “inventory of verbal workplace behaviors” highlights that transactional and interpersonal discourses are not only co-present, but rather balanced. Of the four overarching factors they identified, two related to transactional goals, namely information sharing (e.g., explaining, listening, giving examples, asking questions) and organization (e.g., scheduling, making decisions). The other two related to interpersonal goals, namely relationship management (e.g., creating small talk, joking) and expression of negative emotion (expressing frustration and complaining). The authors suggest that interpersonal factors not only share the stage with transactional factors in workplace communication: These factors may form the pillars of organizational communicative competence. This view has important pedagogical implications, because it suggests that those responsible for designing training in workplace communication must account for learners’ command of transactional discourse, such as sharing information or feedback, as well as learners’ understanding of how and when to engage in primarily interpersonal discourse.

KD appears to recognize this responsibility inasmuch as it draws its learners’ attention to both transactional and interpersonal aspects of different workplace tasks. For instance, when learners are prompted to email the supervisor (as well as in later email tasks), a KD task includes a specific cue: “Write a greeting for your email here.” In prompting learners to submit an email greeting, the task portrays this relational move as essential to the email-writing task itself. Though not explicitly stated in the task, the prompt draws the learners’ attention to interpersonal goals.

More specifically in terms of workplace email communication, the previous section has already highlighted transactional as well as interpersonal discourse. For instance, Gains’ (1999) e

mails, like Koester's (2006) spoken data, reflected both transactional goals (e.g., requesting or sharing information on a project) and interpersonal goals (e.g., having fun or giving praise). Moreover, it is noteworthy that many of the aforementioned email-specific features, e.g., informality and emoticons, typically serve *interpersonal* goals, such as transmitting emotional and social information. This is interesting counterevidence to Culnan and Markus' (1987) early *cues filtered out theory*, which conjectured written media's limited socioemotional bandwidth. This limitation would be expected to impact professional communication, wherein various scholars warn that emails can lead to interpersonal and professional issues (Mulholland, 2014), such as misreadings of emotion (Byron, 2008) and distrust (Oliveira, 2011).

On the other hand, the aforementioned studies suggest that email senders do not use the same cues as those used in spoken conversation, but they certainly employ resources to fulfill necessary interpersonal goals. Based on a corpus study across four written electronic mediums including email, Riordan and Kreuz (2010) reported that users deployed a "wealth of cues" which primarily served to transmit emotion and guide message interpretation (p. 1806). The authors focused on nonverbal textual cues typically associated with informal online writing, such as capitalization, repeated punctuation, vocal spellings, and emoticons, which as typically informal cues may have been all the more prevalent in non-workplace communications. These cues' prevalence supports *social information processing theory* (Walther, 2015), which predicts that interactants will adapt any medium's resources in order to realize interpersonal goals. In extension, were a formal situation to restrict the use of nonverbal cues such as those observed by Riordan and Kreuz, users would "adapt the encoding and decoding of social information (i.e., socioemotional or relational messages) into language and the timing of messages" (Walther, 2011, p. 458). In other words, interactants are capable of, and driven toward, realizing interpersonal goals even through written electronic mediums like email, and even in more formal interactions like workplace communications.

One study by Pérez Sabater et al. (2008) analyzed a corpus of one-on-one and group emails by native and non-native speakers in light of four pre-determined features which contributed mainly to interpersonal goals: (1) openings and closings, (2) contractions, (3) "politeness indicators," and (4) "non-standard linguistic features." The latter two were less frequent, but all categories occurred in the corpus, and many of their uses resembled non-electronic business letter norms. However, these emails also incorporated more informal features than business letters, especially when directed towards a single recipient. These findings, they suggest, "demonstrate the emergence of a new style in writing for even the most important, confidential and formal purposes which seems to be forming a new sub-genre of letter-writing" (Pérez Sabater et al., 2008, p. 71). These authors aver that, rather than being a "chameleon genre" in which anything goes (e.g., Droz & Jacobs, 2019), email communication reflects its own developing patterns and pragmatic norms, and these may include greater tolerance for informal features, and especially with certain audiences, while not exempting interpersonal discourse.

Jensen (2009) focused precisely on lexico-syntactic interpersonal strategies in inter-company email communications. He reported on the use of several “interpersonal features,” including hedges (e.g., *perhaps*), boosters (*certainly*), attitude markers (*unfortunately*), self-mentions (*I, me*), and engagement markers (*imagine that . . .*). According to the author, all of these features played a part in establishing the business relationship and, once established, in manifesting comity. From this, he concludes that “far from being ‘lean’ e-mail is capable of conveying rich information, i.e. e-mail can be used to reach interaction goals and build long-term business relationships” (Jensen, 2009, p. 16).

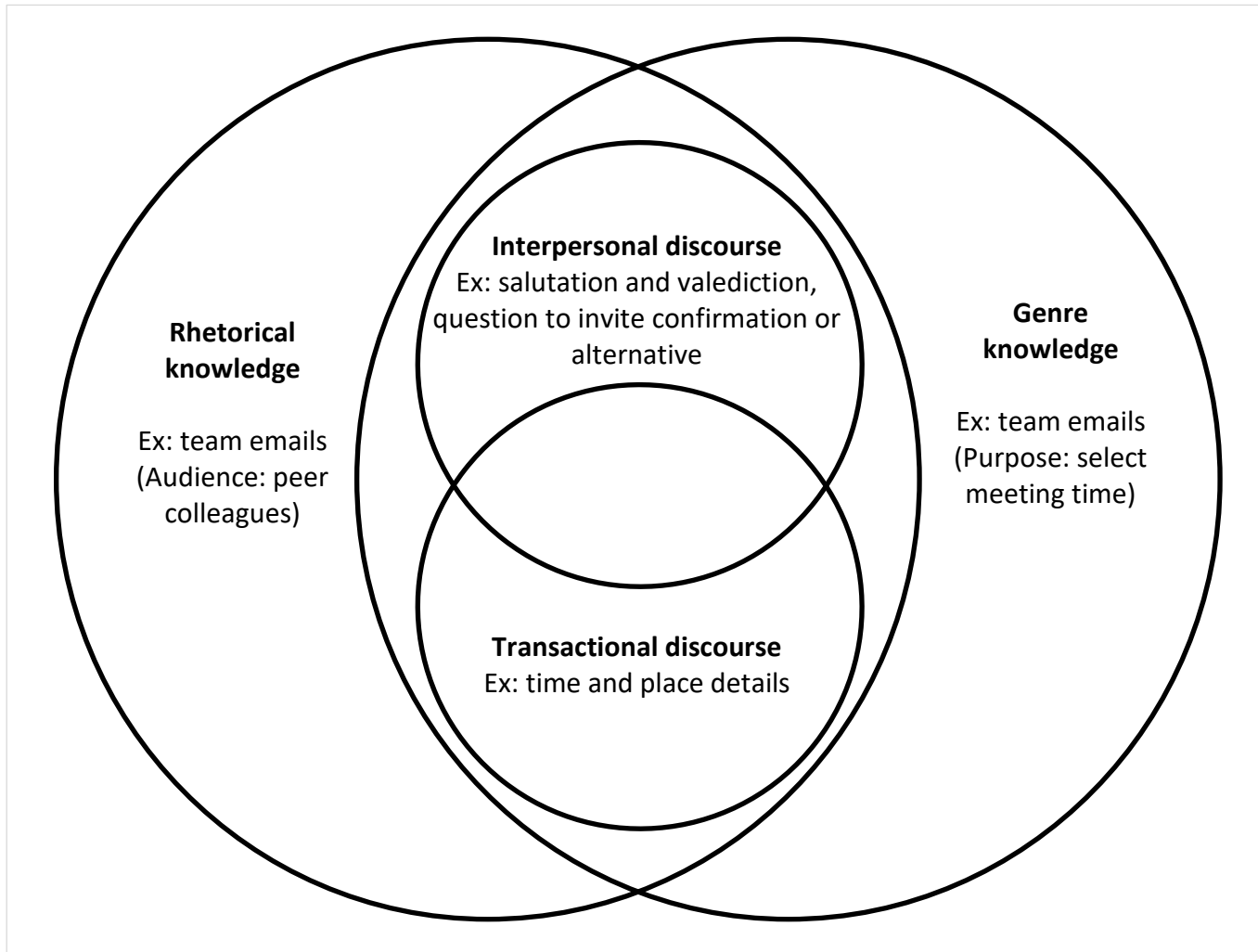
Another analysis of written synchronous chat found that members of a “virtual team” employed oralized features, such as typographically rendered paralanguage, as interpersonal strategies, both between peers and in messages from managers to subordinates (Darics, 2010). The managers availed themselves of these features, connected to informality, intimacy, and collegiality, to minimize their status difference and the force of their directives (Darics, 2013). What is more, Darics reported that the interactants prioritized relational work over communicative efficiency (Darics, 2010), just as would be expected in spoken conversation (Lakoff, 1973).

Finally, research also shows that interpersonal discourse impacts recipients’ perception of the sender in work-related emails (Lam, 2011). In a roleplay study with undergraduate students of business, Lam (2011) presented participants with emails containing varying request strategies written by their hypothetical team leader on a work project. The participants reported higher trust when the emails included supportive strategies (e.g., *I know you are really busy . . .*) and downgrading and hedging strategies (e.g., *Could you **possibly** send me the file?*). This was especially true when (a) downgraders were presented in a syntactically direct speech act (e.g., *Please write up a draft as soon as you possibly can.*) or (b) when supportive moves occurred with indirect strategies (e.g., *I know you are busy this week, but could you write up a draft?*). Interestingly, indirectness did not significantly impact trust on its own, though politeness theory predicts positive correlation between indirectness and politeness (e.g., Eelen, 2001). Considering that the above findings highlight interpersonal aspects’ importance for email users and receivers, employees and employers, it is all the more surprising that research has yet to account for these complexities.

Though distinguishing between transactional and interpersonal discourses necessarily simplifies blended phenomena, these findings suggest there are tenable ways to do so. Moreover, breaking them down as such can help practitioners articulate otherwise convoluted and nebulous expectations. It can also help grasp discourse community knowledge on a more specific level, as both goals come into play in workplace genres with varying rhetorical aims. By way of example, Figure 3 offers a focused conceptualization of interpersonal and transactional discourses as interacting parts of both genre and rhetorical knowledge, placed in the context of workplace email communication.

Figure 3

Rhetorical Knowledge and Genre Knowledge in Workplace Email Communication



As illustrated here, part of learners' targeted discourse community knowledge in email would entail using interpersonal discourse appropriate for the audience (such as the learners' colleagues) and purpose (e.g., scheduling a meeting), while simultaneously involving use of transactional discourse suitable to the same audience and purpose. Zooming in on these domains as they relate to interpersonal and transactional discourses can be helpful for practitioners to present and assess composite domain skills, not only to facilitate their learning, but to ensure that no skill is taken for granted.

In summary, transactional and interpersonal discourses are often highly intertwined in workplace communication, but there is good reason to parse these discourses. The above


research suggests that (a) transactional and interpersonal discourses share comparable importance in both face-to-face and email workplace communications, (b) their goals often intermingle, as with transactionally-driven speech acts laced with politeness strategies, and (c) many devices particular to email communication specialize in interpersonal goals. Taken together, these findings indicate that interpersonal discourse matters and can carry important weight in workplace communicative tasks. Thus, both transactional and interpersonal discourses form a part of discourse community knowledge, but learners' awareness of the two may differ. Practitioners may therefore guide learners to focus on the respective demands of interpersonal and transactional goals. It is thus timely to discuss effective ways of targeting and assessing both transactional and interpersonal discourse through email tasks, and the KD prototype provides practical examples of how this is currently being implemented in workplace communication training.

2.1.3 Consideration 3: Workplace Email Communication Responds to Participant Roles and Relations

The above subsections have underscored that acquiring business discourse community knowledge, and email communicative skills particularly, entails attention to interpersonal aspects. This brings up an essential consideration briefly mentioned earlier: that workplace members tend to have varying ranks and familiarity, and these variables modulate discourse norms. Our third tenet, therefore, is that workplace email communication responds to social factors related to participants' work roles and relationships.

In their foundational work, Brown and Levinson (1987) drew attention to how social factors impact communicative action. They highlighted three central variables: (1) the task itself (e.g., the amount of inconvenience to the addressee entailed in a request), (2) the social distance between the interactants (e.g., how close they are), and (3) their relative power (e.g., their status in the conversationally-relevant setting; Brown & Levinson, 1987). Distance and power often work together, such that high power differences make for wider social distance. Scollon and Scollon (2001) have described power and distance in terms of three relationship systems: hierarchical (as between supervisors and subordinates), deference (e.g., acquaintances), and solidarity (e.g., friends). Potentially all of these, and certainly the first two, come into play in most workplaces, and these social factors likely influence transactional discourse (e.g., a low-ranking employee may need to provide more transactional detail in an email to show preparation), but they may especially influence decisions regarding interpersonal discourse. This is consequential moreover because Brown and Levinson's and Scollon and Scollon's accounts predict that the different interactant roles in each system may correspond to different discourse options. Though numerous variables we will address presently influence these options, the predicted interpersonal discourse approaches may be roughly displayed on a continuum, as in Table 1 below.

Table 1
Power Relationship Along an Interpersonal Approach Continuum

Power relationship	Hierarchical	Upward (low-to-high)	Downward (high-to-low)
	Non-hierarchical	Deferential	Solidary
Interpersonal approach			
		<i>Non-solidary</i>	<i>Solidary</i>

As depicted above, non-hierarchical interactants (e.g., colleagues of similar rank) may have a more deferential or solidary relationship depending on their familiarity. However, hierarchical relationships have additional complexity: High- and low-status individuals are supposed to have somewhat different unmarked options.

2.1.3.1 Politeness. Relatedly, politeness theory predicts that upward interactions, e.g., when an employee addresses an employer, will involve higher negative politeness strategies, or strategies that acknowledge an addressee’s right to be unimpeded (Brown & Levinson, 1987). The *negative* label comes from the concept of magnetic repulsion, so negative politeness tends to reinforce distance by showing deference, as opposed to *positive*—or closeness-increasing—politeness. Negative politeness strategies include impersonal forms, apologizing, indirectness, imposition-minimization, and hedging, among others (Brown & Levinson, 1987).

To illustrate, a particularly high density of such strategies can be found in one of the KD’s simulated phone interactions. In a four-way call, a young design team member, Amy, needs to get a specification sheet from Miguel, a client who appears to be older and who occupies an important role (e.g., a General Manager and “a busy guy”). Amy goes about this with high redressive action: “I’m sorry, Miguel, I got bounced out of the chat for a second. Perhaps someone has already told you, but I just wanted to make sure you knew that we haven’t actually received the specification sheet yet.” Several of Amy’s devices attend to Miguel’s face, for instance removing other-culpability (*I’m sorry, I got bounced out . . . , we haven’t . . . received . . .*), preparatory moves (*Perhaps someone has already told you, but . . . , I just wanted to make sure you knew*), downgraders (*just*), hedges (*actually*), and indirectness (statement *we haven’t actually received . . . yet* in lieu of criticism or overt request). Notably, in this case, Amy uses indirect forms to request the specifications sheet: Rather than telling Miguel to send it, she indicates that they have not received it. In this way, she signals a need while maintaining

common politeness norms in English-speaking workplaces. In the KD email tasks, the learner sees few models of upward politeness because most supervisor-directed emails come from the learner rather than other characters. However, negative politeness strategies do appear in inter-colleague emails. In one instance, Amy has to remedy an informational breach. Amy first offers an apology and then acknowledges imposition on the receiver: “Sorry, I know you already sent Miguel our questions, but I realized that I forgot one thing.” Her mitigative strategies include an apology (*sorry*) and acknowledging grounders (*I know you already sent Miguel our questions, but I realized that I forgot one thing*). Though addressing a teammate, Amy counterbalances the imposition with negative politeness strategies.

In downward interactions, on the other hand, high-status addressers may employ less negative politeness, and less polite redress overall (Vine, 2004). Vine’s (2004) study revealed that, even in a work environment that de-emphasized hierarchy, status-superiors utilized polite redress slightly less than their subordinates. The managers in her study did always mitigate their control acts, doing so either internally (e.g., through syntactically local redress like hedging [*just*], past tense [*I just thought*], and modal verbs [*you could*]) or externally (e.g., through extended discussion of the topic prior to the act). Status-inferiors, however, always used both, apparently reflecting increased mitigation norms in upward interactions (Brown & Levinson, 1987). These tendencies, moreover, seemed to be unmarked; that is, addressees appeared in their reactions to accept or not to notice their occurrence. This is likely owing to the workplace’s rights and obligations, where high-power (management) positions entail making directives, while low-power positions involve their fulfillment. As such, downward control acts are (at least theoretically) minimally imposing, and so a manager may be expected to produce little or no redress (Brown & Levinson, 1987). In an example from the KD, the first email the learner receives from the supervisor, Volk, contains two request acts: *Please reach out to them right away and introduce yourself* and *Please let them know that you will be meeting with them at that time*. Each appears in direct imperative form, with only minimal mitigation in the form of *please*, a notable contrast from the highly mitigated and indirect forms employed by Amy in the previous example.

These relationship factors have been found to impact practically all realms of communication, from conversational openings and closings and small talk (Coupland, 2000) to interpersonal work relations (Holmes & Stubbe, 2003) and “getting things done at work” (Vine, 2004). In Table 2, we build on these discussions of relationship factors alongside some dimensions of discourse pragmatics: politeness, style, and topic.

Table 2

Operationalizations of Non-Solidary Versus Solidary Approaches

<i>Interpersonal approach</i>		Non-solidary ← → Solidary	
<i>Operationalization</i> <i>Examples</i>	<i>Politeness</i>	<p><u>Negative politeness (Brown & Levinson, 1987)</u></p> <p>Avoidance of imposition</p> <p>Conventional indirectness/off-record strategies</p> <p>High redress/mitigation of threatening acts (e.g., requests; Leopold, 2015)</p> <p>Independence strategies (Scollon & Scollon, 2001)</p>	<p><u>Positive politeness (Brown & Levinson, 1987)</u></p> <p>Emphasis of inclusion and commonality</p> <p>Lesser need for redress/mitigation due to assumption of lower imposition</p> <p>Involvement strategies (Scollon & Scollon, 2001)</p>
	<i>Style</i>	<p><u>Formal</u></p> <p>Passive voice, non-contracted written forms (Pérez Sabater et al., 2008)</p> <p>High considerateness (Tannen, 1984, 2005)</p> <p><u>Conventionalized</u></p> <p>Standard written formats (Pérez Sabater et al., 2008)</p> <p>Conventional greetings and farewells (Waldvogel, 2007)</p> <p>Formulaic structures and prosody (Wichmann, 2004)</p>	<p><u>Informal</u></p> <p>First person, contracted written forms (Pérez Sabater et al., 2008)</p> <p>High involvement (Tannen, 1984, 2005)</p> <p><u>Creative/ non-conventionalized</u></p> <p>Inventive/appropriated emojis (Kelly & Watts, 2015)</p> <p>Typographic alterations, (Maíz-Arévalo, 2015)</p> <p>Non-formulaic intonation and syntax (Wichmann, 2004)</p> <p>Playfulness/humor (Koester, 2004)</p>
	<i>Topics</i>	<p><u>Constrained</u></p> <p>Impersonal or equally personal</p> <p>“Safe” and often ritualized, related to immediate conversational context (Coupland & Ylänne-McEwen, 2000; Schneider, 2008)</p> <p>Relational topics kept brief (Pérez Sabater et al., 2008; Waldvogel, 2007)</p>	<p><u>Personal</u></p> <p>Personal to either participant</p> <p>Potentially related to an external situation (Schneider, 2008)</p> <p>More extended appearance of relational topics (Pérez Sabater et al., 2008; Waldvogel, 2007)</p>

Table 2 depicts how communicators may be expected to enact non-solidary versus solidary approaches through politeness, conversational style, and choice of topic. Admittedly, the polar ends oversimplify a complex and non-linear reality, but they may facilitate its understanding by grouping observable patterns. For instance, a non-solidary approach typically coincides with negative politeness, formal and conventionalized conversational styles, and uncontroversial topics, while a solidary approach may be conveyed through positive politeness, informal and creative forms, and a wide range of topics.

In the first case, politeness theory predicts that non-solidary interactions give rise to more negative politeness, e.g., by minimized imposition and mitigated threats to addressees' negative face, or desires for independence or freedom of action (Brown & Levinson, 1987). We have already mentioned that one way of doing so is through high redressive action, as used by Amy in the aforementioned KD phone call. Scollon and Scollon (2001) also name a variety of pro-independence strategies, such as non-assumption of hearers' wants, taciturnity, use of the speaker's own language or dialect, calling a hearer by family names and titles, and apologizing. Other forms of negative politeness, as listed in Table 2, would be to *avoid* face-threatening acts altogether, or at least to produce them *off-record*. For instance, Stubbe et al. (2003) interpret an employee's ostensible request for advice, "I suppose I just want to get some ideas on what I could do to actually be considered favourably next time," as a possible off-record complaint to her supervisor (p. 365). Vine (2004) observed, too, that subordinates and power-equals in her study favored off-record and indirect acts over direct ones, such as requests (rather than directives) in interrogative form (rather than the imperative). With somewhat less mitigation (addressed further ahead), managers also produced negative politeness, for instance by omitting the agent or action of a directive (e.g., "she won't be a few minutes" in lieu of "tell her she won't be a few minutes," Vine, 2004, p. 85) and orienting directives toward a third-party or the addressee (e.g., "so you want four sets of four," Vine, 2004, p. 88).

Leopold's (2015) study on workplace email requests also found politeness tendencies correlating to status, but in some interesting ways: For instance, direct strategies were by far the most frequent request strategies used, and were most frequently sent to superiors. These included forms such as the imperative, e.g., Please give me a call at your earliest convenience, and direct questions like "How does your department handle the prerequisite issue?" (Leopold, 2015, p. 8). Though this appears to contradict Brown and Levinson's (1987) predictions for upward request acts, Leopold found that these requests were also the most likely to be mitigated—especially with conditionals (e.g., "I'd love to chat with you this week"), the past tense (e.g., "I just wanted to check-in"), and "please" (p. 11)—while downward requests were the least likely. Also, though imperatives were the most frequently used direct request form (for instance as opposed to a direct question or a want statement), the imperatives occurring in the corpus were most often sent to subordinates and least often to superiors. That is, status did influence these email request strategies, but mitigation appeared to weigh more than indirectness in terms of non-solidary politeness.

The KD prototype also reflects non-solidary politeness strategies in the simulated communications between the learner and other professionals, teammates, the client, and the manager. For instance, the KD learner receives emails from the manager, Volk, containing a number of directives (e.g., *Make sure he knows . . .* and direct requests (e.g., *I want you to take a look at . . .*), but also mitigative hedging (e.g., *I **just wanted** to remind you that . . .*). In one instance, too, Volk uses high redress, which indicates that his request lies beyond the employee's obligations, as suggested in its leading interrogative request form (*Can I ask you a favor? Can you tactfully head him off?*) and grounder (*I don't think it's a good idea to re-hash this discussion with Miguel . . .*). The learner sees fewer models of upward email communication in the KD tasks, but the email writing module states early on that learners are expected to consistently address the supervisor with a "formal tone," including such features as negative politeness. This expectation is moreover explicitly reinforced through feedback (e.g., *Taking a more formal tone in an email to your supervisor . . . is appropriate*) provided when learners complete an individual email task. Thus, as predicted in Table 1, workplace email communication would be expected to involve more non-solidary approaches because of the power difference and/or social distance likely to exist between the interactants. Unsurprisingly, therefore, Vine's findings depict fewer instances of solidarity, a tendency also reflected in KD.

On the other hand, a *solidary* interpersonal approach would invoke positive politeness, often manifested through direct and on-record formulation (Brown & Levinson, 1987) and pro-involvement strategies such as playfulness, volubility, use of a hearer's language or dialect, engaged or even "exaggerated" approval, interest, sympathy, or attention to the hearer, emphasis of common ground, and use of first names and nicknames (Scollon & Scollon, 2001). Though typically associated with casual and/or symmetrical interactions, positive politeness also emerges in workplace interaction. For instance, Koester (2006) found humor in her corpus of spoken conversation, and Vine (2004) pointed to the frequent use of grounders, or explanations or justification for making a request, as relevant strategies. Vine noted, moreover, that managers made use of positive politeness through inclusive language, e.g., *we* and *let's*. Similar positive politeness appears in downward KD emails from the consultant and mentor, Shirley (e.g., ***Let's** meet tomorrow morning*) and from the supervisor, Volk (e.g., *I think **we** have put together a strong proposal*). In this way, the higher-power individuals engage in "collaborative discourse," which invokes more symmetrical discourse roles (Koester, 2006).

In other KD tasks, the learner receives models of non-hierarchical politeness strategies through emails from team members. This correspondence presents a range of forms, from imperative forms (e.g., *try to arrange the schedule so that . . .*) to conventionally indirect requests (e.g., *can you tell me what you think?*) and with mitigative action such as hedging (e.g., *I'd appreciate it if you could . . .*), downgrading (*I just wanted to say . . .*), self-blaming (e.g., *Sorry I wasn't more specific in my last e-mail*), grounders (e.g., *I'm kind of pressed with finishing up another project . . .*), and agent-omission (*The main things to remember are . . .*). In an early task, the learner's email to the team is likewise scaffolded with built-in politeness,

formulated as “Please send your feedback and questions as soon as you can” and “Amy, can you please provide comments on . . . ” In the KD’s email module, the learner is moreover guided toward taking a more solidary approach with the teammates: One task’s feedback suggests that “Taking a less formal tone is appropriate since these are your team members and this is not the first communication.” This and earlier guidance from the KD also manifest that solidarity between status equals may grow through continued contact.

Though little research has traced potential shifts in interactional solidarity within workplaces, Charles (1996) and Jensen (2009) have reported increased solidarity over time in relatively symmetrical inter-company business relationships. Charles’ (1996) analyses of business interaction recordings revealed that nascent business relationships are constrained to somewhat distinct and non-solidary politeness options, but established ones may have a wider range of possibilities, including solidarity. Jensen (2009) noted similar findings

in cross-cultural and cross-company business email communication. He identified three stages in the interactants’ correspondence: contact, negotiation, and in-business. He noted that transactional discourse was most dense in the negotiation stage, while interpersonal elements were most prevalent at the initial and final phases of negotiation. Interpersonal discourse, therefore, was essential both for establishing and maintaining status-balanced relationships.

2.1.3.2 Style. Communicative style, brought up in the second row of Tables 1 and 2, also varies along the spectrum from non-solidary to solidary interpersonal approach, and likewise enters into the “formal tone” and “informal tone” which the KD tasks suggest according to the interactants and circumstances. For example, Deborah Tannen (1984, 2005) has described conversational styles ranging from high considerateness to high involvement. According to her description, a highly considerate spoken conversational style in English is characterized by a slow speaking pace, little overlap, and relatively few turns, in inverse to a highly involved style.

In terms of workplace email communication style, Pérez Sabater et al.’s (2008) analysis also suggests a link between non-solidarity and formality, manifested for instance in formal greetings (e.g., *Dear Madam*) and conventional business letter formatting. Certain conventionalized and standard features are also mentioned as formal ergo non-solidary characteristics, though there are also solidary conventions. For instance, Waldvogel (2007) compared emails from two different workplaces and observed that greetings and closings which were more formulaic evoked less solidarity and were more frequently used in upward interactions and between socially-distant workmates. Wichmann (2004) has also suggested that predictable pitch contours matched with certain syntactic patterns coincided to create negative politeness in requests. Furthermore, Wichmann (2004), Waldvogel (2007), and Pérez Sabater et al. (2008) all report higher formality and non-solidarity in public communications (addressed to or in front of more than one listener/receiver) as opposed to private messages. One KD task shows similar expectations in a learner email: When learners are asked to reflect on the level of formality they plan to take in a group email, the task follows up with the suggestion that “Since this email goes to internal and external people it is probably best to be conservative and be a bit more formal.” This reflection

and suggestion emphasizes that discourse community knowledge includes metacognitive reflection (e.g., what tone matches the situation?), interpersonal competence (e.g., modulating an approach based on the audience), and rhetorical knowledge (e.g., formal discourse).

Regarding the solidary end of the spectrum, Tannen (1984, 2005) has described high-involvement style characteristics in spoken English conversation, such as the use of marked paralinguistic, displayed enthusiasm, use of questions, a fast pace, cooperative overlapping, use of repetition, and laughter. When revisiting these notions in electronically mediated interactions, she finds these characteristics paralleled across various media including text messaging, instant messaging, email, and Facebook (Tannen, 2013). Moreover, she notes that peer digital communications reflect a shift in “enthusiasm constraints”—the degree and form of enthusiasm which are socially unmarked in a particular context—toward higher displays of enthusiasm. That is, enthusiasm markers such as emojis and emoticons, capitalization, and duplicated letters or emphatic punctuation have become so normalized in peer digital interactions that their use has become unmarked, and often even expected (Tannen, 2013).

Tannen’s work focuses on socially-close peer interactions and therefore mainly pertains to the solidary end of the spectrum, but in this way it can help to identify similar solidary features emerging in more formal contexts. For instance, Maíz-Arévalo (2015) reported that users of task-oriented forums evoked solidarity through humor, emoticons (e.g., :)), repeated characters (e.g., *yeeesss, !!!*), and, to a small extent, paralinguistic renderings usually in the form of laughter (e.g., *haha*). In another study, Pérez Sabater et al. (2008) analyzed a corpus of work emails to locate informality in features such as informal greetings (e.g., *Hi* or *Hello*), contracted forms (e.g., *you’d, I’ll*), non-standard spelling (e.g., abbreviations and misspellings), and nonverbal features (e.g., ;), ?!?). They found that not all of the mentioned features were represented equally; in fact, they remarked that contracted forms, misspellings, and emoticons were infrequent. However, they do suggest that seemingly informal features appear to be unmarked in these workplace emails, hinting at possible shifting in informality constraints.

Through the simulated emails learners receive from the manager, team members, and others, the KD tasks incorporate some of the informal features identified above, such as *Hi* or *Hello* greetings, exclamation points, contractions (*I’m, won’t*), and expressions like *OK, anyway, kind of, and thanks*. On the other hand, they do not include repeated characters, misspellings, or emoticons, humor, or playfulness. The emails do include a broad range of formal structural and lexical features; for example, all emails include a greeting and signature (a requirement in business letters, but optional in email; e.g., Pérez-Sabater et al., 2008). They also display formal register expressions (e.g., *unfortunately, provide comments, demonstrate*) and features such as nominalization (e.g., *clarification*) and impersonal subjects (e.g., *the schedule sheet lists . . .*). As such, the tasks represent a range of informal and formal features as seemingly unmarked in these workplace emails. The modules specifically targeting email communication also provide explicit feedback on when an informal tone can be more appropriate, such as when addressing colleagues and after continued contact.

Topic selection can also vary according to interpersonal approach. For instance, Schneider (1987, 2008) has conjectured that even in small talk, topic selection is not random, but hierarchically primed according to a participant's desired interpersonal approach. Topical priming has since been observed in its patterned variation across non-solidary and solidary exchanges, whether in person or through electronic mediums like email. On the one hand, non-solidary exchanges have been characterized by more constrained topics: In face-to-face service encounters, minimally-acquainted customers and service providers tend to opt for uncontroversial small-talk topics like the weather (Coupland & Ylänne-McEwen, 2000; Kuiper & Flindall, 2000). Workplace emails also reflect this tendency: Exchanges involving higher social distance between the interactants (such as in asymmetrical or group emails) include more impersonal farewells with less phatic content, if they occur at all (Pérez Sabater et al., 2008; Waldvogel, 2007).

In contrast, solidary exchanges would be characterized by a wider range of possible topics, which may be personal to either participant or may depend on previously shared knowledge, such as anecdotes related to non-present family members and events. Solidary approaches can also emerge in workplaces, particularly where there is less marked social distance between the interactants. This has been seen earlier in Pérez Sabater et al.'s (2008) and Waldvogel's (2007) studies, which showed more extended and personal relational topics in one-on-one colleague exchanges and in communications in a friendly workplace culture.

The KD prototype guides learners' topic selection from early on in the modules. Before asking them to compose emails on their own, certain email tasks draw learners' attention to appropriate content points from a list of transactional and interpersonal topics. For example, one activity prompts the learner to select "the most critical pieces of information" to be conveyed in a self-introduction email, including the sender's name as well as aspects related to a meeting which ought to be set up. A similar task responding to a different email targets different relevant information (namely, a clarification about the sender's project team, with no reference to the meeting), thereby highlighting the role of context and audience in topic appropriateness.

Taken together, this research reflects how interpersonal discourse—and in particular its manifestation through politeness, style, and topic—is modulated by the type of relationship between interactants, i.e., whether they are status-equals or not, and has myriad pragmatic consequences for workplace communication. Importantly, these ideas pertain to generalized phenomena in English workplace emails and their modulation across relationships, genres, and situations, on which this article focuses. Though more detailed treatment of modulation across cultures and communities is outside the scope of this article, it is important to note that numerous studies show how interpersonal discourse and workplace email communication vary across different cultures, languages, and workplaces situated therein (e.g., Bargiela-Chiappini, 2009; Giménez-Moreno & Skorczynska, 2013; Holmes & Schnurr, 2017; Murata, 2011, 2014; Schiller & Cui, 2010; Spencer-Oatey & Xing, 2003; Yeoh, 2014; Zhu, 2005); at the same time,

individuals make choices, even marked choices, for various effects such as rapport management (Spencer-Oatey, 2000) and power subversion (e.g., Holmes, 2000b).

The above accounts suggest that workplace email communication, like all human interactions, is mediated by social factors. We may summarize these findings as follows: (a) workplaces tend to include both hierarchical and level relationships which affect communication, for instance in the available types of acts and their politeness strategies, which vary according to whether an addressee is of higher, lower, or equal relative status; (b) conversational participants have a range of normative options and can also take a more non-solidary or solidary approach in terms of politeness, style, and topic; (c) different email communications reflect a range from solidary to non-solidary features, which often relate to distinct workplace environments; and (d) culture, gender, and individual aspects also influence the scale of what counts as appropriate interpersonal behavior. Thus, workplaces' different institutional and relationship roles, along with other dynamic factors, are integral to the nature of workplace email communication and by extension to its teaching and assessment.

2.1.4 Summing Up Question 1

Research on workplace communication has drawn attention to the interplay of contextual and textual factors influencing workplace email, including worker roles and relationships and email-writing expectations. Research has also identified interpersonal and transactional goals and discourse as confluent components contributing to workplace success, including in email correspondence. As such, their explicit incorporation in instruction and assessment of workplace email communication, and workplace communication more broadly, can benefit professional trainees. Some examples from the KD have illustrated how instruction can attempt to raise learners' awareness of these discourses, such as in KD email tasks that call on cognitive and interpersonal competencies by requiring learners to select relevant information in an email with a polite salutation. Metacognitive tasks then ask them to reflect on why they made the choices they did. These reflection exercises are first steps towards later production tasks, where learners are expected to compose emails with these practiced skills.

The research reviewed so far has thus reflected the myriad communicative demands made of those learning workplace email communication and how such demands are informed by metacognition and discourse community knowledge that builds on cognitive, interpersonal, intrapersonal, and neurological competencies that inform genre, subject matter, and process knowledge (see Question 1 and Figure 1).

2.2 Question 2: What are Approaches and Challenges for Assessing Workplace Email Communication?

The research reviewed above offers insights that may be helpful for learner and employee training, and to some extent, it has been applied to this end, especially for L2 speakers (e.g.,

Holmes & Riddiford, 2011; Louw et al., 2010; Newton & Kusmierczyk, 2011; Swales & Feak, 1994) and those preparing to work in multicultural settings (e.g., Guirdham, 2005). However, effectively and fairly assessing workplace communication is a complex task, especially in view of numerous tacit expectations like the interpersonal and email-specific aspects central to many workplace interactions.

2.2.1 Consideration 1: Assessing Interpersonal Workplace Email Communication Involves Zooming in on Specific Aspects Informed by Authentic Data

The question of how to teach and assess such knowledge is related to the particular aspects borne out in communication; for instance, Keyton et al. (2013) identified several foundational assumptions regarding workplace communication behaviors in order to identify shared qualities that might be taught and assessed. These include that workplace communication behaviors should be conceptualized and operationalized as (1) functional, or productive of outcomes; (2) goal-directed and regarded as intentional; (3) interactive, involving other people; (4) learnable—socially created and collectively agreed upon; and (5) directly observable (versus, e.g., predispositions not directly observable).

Fields from professional and technical communication and business communication to business English as a lingua franca and English for specific purposes (for a review, see Marra, 2013) have sought to address these needs through effective training and assessment design. Early examples include Monge et al.'s (1981) model for testing and developing “communicator competence in the workplace” and O’Neil’s (1997) edited book *Workforce Readiness: Competencies and Assessment*, which addresses skills and competencies, and includes chapters on virtual assessment of interpersonal skills. This work, like numerous programs since, has focused on interpersonal skills as broader competencies subsuming communication (e.g., Klein et al., 2006; Salas et al., 2011; Spitzberg, 2003). According to Klein et al. (2006), interpersonal skills constitute “goal-directed behaviors, including communication and relationship-building competencies, employed in interpersonal interaction episodes characterized by complex perceptual and cognitive processes, dynamic verbal and nonverbal interaction exchanges, diverse roles, motivations, and expectancies” (p. 81). Thus according to their framework, these skills are made up of behavioral and cognitive aspects, each forming part of the central skills of communication and relationship building. These aspects, they claim, are amenable to development and are measurable by some means.

Spitzberg (2003) reviewed methods for interpersonal skills elicitation and assessment, organized into indirect (i.e., questionnaire-type) and more direct types (e.g., behavior observation and roleplay). He listed a number of the first, including the Communication Flexibility Scale, Communicative Adaptability Scale, Communication Functions Questionnaire, Conversational Appropriateness and Effectiveness, Conversational Skills Rating Scale, Interpersonal Communication Competence Scale, Interpersonal Competence Questionnaire, and others. While the ones highlighted here all make mention of communication, they tend not to examine or assess

linguistic behavior specifically; rather, most present scenarios that elicit self-reflection on sociopsychological aspects such as social composure and enjoyment during conversation (as in the Communicative Adaptability Scale). The direct methods Spitzberg has named are far fewer. One example is the Simulated Social Interaction Test, which measures social anxiety and social skill based on external ratings of subjects' recorded role-plays.

More recently, publications on professional development have mentioned teaching and/or assessment of various work-related skills, such as “soft skills” (Anthony & Garner, 2016) and general 21st century skills (Pellegrino, 2017). Specific professional domains also offer more focused discourse-community training, such as Lynn and Vermeer’s (2008) instruction and assessment rubric designed specifically to develop writing in accounting. The rubric design was central to one of their proposed aims, that learners’ writing be assessed by practicing accounting professionals as opposed to writing instructors. These authors reported positive gains in university accounting students’ writing in terms of organization, style and tone, punctuation and grammar, and task-realization effectiveness. Another study by Christner et al. (2010) specifically aimed to train medical students in email communication through simulated pediatrician-parent correspondence. To assess the elicited communications, eight raters followed a rubric to score emails based on medical knowledge, communication, and professionalism. They reported significant improvement on all three aspects as a result of explicit teaching: The control group with no instruction did not acquire the same skills. These authors’ initial findings therefore suggest that effective workplace email communication is not only learnable, but teachable. For these reasons, Evans (2012) argues that “email communication should be an integral component of any [business English] course that genuinely seeks to narrow the gap that inevitably separates the office and the classroom” (p. 210).

For its part, KD aims to teach and assess transactional and interpersonal workplace task realization, and many of these tasks involve email communication. Its main goals are to develop learners’ discourse community knowledge and skills, as mentioned in Figure 1. It targets learners’ ability to (1) write emails appropriate for distinct audiences, (2) apply a range of conventions and (in)formal features (e.g., greetings and closings), (3) communicate different objectives (e.g., making requests or proposals, providing information), (4) realize various writing stages (e.g., drafting, revising, and composing an email), and (5) metacognitively monitor the above skills. This approach helps illustrate that both teaching and assessment necessitate identifiable standards of transactional and interpersonal discourses and genres, coupled with ongoing reflection.

The KD tasks set up varied learning and practicing opportunities, the assessment of which includes rubric scoring. For instance, they test rhetorical knowledge of email in terms of appropriate transactional moves (e.g., sharing information versus making a request, providing supporting information or not according to situation and addressee) and interpersonal ones (e.g., audience-appropriate greetings and closings). Moreover, they elicit learner reflection about the choices learners have made, regardless of whether tasks are engaging transactional discourse like

specifications or interpersonal discourse such as an appropriate level of formality for a given email for a given audience.

Formative assessments such as the KD prototype can help scaffold learner development of workplace communication through isolated- and integrated-skill tasks and periodic benchmark assessments. Since such assessments require sufficiently specific targets, they vary across disciplines (Andrade et al., 2019). For this reason, Bennett (2011) has advocated “conceptualising well-specified approaches built around process and methodology rooted within specific content domains” (p. 5). It is therefore important that workplace communication assessment be designed from within this area, and that it focus on such specific components as email communication and interpersonal aspects. Focusing on these particulars also calls for thorough investigation of how they work in real workplace communication, such as the research reviewed in Question 1 of this article.

To conclude, very little work has been done in teaching or assessing either interpersonal aspects of workplace interaction or workplace email communication, much less the two together. Nevertheless, our explorations in Question 1 of this article demonstrate that this is a worthy endeavor, and initial work in email development suggests that it can be fruitful. The paucity of relevant assessment approaches is a challenge in and of itself, but it is also a call for action. As we have discussed, such action would do well to prioritize (a) specific, (b) data-driven, and (c) progressive targeting and assessing of the particular email and interpersonal communication skills needed in workplace communication, such as the innovative formative assessments the KD prototype can offer.

Writing analytics may be particularly useful for such future action, given its focus on measurement and analysis of written texts for the purpose of understanding writing and improving teaching and learning (Shum et al., 2016) and its potential to gather evidence about the situated nature of language use (Moxley et al., 2017). Writing analytics has focused largely on academic discourse in the past, but recent conceptualizations foreground a range of discourse including workplace communication. Lang et al. (2019) call for writing analytic investigations of a range of writing contexts and genres, stressing that “it can be a source of information about the value and systematicity of many kinds of written discourse” (p. 17). Future writing analytics research could aggregate and categorize workplace email communication, exploring it in terms of patterns specific to interpersonal and transactional goals as they interface with contextual considerations such as hierarchical relationships. In turn, inferences drawn could inform research-driven instruction, assessment design, and job training.

2.2.2 Consideration 2: Assessment Design Conditions What Information It Will Generate

As we continue to develop ways to assess the particular aspects of workplace email communication, further challenges lie ahead. On the one hand, Spitzberg (2003) has remarked how ideologies underpin assessment of interpersonal skills; for instance, in communities that value elaboration, expansive communicational approaches will be more positively evaluated than

in communities that stress concision. He mentions, too, the differential value potentially attached to assertiveness, i.e., “honesty,” in a fact-based society, versus a subjective, people-centered approach which prioritizes politeness. Likewise, Salas et al. (2011) have underscored the intricacy of measuring interpersonal skills. Assessed material may, for instance, hail from a number of sources, e.g., employee self-reports, peer evaluations, supervisory or external ratings, each of which may entail more or less interpersonal communication.

More broadly speaking, assessment research underscores values for ensuring that any assessment used over time is a valid one. These values include the need for evidence that speaks to the construct assessed, the scoring used, and the decisions made. Construct evidence forms a precondition to, and an ongoing part of, defining communication in a given context. The KD tasks, for example, assess constructs including spoken interaction, written résumés, and workplace emails with peers, superiors, and clients in a simulated kitchen model design company; construct evidence would include an indication from learners and employers that these tasks practiced in the KD matched tasks expected of learners in their workplaces. Scoring evidence shows that assessment parameters are applied accurately and consistently—e.g., that various learners responding in similar ways to the KD task receive similar scores. Decision evidence shows that patterns over time—such as correlation between a learner’s performance in the KD tasks and their performance in authentic workplace tasks (e.g., in another workplace application or performance evaluation)—support an interpretative argument to justify the use of the KD prototype (see Elliot et al., 2012, p. 293-294). Depending on the assessment, extrapolation evidence may also be necessary, which would show that assessment scores allow predictions beyond test performance, such as if the KD were used to place students in a preparatory or advanced college business course. Assessment validity is both tricky and essential: It is difficult to establish the validity of a new assessment, but every assessment should be valid in its design and interpretation.

Drawing on Kane (2015) and the previous section, for our purposes, we might put validity considerations in the following way: Design validity refers to (a) standards for how learners develop with respect to workplace email communication (e.g., intrapersonal and transactional goals); (b) items that represent the intended construct (e.g., interpersonal discourse in the opening and closing of emails); (c) rules for going from performance to score (e.g., how students’ use of interpersonal discourse in KD emails relates to how they do on a workplace email communication assessment); and (d) a model for relating items back to construct, generalization, and extrapolation. Interpretive validity then entails (a) extrapolation to workplace outcomes and (b) evaluation of workplace results, and both design and interpretive validity contribute to the ongoing (re)evaluation of a given workplace email communication assessment and its use.

In sum, assessment design involves epistemic choices. This point highlights the need for assessments that engage varied constructs of workplace email communication addressed in the previous section, including transactional discourse, interpersonal discourse, participant roles,

genres, and mediums. They likewise encourage the use of data-driven conclusions to inform assessment while being reasonable and transparent about extrapolated conclusions.

2.2.3 Summing Up Question 2

Existing assessment research provides some general models for training and assessing employees' social skills, recognizing communication's importance among these. More pragmatically informed ways of eliciting and assessing communicative practices in the workplace would additionally require detailed attention to (a) pragmatic implications for interactional choices, including interpersonal work and variation across non-/hierarchical relationships, (b) questions of medium and modality, and (c) measurable standards which reflect communicative effectiveness in the workplace. Far from being peripheral to workplace tasks, communication and its interpersonal aspects are integral and essential. Interpersonal aspects inform linguistic, cultural, and substantive patterns in learning, and instructional and assessment tasks themselves also send important messages to learners, who perceive purposeful interpersonal patterns in repeating tasks (Mislevy, 2018). Further, workplace communication assessment has to go beyond individual demonstration of transactional knowledge, because workplace communication is inherently intersubjective and sociocultural.

In sum, effective assessment is a worthwhile, albeit challenging, endeavor. Any assessment entails particular constraints and possibilities, in terms of aspects of communicative tasks emphasized in data compiled, in terms of constructs assessed in a given assessment task, and in terms of how any attendant conclusions are used. Each choice shapes what learners demonstrate and what is concluded about their needs and abilities.

3.0 Conclusions: Principles to Guide Assessment of Workplace Email Communication

We opened by noting efforts to categorize and describe different types of human communication, efforts that help us identify what communicative goals matter and what matters about those goals. We opened as well by underscoring that, for employees and employers alike, the stakes are high for understanding the goals and discourses of workplace email communication. For learners as potential employees, the stakes are likewise high. Research reviewed in the first two sections suggests that exploring assessment tasks in terms of interpersonal, intrapersonal, cognitive, and neurological competencies—with attention to relevant medium and genre-related parameters, transactional and interpersonal discourses, the status and role of the learner relative to other interlocutors, and other workplace contextual details that influence communicative expectations—can help us understand workplace email communication and design fair and efficacious assessment in support of these learners.

Explorations like these help make possible what Hundleby and Allen (2017) call “meaningful practice” in the assessment of professional communication, because they create “knowledge that

guides the identification, analysis, and interpretation of the information gathered in the process of assessment” (p. ix). In turn, that knowledge allows us to define principles for the assessment of literate ability (Lynne, 2004). Though such explorations are still nascent vis-à-vis workplace email communication, the research we have reviewed in this article points to three overarching principles for exploring workplace email communication and its assessment. Below, we close by noting these principles and their related implications.

Principle 1: *Workplace email communication is multifaceted and evolving, involving transactional and interpersonal discourses, hierarchical roles and relationships, diverse participants, and multiple mediums and genres in specific workplace contexts.*

Related Implications

- Learners must begin to recognize and navigate transactional and interpersonal expectations in workplace email communication in ways responsive to relationships and genre norms in a given workplace email task.
- Instruction and assessment of workplace email communication should support a multifaceted, adaptive construct that accounts for genre-specific features and both transactional and interpersonal discourse.
- Learners may come to workplace email communication with different cultural and linguistic backgrounds that entail different norms.
- Learners should be supported to identify and navigate a range of workplace email communication tasks with the help of transparent expectations.
- Research, instruction, and assessment on workplace email communication must be attentive and adaptive to evolving broad and context-specific norms.

Principle 2: *Understanding of workplace email communication is informed by analysis of authentic examples that capture its multifaceted and evolving nature.*

Related Implications

- Analysis of authentic examples should include workplace email communication from a variety of contexts and goals.
- Analysis of authentic examples should include attention to a variety of workers from diverse backgrounds, which writing analytics is well-poised to support.
- Research-driven assessments may depend on seeking out under-explored examples of workplace email communication.

Principle 3: *Assessment of workplace email communication involves epistemic choices and is a form of research, providing ongoing insights and evidence for supporting learners.*

Related Implications

- Assessment decisions influence what we (can) know.
- Those designing assessments must strive to be transparent about expectations and conscientious regarding assessment choices made and not made.
- Assessments used over time should, with ethical attention to learner data and privacy, provide evidence regarding the construct, scoring, decision, and extrapolation of workplace email communication assessments.
- Learners' assessment responses over time should provide evidence regarding those types of discourses that are especially challenging to learners.

The research we have reviewed underscores that workplace email communication is complex and multifaceted. It reminds us that learning and assessment of workplace email communication should be informed by investigation into tasks encompassing transactional and interpersonal goals and a range of communicative mediums, genres, workers, and worker relationships. The research we have reviewed likewise underscores that assessment of workplace email communication should be thoughtful and transparent about design choices and use. Continued research and assessment should feed back into growing knowledge about the evolving nature of workplace email communication.

In support of these efforts, this article has offered a meta-analysis of existing research and its rendering of workplace email communication as a multi-layered system of competencies, knowledges, and discourses. That rendering shows us that one thing is clear: The dominant paradigm of assessing student learning via written academic papers alone is no longer valid, a point also made in academic writing assessment research that calls for more varied genres and writing constructs (see e.g., Aull, 2020; Burstein et al., 2016). Responding to such multi-faceted written communication, including workplace email communication, requires methods from surveys to writing analytics, and attention to contexts of use from across the globe, all in support of principled, research-driven assessments characterized by intention, responsiveness, and transparency. As these crucial endeavors continue, we hope that these principles might provide a useful starting point and be improved with future work.

Acknowledgements

The authors extend many thanks to Norbert Elliot, María Elena Oliveri, Alaina Tackitt, Jessica Nastal-Dema, and anonymous reviewers for their thorough and generative feedback on earlier versions of this article.

Author Biographies

Bethany Aull is currently completing a Ph.D. in English Language Applied Linguistics at the Universidad de Sevilla in Spain. She has worked as an English-as-a-foreign-language instructor

and is currently a member of the Intercultural Studies on Pragmatics and Discourse Issues research group, and her research focuses on L2 pragmatics and intercultural communication, particularly through electronically-mediated communication.

Laura Aull is associate professor and director of the English Department Writing Program at the University of Michigan. She is the author of *First-Year University Writing* and *How Students Write: A Linguistic Analysis*, and her articles can be found in *Written Communication*, *Assessing Writing*, *Pedagogy*, *Composition Forum*, and other journals.

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