

## **“I Thought It Was an Accident”: Digital Literacy and MLL Use of Collaborative Writing Software in Post- Secondary Composition Classes**

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### **Abstract**

Much research has been done on teacher and multilingual learner (MLL) attitudes towards digital collaborative writing tools, with studies highlighting the importance of digital literacy. However, there have been fewer investigations into digital literacy considered as a social practice in the context of MLLs transitioning from English as a Foreign Language (EFL) courses in home countries to mainstream composition courses in other countries. This case study of MLLs in such a context employs Discursive Psychology (DP), a microanalytic approach, to investigate how students and teachers co-construct digital literacy practices. Analysis of classroom and interview talk reveals that unfamiliarity with how these technologies are integrated as a material practice into classrooms can result in a cascade of unintended consequences that constrain students' ability to engage with course activities. Interventions are proposed for increasing the accessibility of these technologies by making their use in classes a focus of student and teacher inquiry.

*Keywords:* Digital literacy, discursive psychology, MLL, multimodal composition, collaborative writing

### **Introduction**

The use of digital composition tools such as web-based collaborative writing software has become ubiquitous in writing classes around the world (Elola & Oskoz, 2017). Much research has been done on teacher and student attitudes towards such software products, with studies often highlighting the importance of digital literacies (Lankshear & Knobel, 2008). This term, while widely used, has resisted clear definition, embracing a range of meanings from technical mastery of digital media tools to attitudes towards those media as well as the social practices involving them (Meyers, Erickson, & Small, 2013). With respect to technology use in an English as a Foreign Language (EFL) context, significant work has been done that assesses this form of literacy in teachers and students (e.g., Dashtestani & Hojatpanah, 2020; Røkenes & Krumsvik, 2016; Son, Robb, & Charismiadi, 2012) or identifies how to incorporate digital literacy into language learning curricula (e.g., Chen, 2020; Dzekoe, 2017; Hafner, 2014; 2019). However, there is little research into how language learners are socialized into digital literacy practices, particularly in cases where multilingual language learners (MLLs) transition from EFL courses in home countries to mainstream university-level composition courses in an Anglophone country. As this population grows, creating writing classes that are increasingly heterogenous in student educational and linguistic backgrounds, there is a growing need to understand how digital literacy as a social practice is interactionally accomplished.

Discursive psychology (DP) (Edwards & Potter, 1992), a discourse analysis approach that makes use of Conversation Analysis tools, is presented in this study as a useful means of enquiring into the local construction of digital literacy practices in participants' own terms. Such an approach is valuable because it provides visibility on the role of talk about cognition or emotion as participants use it to account for their actions (Potter, Edwards, & Wetherell, 1993). These accounts illustrate what participants formulate as being typical, unfamiliar, reasonable, or confusing about locally organized practices and the uses to which these articulations are put within the context of a given practice. Data excerpts analyzed from a case study of digital literacy practices among MLLs in a university-level multimodal composition course in the US are used to demonstrate how participants locally achieve an understanding through interaction of how digital tools of composition are meant to be used. I argue that MLL students who have recently transitioned from the educational context of a home country to that of another country articulated understandings of digital literacy as a social practice that often ran contrary to what they perceived to be the digital literacy practices of their new environment. Furthermore, this conflict was compounded with material effects stemming from communication failures between the digital tools used by students and teachers in these classrooms. This complex of social unfamiliarity and material malfunction can result in a cascade of unintended consequences that constrain students' ability to access educational technologies and materials and form new digital literacy practices. I conclude with an evaluation of DP for studying digital literacy as well as a discussion of potential interventions for increasing the accessibility of these technologies by making them and their use in classes an object of student and teacher inquiry.

## **Theoretical Framework**

Discursive psychology is an approach to psychology that focuses on how people represent cognitive states in language in rhetorically motivated ways (Edwards & Potter, 1992; Potter, Edwards, & Wetherell, 1993). Such an approach offers an alternative to and a critique of cognitivist approaches that tend to view talk as descriptive of cognitive states rather than constitutive of them. Of particular concern to research using a DP framework is how talk about thoughts, emotions, and motivations are used in real world interactions to publicly establish both an account and a rationale for action (Edwards, 2012). Such accounts often involve the creation through talk of a "script formulation" that makes a case for what normally ought to happen in a given kind of situation and what is a deviation from that norm in a way that can be used to explain, defend, or blame (Edwards, 1994).

DP is a useful approach for applied linguists analyzing talk in educational settings and interviews because it renders visible how participants use talk about thought to pursue or defend their interests. Classroom activities typically involve teachers instructing students how to perform a task. Students are not automatons in such work; they have a personal stake in their success or failure to negotiate these tasks. To understand how learners intersubjectively co-construct digital literacy practices, it is necessary, then, to consider what is at stake for these learners and how their accounts of events are rhetorically designed to establish a particular argument for how things are or should be done. In the case of the current study, MLLs who have developed digital literacy practices in an EFL educational context described themselves as disadvantaged when socializing into the practices of a US university. This occurs in part because their articulated understandings

of how to do digital literacy hold less power than those of the instructor and the students who have spent most of their educational careers in the US. This problem is then aggravated by unfamiliarity with and failures in the digital tools they are using in this new context.

## Literature Review

Rapid developments in communications technology over recent decades have precipitated a shift in literacy pedagogy from preferred grammatical forms in a single privileged dialect to one of multiliteracies taught in a manner that reflects the nature of communications in a highly networked world (New London Group, 1996; Unsworth, 2001). Given the current ubiquity of digital technologies of communication, it is unsurprising that this aspect of multiliteracies has become of greater interest to scholars and educators (Mills, 2010). While the importance of digital literacy is commonly recognized (e.g., Lotherington & Jenson, 2011; Tafazoli, Gomez Parra, & Huerta Abril, 2017), an unambiguous definition of the term has proved elusive, such that it is more common to find reviews of literature using the term than a single universally cited explanation of it (Ilomäki *et al.*, 2016; Pangrazio, Godhe, & Ledesma, 2020; Spante *et al.*, 2018). Since the range of uses is so wide, it has been suggested that digital literacy can be considered as an imprecisely defined and still-emerging boundary concept. This concept incorporates a variety of elements that go beyond just the technical skills related to digital technologies and include the use of these technologies as a social practice (Ilomäki *et al.*, 2016).

Digital literacy, then, like the larger concept of multiliteracies, can be considered as not only a matter of cognition but of socially constructed practices that vary depending upon cultural context (Lankshear & Knobel, 2003; Street, 2003). Part of learners' development of such literacies involves their awareness of how power is exerted in digital contexts, privileging some and marginalizing others (Darvin, 2016; Darvin & Norton, 2017). This raises the question of how these practices are constructed and what happens when participants shift from one context to another. With respect to applied linguistics, studies of digital literacy practices, particularly those involved in multimodal composition, have received greater attention in recent years (See Smith, Pacheco, & Khorosheva, 2021 for a review of research in secondary schooling, and Zhang, Akoto, & Li, 2021 for one involving higher education). However, these studies, as valuable as they have been in documenting practices and their pedagogical value, generally do not inquire into how these practices are collaboratively produced in the moment through social interaction. Furthermore, while there is an understanding that practices are local and contingent upon participants and context, there is little work that investigates how participants manage transitions to new contexts. This is where a microanalytic approach focused on articulations of cognitive and emotional states in participant accounts of their actions can illuminate what is at stake for these learners and how they negotiate situations in which they must locally accomplish a particular digital literacy practice. This, in turn, can be useful for identifying some of the challenges faced by some participants in realizing an issue of abiding interest to scholars of multiliteracies, namely "building learning conditions leading to full and equitable social participation" in such practices (New London Group, 1996, p. 60).

This study focuses on the use of the online collaborative word processing software, Google Docs, considered as a situated and embodied social practice involving human and non-human actors. While language learner use of collaborative writing software has been the subject of excellent research (see Li, 2018 for a review focusing on Google Docs and wikis), the topic of how participants interactionally achieve consensus regarding software use has received less attention. Such interaction takes place within a complex rhetorical ecology in which humans not only cooperate to arrive at an understanding of how to use these tools but are influenced by the constraints and affordances inherent in their design. In the case study presented below, the manner in which humans interacted with software resulted in situations that made engagement for some participants with the language learning work of the classroom not just difficult but physically impossible. Here also, DP can be useful in investigating closely the role played by talk about cognitive states in participant accounts of the challenges they face in negotiating the affordances and constraints of digital writing tools.

## **Methodology**

### ***Participants and context***

Data were collected as part of a study done at a large research university on the western coast of the United States. Participants were recruited from a portfolio-assessed first-year multimodal writing course that emphasizes the rhetorical effects of modal, design, and distribution choices. From this class, five focal participants were recruited to take part in interviews outside the classroom. While the writing program at the university offers composition courses specifically targeting MLLs, linguistic diversity was the norm in all composition courses taught. This diversity characteristic of writing courses at the institution ran the gamut, from international students who had studied English in an EFL context to those who had spent their educational careers in the US and considered themselves to be bilingual to monolingual English speakers. All incoming undergraduate students at the university are required to take a first-year composition course. Course outcomes roughly follow those of the WPA Outcomes Statement for First-Year Composition (WPA, 2014), and include the development of students' abilities to read, analyze, and write argument-driven academic papers. Focal participants included the instructor of the course and four MLL students. The instructor was a doctoral student from the US who described English as his first language, with Spanish as a foreign language studied in high school. Among the data presented below are excerpts from interviews with two of the four student focal participants, one of whom was a long-term US resident who had done most of their schooling in that country and described herself as a bilingual English and French speaker. The other was from the People's Republic of China and studying in the US on an international student visa. She described her L1 as Mandarin Chinese, with English as a foreign language studied since primary school. She had been in the US for less than a month when the study began. The class met two days each week for 100 minutes each session over an academic quarter lasting ten weeks. Digital writing and communications tools were frequently used, including Google Docs, audio and video editing software, as well as the learning management system, Canvas. Group work was common, with groups collaborating in the composition of short texts using Google Docs.

## ***Procedure***

Participants were recruited in the first week of class. Focal participants were compensated with Amazon gift cards. The class was observed six times over the course of a quarter. Data sources include semi-structured interview audio recordings with focal participants, classroom observation field notes, classroom interaction video recordings, classroom small group interaction audio recordings, and textual artifacts including educational materials, and student- and teacher-produced texts. Interviews are identified and analyzed as productions of co-constructed meaning and knowledge negotiated between participants (Holstein & Gubrium, 1995; Talmy, 2010) in which interviewer and interviewee footings, stakes, and interests vary (Potter & Hepburn, 2005). When possible, I asked interview participants to choose the language they preferred to use in interviews. This was done in recognition of the fact that participant accounts of an event or representations in language of cognitive states can differ considerably depending on the language out of which such accounts and representations are constructed (Pavlenko, 2007).

The data excerpts presented below are intended to show how participants used talk about cognition as an interactional resource in the co-construction of digital literacy practices as well as in their accounts of their own actions in that process. They also serve as useful examples of how a DP approach can render visible the manner in which this work is a rhetorically driven negotiation in which participants have different stakes and the playing field is not level. Transcription conventions are based on those developed by Gail Jefferson (1989) and have been simplified, following ten Have (2007).

## **Findings**

The data excerpts analyzed below describe events surrounding a writing task assigned to the class. The teacher issued a writing assignment to all students using an email sent through the learning management system, Canvas. In the following class meeting, the teacher described the assignment further and reminded students to reread his email. The email contained links to two Google Doc texts. The first document was a sign-up sheet in which students were asked to choose one item from a list of grammar patterns and punctuation usages, marking it with their name. The second was a group-edited “grammar guide” document in which students were to paste text they had written about their topic, which could then be used by students as a writing resource.

The excerpts that follow are presented to illustrate participants’ use of accounts of their actions and talk about cognition as interactional resources in the process of constructing digital literacy practices. As will be described, conflicts arose regarding how digital writing tools should be used. These issues, which had the potential to interfere with students’ ability to engage with the assignment were not experienced uniformly among students. Differing levels of familiarity with using the tools as part of a literacy practice in the context of US higher education shaped the degree to which participants could co-construct that practice in a manner that met their own as well as their teacher’s goals. The challenges of those students less familiar with how the tools were used in a US classroom were then compounded by the way in which the digital writing tools constrained some approaches to their use and facilitated others.

### ***Extract 1. Classroom: Disrupted access to a text composed and circulated with Google Docs***

In the extract below, teacher and students negotiate for a shared understanding of how a Google Doc created as a sign-up sheet for a grammar-related writing task should and should not be used. The teacher has just delivered instructions about how to use the sign-up sheet and then complete that part of the “grammar guide” writing assignment students have claimed as their responsibility. Students then formulate problems with and objections to these instructions and the teacher and students propose remedies regarding use of the document, with the teacher endorsing some solutions and ignoring others

1 Teacher: any [questions?  
 2 Student 1: [(Raises hand.)]  
 3 T: yeah? (.) [S1's NAME]?  
 4 S1: did some of the names get deleted because I put my name on here and it's not  
 5 here anymore  
 6 T: uh that shouldn't have happened=  
 7 S1: =cause I already did it °ss so I don't want to  
 8 do it again°  
 9 T: hm °that'd be a problem°  
 10 T: yeah don't be:: uh don't delete someone's name and replace it with your own  
 11 again this is a first [come first served basis.  
 12 S2: [(Raises hand.)]  
 13 T: ((gaze to S1)) you'll just have to sign up for a different one sorry about that  
 14 T: any[one else (.) [S2 NAME]?  
 15 S3: [(Raises hand.)]  
 16 S2: you can actually see in the changes that if someone removed it or not  
 17 T: yeah I'll take a look  
 18 S1: ((turns to S2, sitting behind her)) °XXX was where my name was°  
 19 T: what about (.) [S3 NAME]?  
 20 S3: that email that you sent? went to my spam folder so::  
 21 T: okay  
 22 T: you may have to check your spam folder for this sign up sheet and for google  
 23 doc you should have access to both of these now you'll find the grammar guides  
 24 (.) the other ones on the ↓announcement page (1.8) don't go overboard with it  
 25 but just make it clear, uh crisp, and to the point (.) and this will be the  
 26 basis of our discussion ↓tomo::row

The focus of analysis for this excerpt is on teacher authority, the management of participant interests in a discussion about how the sign-up document should be used, and the rhetorical effects of Google Docs' access configuration options on that discussion. There are interactional asymmetries that exist within this talk such that teacher and student are not equal participants (Drew & Heritage, 1992). The teacher can lay claim to greater epistemic authority regarding what is true about the world as well as deontic authority regarding what will be done about it (Stevanovic, 2011). Students orient themselves to this authority of the teacher in a number of ways (Macbeth, 1991), including not speaking until specifically recognized and called upon (McHoul, 1978) (lines 2, 12, 15). One student who is called upon reports that she entered her name into the document to sign up for a grammar topic, but that it has since been deleted (line 4-5). The instructor uses a modal verb to formulate a stance evaluating this as a breach of what is normal and acceptable in this situation (Edwards, 2006; 2007) without, however, providing a solution: “that shouldn't have happened” (line 6). The use of modal verbs is a frequent feature of talk used to establish that which is necessary or obligatory (Zinken & Ogiermann, 2011), and is thus a common resource for speakers who act to secure for themselves the authority to issue such directives (Stevanovic & Peräkylä, 2012). By stating that she has already completed the work for this topic, highlighting what is at stake for her, the student makes an argument that this response is inadequate: “cause I already did it °ss so I don't want to do it again°” (line 7-8). In short, the student has followed directions but has been thwarted by the actions of another student, losing the work she completed.

Presented with the unintended responses to the text resulting from the default access settings used for the Google Docs document, the teacher exercises his authority in an attempt to forestall other students from this dispreferred response to the text. He initially delivers an imperative: “yeah don’t be:: uh don’t delete someone’s name and replace it with your own again this is a first come first served basis.” (lines 10-11). Categorizing this event as a legitimate problem (line 9), he follows with an apology directed at S1 but says that she will, nevertheless, have to begin her work again with a new topic: “you’ll just have to sign up for a different one sorry about that” (line 13). This does not resolve the situation for the student and in response, a classmate, S2, raises his hand to offer a potential alternative approach: “you can actually see in the changes that if someone removed it or not” (line 16). The student is referring to the manner in which Google Docs automatically saves versions of the document as it is being edited, recording when and which users make changes. The teacher says that he will investigate this further (line 17) but presents no further remedy for S1’s current problem. An access problem is also raised by S3, who states that the email containing the link to the Google Doc went to their “spam folder,” and ends their turn at talk with the conjunctive adverb “so” (line 20). This indicates that there is a conclusion that the instructor should draw from this statement, namely that this method of communication used did not work and another is needed. The teacher responds by reformulating the problem into a solution, instructing students to check their “spam” folders for the email (line 22). What began as a series of instructions for an assignment has turned into a series of exchanges in response to a variety of problems students have encountered, preventing them from reaching the point where engagement with the assignment based on those instructions can begin.

What is remarkable about this interaction is how teacher authority and the negotiated co-construction of an acceptable practice regarding a digital writing tool use is shaped by the unforeseen rhetorical effects of that tool. The problem of students erasing one another’s names could only arise because of the way in which the text had been delivered to students in the form of a shared document that can be edited by anyone that has a hyperlink to it. A relatively small change in the document’s access settings would have not only discouraged the dispreferred response to the text but made it impossible. A setting that confined recipients of the link to making marginal comments or suggestions, for example, would have accomplished this.

Furthermore, some of these unforeseen rhetorical effects emerged from interactions between machine and machine rather than from decisions made by any human, occurring in ways that human users could not easily explain. For some students, the email from the teacher containing the access link was marked as “spam” by their mail client, resulting in the problem described by S3 in line 20. Other students reported in interviews that they did not receive the link at all, something which occurred with every international student from the People’s Republic of China who had set their university email account to forward messages to a 163.com account used as a primary email service provider. In turn, these communication problems had a negative effect on the teacher’s interactional ability to claim deontic authority in the construction of this digital literacy practice. The teacher begins the interaction above using modals of obligation (“shouldn’t,” line 6) but ends the exchange employing modals of possibility (“may,” line 22), indicating an orientation to a more limited right to command (Clifton, 2019).

The following two excerpts are taken from interviews conducted with two MLL students in this class, one a long-term US resident and the other a recently arrived international student, about this writing assignment in order to present how differently they describe their experiences with the digital literacy practice involved.

**Extract 2. Interview: Long-term US resident – Account of coping with challenges**

The focus of analysis for this extract is on the manner in which the interviewee constructs in her talk a normal way of using the Google Docs tool, and then describes what should reasonably happen when anomalous behavior occurs.

1 Researcher: I noticed th[at  
 2 I1: [yeah=  
 3 R: =was kind of an issue it wasn't you but it was a  
 4 different young woman who raised her hand=  
 5 I1: =yeah but the same thing had happened  
 6 to me where hh and I think a couple other people too where they had put their  
 7 names on in the very beginning? and then either somehow the document got like  
 8 refreshed, or deleted, and like I know that some people had put it on and then  
 9 just like assumed that you know they were that thing and then already done the  
 10 research and stuff? so that was definitely a little disorganhahehized and  
 11 frustrating for some people luckily I like I hadn't done mine quite yet? um (.)  
 12 so I was able to switch pretty easily but I definitely would have been  
 13 frustrated=  
 14 R: =yeah=  
 15 I1: =if I had already done the work and then somebody either  
 16 changed my name or the document got like refreshed or whatever

I ask the interviewee about the exchange in Extract 1, lines 2-5, and she replies by saying that she had a similar experience (line 5). Her account begins with a description of events that are presented as regular and normal, a “script formulation” in which some events or actions are routine and thus need not be explained and others are unusual and must be attributed to some special cause or actor (Edwards, 1994; 1997). No account is necessary to understand why people entered their names into the Google Doc in the beginning as they were instructed to do (lines 6-7). However, the subsequent disappearance of these people’s names from that document is aberrant and must be attributed to some cause, even if it is not definitely known: “then either somehow the document got like refreshed, or deleted” (lines 7-8). That this is an aberration is emphasized by the statement that students whose names were deleted had assumed that they had completed this part of the assignment and could proceed to do “the research and stuff” (lines 9-10). The description of the event as frustrating and disorganized (lines 10-11) is an affective stance by which the speaker negatively evaluates this departure from how the document should be used (Ochs, Pontecorvo, & Fasulo, 1996).

Despite this event being characterized as unusual, undesirable, and annoying, the speaker also downplays this dissatisfaction in a way that presents herself as possessed of luck, empathy, and resourcefulness. Laughter, often used to talk about difficulties and indicate an ability to cope, appears in the description of the event as disorganized in line 10 and recurs later in the interview (Jefferson, 1984). She notes that she was lucky not to have started working on her grammar topic already (line 11) and then performs empathy for her classmates by describing how she would have been frustrated had things been otherwise (lines 12-16). The use of the modal “would” here constitutes a dispositional formulation about the kind of person she is and what she is likely to do (Edwards, 2006), serving to demonstrate what she identifies as acceptable and unacceptable practice in the use of this document. Thus, she demonstrates an understanding of why some people were upset while also explaining why she was not. That very understanding, however, contains within it a suggestion that the problem is not particularly serious. While this occurrence is unusual enough to be accountable, the fact that the speaker cannot identify a definite cause is not a problem. Finally, much later in the interview she mentions a group chat using Apple’s iMessage instant



messaging service, wherein her classmates first complained among themselves about the problems they were having with the Google Doc. This account, then, presents a situation that is not as it should be, but that can be easily faced with luck, even temper, and a little help from one's friends.

Compare the account above, then, with the one below in which an international student in the class expresses considerably greater difficulty negotiating this literacy situation. In this narrative, the rhetorical effects of digital composition tools do not just produce a situation that is disorganized or less than ideal; they result in a series of communication failures. Ultimately, she does not complete the assignment not simply because she has not received the teacher's prompt and instructions, but because she is not informed that there is any assignment to do.

### **Extract 3. Interview: International student – Account of non-completion of assignment**

The analytic focus here is on the manner in which the speaker constructs an explanation or defense for not having completed an assignment through the use of a softened indirect complaint.

- R: 记得有一个学生好像说她写了他的名字但是以后名字就没了。  
 1 I remember one student said she put in her name but later her name disappeared.  
 I2: 对对对对对因为(.)因为(1.0)那个没有那么多种↓grammar 一个班二十多个学生其实没有那个list上也  
 没有那么多 grammar 可能就是大家(1.5)没有(.)操作不当 heh 对因为 google docs 就是我以前是没有用  
 过自从这节课之后开始用因为大家有时候可能就是一种 group work 之后就是需要 share 一些一些共同的  
 一些观点就可能会用到↓google ↓doc 所以我这学期才开始用所以我觉得可能有同学跟我有相同的经历就是  
 没有那么熟练地操作(.)就是不太懂这个就是不小心误删了 haheh 对(.)然后我其实也有一个问题就是老师  
 就是 share 这个 google doc 是没有给到我(0.8)对我觉得这是一个问题因为就是↑其实↑第一次的时候就  
 是(.)这是第二次老师 share google doc(.)第一次好像是在开学第一周还是第二周当时老师也 share 了  
 一个东西当时我没有收到(.)我就没有收到但是我觉得那可能是个意外然后后来对然后这次 share 了两个  
 google doc 我都没有收到而且我自己也不知情因为他 share 之后会有 email 提醒但是我没有 email 提醒  
 (.)这个作业是我相当于就是没有做  
 2 yes yes yes yes yes since there were not that many branches of ↓grammar, we  
 3 have over twenty students in our class, and on that list there were not that  
 4 many branches of grammar, and so probably because people didn't they used it  
 5 wrong heh, because ↓google ↓docs, I had never used it before, I just started  
 6 using with this class, sometimes when we do group work, we need to share what  
 7 we have, so we use google doc, so I started using it starting from this  
 8 quarter, so I think probably some students are just like me, they're not very  
 9 familiar with it, they may not quite know how to use it and so they  
 10 accidentally deleted something haheh, yeah, and I actually had a problem, when  
 11 the teacher shared that google doc, I didn't get it. Yeah I feel like this is a  
 12 problem. Because ↑actually the ↑first time (.) Like this is the second time the  
 13 teacher's shared a google doc (.) The first time was I think in the first or  
 14 second week when the teacher also shared something, but I didn't get it (.) I  
 15 didn't get it but I thought it was an accident. And then after that, right,  
 16 after that, this time he shared two google docs, but I didn't receive either of  
 17 them. And I wasn't even aware of them because after he shared the docs, he sent  
 18 us an email reminder about them, but I didn't get that email reminder, so I  
 19 actually didn't do that assignment

The interviewee's account takes care to concede that she is unfamiliar with the communication and composition tools used in the class. She does so, however, as part of larger argument that suggests that she is not atypical in this regard and that this explanation is not sufficient to explain her troubles. While she conjectures that her classmates may have similar problems using these tools, she notes that she seems to be unusually afflicted by them in a way that suggests a pattern. Moreover, because these problems tend to occur as a series of communication failures, she does not know that there is a problem until it is too late to remedy it.

She suggests that the deletion of her and her classmates' names from the sign-up document was accidental, emphasizing both how she imagines she is similar to her peers and implying that no malice was behind the event. The digital literacy practice that is described, then, is one in which erasing another student's name from a sign-up sheet may be a mistake but not a concerning or even especially surprising one. She theorizes that this happened “可能就是大家(1.5)没有(.)操作不当 *heh*”(“probably because people didn't they used it wrong *heh*”) (lines 4-5), and then explains this misuse by suggesting that “可能有同学跟我有相同的经历就是没有那么熟练地操作”(“probably some students are just like me, they're not very familiar with it”) (lines 8-9). She uses the word, “大家,” in line 4, translated above as “people,” but this can also be translated as “everybody.” The speaker implies that the cause of the issue is not one person's mistake, but rather a lack of understanding of the tool's use shared by everyone, including herself. She then notes that she herself had no experience with Google Docs prior to this class as a form of evidence in support of her idea. This description of the circumstances that explains her unfamiliarity constitutes a kind of “defensive detailing” done to establish that there may have been a problem in this situation, but it doesn't constitute wrongdoing on anyone's part (Jefferson, 1985). Thus, while such an event is a problem, it is formulated as one that can be accounted in a way such that no one is at fault (lines 9-10).

The digital literacy practice described here is quite different from that in Extract 2 in that it is one characterized by frequent accidents, general unfamiliarity with what the tools do, and students left to individually make do. While this unfamiliarity is formulated as applying to “everyone” as a group, the students in this account do not address it as a group by sharing their troubles or pooling resources. After providing a theory for what may have happened, the student shifts from an articulation of beliefs about the entire class to her specific case. When asked later in the interview, the participant stated she was not aware that there was a group chat formed by students in the class and that she was surprised to hear that such a thing existed. She did, however, state that the concept of a group chat was familiar to her as they are a common feature of classes she took in her home country, the difference being that a class monitor was tasked by the instructor with setting up a chat including all students and the teacher in a WeChat group. Thus, we have a digital literacy practice that involves technologies equivalent in function and with which students are equally familiar but are not equally accessible because their successful use is highly dependent on the local context in which students are socialized into their use.

The topic I have raised about this particular mishap with the Google Doc is taken up by the speaker as a means of transitioning to a more general statement: there is a pattern of communication failures that she identifies as preventing her from doing the work of the course. What follows is typical of a complaint that is indirect in that it is made about someone or something other than the talk's recipient (Drew, 1998), and is mitigated to demonstrate that the speaker is not over-reacting (Caffi, 1999). The speaker uses the word *其实* (actually) to signal that she is transitioning from something that is understandable (unfamiliarity with Google Docs) to something that, by contrast, constitutes a real problem (line 10). This issue is initially framed as a single event that occurred in the past but is then used as an example of something that is troubling her experience with the entire course: “我其实也有一个问题就是老师就是 *share* 这个 *google doc* 是没有给到我(0.8)对我觉得这是一个问题”(“I actually had a problem, when the teacher shared that *google doc*, I didn't get it. I feel like this is a problem”) (lines 10-12). The phrase, “没有给到我,” is translated above as “I didn't get it,” but can also be translated as “he didn't give it so that it got to me.” The grammar is unconventional, and she later uses the more frequently

occurring expression “我没有收到” (“I didn’t get it”) (lines 14, 15, 16). The initial phrasing places the responsibility for the breakdown in communication on the teacher by making him the agent of the event. The speaker then expands on this implication of blame by upgrading the problem from a one-time event to a recurring problem. The statement, “我觉得这是一个问题” (“I feel like this is a problem”), issues a judgment that the speaker substantiates with evidence. This is not an isolated incident (lines 11-17), and the breakdowns in communication seem to have disproportionately affected her more than her peers, who, at least, know there are assignments to complete (lines 17-19). Such detailed description of evidence serves to present the complaint as a factual account of a recurrent issue (Edwards, 1994; 2005). Thus, a single problem with getting an email that contains a link to an assignment forms part of a larger rhetorically motivated account of a sequence of communication failures that ultimately leave the student not knowing that there is an assignment to do.

## **Discussion**

While the results of a case study resist generalization to large populations, they provide useful illustrations of what is possible in ways that extend and complexify our understanding of how literacy practices are talked into being. The findings here indicate the considerable role of cultural context in the successful development of digital literacy skills in ways that can leave MLLs transitioning from EFL courses in a home country to mainstream composition courses abroad at a distinct disadvantage. Discursive Psychology provides a helpful tool for investigating this.

### ***Methodological implications***

The value of a discursive psychology approach in the study of digital literacy is that it allows us to make new contributions to work that considers digital literacy as a social practice. Much work in this vein asserts that digital literacy is a socially constructed phenomenon and then identifies and describes particular practices. DP affords the researcher a means of documenting how a given digital literacy social practice is locally co-constructed through interaction. Furthermore, we are able to analyze this work in participants’ own terms because we are attending to those moments when questions of how to do digital literacy are salient to the people involved such that they are the subject of their talk. This approach renders visible how problems can arise in the *in situ* construction of practices that may disadvantage or marginalize some participants, which may suggest how educators can intervene to address such issues.

### ***Pedagogical implications***

This class was a multimodal composition course that identifies among its outcomes raising student awareness of the rhetorical effects of modal, genre, and text delivery choices. However, the composition tools like Google Docs or the learning management system used in class to do this work were never themselves brought to students’ attention as a subject rewarding inquiry. If, as educators, we want to achieve equitable participation for our students in developing multiliteracies, then it may profit us to make the use of digital composition tools a source of classroom inquiry in their own right. The tools used in classrooms for networked text composition and delivery give the impression of being easy to use but this does not mean that users have an equal facility for understanding the protocols underpinning their user interfaces or how successful

communication depends upon their local integration into social practice. Students in complex communications ecologies may need an educational intervention that specifically targets computer-assisted composition and delivery not just as discrete technical skills but as a situated interactional achievement.

Given that many instructors may approach the classroom use of common digital communications tools like Google Docs and Canvas as a problem of technical mastery of a user interface, consideration of how their use is also situated social practice is warranted. In such an effort, teachers would need to reevaluate their own assumptions and positions just as much as they would want to encourage this critical reflection in their students (Kill, 2006; Lu, 2004). This would preferably happen before a lesson involving these tools occurs. As shown in the first excerpt, attempting to address disagreements about how such tools should and should not be employed in an ad hoc manner was generally unsatisfactory even to those students who exercised the agency to raise the topic of these problems in classroom talk. The participant in the third data excerpt was present at the class meeting in Extract 1 but did not speak in class. When asked about this in an interview, she explained that she sometimes had trouble following such interactions because the teacher and students involved tended to talk quickly and did not always wait to be called on, practices with which she was unaccustomed. My making the use of these tools the subject of classroom discussion early in the course, students and teachers could potentially arrive at some consensus for how they should be used and what kinds of resources, such as group chats, could be made available to all.

## Conclusion

Through analysis of data from a case study of MLLs using digital writing tools to complete a writing assignment, I have traced how participants develop a digital writing practice in the moment. This process is not one in which participation is equitable; factors like a teacher's authority and students' familiarity with the educational context serve to privilege some and marginalize others (Darvin & Norton, 2015). While these findings are confined to the narrow scope of a case study, they serve as one example of how digital literacies are co-constructed moment by moment among participants. By following closely how this achieved, it is possible to identify where challenges for participants, including inequities of access, can arise. This study also demonstrates the value of a microanalytic DP approach in investigating digital literacy in the context of social interaction.

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## Appendix 1

*Conventions for the transcription of talk (adapted from Jefferson 1989 and ten Have 2007)*

[	speaker overlap with overlap indicated on two separate lines
=	latching, indicating no gap between one line and the next
(0.0)	elapsed time in which silence occurs, measured in tenths of a second
(.)	very brief pause in speech
<u>underline</u>	emphatic stress
.	sentence-final falling intonation
?	sentence-final rising intonation
,	continuing intonation
↑↓	higher or lower pitch in the word immediately following
°word°	lower volume than surrounding speech
w(h)ord	breathiness indicative of laughter or crying
XXX	inaudible speech on a recording