Multimodality, Multilinguality, and Materiality in Digital Literacies: A Study of English Language Learning in Rural China

by

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Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of
Doctor of Philosophy

in the
Languages, Cultures and Literacies Program
Faculty of Education

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SIMON FRASER UNIVERSITY

Fall 2022

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Abstract

Inspired by the author's personal experience of learning English in rural China, this study explores the complexity of beyond-classroom learning environments where rural Chinese girls learn English as a foreign language (EFL) with digital resources. It documents how two teenagers became entangled with many human and nonhuman bodies in online EFL learning activities, including storybook reading, vocabulary learning, movie clip dubbing, digital storytelling and other school-related academic tasks during the Covid-19 lockdown period in China. Building on theories of multimodality, multilinguality and materiality, this research views digital literacies in English language learning as dynamic and rhizomatic processes. A sociomaterial approach is adopted to examine language and literacy learning environments as suffused with a myriad of vital materials that have their own "thing-power" (Bennett, 2010). In other words, nonhuman materials (e.g., digital tools, apps, textbooks, pens, artefacts, buildings, modes, spaces, time) are considered to be active agents operating alongside the children and other social actors in co-constructing language and literacy practices. Educational contexts are, therefore, conceptualized as affective intensities emerging in ongoing "intra-actions" (Barad, 2007) among sociomaterial bodies.

In keeping with this stance, this post-qualitative study does not—at least tries not to—rely on positivist techniques or methods. Rather, data is co-produced and analyzed within a research assemblage constituted by theories, data, fieldwork, technologies, research participants, teachers, the researcher, research tools, etc. Fieldwork approaches include video/voice recording, photographing, writing fieldnotes and collecting artefacts. By "thinking with theory" (Jackson & Mazzei, 2012) and working with a post-qualitative ethnography, the relational and becoming nature of children's language and literacy practices are attended to in this study. Human exceptionality is disrupted as the focus shifts from exploring the end products of English language and digital literacy production to examining how multiple participants were drawn into a non-linear process of making meaning and constructing knowledge.

Keywords: digital literacies; English language learning; multimodality; multilinguality; materiality; sociomaterial approaches

Acknowledgements

I would like to express my sincere appreciation to the two girls who gave generously of their time to participate in my study. I also appreciate the girls' family members and school teachers who agreed to be participants for this study and shared their stories on diverse topics. In particular, I would like to thank all nonhuman participants, including philosophical concepts, theories, digital devices, animals, buildings, artifacts, learning materials and so on and so forth—the list is endless! Together these human and nonhuman participants pushed me to think differently about education and the world. They taught me how children, languages and literacies are changing diversities and thus can never be defined.

I am extremely grateful to my Senior Supervisor and mentor Dr. Diane Dagenais for her ongoing encouragement, support, and professional guidance. Whenever I think about Diane, her amiable smile always comes first to mind. It was this very smile that put me at ease during the first semester of my doctoral studies. Back then, as a newly arrived Chinese student in Canada, I was unconfident about my English language competence, uncertain about how rugged my doctoral journey would be, and overwhelmed by long reading lists suffused with theories I barely knew. I am blessed to have Diane guiding me to the mystical, vibrant and fascinating world of language and literacy education.

I would like to extend my heartfelt thanks to my Supervisory Committee members—Dr. Suzanne Smythe and Dr. Angel Lin—for their insightful comments and suggestions on drafts of this dissertation. My special appreciation goes to the examiners—Dr. Kimberley Lenters and Dr. Roumiana Ilieva—for their helpful questions and comments at my thesis examination. Without all these professors' help, I would have never come up with this final draft of my dissertation.

My deepest gratitude goes to my family: My parents who have little formal education but are the most educated and literate people I know as to how to get along with land and nature; my preteen nephew Yiwen—a great literacy creator and nature explorer who taught me how childhood can never be completely tamed by reason and culture; my husband Xun—a hardworking and energetic man who continuously brings sunshine and love into my life.

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目无体，以万物之色为体；

耳无体，以万物之声为体；

鼻无体，以万物之臭为体：

口无体，以万物之味为体；

心无体，以天地万物感应之是非为体。

王阳明

My translation:

Eyes exist as colours of the universe;

Ears exist as sounds of the universe;

Noses exist as smells of the universe;

Mouths exist as tastes of the universe;

Heart-minds exist as the rights and wrongs sensed by the universe.

Wang Yangming (1472-1529)

a Chinese thinker and philosopher who believed in the unity between internal heart-mind and external world, between knowing and doing

Chapter 1.
Introduction

On 25th September, 2020, a Sina Weibo[1] post went viral quickly with 1.2K reposts, 5.6K comments, and 91.7K likes:

> #江西一中学全面禁用手机# 每班配备一部老年机供与家长联系。 (中国新闻网， 2020)
>
> My translation: # A secondary school in Jiangxi Province imposed a total ban on in-school use of mobile phones # Each class will be allocated an old-aged mobile phone [2] for the convenience of student-parent communication. (Chinanews.com, 2020)

According to a screenshot attached to the post, the school imposed the ban because of the following hazards of mobile phones: Screens tend to cause health problems; addiction to smart phones makes students lose interest in studying; unhealthy online information contaminates students' minds; mobiles are harmful to interpersonal relationships; students are more likely to vie with each other to buy the latest mobile products; and mobiles have been used by some students for cheating on exams. Indeed, the apprehension about mobile phones, especially smart phones, can also be easily found in the current study in which I investigate how rural Chinese children engaged in practices of digital literacies in informal English language learning spaces. For example, the homeroom teacher of a participant in my doctoral study, referred to here as Qian[3], made the following remarks in an end-of-term teacher-parent meeting on July 11, 2019:

> 手机是非常坑人的一个东西。这学期，咱班很多孩子成绩下滑就是因为手机。假期很多孩子会沉迷玩网络游戏。. . . 所以说，如果你想让孩子成绩有提升，假期别管

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[1] Sina Webo is a Chinese social media site that functions as Twitter does in other countries.

[2] Old-aged mobile phones, as the name implies, mean phones used by old people. The label has become widespread throughout Mainland China (hereafter "China"). Such phones are usually cheap and of poor quality. They are especially designed for old generations with extremely big type size, high volume, and long battery standby time. Although these phones tend to have only basic functions of text messages and phone calls, there are also smart ones with more functions. While the so-called "old-aged mobile phones" have played a role in popularizing digital technology in China, especially in rural areas, the label suggests the marginalization of the elderly in this era of smart digital tools.

[3] All participant names are pseudonyms.

> 什么原因，别给他你的手机。除了写作业那一小会儿，你让他用一下，剩下的时间一定要拿开。如果说他今天作业写完了，假期想出去玩了，和小朋友们出去溜达一天，给他买一个老人机，就八十块钱。. . . 我再强调一下，千万别给孩子智能机。
>
> My translation: Mobile phones are very bad. This term, marks of many kids in our class dropped due to mobiles. In the coming summer vacation, I think many kids will be obsessed with video games. . . . So, if you want your kid to have good grades on exams, do NOT give her/him your smart phone for whatever reasons during the vacation. Except shortly for homework. Keep your phone away from her/him. If we say, okay, the kid has finished today's homework, and s/he wants to hang out with friends. Buy her/him an "old-aged phone." It will take you only 80 Yuan[4]. . . . Again, do NOT give your kid a smart phone.

School authorities and teachers are not alone in attempting to separate mobile phones from formal learning environments. Some Chinese policymakers also believe digital tools have villainously intruded into the human world and we should protect children against these wild, untamable monsters. In August 2018, the Ministry of Education (MoE) of the People's Republic of China alongside seven other departments under the central leadership issued *The Implementation Scheme for Preventing and Controlling Myopia among Children and Teenagers (综合防控儿童青少年近视实施方案)*, which legitimatizes banishing digital tools from classrooms:

> 严禁学生将个人手机、平板电脑等电子产品带入课堂，带入学校的要进行统一保管。学校教育本着按需的原则合理使用电子产品，教学和布置作业不依赖电子产品，使用电子产品开展教学时长原则上不超过教学总时长的30%，原则上采用纸质作业。(教育部等，2018)
>
> My translation: Students are strictly prohibited from bringing digital tools such as mobile phones and tablets into classrooms. Digital tools brought into school should be in the custody of the school. Teachers are expected to use digital tools according to needs. In principle, teaching and assignments-giving should be paper-based rather than digital-based, and digital-assisted teaching should be less than 30% of the total teaching time. (MoE et al., 2018, n.p.)

As these examples suggest, the integration of digital tools such as smart phones and tablets into formal schooling environments in China is still frequently challenged, and children's use of digital resources for learning ends is often seen as "not real school" (Dagenais et al., 2017; Smythe et al, 2014), which is how a teacher in Canada characterized digital literacy practices in the classroom. In research undertaken in

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[4] 80 Yuan is around 16 in Canadian dollars, according to the exchange rate of March 2022.

classrooms outside China where digital technologies are applied, “there is a tendency to replicate existing pedagogical approaches rather than realise their potential to transform learning and teaching” (Burnett, 2009, in Flewitt et al., 2015, p. 292).

Despite efforts made by some schools to close the door on digital tools and resources, new media have slipped into educational settings—both formal and informal—and opened up new possibilities for learning and teaching. Their affordances are becoming increasingly acknowledged over the initial waves of the Covid-19 pandemic as we have witnessed a worldwide shift from offline to online schooling. In China, schools at all levels of education were closed during the first half of 2020, and DingTalk (钉钉), a Chinese teamwork software originally designed for business, came into vogue as a widely used online education platform. A large number of classrooms suddenly tried to access DingTalk, which over-taxed the platform and resulted in its frequent crashes. Many users were outraged by this as their classes had to be suspended (Pear Video, 2020b).

This example illustrates how while the digital has been radically reshaping and reorganizing human society, it can be temperamental and uncontrollable as it has a “*Thing-Power*: the curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle” (Bennett, 2010, p. 6, emphasis in original). It is safe to say that the digital is dynamic and multidimensional as it is always in a process of becoming evil, good, benign, something in-between or nothing in conjunction with humans.

Thinking about digital media as an active participant in the social world challenges our assumption that they are neutral and passive tools humans manipulate to serve our purposes. It pushes us to see them as co-agents in shaping literacy practices and thus redefines traditional concepts of what it means to be literate and what counts as literacy. As the New London Group (NLG) (1996) observed 26 years ago in their manifesto *A Pedagogy of Multiliteracies: Designing Social Futures*, paper-based literacy or the ability to read and write print-based texts is not sufficient for young generations to survive in an increasingly digitized age. They need to actively engage with the digital world and respond to literacy practices emerging in their involvement with technologies as well as other human and nonhuman agents. As literacy practices have changed, so too has language learning and teaching shifted with the affordances of digital media, which have opened a new landscape for English language learners (ELLs).

As the opening examples suggest, although new technologies including smart phones and tablets are disruptive to pedagogy-as-usual, and many have tried to ban or curtail them, they are nevertheless here to stay. These realities have affected my desire to explore how best to recruit new technologies to support English language learning in new ways. Accordingly, this study investigated how rural Chinese middle school[5] students learn English as a foreign language with digital resources in beyond-classroom learning spaces. I documented how multiple relationships were forming among modes, languages, materials and the bodies of rural Chinese children as they engaged in practices of digital literacies mainly in home environments. My interest in conducting the current research was triggered by my personal experience of learning English in rural China and of learning the language with digital resources. In what follows, I will introduce the rationale for this study.

1.1. The Rationale for This Study

I was born and grew up in a mountainous village in China's eastern Shandong Province, where I had pre-tertiary education and started learning English at the age of 13 as a seventh grader (or middle school first grader) in 2002. Since the very beginning of Grade 7, I was one of the students in class who could hardly wait to start our first ever English class. When the day finally came, it was even more beautiful than what I had expected. With colorful pictures and unknown English words, the new textbook looked interesting and novel, albeit with scenarios irrelevant to rural students' daily experiences. The young English teacher, Mr. Liu, became more charming when he spoke English. His black portable cassette tape player, the only technology appearing in class back then, seemed so sacred that Mr. Liu forbade us to touch the player without his permission. The excitement continued all day long, maybe a bit longer, and I could not help imagining what it would look like to speak English with foreigners in my future life.

My pleasant feelings and romantic visions of learning English quickly disappeared once I realized there was little difference between other academic classes and English class, which was offered every day. They were similarly textbook-based,

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[5] The 9-Year Compulsory education system in Mainland China covers a 6-year primary program, starting at age six or seven, and a 3-year junior secondary program (middle school) for ages 12 to 15. The secondary program is completed by a 3-year high school (senior secondary education) after middle school.

teacher-dominated, and examination-orientated. It was routine in each class to do lots of memorization and dictation of vocabulary, and study grammar rules and example writings. The International Phonetic Alphabet (IPA) for English had never been introduced in our class and we did not have a clue what consonants and vowels were, let alone how the sounds of oral English were actually made. Rather, we were taught to use Chinese characters as phonetic transcriptions for English words. Arduous, and boring! Such rote learning soon effaced my initial interest in English and I was then motivated to score highly in the paper-based English language exams focusing on grammar and linguistics. Back then (and nowadays to a large extent), getting good grades in exams was a key criterion in being labelled as a "good student." Luckily or not, I was designated a "good student" throughout all the six years of secondary education from Grade 7 to Grade 12.

However, things changed after I went to university as a Business English major in 2008. Unlike middle and high schools, the program emphasized the importance of communicative skills, with English speaking as an independent course incorporated into the curriculum. In the first lecture, all students were asked to introduce themselves in English, but I ran into difficulties with that. I made a perfect draft of my speech in mind and gave it with passion when my turn came. Then the classroom remained silent. The teacher and many students looked at me in confusion. I could not figure out what was going wrong. The long silence was finally broken by someone's murmur, "I don't understand what she was talking about." I had a feeling in my guts that something was wrong with my pronunciation, which had never been a problem in my earlier rural schooling. I was deeply ashamed, motionless and speechless. The teacher kindly smoothed things over by letting me sit down. However, the unpleasant feeling lingered, and as time went on, I became even more uncomfortable in that class. My increasing involvement in English communication activities made me well-aware of the fact that my English sounded weird and unintelligible. I had strong accent, and worse still, I was unable to pronounce most words like others did.

This made the transition from a rural high school to an urban university even more overwhelming for me. I felt helpless and shut myself off from asking for help from teachers and peers. More often than not, their in-class corrections of my pronunciation left me feeling inferior and deficient. The more I was concerned about my oral English, the less I felt confident about speaking in class. It came as no surprise that I performed

poorly on tests of oral English during the first term. I was no longer deemed a "good student." Assuming I could never speak English well, I wondered whether or not to stay in the Business English program.

Thankfully, with the support of digital learning resources, I did not leave the program, nor did I quit learning or speaking English. During my freshman year, I accessed computers on a weekly basis in a digital literacy course at the university media laboratory, which was designed for equipping students with basic computer knowledge and skills (e.g., how to start a computer, how to search for information on the Internet, and how to use Microsoft Office products for academic purposes). At the beginning of my sophomore year in university, I bought an inexpensive Lenovo laptop with Windows XP operating system installed. Along with what I had learned in the digital literacy course, this laptop with its stable campus-based Internet access immediately opened up a new world for me to learn English—in a more open, multimodal, attractive and efficient way.

I kept watching free videos of well-received teachers from all over the world teaching English phonetic symbols, intonation and other pronunciation strategies. As well, I participated enthusiastically in online informal learning practices, such as watching English movies/dramas/news, listening to English radio/songs/podcasts, and occasionally chatting with friends/acquaintances/strangers in English. During this process, my original affection for English that had almost been extinguished by disappointing classroom learning gradually came back.

For me, learning English was no longer something confined to classrooms. Instead, my contact with English was marvelously extended to my daily life. The boundaries between learning English and living with English were becoming blurred and muddled. I started viewing English as a language to communicate, a window on a wider world and a real, dynamic thing with which to engage with interest, love, care, patience and effort, rather than as a tricky academic subject that I had to deal with hopelessly. I then tried to be creative in how to express myself in English instead of strictly following grammatical prescriptions or mechanically applying what I had learned from textbooks or teachers as usual. More than ten years have elapsed since then, but I still remember the thrill of realizing I could create language.

The pleasant extracurricular learning experience with digital materials renewed my performance in classrooms. My attitudes towards mistake-making were shifting since I started to regard mistakes as potential for progress. Fear, shame, discouragement seemed to be fading away, and I changed—or returned—to being a happy, self-confident, active learner and class participant. What was even more exciting was that my transition to university was becoming smooth as the depressing black cloud that hung over my first year in university was taking on silver linings.

To be frank, I chose to major in Business English primarily out of the then popular belief that such a program would guarantee graduates a decent job. Nonetheless, with a deeper understanding and greater engagement with the program, the English classes turned out to be of more interest to me than the Business classes. I decided then to delve deep into understanding how the English language has come into being and what has happened in English language education, which led me to obtain a Master's degree in English linguistics and pursue doctoral research on learning English.

My learning experiences led me to wonder how digital technologies might engage rural Chinese students in learning English and whether new media might enable them to learn in ways that are often different than traditional language classrooms. This is how I embarked on an inquiry examining how digital literacies affect English language learning in rural areas of China where new technologies have mushroomed over the past decade in the context of globalization.

While I am interested in inquiring about the role digital technologies play in language learning, I do not intend to romanticize the digital or ignore the problems with it, i.e. unequal access to technology and quality instruction on digital literacies as well as growing phenomena of online harms (e.g., surveillance, privacy, trolling, hate, cyberbullying, and disinformation). Like some scholars of digital literacies (Ávila & Pandya, 2013; Pandya & Golden, 2018; Pangrazio & Sefton-Green, 2020; Prinsloo, 2005; Rowsell, Morrell & Alvermann, 2017), I take the stance that power relationships are embedded in digital learning environments, thus locating my study in a context where many rural students are struggling with access to basic digital tools, networks and/or instruction in the digital and facing emerging challenges and harms of the online world. I will elaborate on the issue of digital inequalities later on in the upcoming chapters.

1.2. The Context of This Study

In addition to my learning experiences described above, reading theories, academic publications alongside other texts such as news, census reports and social media has also alerted me to the necessity and significance of researching how rural Chinese students, English language education and digital literacies are linked. In the following section, I lay out four contextual issues that have emerged over the past years and greatly influenced the direction my interests in the current research topic have taken. By making connections among a wide range of realities, discourses, policies, learners, digital tools, sociocultural factors, and so on, this section maps out what it means to be rural Chinese ELLs in this digitalized and globalized era.

1.2.1. National Zeal for Learning English

English has been widely perceived as a global language (Crystal, 1997; Nunan, 2003) or an international language (Jenkins, 2000; McKay, 2002). This construction of English as a worldwide dominant language has been challenged by a number of scholars. For example, Makoni and Pennycook (2005) propose that languages and the metalanguages used to describe them are ideological constructions rather than discrete and enumerable categories. In this sense, "there is no such thing as English" (p. 137). Arguing English-speaking communities are not based on commonalities (e.g., a shared language or a shared grammar), Canagarajah (2007) de-legitimatizes a need for a common system to enable communication between different English-speaking communities. For their part, Kubota and Mckay (2013) challenge the construct of English as an international language as it does not correspond to multilingualism realities. As they explain, because of a growing number of non-English-speaking immigrants in countries such as Japan and China, there are increasing multilingual practices in local communities where English does not function as a shared language. Some scholars (Graddol, 1997, 2008) have even proposed the possibility that English may lose its current predominance in the future.

In the meantime, there is little sign that the worldwide expansion of English is abating for now. China is a good example, since "the current popularity of English in China is unprecedented . . . [and] the scale of the spread of English in China in recent decades has taken most observers by surprise" (Bolton & Graddol, 2012, p. 3). English

is increasingly emphasized as a priority foreign language and a compulsory academic subject at all levels of education in China. As stipulated in the *2011 English Curriculum Standard for Compulsory Education (义务教育英语课程标准)* (MoE, 2011), English should be introduced as an academic subject in Grade 3. As Hu and McKay (2012) point out, China is an important player in the global spread of English because this language has made great inroads in the country's educational systems—in both public and private sectors.

Chinese students are surrounded by sociocultural learning discourses that associate education with social mobility and career success. This is possibly linked to the continuing influences of Confucianism. According to ancient Chinese belief, as reflected in teachings of Confucianism, "nothing is superior to being educated" ("万般皆下品，唯有读书高"); learning equals fame and power as "one who excels in learning can be a government official" ("学而优则仕") and also equals fortune as "there are golden houses in books" ("书中自有黄金屋"). In this vein, learning English is driven by a widely-held belief that English is the language of success and speaking English is associated with cosmopolitan elites and the middle-class (Kubota & Mckay, 2009; Lee & Marshall, 2012; Lin, 1999; López-Gopar & Sughrua, 2014). Gao (2010) documents how "Chinese students have strong *instrumental* and *cultural* motivation for learning English" (p. 35, emphasis in original). As he explains, *instrumental* motivation refers to learners' use of the language as an information medium for material purposes such as immediate achievement, individual development, going abroad, whereas *cultural* motivation refers to learning a language for symbolic purposes such as interests, a desire to go abroad or social obligation (e.g., family expectations).

In keeping with these assumptions, Chinese ELLs may presume they will be denied success in education and career development if they are not proficient in English, and this has resulted in the belief that "examinations are the priority" in current English language teaching and learning (Pan, 2015, p. 99). In other words, achieving good grades at English examinations seems to be the main concern of many Chinese students. Accordingly, as Zeng (2018) documents in her study of Chinese undergraduates' experience of WELL (Web Enhanced Language Learning), many students learn English to meet academic requirements and they pay much attention to "linguistic features and grammar that would appear in major examinations" (p. 10).

1.2.2. Rural Students: Falling Behind in English Language Education

The national zeal for learning English does not exclude rural China. Although poorly resourced primary schools—most of them located in rural areas—are exempted from the obligation to provide English courses, English remains an academic subject in secondary education and plays a significant part in Gaokao (the National College Entrance Examination). To live up to parents' expectations of intergenerational upward social mobility, rural students set out on an arduous, rugged journey in learning English. It is more than likely that they will face many obstacles to learning efficiently and effectively, e.g., limited access to digital technologies and tailored learning resources, teachers' lack of professional competence and limited English language proficiency, a dominance of didactic pedagogy, and little exposure to the task-based language learning emphasized in the *2011 English Curriculum Standard* (MoE, 2011). As a result, their investment of time, money, and emotion in learning English is not as rewarding as they might expect. One needs only to scan the following statistics on rural students' chances of being admitted to colleges/universities to understand that their efforts to obtain a high mark in English are likely to be futile.

While many rural students learn English mainly for scoring highly in Gaokao, they are generally at a distinct disadvantage when competing with their urban peers in the examination. Since the 1990s, China started to embrace English fully (Bolton & Graddol, 2012; Nunan, 2003; Pan, 2015). Perhaps not coincidentally, at that point in time, the number of rural students enrolled in tertiary education and particularly into top-ranking universities was low and declining (Chen & Wei, 2013; Wang, 2013; Yang, 2006). For instance, Wang (2013) points out that in 2010, only 17% of students with rural origins were admitted to Tsinghua University whereas rural students accounted for 62% of all Gaokao test-takers. A project conducted by a scholar at Peking University shows that the proportion of rural students at that university has fallen from 3/10 in 1978-1998 to 1/10 in 2000-2013 (Southcn.com, 2013)[6]. As well, Liu et al. (2011) found that fewer than nine out of 100 students from the poorest rural areas in China have entered a tier one (first choice) or tier two (second choice) college.

[6] Note that the China Statistical Yearbook, complied by National Bureau of Statistics of China, does not offer statistics that relate to urban-rural differences in the realm of education. Therefore, the statistics cited here are not collected by an official government source.

Although there seems to be no related census data available, one could speculate that a lack of English proficiency may explain the lower admission rates of rural students to universities, given that English competency assessment takes up a considerable proportion (normally 20%) of Gaokao exam. Or possibly, the English varieties rural test takers are taught do not conform to those assessed by the national English assessment system.

While English is taken up in rural schools as an academic subject, it does not serve as a communication tool in rural communities, which is in contrast with the situation in cities where more foreigners are found who use English as a L1 or where it is used as a lingua franca in global communication. Admittedly, rural areas are experiencing some shifts from monolingual to multilingual practices with occasional marriages between Chinese men and women from some Southeast Asian countries and an increase of domestic migrant workers[7] who bring new languages/dialects[8] to local communities. This is particularly true in rural areas located in developed places and adjacent to big cities. However, in these locations, Putonghua (or the Common Speech, which is a variety of Mandarin Chinese and an official language of China) and the local languages/dialects are more likely to be used as lingua franca.

While English is rarely spoken in rural communities, rural students have access to English in virtual spaces either through consuming and/or producing online products (e.g., webpages, games, videos) or engaging in distance education. This is not surprising since, as Meurant (2010) puts it, the global spread of English makes the language highly visible in online resources, and "the primary uses of English by non-native speakers will, in future, increasingly and predominantly be computer-mediated" (p. 60).

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[7] There may also be some foreign migrant workers in these areas. However, there is little media attention or academic discussion of foreign migrant workers in the rural areas.

[8] According to Moseley (2010, p. 72), the definition of what constitutes a separate language is a major issue in classifying the languages of southern China, where there is a large number of endangered languages; Chinese linguists tend to classify as dialects what would be regarded as separate languages elsewhere. Actually, the ambiguities surrounding the distinction between languages and dialects are seen not only in the context of southern China, but also northern China.

1.2.3. Digital Divide Between Rural and Urban: Narrowing or Widening?

It is true that the gap between "digital haves and have-nots" (Rowsell et al, 2017, p. 157) still persists in the contemporary world and China is no exception. Yet, the Chinese government has been striving for a nationwide provision of digital technologies, especially in rural areas. According to *The 48th Statistical Report on Internet Development in China (English version)* (China Internet Network Information Centre [CINIC], 2021a), in June 2021 the number of Chinese netizens[9] was 1,011 million and rural netizens[10] was 297 million (29.4% of the total population). Among rural groups, 59.2% of the population had access to Internet mainly through mobile data traffic, and/or broadband with fixed or wireless connections to homes. The Report also showed that Chinese Internet users have increasingly engaged in the political movement of Internet-based poverty alleviation, which aimed to realize the full potential of the Internet to alleviate poverty in rural China. Indeed, achieving "the same Internet, the same speed" ("同网同速") between rural and urban has been set as an important political task in relieving poverty in rural China (Guangming daily, 2020).

Young rural Chinese students have become more Internet savvy, and they appeared to be active Internet participants. According to *The 2020 Report on Internet Usage of Minors (2020 年全国未成年人互联网使用情况研究报告)* (CINIC, 2021b), in 2020 the figure for Chinese minor netizens[11] reached 183 million, which represented 94.9% of the national population of this age group. The report showed that 94.7% of rural students were Internet users, which is not a significantly different number from urban students (95 %) who used the Internet.

It is noteworthy that many rural Chinese students relied heavily on mobile phones for digital literacy activities. As *The 2020 Report* (CINIC, 2021b) indicated, there was a significantly smaller proportion of rural students who used desktop computers, laptops

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[9] The 48th Statistical Report defines *netizens* as Chinese residents at the age of 6 or above who have used the Internet in the past 6 months.

[10] The 48th Report defines *rural netizens* as Internet users who have been living in rural areas of China in the past 6 months.

[11] The 2020 Report defines *Chinese minor netizens* as school (including primary school, middle school, high school, vocational high school, special school, and technical school) students between 6 and 18 years old.

and tablets than their urban peers (with a difference in ratio of 9%, 14.5% and 11% respectively), but a similar portion of the two groups accessed mobile phones (92.7% of rural students and 92% of urban students). As well, while rural children's digital literacy practices were mainly restricted to entertainment such as watching short videos, animations and cartoons, their urban peers were more interested in using the digital for multiple purposes such as gathering information, engaging in social media, watching the news, and shopping (CINIC, 2021b).

The growing national coverage of digital technologies is closely related to efforts China has made to integrate the Information and Communications Technology (ICT) in the educational systems of the country. According to Wang et al. (2018), since the 1990s, the Chinese government has invested significantly in the development of ICT, which is used interchangeably with e-learning in China, and it has initiated a series of policy moves to enhance reginal network penetration and promote e-learning in the country. In particular, these scholars discuss the *Rural Elementary and Secondary School Distance Education Project*, which was set out by the MoE in 2003 and aimed to reduce rural-urban educational inequalities in China by providing rural areas with quality educational resources via ICTs.

Indeed, the Chinese government has placed increasing emphasis on the importance of distance education or e-learning in modernizing China's educational systems. In 2018, the MoE launched the *Education Informatization 2.0 Project (教育信息化 2.0 行动计划)*. The primary goal of the project is to build an "Internet + Education" system in which by 2022, teaching software could be accessed by all teachers; learning software by all students; the construction of a "digital school" could cover all schools; and digital literacies of teachers and students could be generally improved (MoE, 2018). Such a system was expected to close the digital divide between rural and urban schools, and ultimately help the whole nation "win the tough battle against poverty" ("打赢脱贫攻坚战") (MoE, 2018)—a political slogan that has been highly visible in Chinese media over the past several years.

In light of these developments, the rural-urban gap in digital infrastructure seems to be narrowing in China. However, excitement around the provision of digital tools and network access may be tempered as less importance seems to be accorded to the quality of digital resources and how they are used. Connecting a rural region to the

Internet does not guarantee satisfying online learning experience for young students. After all, providing digital products is one thing and offering instruction on how to use them another. Indeed, in spite of significant achievements in digitalizing education, China has experienced a period of stagnation in e-learning development “due to facilities being unused, underused, or used only for demonstration purposes” (Zhang, 2014, as cited in Wang et al, 2018, p. 205).

Paradoxically, schools are encouraged to offer students new ways of learning assisted by digital technologies at the policy level but are often reluctant to take the initiative in changing traditional teaching practices. As evidenced in the warnings and sanctions placed on the digital introduced in the beginning of this chapter, many school authorities show little interest in integrating the digital into classrooms. In schools where new technologies are applied, some leaders “fail to recognize that technology in and of itself, may not have the inherent power to change teaching and learning practices” (Blackwell et al., 2014, p. 83).

Statistics drawn from *The 2019 Report on Internet Usage of Minors* (CINIC, 2020) support this argument. Few young Chinese students (25.7%) learned how to use digital resources at school and many more students (65.6%) learned to do so by themselves through trial and error (“依靠自己摸索”) (CINIC, 2020, p. 33). This indicates that, prior to the pandemic, many schools did not offer digital literacy instruction to their students. As well, while most students (89.6%) were involved in digital learning activities, many of them (45.5%) chose to do homework online—usually taking place in home environments. In fact, the majority of students (81.9%) were not allowed to bring mobile phones with them to school, although a large number of them had mobile phones of their own. Therefore, it seems that learning with digital tools is taking place mainly in outside-school settings and especially in home environments.

This is likely to reproduce regional inequalities in access to these powerful learning resources as rural learners might receive little or no instruction in online learning from parents who might work in distant cities. About two-thirds of Chinese children with rural residency are labelled as the so-called “left behind children” whose parents seek job opportunities in cities (Pissin, 2020). Even for rural students who live with their parents, they might be in the same situation as their “left behind” peers since their parents might not be proficient in using new media (Feng et al., 2021; Zhang, 2021). As

the literature on children's technology use in family contexts indicates, children's digital practices are strongly influenced by parental views on digital technology and their own practices with it (Edwards et al., 2017; Lauricella et al., 2015; Plowman, 2015; Ozturk & Ohi, 2018).

1.2.4. New Challenges for Rural Students: Learning English with Digital Resources

The aforementioned national zeal for learning English, together with the growing coverage of digital technology across China have been the catalyst for a thriving market of online English language education in the country. According to a report titled *The 2015-2020 China Digital English Language Learning Market* (Adkins, 2015), the Chinese "government-operated Pre K-12 segment was the largest buyer in the 2015 market" (p. 5) of digital English language learning products, followed by the U.S., South Korea, and Japan. This was also echoed by Wang et al. (2018) who indicated that "E-learning in China is mainly supported by the government" (p. 206). As suggested above, there is, however, little chance that rural students might be able to access those digital learning resources purchased by government for schools.

It also seems that rural students have limited access to learning English with digital resources in out-of-school settings. While in 2015 China had over 50,000 private English language schools and all of them tended to use digital language learning products, they were heavily concentrated in the most economically developed areas (Adkins, 2015). It is true that during the past several years, English language schools have been expanding their reach into small cities and remote areas, but I am skeptical about the number of rural students who can afford tuition in for-profit after-school institutions. As well, according to *The 2020 Report on Digital English Language Learning of Chinese Kids and Teenagers (2020 年中国在线青少儿英语教育行业研究报告)* (Aurora mobile, 2020), in 2020 only 5.6% of the Chinese parents who bought online English language learning content for their children were from small, remote and underdeveloped cities and areas (the original expression is "the Fifth-tier cities and below").

As discussed above, English has been enthusiastically integrated in China's educational systems, and young rural Chinese students are likely to fall behind in

English language education. While these rural students seem to have more access to digital technologies than before, there is little chance that they might receive instruction on digital literacies at school or home. As well, they face new challenges posed by an emerging market of learning English with digital resources across China.

These realities have informed the current study on young rural Chinese ELLs' digital literacies and led me to read theories in the field of language and literacy education. In the upcoming section, I will provide a brief overview of converging developments in scholarship on multimodality, multilinguality and materiality. In the next chapter, I will offer a more in-depth discussion of each body of work.

1.3. Paradigmatic Shifts in Language and Literacy Education

Over the past two decades, a sociocultural perspective on literacy as practice has led to a reconceptualization of literacy as literacies in the plural (Heath, 1983; Kantor, Miller & Fernie, 1992; Scribner & Cole, 1981; Street, 1984; Taylor, 1983). Literacy is no longer understood as a decontextualized skill set, but as "performing social acts of meaning mediated by the creation of texts, which subsequently vary according to contexts" (Bhatt, 2012, p. 290). Accordingly, literacy pedagogy has been reconceptualized as a pedagogy of multiliteracies highlighting linguistic and cultural diversity and the variety of texts forms linked to multimedia technologies (NLG, 1996). Multiliteracies researchers are likely to see "literacies" (in the plural) as a process of design. Design as a sequence of meaning-making actions is intrinsically multimodal, bringing together oral, written, visual, gestural, tactile and spatial modes (Kalantzis & Cope, 2012).

Multimodality is viewed as a theory of how different modes of expression are interconnected when we make meanings (Rowsell & Walsh, 2011). Theories of multimodality reconceptualize language as one among many different modes rather than a predominant and most widely used mode in communication and representation. Multimodality has become more evident with the rapidly-developing digital technologies, which are designed to configure multiple modes (e.g., images, writing, videos and sounds) within one digital text and quickly circulate these modal combinations via the Internet. Therefore, the ability to produce multimodal texts becomes an integral part of

digital literacy, or more accurately, digital literacies (in the plural). In keeping with the abovementioned theoretical view of literacy as social practice, digital literacy has been reconceptualized as digital literacies to emphasize the multimodality and diversity of practices of engaging with digital tools.

The emerging interest in multimodality and the plurality of literacy practices has also extended to applied linguistics and language education that have witnessed a "multi/plural turn" (Kubota, 2016), with increasing attention paid to the multiple, hybrid, dynamic, and fluid nature of languages and literacies. This thesis draws on the concept of "multilinguality" (Li, 2011) to describe multi/plurilingual practices. Traditionally, theories of multilinguality have been built upon a monolingual ideology that conceives of a multi/plurilingual speaker as developing a simple sum of separate, compartmentalized competencies in multiple languages, and an ideal multi/plurilingual speaker as one who communicates in each language as a "native speaker". In contrast, the current multi/plural perspective re-theorizes multilinguality as a single communicative repertoire composed of unevenly developed (or developing) competencies in languages, which are socially situated. This stance embraces the idea of multi/plurilingual competence as a combined whole that is greater than the sum of its parts. Believing there is no such thing as a clear-cut first language (L1), second language (L2), third language (L3) co-existing in one multi/plurilingual speaker, the newly developed theories of multilinguality revalues learners' L1 as treasured assets rather than problems in facilitating learning of additional languages (LX).

While the "multi/plural turn" has brought forth an array of seemingly analogous terminologies (presented in Chapter 2), discussions about plurilingualism (Lau & Van Viegen, 2020) and translanguaging (Li, 2018) as everyday realities, lenses, and pedagogies have increased considerably among language educators and researchers in recent years. The concept of translanguaging moves beyond so-called linguistic codes or named languages (usually national or state languages) that have neat, rigorous rules of grammar. It extends the discussion to include performances using what has traditionally been regarded as non-linguistic modes or semiotics resources. In this sense, this body of scholarship resonates with the idea of multimodality.

As the "verb+ing" structure implies, the term translanguaging foregrounds the flowing and dynamic nature of multi/plurilingual practices. This is also echoed in a

material turn that has been emerging in recent years with respect to material dimensions of social practices including language and literacy education. Various theories of the material (presented in Chapter 2) are united in their acknowledgement of the significant role nonhumans play in social and cultural practices and in their rejection of a hierarchical relationship between humans and nonhuman "others" that accords the former a superior ontological status over the latter.

The material turn encourages educational researchers who examine digital literacy environments to attend to the relationships formed between human and nonhuman bodies in these contexts (e.g., Dagenais et al., 2017; Dagenais et al., 2020; Toohey & Dagenais, 2015; Toohey et al., 2015; Smythe et al., 2017). According to this scholarship on materiality, nonhuman materials around and within digital learning environments are not inert tools awaiting selection by research participants and researchers for their own purposes. Rather, they are seen as "active agents that are dynamically constructing discourse and reality" (Lenz Taguchi, 2010, as cited in Kuby & Gutshall Rucker, 2016, p. 41). As Dagenais et al. (2017, p. 278) explain,

> Educational researchers aligned with the perspective examine closely how physical locations; the materials available (furniture, books, paper, computers, iPads, and so on); discourses on the nature of knowledge, languages, and learning (materialized in books, curriculum documents, and so on); political, educational, and economic policies; human bodies; and so on, are 'entangled' with one another and how those entanglements perform together to create educational events or phenomena.

1.4. Research Questions

Inspired by my personal experience of learning English in rural China, my study aims to explore the complexity of learning English with digital resources in a rural village in Northeast China. Building on theories of multimodality, multilinguality and materiality, my study focuses on practices of digital literacies in foreign language learning as multimodal and multilingual processes that are material, fluid, and dynamic. In particular, I take the perspective that students are not the sole agentic actors in learning environments but that these are suffused with a myriad of vital materials that have their own "thing-power" (Bennett, 2010). In other words, nonhuman materials including digital tools are active agents in shaping language and literacy practices.

While such language and literacy practices are not rare among children in some urban educational settings in China today, my review of the literature on English language learning and digital literacies in that country reveals that there is scarce research on how digital technologies are taken up by young rural Chinese children who are learning English and even less information is available on how they are doing so in beyond-classroom settings. My study aims to fill this gap in the literature by investigating the following initial research question:

- How do children engage with digital literacy activities in informal English language learning environments in rural China?

As I moved through the research process, I became aware that this question is rooted in a humanist understanding of humans as the focus of inquiry. In this process, the initial research question above has evolved into the following:

- How do digital literacy activities, informal English language learning environments, and rural China engage with children?
- How do digital literacy activities, informal English language learning environments, rural China and children engage with one another?

The following sub-questions have emerged as I engaged in the process of "thinking with theory" (Jackson & Mazzei, 2018) during and after fieldwork and (re)visited my research data:

- How do digital technologies offer children different language learning opportunities from those offered at school?
- What human-material relations emerge when children learn English with digital resources and how do these relations affect language and literacy learning?
- What insights might theories of multimodality, multilinguality, and materiality offer in analyzing how children learn English with digital resources in rural informal education settings?

1.5. Overview of the Chapters to Follow

To respond to these questions, Chapter 2 provides a more in-depth discussion of the concepts referred to in this chapter (Section 1.3) that have worked together to form the theoretical framework for my study. I see these concepts as forces that I can think with, and they are active in shaping my thinking and my researching practices.

Chapter 3 discusses the post-qualitative methodology that I experimented with in carrying out my study. It explains, in detail, my stance that research is an ongoing process of doing, becoming and mattering in relationships formed among theories, discourses, data, fieldwork, participants, the researcher, research tools, etc. It then introduces my researching process including the selection of research sites and participants, data coproduction and data analysis.

Chapters 4-6 focus on how multimodality, multilinguality, and materiality were implicated in human-material encounters arising in events of digital literacies in my participants' English language learning, including digital storybook reading, English vocabulary learning and movie clip dubbing that were strung together by a Cinderella thread (Chapter 4), digital storytelling (Chapter 5) and remote academic learning during the COVID-19 pandemic (Chapter 6).

Chapter 7 gathers together ideas and intensities emerging in the preceding chapters to respond to research questions presented in this chapter (Section 1.4). However, it is not aimed at drawing conclusions or generalizing findings from my documentation; rather, it creates a space for me to think more deeply with theories and data. I call such a practice a conclusion without conclusions.

Chapter 2.

Theoretical Framework

This chapter presents in greater depth the concepts and perspectives referred to in Chapter 1 that have informed my thinking and shaped the theoretical framework of this study. In what follows, I first explain how a sociocultural perspective on digital literacies, with the concept of digital inequalities, orients my view of power relations embedded in practices of meaning-making mediated by digital technologies. I then present a review of literature on multimodality, multilinguality and materiality, to show how these concepts are mobilized in my theoretical framework. I close this chapter by proposing a sociomaterial perspective on digital literacies, digital inequalities, multimodality and multilinguality that is inclusive of both sociocultural insights and materialities. In doing this, I discuss how converging developments in scholarship on these topics have inspired my study that addresses digital literacies in foreign language learning.

2.1. Digital Literacies

A sociocultural perspective on literacy as practice has led to a reconceptualization of digital literacy as digital literacies in the plural. As I explain below, the digital or instruction in it are not universally accessible to all and new digital media may actually intensify inequalities between groups of learners.

2.1.1. A Sociocultural Perspective on Literacy as Practice

Language and literacy studies have witnessed a “sociocultural turn” (Johnson, 2006; Knoester, 2011) that began in the late 1970s and has been more dramatic since the 1990s. In studies adopting a sociocultural perspective, language and literacy are social practices “conditioned by other, non-linguistic, parts of society” (Fairclough, 2001, p. 20). This theoretical perspective is well represented in a line of scholarship that came to be known as the New Literacy Studies, which drew on the Bakhtinian notion of language as socially constructed (Bakhtin et al., 1986). Researchers who work within the New Literacy Studies challenge traditional notions of literacy as a set of cognitive,

autonomous, determined and decontextualized skills used to encode and decode print-based texts. Rather, they conceptualize literacy in the plural (literacies) as practices that are socially, culturally, historically and spatially situated (e.g., Kantor et al., 1992; Scribner & Cole, 1981; Street, 1984). Proposing the notion of Discourse (with a capital "D") to foreground social contexts of language, Gee (2008) argues that languages and literacies have little meaning outside of Discourses, and people using different social languages and engaging in different literacies are implicated in different Discourses. As well, he uses discourse (with a small "d") to refer to "language in use or connected stretches of language that make sense" (p. 154), suggesting discourse is part of Discourse that encompasses more than language.

In keeping with this theoretical view of literacy as social practice, there has been a paradigmatic shift in the literature to reconceptualizing digital literacy in terms of a plurality of practices (digital literacies). Earlier approaches took a functional view or a "technical skills view" (Bawden, 2008) of digital literacy consistent with the view of literacy as a skill set centered individuals' technical ability to deal with information on digital platforms. According to this latter perspective, digital literacy is about mastering measurable skills and competences and this functional view is still present in some literature on digital literacy education. For example, in their study of how digital-assisted teaching and learning are perceived and practiced, He and Wray (2017) propose curricular activities integrating digital devices in two classes in urban China to help students "search for related subject information to broaden their knowledge and boost their critical thinking" (p. 240). In their work, students' digital literacy is restricted to a technical ability to search for information and students are framed as media consumers rather than producers who might produce or design digital texts. In a similar vein, Castilla et al. (2018) examine how a social network with multiple applications can be used as a digital literacy method for elderly users in a rural area in Spain. They see digital literacy as the ability of users to read information in a digital environment and perform "tasks specific to this type of information, such as selecting what sections of text to read, reading order, acquiring text structure" (Castilla et al., 2018, p. 25).

According to Bhatt (2015), this view of literacy as a skills-based practice has developed in response to the requirements of the ICT industries. It has impacted policy discourses on "initiatives to 'upskill' and 'train' staff and students of educational institutions in how to develop their digital literacy" (Bhatt et al., 2015, p. 481). In China for

instance, the *10-Year (2011–2020) Development Plan for Integrating Information Technology into Education (教育信息化十年发展规划)* (MoE, 2012) views primary and secondary students' skills in proposing, analyzing and solving problems emerging from networked environments as an important indicator of digital literacy ("增强学生在网络环境下提出问题、分析问题和解决问题的能力").

In contrast, a conceptualization of the plurality of digital literacies takes a broader lens by defining these practices as "a shorthand for the myriad social practices and conceptions of engaging in meaning making mediated by texts that are produced, received, distributed, exchanged, etc., via digital codification" (Lankshear & Knobel, 2008, p. 5). From a sociocultural perspective, digital texts (and also conventional types of paper-based texts) vary according to context; they are instantiations of particular practices by specific groups, taking multiple forms/modes of expression such as text messages, blogs, emails, video games, webpages, forums, music, movies, photographs, social network sites and so on and so forth. Digital literacies are thus viewed "as being inextricably and contextually linked to cultural, political and hegemonic power structures" (Rantala & Suoranta, 2008, p. 96). Anchored in critical theories, this scholarship taking up a sociocultural perspective examines issues of digital inequalities, attending to how power relations are formed in practices of digital literacies.

2.1.2. Digital Inequalities

There is a well-established body of literature, especially in the field of distance education, indicating digital technologies can be used to help marginalized learners and thus reduce educational inequalities and injustices (e.g., McQuaide, 2009; Rabbi & Arefin, 2006; Robinson, 2008). Other literature documents how these technologies may (re)produce social and educational inequalities (Garcia et al, in press, as cited in Golden, 2017). It describes how inequalities in education have not yet been fundamentally transformed by the application of digital technologies, and suggests in fact that in many communities the inequalities have intensified in the last decades. In this sense, digital literacies as situated social practices that go beyond mastery of basic technical skills cannot be seen as universally accessible.

As Lankshear and Knobel (2008) have shown, children of wealthier families are more likely to take positive stances toward technologies and tech-savvy identities, which

creates “a new equity gap involving skills and identities that may be crucially tied to success in the contemporary world” (p.13). Examining how power shapes the development and practice of digital literacies, Warschauer (2009) contends that studies of the evolving nature of digital literacies should take into account the dynamics of race, class and gender. I would add that geographic location should also be considered as an important factor to examine in the study of digital inequalities, since the divide between the globalized core and periphery countries and between urban and rural areas has been exacerbated with the onset of new technologies according to Prinsloo (2005), a South African scholar.

In their discussion of the “digital divide”, Rowsell et al. (2017) deconstruct the discourse on a “brave new world” (the title of Aldous Huxley’s book published in 1932) that romanticizes a digital world where access to technologies is available to everyone and broadly neglects “those who do not have such digital literacies” (p. 157). In particular, they challenge this discourse in terms of its focus on the Global North and the failure to account for access inequalities and technological constraints in the Global South.

This calls to mind a line of research that examines new/digital literacies as placed resources (Prinsloo, 2005; Prinsloo & Rowsell, 2012; Rowsell et al., 2016), which highlights some of the constraints of digital technologies in the globalized periphery that determine whether and how these resources are used. In this sense, digital literacies are situated in local relations shaped by larger social contexts where access to resources is inextricably intertwined with power distribution. This view of literacies as placed resources set against the backdrop of globalization is well documented in a special issue of *Language and Education* (2012) on digital literacies, which reports on several studies showing how digital media is taken up in global and social periphery settings, especially in rural areas in the Global South (e.g., Auld et al., 2012; Chemjor & Early, 2012; Kendrick et al., 2012; Walton & Pallitt, 2012).

Researchers who take a stance on “digital literacies as placed resources in the globalised periphery” (Prinsloo & Rowsell, 2012, p. 271) do not examine digital inequalities exclusively on a global scale, but also within national contexts where socioeconomic differences among urban and rural children are significant. The gap is widening in the digital literacies adopted by rural children from low socioeconomic status

families and their urban peers, who are likely to enjoy a privileged socioeconomic status, particularly with respect to issues of access to digital technologies, adult guidance, proficiency in digital skills, and critical engagement with digital texts (Rowsell et al., 2017; Thomas, 2008).

In their study examining how the digital divide affects the academic and psychological development of children from low-income families in Shanghai, China, Yu et al. (2015) report that the urban-rural digital divide might be exacerbating digital exclusion. They call on researchers to attend to the digital inclusion of rural children designated as from low socioeconomic backgrounds. According to Oyedemi (2012), students in rural South Africa “are the most disadvantaged in terms of access to technology” (p. 360), as the majority of them do not have computers (66.7% of the student population) or internet access (83.7% of the student population) at home. Oyedemi (2015) points out such urban-rural digital inequalities in South Africa will have a long-term effect on the rural youth and “may further disadvantage them in effectively participating as citizens in society” (p. 452).

There seems to be an urgent need, therefore, to increase students’ access to high-quality digital resources and digital education in rural schools and communities. Seeking more funding for equipping rural students with digital tools and networks is not a panacea though. Simply ensuring technologies are available does not necessarily mean children are provided with learning experiences that are qualitatively different from those that rely only on paper and pencil (Ávila & Pandya, 2013). Rather, students “need—just as they do for books—adult mentoring and rich learning systems built around the technologies, otherwise the full potential of these technologies is not realized for these children” (Gee, 2007, as cited in Lankshear & Knobel, 2008, p. 13). In sum, provision of technologies alone cannot reduce educational inequalities (Beavis, 2010).

Indeed, some literature questions the merits of applying digital technologies as a remedy for educational injustices, especially in the Global South where schools need to pay additional costs for these technologies without satisfactory educational returns on their investment. For instance, Prinsloo (2005) describes a “digital divide logic”, which assumes that digital literacies bring undifferentiated social and cognitive changes when they are introduced to low socioeconomic status groups. Criticizing the overemphasis on access to computers and Internet that overshadows other factors enabling people to

engage more meaningfully in ICT, he argues computers become “exotic and dysfunctional resources when they are inserted into an educational context where they do not have a significant part to play in relation to the social and technological practices that characterize that context” (Prinsloo, 2005, n.p.). According to Wang et al. (2018), issues of digital resources being unused, underused, abused or disused are also documented in China. As they argue, while this country has achieved much in bridging the rural-urban divide in terms of digital infrastructure for e-learning, “hardware maintenance, software updates and rising costs have impeded the full realization of information technology in teaching” (p. 197). Gulati (2008) also points out how developing countries have implemented technology-facilitated education projects to achieve equitable and extended educational opportunities for educationally deprived populations, but their efforts often widen gender gaps and divides between rich and poor, urban and rural.

In addition to conceptualizing digital literacies as placed resources and adopting a critical approach in their studies of digital literacies, some researchers also question whose digital literacies are privileged in education (e.g., Ávila & Pandya, 2013; Golden, 2017; Pandya & Golden, 2018; Pangrazio, 2016). In his work on hacker literacies “characterized simultaneously by criticality and participation” (p. 197), Santo (2013) proposes “critical media literacy” as a framework for studying media literacy as a response to the explosion of broadcast media (e.g., TV, radio, film, and the press) in the 20th century, which brought new opportunities to access the wider world and risks such as political bias and propagation of problematic stereotypes. According to him, critical media literacy aims to empower “young people in relation to the messages of mass media” and asks them to interrogate “the intent, assumptions, and biases of media producers” (p. 198).

It is noteworthy that Santo seems to use media literacy as a synonym for digital literacy, as both terms appear in his discussion without distinction. Emerged in the 1970s, media literacy has been concerned with how to protect students from media manipulation as well as how to empower them in evaluating and producing media messages (Nichols & Stornaiuolo, 2019). While media literacy and digital literacy are closely related and often used together as “digital and media literacy”, they have different connotations. Media literacy is typically associated with critical engagement with new media while digital literacy is often perceived as skills or competences to use digital

technologies (Hobbs, 2010). These two terms have traditionally been approached differently in the field of education. According to Media Smarts (n.d.), a Canadian Centre for Digital and Media Literacy that offers resources for teachers and parents, “media literacy generally focuses on teaching youth to be critically engaged consumers of media, while digital literacy is more about enabling youth to participate in digital media in wise, safe and ethical ways (n.p.).” It appears that this understanding adopts the functional view of digital literacy, since it focuses “on individuals’ skills and competencies” (Bhatt, 2012, p. 290) and perceive “literacies as simply more ‘technologised’ due to new media” (Bhatt et al., 2015, p. 481).

Possibly in response to this inherent detachment of criticality from digital literacy, a body of studies broadly termed as “critical digital literacies” has emerged in the literature. Critical pedagogy and digital literacy are natural allies as they offer students opportunities to develop critical consciousness when analyzing popular media texts and also to “move from being passive consumers to engaged producers and participants of digital media” (Talib, 2018, p. 58). In this vein, Ávila and Pandya (2013) draw mainly on Freire’s (2000) understanding of critical literacies to point out that “critical literacies praxis”—being in practice and in evolution—aims to “investigate manifestations of power relations in texts, and to design, and in some cases redesign, texts in ways that serve other, less powerful interests” (p. 2). According to these scholars, critical literacies engage with language in a way that requires consumers and designers of texts to interrogate them rather than only attributing meaning to them. They conceptualize digital literacies as “practices in which people use technological tools to engage with, respond to, and create both text-based and multimodal forms of literacies” (p. 3). As a combination of critical and digital literacies, critical digital literacies are then understood to be skills and practices used to create digital texts that interrogate the latter and the world. They offer potential for classroom transformation by involving learners who might be reluctant to engage in traditional literacy practices. In this sense, critical digital literacies are concerned not only with empowerment *in relation to* media (interrogation of digital texts) but also with issues of empowerment *through* media (interrogating the world, reaching leaners not interested in print-based literacies) and participation in media (designing/making/creating/producing digital texts).

Pangrazio’s (2016) description of a recent design turn in literacy studies also foregrounds learners as designers and producers of digital texts. It “loosely refers to the

idea that unpacking and examining the processes of digital design in an educational setting lead the learner to a critical and practical knowledge of digital text production—a critical digital literacy" (p. 166). As Pangrazio (2016) soberly points out, while individuals are empowered in their creation of digital texts, a design approach often fetishizes creativity in a digital context and remains silent on the criticality of political and ethical issues. To embed critical thinking in digital design, she proposes a model of "critical digital design", which is deliberately constructed to capture a comprehensive, nuanced understanding of contextual factors (e.g., discourse, ideology and power relationships) surrounding digital design.

Like Pangrazio (2016), Golden (2017) calls on researchers to go beyond individuals' creative design work and use of "pretty toys" (or digital tools), arguing critical digital literacies should take into account enactments—in the form of software—beneath the screen. Golden (2017) argues software should be understood as semiotic activities and linguistic constructs that are not value free but can enact interests and ideologies across digital literacy activities to exert influence on local relations.

The subscreenic dimension of digital literacy practices is also documented in a line of scholarship on data literacy(ies), as a new strand of digital literacies that has emerged in response to the increasing challenges of datafication—the transformation of online social activities into data points that can be collected, analyzed and commodified (Pangrazio & Sefton-Green, 2020; Pangrazio & Sefton-Green, 2021; Pangrazio & Selwyn, 2019). Data literacy pedagogies generally focus on developing individuals' critical awareness of datafication processes and providing them with strategies to resist dataveillance and commercial profiling.

Some researchers extend their discussion of critical digital literacies to include sociopolitical and socioeconomic dynamics. For example, Emejulu and McGregor (2019) embrace a politically informed understanding of the digital and argue for a "radical digital citizenship" in digital education. These scholars encourage digital users to become citizens committed to social justice by critically analysing "the social, political and economic consequences of digital technologies in everyday life" (Emejulu & McGregor, 2019, p. 140). Nichols and Stornaiuolo (2019) propose a multidimensional framework of digital literacies that is aimed at addressing the political and economic challenges raised

by connective media and mobile technologies. As Nichols and Stornaiuolo (2019, p. 20) explain,

> The framework not only opens "technology" to include the technical infrastructures that constitute it (hardware, data, algorithms, protocols, defaults), but also . . . to pair the socio-economic dimension (ownership, governance, business model) with the socio-technical (users, technology, content). In doing so, it foregrounds the imbrication of production and consumption that occurs when these components are layered together.

This literature on critical digital literacies and in particular design recalls a construct that has come to be known as multimodality. While design has been over-emphasized in recent digital literacy studies, it also figures largely in publications on multimodality. In fact, as Rowsell and Collier (2016) point out, the two terms "have been used in almost synonymous ways" (p. 10). In what follows, I offer a review of the literature on multimodality.

2.2. Theories of Multimodality

In this section I explain how theories of multimodality lead to a pedagogy of multiliteracies in language and literacy education that acknowledges the multimodal nature of situated literacy practices. I then discuss how the affordances of multimodal and digital literacies open a new landscape for language education. In particular, I present a review of literature on the potential of digital storytelling in facilitating L2/LX learning, to show how these studies have encouraged me to start a digital storytelling project in my study.

2.2.1. Multimodality and Multiliteracies

Nonlinguistic modes were explored in linguistics, semiotics and sociology well before the term multimodality became widely adopted, as evident in Saussure (1959), Halliday (1985) as well as Hodge and Kress (1988). During the period of early development of multimodality (in the late 1990s), Goodwin (2000) in the US, who worked with ethnography and conversation analysis, was often cited alongside Kress and van Leeuwen (2001) who worked in the tradition of social semiotics in the UK. Several years after the publication of Hodge and Kress's (1998) work, more scholars in language and literacy education became interested the idea of multimodality and by the turn of the

20th century, diverse approaches to the study of multimodality emerged and the multiliteracies framework initiated by the NLG (1996) was a prominent one.

In the manifesto *A Pedagogy of Multiliteracies: Designing Social Futures* (NLG, 1996), literacy is reframed as literacies that are multimodal designs produced in multiple, wide-ranging, dynamic and situated social practices. Accordingly, literacy pedagogy, which "has traditionally meant teaching and learning to read and write in page-bound, official, standard forms of the national language" (pp. 60-61), is reconceptualized as a pedagogy of multiliteracies that highlights linguistic and cultural diversity and the variety of text forms linked to multimedia technologies (NLG, 1996). The NLG scholars introduce "Design" as the key concept of the multiliteracies pedagogy, in which we are "active designers of meaning" (p. 65) and "*curriculum is a design for social futures*" (p. 73, emphasis in original). Kalantzis and Cope (2012), two scholars commonly identified as leading proponents of the tenets of multiliteracies, argue for a duality in meaning of the term "design": Design can be used as a noun when referring to the study of meaning-making structures, and it can also be used as a verb when linked to a sequence of meaning-making actions. Design as meaning-making process is intrinsically multimodal, "bringing together written, visual, spatial, tactile, gestural, audio and oral modes" (Kalantzis & Cope, 2012, p. 173).

While the idea of multiliteracies is frequently taken up as an approach to pedagogy that "simultaneously accounts for linguistic diversity and the use of multimodalities in communication", multimodality is seen as a theory of how different modes of expression are interconnected when we make meanings (Rowsell & Walsh, 2011, p. 56). Although design is closely associated with multimodality, using the two terms as synonymous is problematic. Albeit integral to the pedagogies of multiliteracies, design is only one part of multimodal literacies, and "the primary challenge of multimodal approaches and research has been to tease apart design and multimodality" (Rowsell & Collier, 2016, p. 10). The multiliteracies framework helped shape three key premises of multimodality, which are helpfully sketched out in Jewitt et al. (2016, p. 3) as follows:

(1) Meaning is made with different semiotics resources, each offering distinct potentialities and limitations;

(2) meaning making involves the production of multimodal wholes;

(3) if we want to study meaning, we need to attend to all semiotics resources being used to make a complete whole.

It is apparent that multimodal theories challenge traditional assumptions of spoken and written language as prior, predominant, and most widely used semiotic resources/modes[12] in communication and representation. Multimodal theorists do not deny the significance of language in making meaning. Rather, they strive to reconceptualize language as "part of a bigger whole, namely a 'text' that is made with a number of different modes" (Jewitt et al., 2016, p. 24). They argue our meaning-making practices arise from a full range of communicational modes (e.g., language, image, gesture, sound, facial expression, gaze, and posture) that are intertwined as multimodal wholes and far beyond what any mode can achieve alone. Therefore, what matters is to understand meaning-making as multimodal wholes rather than to identify every mode that is at work. Indeed, multimodal researchers generally avoid making clear boundaries between different modes (Jewitt et al., 2016). This is because semiotic modes and resources are inseparably, materially and dynamically entangled, which leads to "a more activity-oriented, spontaneously creative and processual notion of how it is that meanings are made" (Toohey & Smythe, 2021, p. 6).

In keeping with this perspective, Lin et al. (2021) propose the notion pedagogy of multiliteracies II (PoM II) to respond to emerging changes of social, semiotic, technical and material contexts after the publication of *A Pedagogy of Multiliteracies* (NLG, 1996) (PoM-I). Focusing "on destabilizing, crossing and ultimately deconstructing various boundaries that are sociohistorically constructed", PoM II infuses PoM-I with new theoretical developments in language and literacy education, such as plurilingualism, translanguaging, and materialist stances on languages and literacies (Lin et al., 2021, p. 16). I will discuss these theories and their convergence with multimodality in more detail later on in this chapter.

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[12] Jewitt et al. (2016) (as well as many other multimodal researchers) tend to use "mode" and "semiotic resource" without distinction; they define mode/semiotic resource as "a set of resources, shaped over time by socially and culturally organized communities, for making meaning" (p. 15). However, this is not unproblematic for some scholars. In their discussion of contemporary issues in translanguaging, Lin et al. (2020) touch upon a talk Halliday gave in the University of Hong Kong, when he expressed a preference for the term "trans-semiotic" rather than "multimodality." To complement Halliday's perspective, Lemke argues that there is a lot of arbitrariness in defining "mode" or "modality," while it is much easier and more precise to define the notion of semiotic resource that is more open to a dynamic approach.

2.2.2. Multimodal and Digital Literacies

Researchers have generally acknowledged that multimodality is not a new phenomenon, but has become more evident with the rapidly-developing, intrinsically multimodal digital technologies. The availability of digital tools has dramatically changed the way we access to combinations of meaning-making modes and today even young children can create multimodal digital texts (Toohey et al., 2015). Although "multimodality does not necessarily utilize digital technologies" (Lotherington & Jenson, 2011, p. 227), the affordances of digital multimedia technologies encourage multimodal forms of expression, which are designed to configure multiple modes (e.g., images, writing, videos and sounds) within one digital text and quickly circulate these modal combinations via the Internet. New forms of communication and representation facilitated by emerging digital media break the separation of semiotic means established since the invention of writing and printing on paper, thus helping to synchronize an epistemology of meaning-making (i.e., ways of knowing in multimodal meaning-making) with an ontology of meaning-making (i.e., ways of being multimodal meaning-makers).

Indeed, "multimodality has lent itself to research in digital worlds" (Marsh, 2005, as cited in Rowsell & Collier, 2016, p. 9), and the interplay between multimodality and digital technologies has been well documented in the literature (Jewitt, 2006; Jewitt, 2008; Jewitt, 2013a; Jewitt, 2013b; Rowsell, 2013; Talib, 2018; Wohlwend & Thiel, 2019). Earlier scholarship on digital literacies tended to adopt a design approach, which foregrounds not only the multimodal nature of contemporary composing, but also "a change in disposition towards writers as 'designers' of texts" (Bhatt, 2012, p. 290). As discussed above, some literature on critical digital literacies (Golden, 2017; Pangrazio, 2016) questions the overemphasis on designers' creativity in some design discourses.

Recognizing that the affordances of multimodal and digital literacies open a new landscape for language education, a number of researchers and practitioners has been exploring how to break with the tradition of print-based practices in teaching and learning. In the field of applied linguistics and TESOL, there has been a fair amount of research on multimodal literacies investigating the potentials and difficulties of employing multimodal literacies in teaching and learning English as an additional language through digital storytelling, social media, multimedia posters, and PowerPoint (Yi et al., 2019). While all these multimodal media offer their own distinct possibilities, digital storytelling

seems to be one of the most widely used approaches as it is “a suitable context for digital literacy development” (Churchill, 2020, p. 273) and “a means of nurturing and reflecting multiliteracies in practice” (Anderson et al., 2018, p. 195).

Digital storytelling is loosely defined as “the whole range of personal stories now being told in potentially public form using digital media” (Couldry, 2008, as cited in Davis et al., 2018, p. 41). It has been happening in various modes/forms and across a wide range of platforms including blogs, digital archives, video-editing apps as well as social media platforms such as Facebook, Twitter, Instagram, YouTube and TikTok (Davis et al., 2018; Johnson, 2018). Being aware of this growing availability offered by multiple platforms, Jordan (2020) puts forward the notion of postdigital storytelling as “code, data, narrative and performance” (p. 2) that highlights the porous and fluid boundaries between the digital and the non-digital. In particular, Jordan (2020) expands understanding of digital storytelling as individual-centered to include collaborative and participatory stories.

There is a large body of scholarship that investigates the potential of digital storytelling in facilitating L2/LX learning, especially in the arena of English as a second language (ESL) or English as a foreign language (EFL) learning (Churchill, 2016; Dagenais et al., 2017; Darvin, 2016; Darvin & Norton, 2014; Meurant, 2010; Miller, 2007; Moradi & Chen, 2019; Rowsell et al., 2016; Toohey et al., 2015; Ware, 2008; Yang et al., 2020; Yeh & Mitric, 2019). This scholarship has encouraged me to initiate a digital storytelling project (in the form of video making) involving two rural Chinese girls, which I will discuss further later on in Chapter 5.

Digital storytelling, which foregrounds the idea of language learners creating multimodal texts with the assistance of new media, is found to “be especially useful and powerful for students who had quite limited speaking and writing skills” (Hur & Suh, 2012, as cited in Yi et al., 2019, p. 165). In addition, digital storytelling practices in language classrooms are likely to bring forth students’ L1 linguistic and cultural repertoires as is evident in multi/plurilingual pedagogies developed recently in second/additional language education (e.g., Cenoz & Gorter, 2013; Dagenais, 2013; Lin, 2013; Stille & Cummins, 2013; Kubota, 2016), which view the L1 as a potential resource rather than a barrier in L2/LX learning. For instance, Toohey et al. (2012) as well as Toohey et al. (2015) examine how video-making (as a form of digital storytelling) helps

ELLs who speak minority languages engage in multimodal literacy practices in which their L1 resources are highlighted. Rowsell et al. (2016) also argue young ELLs should be encouraged to use their heritage languages when learning to compose E-books with iPads and digital cameras in classrooms. Supporting use of heritage languages helps children "incorporate their home and community experiences into school literacy activities" (Rowsell et al., p. 123).

Researching multimodality and multilinguality together is understandable as they share close theoretical and empirical connections, which I will discuss further in the following section.

2.3. Theories of Multilinguality

In this section I introduce a multi/plural turn in language education, theories of plurilingualism and translanguaging, and show the connection between translanguaging and multimodality.

2.3.1. A Multi/Plural Turn

In applied linguistics and language education, increasing attention has been paid to the multiple, hybrid, dynamic, and fluid nature of language and language learning. This research interest has come to be known as the "multilingual turn" (May, 2013) or the "multi/plural turn" (Kubota, 2016). It has produced an array of seemingly analogous terminologies, such as multilingualism, plurilingualism, codeswitching/code-mixing, code-meshing, translanguaging, and metrolingualism. Albeit with different foci, these terms overlap to varying degrees in challenging monolingual ideologies and the native-speaker norm that have their roots in a traditional view of language as unitary, bounded, fixed, standardized and labeled.

Traditionally, theories of "multilinguality" (Li, 2011) or multi/plurilingual practices were constructed on a monolingual ideology that assumed a multi/plurilingual speaker develops a simple sum of separate, compartmentalized competencies in multiple languages and accordingly, an ideal multi/plurilingual would be one who speaks each language as a "native speaker" being "the most qualified provider of the purest kind of standard language skills and knowledge" (Lin, 2013, p. 525). Such native-speakerism

suggests a deficit-oriented perspective of multi/plurilingual speakers as being incompetent and substandard in target languages (Moore et al., 2020).

In contrast, the current multi/plural trend reconceptualizes multilinguality as a single, mixed synthesis of language repertoire composed of unevenly developed (or developing) and socially situated languages. This embraces the idea of multi/plurilingual competence as a combined whole that is greater than the sum of its parts. This paradigmatic shift in theorizing multilinguality can be traced back to the *Common European Framework of Reference for Languages* (CEFR) (Council of Europe, 2001), which introduced a plurilingual pedagogy with the following aim of language learning:

> It is no longer seen as simply to achieve "mastery" of one or two, or even three languages, each taken in isolation, with the "ideal native speaker" as the ultimate model. Instead, the aim is to develop a linguistic repertory, in which all linguistic abilities have a place. (Council of Europe, 2001, as cited in Kubota, 2020, p. 306)

As briefly mentioned earlier, the newly developed theories of multilinguality also re-examine an age-old controversy of what role the L1 plays in teaching and learning a L2 or additional languages (LX). Pedagogies underpinned by monolingual ideologies have a strong tendency to discourage the L1 use in the L2 classrooms, believing mastery of the L2 is closely related to exposure to the L2 and thus viewing L1 as "the major problem in the process of acquiring the L2 due to its negative transfer to the learning of the L2" (Wang, 2019, p. 45). By contrast, believing there is no such thing as a clear-cut L1 and L2/LX co-existing in one multi/plurilingual person, the renewal of theoretical interests in multilinguality (re)values learners' L1 as treasured assets to facilitate learning L2/LX.

2.3.2. Plurilingualism and Translanguaging

While numerous terminologies mushroom with the "multi/plural turn", they all suggest a heteroglossic view of multilinguality has been emerging over the years and is particularly evident in recent discussions about plurilingualism, multilingualism and translanguaging. The term plurilingualism first appeared in documents of the Council of Europe published in French in the 1990s, and the English translation was only released in 2009 (Moore et al., 2020). When the English translation appeared, most scholars writing in English still used the term multilingualism to reference individual competencies

and practices. It is only recently that some have begun to use plurilingualism in the same way it is used in the French literature.

Plurilingualism is closely associated with multilingualism (a more commonly used term in English), and according to Marshall and Moore (2018), the two concepts reveal close parallels. Both foreground sociolinguistic phenomena where two or three or more languages are used for communication, and “plurilingualism can be seen as little more than a translation of multilingualism” (Marshall & Moore, 2018, p. 3). These scholars also point out how the two terms have been used differently in French to reference individual and societal multilingualism. Sociolinguists in France initially proposed the term plurilingual to refer to competence, repertoire, and agency in several languages in which the individual is at the core of interactions. They used the term multilingualism to reference the co-existence of multiple languages in society. This is how plurilingual and pluricultural competence (PPC) was taken up in the CEFR (Council of Europe, 2001), which proposed a plurilingual approach to language teaching in European-based education. Yet, Marshall and Moore (2018) also acknowledge the social-individual distinction has become porous as PPC is now seen as a social practice that goes beyond the individual use of languages. That is, how individuals draw on their entire linguistic repertoire, which consists of non-equivalent competence in different languages, to communicate and represent is constantly shaped by contextual factors.

Outside Europe, plurilingual education has been adopted in various locations internationally such as in elementary classrooms in an Indigenous community in Canada (Aitken & Robinso, 2020), welcoming classes for recent immigrants in Quebec (*classes d’accueil*) and French Immersion programs in Western Canada (Dagenais et al., 2008), university classes in Canada (Marshall, 2020), high school classes in Hong Kong (Lin, 2013), language classes in a community library in urban Mexico (López Gopar et al., 2020), classes for adolescent plurilingual learners of Korean ethnic heritage in Northeast China (Ehlert, 2018), and second language classes for Japanese learners in the U.S. (Iwasaki & Kumagai, 2020).

Similar to plurilingualism, the construct of translanguaging has emerged in the field of language education. Indeed, the two concepts are often mentioned together as there is a considerable overlap, echoing and convergence. They emerged at the same time in various locations as similar educational ideas to reinforce the idea there are links

and connections between different languages in one integrated linguistic system (Moore et al., 2020). Within the literature on plurilingualism and/or translanguaging, it is widely acknowledged that linguistic plurality and hybridity are not new, but age-old, everyday realities of many societies.

Originally conceptualized as an English-Welsh bilingual teaching practice around the middle 1990s (Williams, 1994; Williams et al., 1996), translanguaging was theorized as a lens and/or a pedagogy. More recently, it has been developed further by scholars such as García (2009), Li and Zhu (2013), García and Kleyn (2016), Li (2018), Wang (2019), Vaish (2020). As the “verb+ing” structure implies, the term translanguaging focuses on a process-based ontology, which foregrounds not only the flowing, dynamic nature of multi/plurilingual practices, but also “the capacity of the de-/re-territorialized speaker to mobilize their linguistic resources to create new social spaces for themselves” (Li & Zhu, 2013, p. 519).

With regards to translanguaging as a pedagogy to scaffold multi/plurilingual learners, Lin (2020) helpfully explains there is an emerging distinction in the literature between “spontaneous translanguaging pedagogies” and “planned translanguaging pedagogies”; the former (more common classroom practices) have less to do with curriculum design or planning and attend more to spontaneous translanguaging practices adopted by teachers and students or students and students in their ongoing communications. The latter requires teachers and curriculum designers to carefully develop learning materials that draw upon students’ multi/plurilingual resources in order to offer better language or content learning opportunities.

2.3.3. Translanguaging and Multimodality

Like research on multimodality, the scholarship on translanguaging embraces emerging perspectives from social semiotics and literacy education that suggest linguistic signs (speech and writing) are part of the semiotic resources being used in a myriad of combinations to facilitate socially situated, multimodal meaning-making practices. For example, Li (2018) argues that language is “a multilingual, multisemiotic, multisensory, and multimodal resource for sense- and meaning-making” (p. 22) and suggests language (or languaging that foregrounds a process-based ontology of language) is multimodal in nature. Indeed, the notion of multimodality is an integral part

of Li's construction of translanguaging as a practical theory of language; he argues for a need to encompass multimodal literacies in the ongoing multi/plural turn:

> [L]anguage processing cannot be wholly independent of auditory and visual processes, just as cognitive processes such as number processing and colour categorization cannot be wholly independent of language. … Language, then, is a multisensory and multimodal semiotic system interconnected with other identifiable but inseparable cognitive systems. Translanguaging for me means transcending the traditional divides between linguistic and non-linguistic cognitive and semiotic systems. (p. 20)

Such a multimodal view of language goes beyond linguistic signs to include what has traditionally been regarded as non-linguistic modes. Indeed, researchers who work on translanguaging are likely to uphold the idea of universal multilingualism, which challenges the conventional notion of monolingual speakers now being reconceptualized as multilinguals who "have one linguistic repertoire but a richly diverse mental grammar" (MacSwan, 2017, p. 167). Therefore, "the notion of translanguaging can be expanded to trans-styling, trans-registering, and trans-featuring" (Lin et al., 2020, p. 53).

In keeping with this perspective, Lin et al. (2020) propose the idea of a Multimodality-Entextualisation Cycle (MEC), which Lin developed to bring a translanguaging/plurilingualism lens into classroom practices (Lin, 2010, 2015, 2016). The three-step MEC encourages teachers and curriculum designers to create experiential spaces for students to use multimodalities at Stage 1 (e.g., visuals, YouTube videos, demonstrations, experiments), and to engage them in reading and note-making activities at Stage 2, which involve both L1/L2 texts and multimodalities. These two stages are expected to scaffold students' production of text in the target language/genre/register/style at Stage 3. In particular, these scholars put forward the idea of "the MEC without an end point" viewing MEC-based teaching and learning as an ongoing process in which students' everyday language practices are not inferior to target language learning. They further construct a theoretical lens entitled "Translanguaging and Flows" to conceptualize translanguaging as "a nexus of dynamic material, social and historical processes across multiple timescales in complex eco-social systems" (Lin et al., 2020, p. 54).

These converging developments in scholarship on multilinguality and multimodality have encouraged me to explore in my study how children are involved in translanguaging processes that are multimodal and material in nature when they learn

English as a foreign language with digital resources. I will provide details and examples later on in my analysis chapters (Chapters 4-6). The emphasis on processes is also echoed in many publications that have appeared in recent years examining the material dimensions of language and literacy learning and teaching. In the next section, I provide an overview of some related ideas that I see emerging in scholarship on materiality and important in shaping my study that addresses digital literacies and language learning.

2.4. Theories of Materiality

In this section, I first introduce a material turn in the humanities and social sciences, then describe what is entailed in a relational ontology and in a process ontology as both underpin posthumanist and new materialist theories. I conclude this section by discussing how various theories of the material are taken up in the field of language and literacy education.

2.4.1. A Material Turn

The widely recognized environmental and technological changes in the contemporary world have re-boosted[13] an increasing interest in exploring the material world, indicating a variety of fields such as anthropology, education, feminist studies, physics, political science, and sociology are undergoing a “material turn” (Brillenburg Wurth, 2018; Duineveld et al., 2017; Rekret, 2018). Several lines of scholarship are taking up theories of the material and these include posthumanism (Braidotti, 2013), agential realism (Barad, 2007), actor-network theory (ANT) (Latour, 2005), relational materialism (Hultman & Lenz Taguchi, 2010), new materialism (Coole & Frost, 2010), feminist materialism (Alaimo & Hekman, 2008), vital materialism (Bennett, 2010), and sociomaterial theory (Fenwick et al., 2011).

Although these areas of work reflect diverse theoretical and empirical commitments, they are united in acknowledging the significant role nonhuman entities

[13] The reason why I use “re-boosted” instead of “boosted” is that this wave of academic interest in the material world is not new. As Coole and Frost (2010) point out, new materialism has a rich heritage from older materialist traditions, most recently represented by existential phenomenology and structural Marxism, which met its demise in the 1970s.

play in social and cultural practices and in rejecting a hierarchical conceptualization of the relationship between humans and nonhumans with humans enjoying a superior ontological status over nonhumans. Theorists who work within the material turn in social sciences commit to decentering “the human as the focus of attention and the origin of all knowledge” (Kuby & Gutshall Rucker, 2016, p. 39), and their ultimate goal is to deconstruct long-established anthropocentric and logocentric ways in Western cultural thinking about ontological (being) and epistemological (knowing) issues. It is noteworthy that this perspective on flattened or relational ontologies, which I discuss in more detail later, is not new, as the term “new materiality” might suggest, but embedded in Indigenous and Eastern philosophies and cultures. As Dagenais et al. (2020) point out, Indigenous ontologies of relationality have often been “marginalized, silenced and rendered invisible in scholarship” (p. 420) emerging in the material turn. I would argue that Eastern philosophical traditions that work against hierarchical ontologies have been encountering similar marginalization in the scholarly literature. Later on in Chapter 6, I will discuss how traditional Eastern philosophies are similar to some ideas emerging in new materialist scholarship.

Various accounts in the material turn commonly reject human-nonhuman distinctions and also question all traditional dualisms that are deeply rooted in Cartesian thought. The latter establishes ontological hierarchies such as male over female, reason over emotion, culture over nature, mind over body, theory over practice, thinking over feeling, future over present, etc. In contrast, materialist accounts adopt a relational ontology that sees the world as constituted by multiple bodies and things that have no fixed boundaries and enter into relationship as they take shape together. In other words, rather than thinking about “inter-actions” between separate entities, a relational ontology approaches phenomena as becoming in relations, or in “intra-actions” (Barad, 2007).

2.4.2. A Relational Ontology: Agentic Intra-actions/Assemblages

In the oft-cited book *Meeting the Universe Halfway*, Barad (2007) reconceptualizes primary ontological units as phenomena rather than independently existing things or objects with fixed properties and boundaries. Barad then puts forward the idea of matter as phenomena in their ongoing materialization and as processes of iterative intra-actions. The neologism “intra-action” was proposed by Barad as an alternative to the term “inter-action”, which is rooted in a humanist logic that assumes the

prior existence of "relata" or independent entities. Intra-action highlights how multiple things come into being together in phenomena and are inseparable. Hultman and Lenz Taguchi (2010) insightfully explain the differences between intra-action and inter-action:

> [in*ter*-activity] refers to inter-personal relationships between at least two persons or entities that are understood to be clearly and inherently separated from each other. In*tra*-activity relates to physicist terminology and to a relationship between any organism and matter (human or non-human), which are understood *not* to have clear and inherent boundaries, but are always in a state of intra-activity of higher or lesser intensity or speed. (p. 530, emphasis in original)

The notion of intra-action is at the core of Barad's (2007) account of a relational ontology, and it raises questions about the traditional notion of causality as relations or inter-actions between distinct entities. A relational ontology leads to a reconceptualization of causality as "a relationality between specific material (re)configurings of the world through which boundaries, properties, and meanings are differentially enacted" (p. 139). In other words, causes and effects emerge through ongoing intra-actions, thus they are nondeterministic as causal relations are not fixed and nonlinear as effect does not necessarily follow cause. Causality is differentially and iteratively articulated in processes of materialization. As Barad explains, causal enactments are agential intra-actions.

The concept of agency is re-examined in Barad's (2007) discussion of the relational ontology. While an anthropocentric gaze locates agency in human beings, a relational perspective shows how human and nonhuman bodies become agentic together. Barad (2007) theorizes agency as a matter of intra-acting and an enactment that cannot be simply granted to either humans or nonhumans as an attribute, but as a force that emerges in the ongoing "reconfigurings/entanglements/relationalities/(re)articulations of the world" (p. 141). Barad (2007) further proposes the concept of agential cuts to explain how the ongoing intra-actions, of which humans are an agential part, simultaneously "cut 'things' together and apart" (p. 179) from the inside. In other words, as a temporary separation between intra-actions, an agential cut creates a temporary determinacy within an inherently indeterminate phenomenon. The classical Cartesian cuts, which embrace fixed and mechanical distinctions between separate and preexisting entities, lead to absolute exteriority between observer and observed. In contrast, Barad (2007) views an agential

cut as a temporary exteriority within a particular phenomenon. Therefore, “the knower does not stand in a relation of absolute externality to the natural world” (p. 184), but is part of the intra-acting world (Barad, 2007).

Bennett (2010), another scholar working with relational ontologies, proposes a construct that is similar to Barad’s idea of enacted agency. In her discussion of distributive agency, Bennett (2010) suggests that agency is not “a capacity localized in a human body or in a collective produced (only) by human efforts” (p. 23), but a vital matter distributed across assemblages in ontologically heterogeneous fields. Bennett borrows the term *assemblage*[14] from Deleuze and Guattari (1987) as a construct to illustrate the relational nature of social configurations, or the “intermingling of bodies in a society, including all the attractions and repulsions, sympathies and antipathies, alterations, amalgamations, penetrations, and expansions that *affect* bodies of all kinds in their relations to one another” (p. 90, emphasis added).

The Deleuzo-Guattarian concept of *affect* cannot be seen as a sentiment (or personal feeling) restricted within a human subject. Rather, it is framed as a flowing and changing ability of bodies to affect and be affected by one another in assemblages. Deleuze and Guattari discuss *body* in a broader sense as encompassing both human and nonhuman, both shaped and amorphous (or in Deleuze and Guattari’s words, “a body without organs”). Affect as a force passes or circulates across bodies in varying degrees of intensity (or in Deleuze and Guattari’s words, “continuums of intensity”). As Massumi (1987) explains in his notes on the English translation of Deleuze and Guattari’s work, affect “is a prepersonal intensity corresponding to the passage from one experiential state of the body to another” (p. xvi). An assemblage is suffused with flows or circulations of affective intensities that open up dynamic, rhizomatic and intensive multiplicities. Therefore, an assemblage is never stable but always in a state of becoming new and different. Indeed, *becoming* is another often-quoted concept proposed by Deleuze and Guattari[15] to highlight the fluid nature of being (their process

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[14] According to Dagenais et al. (2020), *assemblage* is an English translation of the French term *agencement* proposed by Deleuze and Guattari (1987). To avoid confusion, in this study I adopt *assemblage* except where I quote literature that uses *agencement*.

[15] Deleuze and Guattari’s work is often labelled *poststructualism* as a term encompassing numerous theories that deconstruct the humanist assumptions of “language; discourse; rationality; power, resistance, and freedom; knowledge and truth; and the subjects” (St. Pierre, 2000). Like Kuby and Gutshall Rucker (2016) as well as Kuby (2017), I take the stance that the

ontology). As these scholars write, “[b]ecoming is the movement by which the line frees itself from the point, and renders points indiscernible” (Deleuze & Guattari, 1987, p. 294).

2.4.3. A Process Ontology: Differential, Ethical Becomings

In emphasizing becoming and the contingent, changing nature of relations, new materialist theorists suggest a process ontology as an alternative to humanism and essentialism, which they see as focuses on fixed, determinable and transcendental properties described in terms of “identities” or “subjectivities”. Put simply, a process ontology examines entangled relations among multiple bodies engaged in an ongoing process of becoming. As I introduced above, becoming cannot be seen as a linear movement between points (Deleuze & Guattari, 1987). Rather, it is “a state of in-between-ness” (p. 269), which is rhizomatic and nomadic in nature, characterized by difference, newness and transformation (Jackson & Mazzei, 2013).

The idea of becoming different is also echoed in Barad’s (2007) framework of agential realism or onto-epistem-ology, which rests on a relational ontology and raises questions about practices of representationalism that assume language can mirror or stand for an external reality. Barad puts forwards a performative perspective that does not deny the importance of language, but views knowing (epistemology) as a practice arising from becoming (ontology) and doing (ethics) in the world. As Barad (2007) argues, “knowing is a material practice of engagement as part of the world in its differential becoming” (p. 89).

For Barad (2007), since the world articulates itself in different material intra-actions, knowing should be viewed as a becoming, a matter of differential responsiveness, with accountability to “what matters and what is excluded from mattering” (p. 380). These considerations raise provocative questions about ethics, as I noted above, which is re-understood in the framework of posthumanism as “response-ability” (Haraway, 2016)—the ability to respond to the world in relation to “how it could be, how it is open to change, and above all, the becomings it may undergo” (Grosz,

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umbrella terms *poststructuralism* and *posthumanism* do not have clear boundaries and thus read some Deleuzo-Guattarian concepts such as assemblage, affect, and becoming as highlighting the posthumanist perspective on ontologies.

2017, p. 1). This is an ethico-onto-epistemic ethics of mattering and becoming. In addition, posthumanist scholarship argues for a relational ethics of accountability to human and nonhuman bodies. Braidotti (2013, pp. 49-50) specifies the relational qualities of ethics:

> Posthuman subjectivity expresses an embodied and embedded and hence partial form of accountability, based on a strong sense of collectivity, relationality and hence community bounding. … A posthuman ethics for a non-unitary subject proposes an enlarged sense of inter-connection between self and others, including the non-human or "earth" others, by removing the obstacle of self-centered individualism.

2.4.4. Sociomaterial Approaches to Language and Literacy Education

Posthumanist and new materialist theories are increasingly being taken up in the field of education in recent years (Lewis & Kahn, 2010; Smythe et al., 2017; Snaza & Weaver, 2014; Taylor & Hughes, 2016; Taylor & Bayley, 2019; Weaver, 2010) and particularly in literacy studies and early childhood literacy education (Boldt & Leander, 2017; Hackett, 2021; Kuby & Gutshall Rucker, 2016; Kuby et al., 2019b; Lenz Taguchi, 2010; Lenters & McDermott, 2019a; Somerville & Powell, 2019; Toohey et al., 2020b; Wohlwend et al., 2017). A relational understanding of the world encourages educational researchers and practitioners to re-think human exceptionality in education and pay attention to processes of becoming rather than outcomes or cause-and-effect pedagogies. To do so, they attempt to disrupt not only "boundaries that are often taken for granted in the educational discourses" between who can/who cannot, between subject/object, between body/mind for example, but also "boundaries that have been drawn in educational research" such as researcher/participant, representation/concept, theory/method (Smythe et al., 2017, p. 32). As such educational boundaries are disrupted, language and literacy practices are reconceptualized as sociomaterial processes to take into account how nonhuman materials actively shape situations of learning and teaching.

While underlining the significance of nonhuman materials in social practices, language and literacy educators who are turning to theories of the material do not reject the rich heritage of thought provided by the sociocultural tradition. Instead, they recognize how the sociocultural perspective on language and literacy is context-sensitive and wide-ranging, offering critically important insights on issues of social justice in

relation to race, class and gender. Nevertheless, they aim to deconstruct the centrality of the human in sociocultural theories and include nonhuman bodies in considerations of ethics and learning processes. What matters is to intra-act the social and the material by eschewing a priori separation of them, as well as the humanist equation of social with human and material with nonhuman "others". When language and literacy learning practices are both social and material, as Kuby and Gutshall Rucker (2016) put it, "*social* must include not only humans (talk) but also non-humans" (p. 155, emphasis in original). Sociomaterial approaches to language and literacy education "foreground the 'matter' of education as the mutual entailment of human and non-human energies in local materialisation of education and learning" (Fenwick & Landri, 2012, p. 1). Therefore, learning contexts are sociomaterial assemblages "of people, objects, materials, ideas, policies, practices, texts, events, and places, each with its own histories and trajectories" (Lenters & McDermott, 2019b, p. 4).

Such a sociomaterial perspective brings to light the relational, becoming, unpredictable and unintentional nature of literacy practices. Seeing desire as an affirmative and productive force rather than a lack of something which is often the way desire is understood, Kuby and Gutshall Rucker (2016) propose the notion of literacy desiring that focuses on "the fluid, sometimes unintentional, unbounded, and rhizomatic ways multimodal artifacts come into being through intra-actions with humans and nonhumans (i.e., time, space, materials, environment)" (p. 4). From this point of view, literacy learning happens in various "assemblages of desire" that are about "bodily affects, connections, productions, flows, and intensities" (p. 37). Literacy practices, as Gutshall Rucker and Kuby (2020) explain in their later work, are about "making and unmaking literacy desirings" (p. 18) in which what matters is "the relationships coming to be with all materials" (p. 21).

In the same vein, Leander and Boldt (2012) argue literacy practices are "moment-by-moment unfolding(s)" (p. 33) that are spontaneously formed and constantly changing assemblages of materials and bodies rather than rational, purposeful designs of meaning. In his discussion of animate literacies, Snaza (2019) theorizes literacy as a contact zone in which animals—both human and nonhuman—and inanimate objects are becoming active literacy participants together. Referencing Barad's (2007) framework of agential realist, Spector and Kidd (2019) put forward the idea of "the ungraspable in-between of posthuman literacies" (p. 61). As they explain, posthuman literacies emerge

in-between of phenomena and “are always shifting, agentic multiplicities involving reading and composing with and across many modes and materialities” (Spector & Kidd, 2019, p. 66). Lenters (2018) expands understanding of multimodal literacies “from one person interpreting and deploying signs and symbols . . . to also thinking about embodied aspects of meaning making, such as affect, relationship, movement, and place” (p. 648). All these scholars suggest that literacies cannot be measured by the human or counted as definitive skills of individuals.

Adopting this line of thinking, researchers who apply a sociomaterial lens view digital literacies as the “multilayered and messy entanglement of social and material actors” (Bhatt & de Roock, 2013, n.p.). For them, what matters is to examine digital literacies as social-techno intra-actions that are always in processes of becoming. They therefore blur virtual/real, human/nonhuman, digital/nondigital and online/offline binaries often discussed in digital literacy studies that adopt a sociocultural lens. They also encourage us to move beyond expectations for finished, saved and human-only designing products when examining digital literacies (Wohlwend & Thiel, 2019). A sociomaterial perspective on digital literacies foregrounds not only how computational agents (e.g., tools, algorithms, bots, surveillance technology and data) shape the social world, but also how “human agents can leverage computational machines and processes to become more ethical assemblages with them” (Leander & Burriss, 2020, p. 1274).

Similarly, researchers whose work is contributing to the material turn in language education concern themselves with the materiality of language (e.g., Appleby & Pennycook, 2017; Pennycook, 2016, 2018; Porter & Griffo, 2020; Toohey et al., 2015; Toohey & Smythe, 2021; Van Viegen, 2020; Waterhouse, 2020). As MacLure (2013), a post-qualitative researcher explains, language has been viewed as a pre-given system since the turn of 20th century when modern linguistics came to the fore. Since the linguistic turn, which began in the late 1970s and boomed since the 1990s, language has been granted “god-like centrality in the construction and regulation of wordly affairs” (p. 660). MacLure contends that language cannot be accorded ontological privilege, distance and externality to represent the world; rather, words intra-act with everything else on the same ontological plane. MacLure thus demystifies the imperial position that has been given to language as the mediator of the world. In particular, she criticizes poststructural theories emerging in the linguistic turn for overemphasizing the

representational thinking and overshadowing the materiality of language. As MacLure (2013) points out:

> But we also, I think, need to find ways of researching and thinking that are able to engage more fully with the materiality of language itself — the fact that language is in and of the body; always issuing from the body; being impeded by the body; affecting other bodies. Yet also, of course, always leaving the body, becoming immaterial, ideational, representational, a striated collective, cultural and symbolic resource. (pp. 663-664)

From this point of view, language and language practices are inherently material. For qualitative researchers, it is thus not enough to look only at the ideational aspects of language—what utterances mean and represent, whether they are true, whether they deserve our collection and analysis, etc. Qualitative researchers also need to attend more to how the materiality of language shapes language practices such as collecting data through interviews and field-notes, analyzing data, and writing academic papers. I will discuss this further later on in Chapter 3.

The sociocultural turn and the linguistic turn have led language and literacy educators to attend more to power relationships in discursive practices—who is in control of the discourse, who is privileged or excluded in the discourse and through the discursive circulation. From a materialist perspective, however, such questions locate power in humans. The material turn encourages language and literacy educators to "rethink taken-for-granted terms such as social, justice, power, agency, subjectivity and ethics" (Kuby & Rowsell, 2017, p. 289), to connect understanding and critique of social and educational inequalities to a relational ontology (Van Viegen, 2020), and then to "go beyond critique to imagine change, to experiment with possible solutions, and to further optimism and hope about the matters that concern us" (Toohey et al., 2020a, p. 1).

Adopting this line of thinking, Appleby and Pennycook (2017) argue that the logocentricity of critical language studies should be reoriented toward understanding how pedagogies are entangled among human and nonhuman bodies. In their discussion of critical language studies, they argue decentering language and humans does not aim to get rid of them, but rather to "put them where they belong, not always so much at centre stage but rather in the periphery, as a part of a larger understanding of semiotics and politics" (p. 14). Acknowledging class, race, and gendered hierarchies still matter, they do not advocate abandoning the "old materialisms", which according to them, are

materialisms related to socioeconomic inequalities that are the foci of many strands of critical thoughts. Instead, they advocate a new kind of settlement between old and new materialisms, developing an understanding of language not only from a critical point of view but also in relation to assemblages. In contrast, Kuby and Rowsell (2017) seem to be skeptical about the "old materialisms." Referencing Latour's (2004) article *Why Has Critique Run out of Steam? From Matters of Fact to Matters of Concern*, they argue critical social theories have achieved little to make the future better as "schools, children and families, are still marginalized and framed in both deficit language and/or approaches to pedagogy" (p. 288). Nevertheless, all these authors urge us to reimagine how a sociomaterial lens on issues of ethics and justice might provoke new ways of "knowing/becoming/doing literacies (and in my view, languages)" (Kuby et al., 2019a, p. 2).

In the last part of this chapter, I will bring together the theories that I have discussed thus far (of digital literacies, digital inequalities, multimodality, multilinguality, and new materiality) and read them from a sociomaterial perspective. In doing so, I intend to build a theoretical framework (or more accurately, a theoretical assemblage) that is not stationary, but becoming with my researching progress. It includes concepts that might once have had humanist onto-epistemological assumptions and now are made to become compatible with my sociomaterial stance. I see such reading of theories as "a practice of establishing, collapsing, and interfering with boundaries, and engaging in a process of world making" (Hill, 2017, p. 3).

2.5. Reading Theories from A Sociomaterial Perspective

2.5.1. A Sociomaterial Perspective on Digital Literacies and Digital Inequalities

As argued earlier, sociocultural and sociomaterial theories do not necessarily work against each other, and taking a sociomaterial stance does not mean getting rid of prior concepts introduced in work on the sociocultural. Following Bhatt and de Roock (2013), I argue that sociomaterial perspectives can work as "an expansion to the view of literacy as an embodied 'social practice'" (n. p.). Literacy studies based on sociocultural theory contribute to my understanding of digital "literacies" (in the plural) as context-sensitive, wide-ranging and dynamic practices of meaning-making mediated by digital

technologies. At the same time, theories of the sociomaterial that embraces relational and process ontologies push me to focus on the material, relational, becoming, unpredictable and sometimes unintentional nature of digital literacies. They deconstruct human centrality in sociocultural theories and “allow matter its due as an active participant in the world’s becoming, in its ongoing intra-activity” (Barad, 2007, p. 136). Reading sociocultural and sociomaterial theories together enables me to view digital literacies as entanglements of human and nonhuman participants that eschew a priori separation of the social and the material alongside all other binaries drawn in educational discourses and practices. Such understanding of what counts as digital literacies is at the core of my study that investigates how rural Chinese children learn English with digital materials.

Researchers of digital literacies who adopt a sociocultural lens and critical approaches concern themselves with how learners are involved in power relationships in digital learning environments, which gave rise to an emphasis on digital inequalities in the literature. Digital inequalities refer to, on the one hand, the fact that there is not universal access to the digital or instruction in it and, on the other hand, how new digital media may actually intensify those inequalities. In thinking about digital inequalities, some scholars conceptualize digital literacies as placed resources, arguing there is a digital divide between a globalized core and periphery countries as well as within local relations. Some also argue for a critical approach to digital literacies education so that learners can interrogate multimodal digital texts, dataveillance, sociopolitical issues, and the larger world.

While generally acknowledging inequalities related to gender, class, race and location matter, language and literacy educators who work with sociomaterialist theories urge us to go beyond critical social theories and include an analysis of how power flows through nonhuman bodies and consider the ethical implications of this. In their study of digital literacies in a public computer center that offers learning support to low-income adults who are new to computers, Smythe et al. (2017) explore how digital inequalities are produced in digital learning assemblages in which human and nonhuman bodies are entangled with one another. These researchers challenge the common understanding of digital literacy in educational research as “a representational practice or skill related to a human agent’s capacity to find and interpret information” (p. 154). They argue such a conceptualization locates humans as the agents with power to both use digital tools and

account for “processes that are often out of their control” (p. 155). As they suggest, this view of humans can explain why individuals are often made responsible for their difficult encounters with digital technologies. To deconstruct this discourse, Smythe et al. (2017) recount learners’ digital encounters with “the alienating effect of technology design” (p. 143), seen as the materialization of a neoliberal discourse in which digital technologies are used for social exploitation and control. To invite us to (re)think digital inequalities from a sociomaterial lens, they pose the following question:

> There is no turning away from digital technologies, but there is potential to proceed as educators and researchers with sensibility to technologies’ bodies of knowledge (capitalism, the liberal-humanist fetish of the individual and so on), to the material effects of design, and to its indeterminacies, asking: ‘How might humans and technologies learn together in a more collaborative, egalitarian and playful ethic to create a better world?’ This question invites improvisation, transdisciplinary practice and the embrace of uncertainty; it invites new ways to contend with digital entanglements of power, governance, ethics and our shared futures. (p. 165)

As a researcher of digital literacies who reads theories of the sociocultural and the material together, I remain concerned about social, educational and digital inequalities and include nonhuman bodies in considerations of these concerns. For, as Appleby and Pennycook (2017) suggest, the “question of what it means to be human (defined always in relation to those deemed nonhuman) needs to be taken as seriously as questions of gender, class and race (these questions are in fact deeply related)” (p. 18). In this thesis I explore issues of power and injustice by attending to the larger ecology of digital literacies that includes the material world and recognizing that human and nonhuman participants in the digital are agentive together. In other words, I examine how power relations are materialized in children’s learning spaces by focusing on what kinds of learning and knowledge are produced in digital learning assemblages, in which children come into contact with shaped or shapeless sociomaterial bodies including technologies, humans, artefacts, modes, spaces, discourses, cultural values, linguistic norms, policies, pedagogical realities and so forth (see details in Chapters 4-6).

2.5.2. A Sociomaterial Perspective on Multimodality

The literature on multimodality reviewed above encourages me to focus on the multimodal nature of meaning making that arises from the interconnection among a wide range of boundary-porous modes of communication (e.g., oral, written, visual, gestural,

tactile and spatial modes). While theories of multimodality recognize the material nature of modes, they tend to emphasize human meaning making and overlook how materials create meaning together with humans (Toohey et al., 2015). In this regard, reading this literature alongside theories of the sociomaterial help me expand my understanding of multimodality and allow me to foreground the material dimension of meaning-making practices and the messy, rhizomatic, emergent entanglements of human and nonhuman bodies.

The literature on multimodality also sheds new light on how digital media plays a prominent part in facilitating multimodal expression. In particular, it highlights how a design approach to multimodal and digital literacies helps to account for the multimodal and dynamic nature of literacy practices—creation of digital texts is an ongoing process in which traditional language-based writing is no longer the predominant and most common literacy practice. However, this approach rests on an assumption of rational and human-only designs of meaning, which fails to account for the unstructured and unpredictable quality of meaning-making processes. I have come to see the sociomaterial perspective on literacies as inspiring in that regard. As discussed earlier, sociomaterialist literacies are "making and unmaking literacy desirings" (Gutshall Rucker & Kuby, 2020, p. 18), which foregrounds how children spontaneously and unintentionally engage in processes of creating meaning through their constant intra-actions with sociomaterial bodies in a learning space.

Later in this thesis, I discuss in detail how rural Chinese children make literacy desirings when they engage in online English learning activities, including three Cinderella-related events—digital storybook reading, English vocabulary learning and movie clip dubbing (see Chapter 4), digital storytelling (see Chapter 5) and remote learning during the COVID-19 pandemic (see Chapter 6). In my discussion of these intensities, I focus more on the process of making meaning than just meaning and more on the entanglement of sociomaterial bodies than human-only designing texts.

2.5.3. A Sociomaterial Perspective on Multilinguality

The "multi/plural turn" (Kubota, 2016) in applied linguistics and language education, especially theories of plurilingualism and translanguaging, helps me see the multiple, hybrid, dynamic, and fluid nature of language and language learning and view

multi/plurilingual competence as a single, mixed synthesis of language repertoire composed of unevenly developed/developing and socially situated languages. Like educators who work on plurilingualism, I view language learners' L1 competencies as treasured assets in facilitating learning of additional languages. In addition, with its stress on the multimodal nature of communication, writing on translanguaging encourages me to connect multilinguality with multimodality and break with the conventional divide between linguistic and non-linguistic modes.

Some work on translanguaging embraces a process-based ontology that highlights the flowing, dynamic nature of multi/plurilingual practices. For example, Lin et al. (2020) conceptualize translanguaging as "a nexus of dynamic material, social and historical processes across multiple timescales in complex eco-social systems" (p. 54). This attention to fluid relations is echoed in sociomaterial theories that foreground how social and material bodies are entangled with one another and how they are becoming different in their intra-actions. The sociomaterial approach to multi/plurilingual studies brings to the fore the materiality of language and language practices and challenges notions of individual human agency or subjectivity highlighted by the sociocultural approach. Later in my thesis, I discuss how these theoretical perspectives lead me to see rural Chinese children's English learning as translanguaging practices shaped by the materiality of both linguistic (mainly English and Chinese) and non-linguistic meaning-making resources (e.g., image, music, sound, touch, gaze, gesture, movement). In my documentation I attend to how plurilingual productions emerge in moment-by-moment human-digital-language encounters. As well, reading sociomaterial theories enables me to pay more attention to how the materiality of language shapes discursive practices such as collecting and analyzing data and writing academic papers, which I will discuss in more detail later on in Chapter 3.

This reading of sociocultural and sociomaterial theories is promising as it offers a different way of understanding digital literacies and English language education. This approach leads me as well to (re)think and (re)imagine what an inquiry in digital literacies would look like, which is what I explore in the next chapter.

Chapter 3.

Methodology

This chapter introduces the methodology for the current study investigating how rural Chinese children learn English as a foreign language with digital resources in out-of-school learning spaces. It is noteworthy that the sociocultural turn in language and literacy studies has given rise to a research interest in examining social contexts of learning activities and particularly, in documenting learning practices taking place out of pedagogic domains. My study builds on this research tradition. Adopting a sociomaterial stance, I resist a mechanical understanding of the in-school/out-of-school dichotomy, as well as other dualisms such as human/digital, rural/urban, boy/girl, as discussed in Chapter 2. Rather, I would contend learning contexts are relational, flowing, and porous since they are enacted in the dynamics of intra-actions. On the one hand, out-of-school learning can be very structured, intentional and formal especially when learners engage in academic activities such as homework and school-initiated e-learning. On the other hand, language and literacy learners' repertoires are not bounded within any context; rather, given their fluid nature, they emerge freely in communication across contexts.

With this in mind, my study did not make a clear-cut distinction between learning domains, and out-of-school/outside-school/informal language and literacy learning was framed simply as learning activities taking place beyond classrooms. While I began my study with a focus on out-of-school learning, my fieldwork did not exclude documenting school-based activities. In other words, this study encompassed data "collected" in my focal participants' school through my embodied and sensory practices such as chatting with teachers, walking and eating in their school, "observing" English language classes and teacher-parent meetings. In doing so, I sought to shed light on how my participants' learning beyond classrooms affected and was affected by their learning at school.

As stated in Chapter 1, the current research focus has developed mainly from my personal experience of learning English in rural China. The topic of this doctoral research project and related research questions were shaped by reading and thinking with theories, academic publications alongside other texts such as news, census reports and social media; through my embodied and emplaced engagement in the fieldwork; as

well as in active collaboration with my participants and with my advisory committee members. This study set to explore the research questions presented in Chapter 1, including:

1) An initial question:

    - How do children engage with digital literacy activities in informal English language learning environments in rural China?

2) Two questions evolving from the initial question above as I moved through the research process:

    - How do digital literacy activities, informal English language learning environments, and rural China engage with children?

    - How do digital literacy activities, informal English language learning environments, rural China and children engage with one another?

3) Three sub-questions:

    - How do digital technologies offer children different language learning opportunities from those offered at school?

    - What human-material relations emerge when children learn English with digital resources and how do these relations affect language and literacy learning?

    - What insights might theories of multimodality, multilinguality, and materiality offer in analyzing how children learn English with digital resources in rural informal education settings?

Guided by these questions, this study documented how multiple relationships were formed among materialities including modes, languages, and the bodies of rural Chinese children as they engaged in practices of digital literacies mainly in home environments.

This study is post-qualitative in methodology as it did not—at least tried not to—rely on positivist techniques or methods, but coproduced and analyzed data in a research assemblage constituted by theories, discourses, data, fieldwork, the digital, my participants, me as a researcher, research tools, etc. I have borrowed the concept of research assemblage from Fox and Alldred (2015, 2018), which foregrounds the material, relational and emergent nature of social inquiry. In other words, it focuses on how social inquiry is comprised of bodies, things and abstractions in a world that is

always becoming, "including the events that are studied, the tools, models and precepts of research, and the researchers" (Fox & Alldred, 2015, p. 400). As these scholars explain, the concept of research assemblage shifts the concern for social inquiry from what bodies or things are to how actions, feelings, flows and desires are produced in relations.

This methodological shift toward understanding research as assemblage is grounded in sociomaterial theories. As stated in the previous two chapters, sociomaterial theorists view the world as agentic assemblages in which human and nonhuman entities are becoming different in their ongoing entanglements with one another. This is an ontological turn toward recognizing how the world is constituted by a myriad of social and material bodies that have no prior existence and fixed boundaries and acknowledging how they form relations in processes of materialization. In such a worldview, knowing is reconceptualized as direct material engagement and accordingly, research becomes a practice of doing, becoming and mattering in sociomaterial assemblages. This perspective expands the research gaze from looking only at sociocultural, historical, and political relations (a primary concern of the sociocultural turn in humanities and social sciences) to include a consideration of how the materials as active agents also constitute and affect these relationships in research assemblages.

Based on such a sociomaterial understanding of research, I turned to a range of onto-epistemologies that can be identified under the umbrella term "post-qualitative methodology" (MacLure, 2013; Tesar, 2021). In what follows, I first present a review of literature on post-qualitative methodology, to explain how these theories orient my view of post-qualitative social inquiry as methodology-free and non-representational. I then introduce the research site, the participants, data coproduction, and data analysis.

3.1. Post-Qualitative Methodology

3.1.1. "Post Qualitative Inquiry": Working Against Methodology

Thinking about research as assemblage encourages a number of sociomaterial researchers to work with what St. Pierre (2011, 2016, 2017, 2018, 2019, 2021) calls "post qualitative inquiry" (PQI), which blurs the distinction between the rational (mind, theory) and the empirical (body, practice). The concept of PQI is guided by an ontology

of immanence that can be found particularly in the work of Deleuze and Deleuze with Guattari who problematize notions of identity, stability, exteriority and closure in classical ontology. Deleuze and Guattari (1987) argue for an absolute or pure plane of immanence (or univocality/consistency), “upon which everything is given, upon which unformed elements and materials dance that are distinguished from one another only by their speed and that enter into this or that individuated assemblage depending on their connections, their relations of movement” (p. 255). In other words, being (ontology) rests on a plane of immanence, upon which sociomaterial bodies are always becoming entangled with one another in assemblages characterized by affective intensities and multiplicities. This ontology of immanence resonates with relational and process ontologies as discussed in Chapter 2.

In such an ontology of immanence, as St. Pierre (2019) explains, what matters is *what might be* and *what is becoming* instead of *what is* and *what already exists*. Resting on this philosophy, a PQI “encourages concrete, practical experimentation and the creation of the *not yet* instead of the repetition of what *is*” (St. Pierre, 2019, p. 3, emphasis in original). In other words, a PQI is a practice of doing and mattering, and it is always in a process of becoming new and different. It cannot be seen therefore as a social science research methodology that offers researchers any preset research methods, procedures, designs or practices to apply in their own inquiries. In a PQI, there are not ready-made recipes for researchers to learn, to follow, and to repeat. Rather, researchers are in a constant state of entering into the middle of the ever-changing research assemblage.

In this sense, post-qualitative methodologies work against research methodologies in the traditional sense or use. They are “methodology-free” (St. Pierre, 2019), or as what Koro-Ljungberg (2016) calls, “methodologies without methodology” (MwM). The concept of MwM brings to the fore the nonlinear, nonstable and becoming nature of qualitative (or more accurately, post-qualitative) research. It calls into question methodological traditions that force one formula to fit all circumstances and inevitably lead qualitative research practices to repeat the same old. Methodologies in MwM, as Koro-Ljungberg (2016) argues, have no strict structures or boundaries and thus are open to other methodologies. Therefore, doing post-qualitative methodologies can be viewed as “a journey without a clear beginning or ending point and a journey with multiple paths to be taken” (p. 4). It may begin or end anywhere, anytime, and it is open

to uncertainty and new possibilities. It is affirming and productive as traditional tools and methods of qualitative research are eschewed, and new concepts and ways of thinking and doing research are valued.

Experimenting with a post-qualitative methodology, I have been encouraged to rethink concepts and categories invented to fit humanist qualitative methodologies such as data, data collection, data analysis, observation, representation. I will explain them in the following sections.

3.1.2. "Post-Quoting Analysis": Data in Agential Intra-actions

"Conventional humanist qualitative research methodology" (St. Pierre, 2021, p. 163) overwhelmingly depends on interviews and observations to "collect" data, considering words spoken by participants as primary data. As St. Pierre and Jackson (2014) explain, it judges the quality of data by the criterion of presence, viewing words collected from direct interaction with participants as high-quality, value-free, uncontaminated and pure data that deserve researchers' efforts of collection and analysis. These scholars point out problems in doing so because: Words are in a state of becoming in an ontology of immanence, and thus "can never retain presence" (p. 716); language is constantly entangled with meaning and interpretation in onto-epistem-ology describing the world as intra-actions, and thus "cannot be and never has been brute" (p. 716). Therefore, they call into question how words are treated as numbers in conventional qualitative studies grounded in Cartesian dualisms and accordingly, qualitative data analysis is designated as coding decontextualized data, which can be broken down into "codable" parts and then sorted into categories. St. Pierre and Jackson (2014) offer as an alternative the concept of post-coding analysis, which is viewed as "non-technique and non-method that is always in a process of becoming" (p. 717). In other words, post-coding analysis works in the methodology-free PQI. Therefore, it is emergent, experimental, and it cannot be repeated. Instead of following a particular analytical technique or method, researchers are encouraged to borrow theoretical concepts and create approaches to engage in various analytical practices.

In his discussion of post-coding analysis, Brinkman (2014) proposes to rethink qualitative analysis not as data-driven (the inductive reasoning as "data lead to theory") or theory-driven (the deductive reasoning as "theory determines data") but rather as

something “driven by astonishment, mystery, and breakdowns in one’s understanding” (the abductive reasoning used to explain uncertainty) (p. 722). He calls those breakdowns “stumble data”, which refer to materials and happenings causing us to stumble, to be unbalanced, to get out of our comfort zone, and “to be sensitive to the strangeness of the world” (p. 724). Stumble data are not *given* as data but *become* data when we stumble upon them.

The concept of stumble data suggests data cannot be understood as inert and indifferent mass, which wait to be discovered, collected and analyzed by researchers with the help of methodologies offering preset techniques, research questions and analytical tools. This understanding of data is echoed by MacLure (2013) who uses the term “glow” to describe occasions when a piece of data especially attracts researchers’ interests. As she explains, data glow for us because they “have their ways of making themselves intelligible to us” (p. 660). In other words, data, as part of a research assemblage, become agential in ongoing intra-actions with human and nonhuman bodies (e.g., researchers, participants, research questions, field-notes, cameras). They therefore can glow for us and guide us to approach them in dynamics of the research setting. In this sense, data cannot be collected by researchers, but can only be coproduced or cogenerated in a research assemblage.

3.1.3. “Thinking with Theory”: Coproducing Data in Research Assemblages

Understanding data as being coproduced encourages researchers to pay more attention to how a research assemblage is coming to be in processes. In their study of how poststructural and posthumanist ideas are embodied in literacy learning and teaching of a writers’ studio, Kuby and Gutshall Rucker (2016) illustrate what data coproduction might look like. As researchers in a research assemblage, they looked for “events, activities, encounters that evoke[d] transformation and change in all the performative agents—both human and nonhuman” (Hultman & Lenz Taguchi, 2010, as cited in Kuby & Gutshall Rucker, 2016, p. 50). In other words, these researchers were involved in the coproduction of data as they intensively engaged in literacy activities while attending to “events, activities and encounters” that beckoned their attention, or to the moments when a particular piece of data “glowed” as MacLure (2013) describes it. More specifically, “more traditional forms of data” (p. 49) were implicated in the process

of coproduction in their research, including video and audio recordings of students' multimodal composition, researchers-led and students-led mini lessons and conferences, and conversations between researchers and students. The coproduction of data also emerged during audio recordings of analytical conversations and/or pedagogical planning sessions, moments when photos were taken during the creation of artefacts and final products, and moments when field-notes were shared via Google Docs. In particular, these researchers see their "process of reading theories and the written theories (texts) as data" (p. 50).

Indeed, the framework of PQI encompasses reading widely across different theories and philosophies. St. Pierre and Jackson (2014) propose the idea of using theory rather than words spoken by participants to determine "what counts as data and . . . what counts as 'good' or appropriate data" (p. 715). In doing so, as they point out, researchers can "do more with less data" (p. 715) by focusing on the difficult work of analysis instead of "collecting" as much data as possible from interviews and observations. St. Pierre (2019) also encourages researchers to read theory and philosophy, and then to find philosophical concepts, which do not represent reality but reorient their thinking and push them to think "differently and then differently again" (p. 13). It is noteworthy that post-qualitative scholarship embraces epistemic justice by moving beyond concepts of white continental and male philosophers to include perspectives of those categorised as "others" (e.g., Indigenous, Black, Feminine, Eastern). This is a move away from "entrenched white, Western and masculine binaries of mind/body, culture/nature, reason/emotion that underpin hierarchical truth claims" (Fullagar & Taylor, 2021a, p. 38).

In their oft-cited book *Thinking with Theory in Qualitative Research*, Jackson and Mazzei (2012) detail how various philosophical concepts of six post-theorists (Derrida, Spivak, Foucault, Butler, Deleuze, Barad) are used to view and read the same data produced from "rather conventional" interviews with first-generation female faculty members. Unlike conventional data interpretation or analysis, thinking with theory is not about coding data as numbers, reducing them into thematic chunks, and then writing up transparent narratives that represent truth. Instead, it highlights how to plug theory and data into one another, i.e., use theory to think with data or use data to think with theory. Drawing on Barad's idea of intra-action, Jackson and Mazzei (2012) argue thinking with

theory works against interpretivism and highlights “the mutual constitution of meaning as happening in between researcher/researched; data/theory; and inside/outside” (p. 11).

From this point of view, meaning is produced in the dynamics of intra-actions, in which different material arrangements of theory and data enact different knowledge about the researched and the world. The researcher enters into the middle of these meaning-making processes and becomes part of the mutually constituted theory-data-researcher-researched assemblage. In other words, in their constant intra-actions with sociomaterial bodies, researchers become “insiders” of the research assemblage.

To be more specific, researchers have never been absolute insiders or outsiders of the research assemblage. This is because, as Barad (2007) points out, there are not intrinsic boundaries between inside and outside, and there “is only intra-acting from within and as part of the world in its becoming” (p. 396). Such a perspective calls into question the long-standing logic of researchers as observers in conventional qualitative research, which places researchers at a distance from data so that they may “objectively” observe what happens in the research context. This logic collapses in sociomaterial ontologies that describe the world as material, relational, unstable and becoming. In such a worldview, the human cannot be designated as the knower or the observer who preexists the natural world and thus has absolute externality and objectivity to represent the material. In other words, humans are only part of the intra-acting world. As Barad (2007) tells us, “the knower does not stand in a relation of absolute externality to the natural world—there is no such exterior observational point” (p. 184). Again, researchers and the researched are mutually constructed and constituted in ongoing intra-actions instead of standing in a relationship of externality or distance.

3.1.4. “Non-Representational Research”: Correspondence with the World

The logic of researchers as observers gives written words produced by researchers an essential superiority to represent what arises from research, especially participants’ knowledge, beliefs and values. Such representational thinking still controls much of qualitative research methodology. As discussed in Chapter 2, Barad (2007) deconstructs the representationalism paradigm that grants too much power to language

to mirror/represent preexisting things. Barad proposes a performative understanding of discursive practices, seeing knowing not as what words represent but as practices arising from our direct material engagement with the world. In particular, Barad points out the material nature of language and discursive practices as they "are always already material" (p. 152). Putting language in the material continuum indicates language does not have the ontological privilege to represent other things. In her discussion of post-qualitative research, MacLure (2013) argues for "*non- or post-representational* thought and methods" (p. 658, emphasis in original), which highlights the materiality of language.

Adopting this line of non-representational thinking, Vannini (2015a) conceptualizes non-representational research as practices and performances (doings). This thinking concentrates on how *events,* as impromptu happenings, bring forth uncertainties, differences and changes; how *relations* between human and nonhuman bodies take place in dynamics of entanglements; and how *affect* as a productive capacity is embodied—a body is always affected by and affects other bodies. Like PQI researchers, non-representational researchers seek to create new concepts and indefinite ways of thinking and experimenting with social inquiry. As Vannini (2015a) points out, non-representational researchers are uninterested in a particular method (e.g., interview, observation, focus group) or a unique mode of communication (e.g., writing, dance, poetry, video). What is unique and new in non-representational research "lies in a variety of research styles and techniques that do not concern themselves so much with representing lifeworlds as with issuing forth novel reverberations" (Vannini, 2015a, p. 12). This perspective resonates with Ingold's (2015) explanation of non-representational ways of working:

> This is not exactly a theory, nor is it a method or technique as commonly understood. It is not a set of regulated steps to be taken towards the realization of some predetermined end. It is a means, rather, of carrying on and of being carried—that is, of living a life with others, humans and non-humans all—that is cognizant of the past, finely attuned to the conditions of the present, and speculatively open to the possibilities of the future. I call it *correspondence*, in the sense not of coming up with some exact match or simulacrum for what we find in the things and happenings going on around us, but of *answering* to them with interventions, questions, and responses of our own. (p. vii, emphasis in original)

From this point of view, non-representational research moves away from representing and reporting what happened in the past, but moves toward what is

happening now and what will happen in the future. To be more specific, it questions how we define and understand time. In a discussion of a diffractive view of time, Barad (2012) argues every phenomenon simultaneously involves the past, present and future, which "are iteratively reconfigured and enfolded through the world's ongoing intra-activity" (p. 182). There is no match between representations and pre-exiting reality, but only *correspondence* with the world, where new possibilities arise from ongoing intra-actions between humans and nonhumans, between researcher and the researched, among the past, present and future.

While non-representational theories are promising in moving social inquiries toward sociomaterial ontologies, they can be potentially problematic. As Vannini (2015b) explains, non-representational scholarship often neglects its humanistic lineage, its own intertextuality and citationality; it is at times obscure, conceptually incoherent, and thus not accessible to all. Therefore, in thinking about how to illustrate relationships, intra-actions in my study, I became aware that while it might be impossible to completely move away from representational thinking and writing styles, it might be possible to make them "less-representational" (Ulmer, 2017, p. 839). To distance myself from a representational stance, I have thought about being creative through writing in artistic (Ingold, 2011a), multisensorial (Pink, 2009) or performative (Vannini, 2015b) forms. I soon realized it would be difficult to present data in multimodal, experimental ways "due to the limited scope of two-dimensional formats such as a thesis or research paper" (Bhatt et al., 2015, p. 486). Mindful of this harsh reality, I had to search for an alternative writing style that is non- or less-representational and consider how it might help me better understand the material, relational and becoming aspects of meaning-making practices, while also producing a print-based thesis that conforms with current academic requirements.

Following Smythe et al. (2017), I have come to see Ingold's (2011b) notion of open-ended stories as inspiring in that regard. As these scholars notice, telling open-ended stories about how sociomaterial assemblages form during digital literacy and language learning practices might be helpful in avoiding "the language of taxonomies, categories of research methods and distinctions made between exterior data and the researcher's experience in the field" (Smythe et al., 2017, p. 55). I acknowledge that such a storytelling approach still shows data through language. Nevertheless, it shifts my focus from representing language and literacy realities to looking at learning as material

and relational processes in which meaning making is multimodal in nature and arises from moment-by-moment sociomaterial encounters. Instead of coding data—usually interactions recorded in field-notes, transcripts of interviews, audio and video recordings, I have opted to tell stories of what happened to children and who they were becoming as their bodies intra-acted with other bodies (e.g., family members, peers, teachers, the researcher, classroom, technologies, print-based learning materials, time, discourses) during learning processes. My documentation emerged from my becoming-doing-learning during 14 months of ethnographic fieldwork. In the upcoming section, I explain how ethnography becomes more compatible with my sociomaterial stance and my engagement with post-qualitative methodologies.

3.1.5. Post-Qualitative Ethnography: A Sociomaterial Practice

Traditional ethnography is usually defined as a research method in which researchers are committed to "writing about the people" (Ingold, 2014, p. 385) through their direct long-term involvement in research contexts. Or simply put, it is "the art and science of describing a group or culture" (Fetterman, 1998, p. 1). It recognizes the researcher as the main research instrument and attaches great importance to the accounts of those being studied and their perspectives. Therefore, it centers human (both researchers and participants) and embraces representational thinking at its heart, which makes it incommensurable with post-qualitative methodologies.

Historically emerged from anthropology and sociology, traditional ethnography has been widely practiced in the field of education since it was seen as "a research strategy especially well-suited to the study of many learning, teaching and educational issues" (Walford, 2008, p. 7). Educational ethnography provides accounts of how participants in education are involved in power relations of social and cultural reproduction in their everyday learning and teaching practices (Troman, 2006). In particular, ethnography has been taken up in the arena of language and literacy education in keeping with the theoretical shift (often known as the sociocultural turn) toward understanding language and literacy as social practices (see details in Chapter 2) (Grenfell et al, 2012). Language researchers who worked with this tradition of ethnography have attempted "to understand learners' and teachers' perspectives on how languages are taught and learned in local as well as larger societal contexts" (Toohey, 2008, p. 177).

Although PQI is committed to deconstructing concepts and categories of conventional qualitative methodologies including ethnography, it proceeds unavoidably with trajectories left by the latter. As Lather and St. Pierre (2013) highlight, "[w]e always bring tradition with us into the new, and it is very difficult to think outside our training" (p. 630). With this in mind, a number of post-qualitative researchers do not give up traditional ethnography completely, but call for a reshaping of it to embrace the ontological or material turn.

In their study of gendered politics in institutions, Taylor and Fairchild (2020) work with a Posthumanist Institutional Ethnography (PIE) that "places the human in relation to other-than-human objects, bodies and materialities, and thereby radically recasts ontology, epistemology, and ethics" (p. 509). Referencing Barad (2007), Gullion (2018), a sociologist and methodologist, proposes the concept of diffractive ethnography as a practice of discursive-material engagement with the world, which encourages ethnographers to map becomings of the research assemblage in which they themselves are embedded. Also drawing on Barad (2007), Rosiek (2018) puts forward the notion of agentially realist reflexivity that urges educational ethnographers to critically examine how their intra-actions with the phenomenon they study shapes their subjectivity and what new possibilities their fieldwork and documentation might open. In the field of language and literacy education, Toohey (2020) argues for a new materialist ethnography, in which participant observation is understood as "a matter of learning and doing with people" (p. 43) rather than a human-centric technique of collecting data and documentation as a practice "aimed at intervening in the world's becoming" (p. 42).

All these authors encourage me to work with a post-qualitative ethnography that shifts from representation of human social, cultural and educational experiences to a sociomaterial practice of becoming, doing and learning with humans and nonhumans in and out of the research field. De-privileging the human and deconstructing representational thinking, such an ethnography is well positioned in a sociomaterial landscape. In my study I applied *post-qualitative ethnographic participant observation and interviewing* to coproduce and approach data, which I discuss later in this chapter. These approaches have been helpful in understanding the complexities of human-nonhuman entanglements emerging in my research context, located in a rural area in China. In what follows, I offer an introduction of the research site and tell stories of encounters in this place.

3.2. Research Site

This study was carried out mainly in Jingyue, a suburb of Changchun, which is the capital city of Jilin Province. My selection of this research site was closely related to my embodied experience of living there. As an undergraduate, I lived on campus of a university located in Jingyue between 2008 and 2012. I then moved to other urban areas of Changchun for a Master's degree and for work until September 2016 when I travelled to Canada to pursue my doctoral studies. However, when it came time to prepare for my doctoral fieldwork, I realized that residing in an urban area of China hindered me from developing a nuanced understanding of contemporary local rural lifeworlds. Therefore, in 2018, I took up the opportunity to work for several months as a voluntary EFL teacher in a rural Jingyue middle school, referred to here as Beilei, where most students were between 12-15 years old and from low-income backgrounds. This teaching experience provided me with some understanding of how English language education was practiced in rural Jingyue and specifically how digital technologies have been taken up more recently by young ELLs in that context. With an interest in the interplay between English language education and digital literacies in rural China, I then saw the potential to locate the current research in Jingyue. From the beginning of April 2019 to the end of May 2020, I carried out ethnographic fieldwork with two key participants from Beilei Middle School. Shortly before beginning the fieldwork, I moved back to Jingyue for research, career and day-to-day life, engaging extensively in sociomaterial practices in this area.

3.2.1. Background

Jilin is geographically remote as one of the three northeastern provinces of China—the other two being Heilongjiang and Liaoning. Contiguous with Inner Mongolia, Russia, and North Korea, it is culturally diverse in hosting *Hanzu* (汉族, ethnic Han Chinese) and 55 minority nationality groups, among which the top three largest populations are *Chaoxianzu* (朝鲜族, ethnic Korean Chinese), *Manzu* (满族, ethnic Manchu Chinese), and *Mengguzu* (蒙古族, ethnic Mongoloid Chinese) (Jilin Government, 2020). It is socioeconomically disadvantaged especially compared to coastal areas in eastern and southern China. In the 2020 GDP (Gross Domestic Product) rankings, the province ranked 28 in 31 provincial regions in Mainland China (22

provinces, four municipalities directly under the Central Government, and five autonomous regions for ethnic minorities) (Tecent.com, 2021).

Early in the 20th century, Russia and Japan started a colonial rivalry for grabbing land from the three northeastern provinces of China. Jilin was involved in anti-imperialism wars, and between 1931 and 1945, the province became a Japanese colony. As a city of Jilin, Changchun was designated as the capital of the Japanese puppet state known as *Manchukoku* (伪满洲国) (1932-1945). Although more than 70 yeas have passed since the *Manchukoku* collapsed, sediments and traces of this colonial history can be found in social and material life of the present inhabitants in this context. With memories of the past, these sediments have been materialized in local architecture, language, food, transportation, parks, etc. Entangled in local contexts, they exerted their powerful agency in affecting how the current study came into being.

One among many language and literacy learning activities my participants and I engaged in was visiting a palace museum of the *Manchukoku* in Changchun. This embodied and emplaced experience offered us rich knowledge of local language and literacy practices materialized in a wide range of bodies such as plants, buildings, sculptures, furniture, images, sound, fish, and a stone inscription. After this museum visit, our learning was ongoing in processes of sharing photos and making videos of this encounter. I will discuss this further later on in Chapter 5.

As a suburb of Changchun, Jingyue hosts a large number of rural populations, who live in villages or small towns and live mainly by farming, working in small business or in urban areas as the so-called “rural migrant workers” or “peasant workers”. Like many suburb communities elsewhere in the country, rural neighbourhoods in Jingyue have been encountering rapid urbanization, modernization and globalization, bringing forth an explosion of industries, colleges/universities, and high-end residences in recent years. As a result, villages composed of bungalows are shrinking while modern houses, high-rise residential buildings targeted for middle-class and affluent people are increasingly constructed (see Figure 3.1).

Figure 3.1 Jingyue with high-rises and village-style bungalows waiting to be removed
(Photo by author, July 22, 2019)

In removed Jingyue villages, there are some residents who are unsatisfied with compensation plans offered by housing developers or governments, and they often choose to protect their land by continuously appealing or bargaining with the authorities. However, most local populations who used to live in bungalows (see Figure 3.2) in villages accept residences in newly built, high-rise apartments and/or money as compensation for loss of land. Living in the urban-like blocks does not mean they have abandoned their lifestyle, traditions, beliefs, knowledge systems, and sociomaterial practices that are deeply connected to their rural origins. In other words, this group of people are in-between the urban and the rural and they can be identified as urban in a geographic sense, whereas their rural trajectories are enacted in the present as an important part of their everyday life. This blurs the boundaries between rural and urban areas in Jingyue. What counts as rural might confound local residents as well as people who work with them, me included.

Figure 3.2 A typical bungalow in Jingyue villages
(Photo by author, June 2, 2019, in my participants' village)

Figure 3.3 shows how a temporary tent used for mourning was situated adjacent to high-rise residential buildings constructed on land that had originally been villages. Unlike urban Chinese who tend to go to a funeral parlour for mourning, rural Chinese prefer to use their homes as the place where the dead body of a family member is prepared for burial or cremation. This is likely to be related to cosmologies, cultural traditions and value systems of rural Chinese, and the material layouts of their homes make this tradition feasible in practice. Most rural groups in China—Jingyue is no exception—live in traditional bungalows with separate yards, which are more spacious and easier to place a cumbersome coffin compared to tall buildings. As their house has disappeared with their village, this family in Figure 3.3 (as well as some other local families) figured out how to pitch a temporary mourning tent in their newly "urban" neighbourhood.

Figure 3.3 A temporary mourning tent pitched in front of high-rises
(Photo by author, April 15, 2019)

At dusk on a spring day in April 2019, I came across this tent on my way to visiting a friend living in the neighbourhood. To be honest, I was shocked when I saw the black doorless tent in which a large coffin was placed, and I became even more uncomfortable when hearing people wailing and seeing burning paper made as an offering of money to the dead. I could hardly believe there would be such a crude mortuary with so much “rurality” standing in between high-rise buildings often linked with modernity and urbanity. Today when recalling this encounter, I am ashamed of my feelings of shock and discomfort that day, as I sense they probably came from my preconceptions and dualistic perspective equating rural to primitive and urban to civilized.

Such misconceptions started shifting for me in August 2019, four months after I saw the mourning tent in Jingyue. I was recalled to my hometown village located in China’s eastern Shandong Province to see my grandma who was diagnosed with cancer and laying on her deathbed. My grandma insisted on spending her last days not in hospital but in her home in the company of her family. After she breathed her last breath

at age 82, her body remained one day on her deathbed that was moved into the middle of her living room, and then a heavy coffin containing her ashes alongside some of her belongings stayed there another two days. A mourning space was set up in her yard (see Figure 4.4), where there was a table with candles, candlesticks, sacrifices (wine, meat, grain), as well as a portrait of her that was changed into black and white as colors indicating death. In front of the table was a woven bamboo mat and a pillow on the ground for visitors to kowtow as an expression of their condolences. Hanging on a pomegranate tree and other plants in the yard were many pieces of white paper, which were roughly stitched on black cloth and full of calligraphy with Chinese characters of condolences.

Figure 3.4 Figure 3.4 A mourning space in my late grandmother's yard
(Photo by author, August 25, 2019)

My grandmother's funeral lasted for four days and was composed of a series of traditional, mystical rites. In spite of my rural origins, I once considered rural life as boring, stagnant and even backward. It had always been my dream to escape from the rural and settle in cities, which was also what my parents expected from me. As a result, I had come to see rural rites as superstition and been reluctant to spare a thought for bodies, happenings and feelings entangled in them. In the process of witnessing my grandma's death and engaging in her funeral, I became aware of how traditions could create a very special space for my family, where we gathered together to mourn for the loss of our beloved one, to share memories of the past, and to support each other to get through difficulties in the present. I also realized the rural could be vital and promising in producing connections between life and death, between land and human, and in bringing

together a wide range of materials, literacies, actions, feelings (grief, affection and those indescribable) in one ceremony.

3.2.2. Framing of Rurality

These two stories have led me to an understanding of the rural as materially plural, interconnected and changing diversities rather than as a singular, bounded and coherent social whole standing as separate from the urban. Rural and urban are often constructed as simply opposing geographic concepts, that is, rural as periphery and urban as center. Resisting such an urban-centric view of rural-urban dichotomies, I agree with Donehower et al. (2007) who argue the "rural should not be seen in opposition to urban but as part of a complex global economic and social network" (p. xi) and also with Bucholt (2008) that it is difficult to make clear-cut distinctions between rural and urban as they are multi-dimensional concepts. Sensing there might be quite different ruralities that urbanization and globalization open up, I find resonance with Green and Corbett (2013) that the idea of rurality can be understood only relationally because it "makes sense only when it is placed within a semiotic matrix in a relationship of difference from other concepts (e.g., urban, modern, developed, etc.)" (p. 8).

Following this line of scholarship, I adopt a stance against dominant narratives of how rurality is conceptualized in capitalist globalization, urbanization and modernization. As Sorge and Padwe (2015) who draw on Williams (1973) point out, there have been two contradictory sets of myths dominating narratives of urban-rural relations: "On the one hand are myths of rural idiocy and the civilizing potential of the urban, on the other, myths of pastoral innocence and the corrupting influence of the city" (p. 236). In other words, the rural is often constructed as a place breeding backwardness and ignorance, and thus it is destined to be drawn into the global expansion of capitalism through transforming to the "modern" and "enlightened" urban. At the same time, it is easily romanticized and objectified as a site of nostalgia and spiritual belonging in the contemporary world, where its urban counterpart has been ruined by environmental, economic, political and ethical crises.

Thinking beyond these dominant narratives, Sorge and Padwe (2015) inspire me to understand the rural as spaces and "places enmeshed within amorphous realities significantly characterized by a circulation of people, goods, images and ideas not

moored to any single place" (p. 242). They also offer insights into seeing the rural as "historically contingent processes, never inert but always becoming" (Pred, 1984, as cited in Sorge & Padwe, 2015, p. 241).

In framing my study of rural girls, I therefore deny "a deficit model of rural life" (Donehower et al., 2007) that is perpetuated in academic scholarship and media representations. All too often, life in rural China is viewed as lacking: Lacking vitality, lacking civilization, lacking literacies, lacking economic opportunities and so on and so forth. Following Braidotti (2013), I adopt an affirmative position on the posthuman turn as "a unique opportunity for humanity to reinvent itself affirmatively, through creativity and empowering ethical relations, and not only negatively, through vulnerability and fear" (p. 195). With this in mind, I envision a rurality that is not bound to result in misery, vulnerability, despair or doom. It could also be a land of creativity, production, hope, potentiality, and a land that offers new opportunities for "bonding, community building and empowerment" (Braidotti, 2013, p. 54).

This is not to say that I try to switch to rural romanticism or to, as discussed earlier, the myth of "pastoral innocence". My point is not about producing binaries such as rurality and urbanity, negative and positive, periphery and center. Rather, I concern myself with how to locate the rural in the affective flow of assemblages, which are relationships and conjunctions of multiplicities (or "and…and…and…" as Deleuze and Guattari [1987] describe it) and thus produce both negative and positive forces. Such understandings of rurality have guided me to note rurality, a main concern of this study, is nonetheless only one aspect of my focal participants' lives that are entangled in a myriad of unstructured, incoherent realities. Even though they might be identified or self-identified as rural children, I seek to avoid excluding the possibility that they are urban or becoming different to rural or urban altogether at some point in their daily practices. In what follows, I provide an introduction of participants in this study.

3.3. Participants

The focal participants for this study are two girls from Beilei Middle School, which was built in 1958 and covers an area of 23,000 square metres. This school offers courses from Grade 7 to Grade 9 to students, who reside in nearby rural communities and come from homogeneously cultural and linguistic backgrounds. All of its students

(about 350) learn English as a priority foreign language and a compulsory academic subject. As discussed earlier, this school is located in an area with blurred boundaries between rural and urban, being surrounded by both modern high rises and older, traditional houses.

In thinking about who would be potential participants for this study, I gradually turned my gaze to middle school students. Most contemporary Chinese students start learning English in primary school or even earlier, and they often go to middle school with basic proficiency in English language. Therefore, when learning English in the digital world, middle schoolers are likely to go beyond focusing on the ABCs and vocabulary as beginners. Rather, they might engage in a wide range of language learning activities such as online chatting, digital storytelling, game playing and video making. This offers exciting possibilities for carrying out my study with a focus on digital, multimodal and multilingual literacies.

At the same time, compared to primary schoolers, middle schoolers seem to take learning the English language more seriously since it is treated as one of the three main academic subjects—the other two being Chinese and mathematics—since Grade 7. Middle schoolers' parents and teachers are also likely to attach great importance to English competency assessment. This is because it takes up a considerable proportion (normally 20%) in Zhongkao (the High School Entrance Examination) and Gaokao (the National College Entrance Examination), where rural students and their urban peers fiercely compete on an unequal playing field with access to different educational resources. While high schoolers are usually too busy with schoolwork to participate in a research study, middle schoolers might have more flexible schedules to engage in out-of-school learning activities.

With this in mind, I recruited two middle school girls into this study and carried out 14-months of ethnographic fieldwork with them.

3.3.1. Recruitment of Participants

The two focal participants were recruited through different ways at different stages of this study. One girl, referred to here as Qian, was recruited first through her English language teacher Ms. Chu, whom I got to know during my semester EFL

teaching at Beilei in 2018. After hearing about my intention to carry out a study, Ms. Chu showed great interest and offered to help me recruit participants when needed. I then asked her to hand out copies of a handout introducing my study plan and providing recruitment information to her 56 students from two classes. Qian was the first student to contact me and became my key participant once she and her parents signed the consent forms in April 2019, as required by the research ethics review committees at Simon Fraser University (SFU).

The other girl, referred to here as Jing, entered into this study in July 2019, three months after Qian was recruited. Her presence in this study was quite coincidental as she dropped by Qian's home during one of my visits. Sitting next to each other on a sofa in Qian's bedroom, Qian and I were reading a picture book on a touchscreen Samsung tablet when Jing came in. Jing soon joined us in reading (see Figure 3.5). I then learned these two girls were cousins, neighbours, and schoolmates of the same age, and they liked spending time together. At the end of our meeting that day, I informed Jing of this study and invited her to join us whenever she was available. After she and her parents signed the SFU consent forms[16], she engaged in several of language and literacy activities alongside Qian and I.

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[16] These consent forms allowed me to video/audio record and photograph Qian and Jing (pseudonyms). Contemporary children, including my participants, are facing emerging challenges of algorithmically-driven data surveillance. Mindful of this, I asked these two girls if they agreed to be video/audio recorded and photographed at the beginning of each fieldwork visit. Over the course of my study, I also repeated to them that they could ask me to stop the recording or delete recordings or images at any moment. To further protect Qian's and Jing's privacy and confidentiality, I avoided including names of their village, town, preschool daycare, primary school and after-class school that were discussed in this thesis. As well, I gave the pseudonym Beilei to their middle school, to which they were affiliated when participating in my study, and invited all human participants (focal participants [the two girls] and secondary participants [parents, sister, teachers]) to choose their own pseudonyms. Doing so, I tried my best to minimalize the risk of exposing Qian and Jing to being identifiable and monitored.

Figure 3.5 Jing (left), Qian (middle) and I (right) reading a digital picture book together
(A still screen capture from the fieldwork video footage, July 21, 2019)

While the recruitment of participants was not aimed specifically at girls, Qian and Jing participated in this research assemblage with their gendered bodies. As I think with sociomaterial theories and feminist new materialist perspectives, I resist reproducing the masculine/feminine, man/woman, boy/girl binaries that have been integral to anthropocentric and logocentric ways of thinking. Rather, I trouble these gender binaries by seeing gender not as given nature or determinate identities, but as rhizomatic and dynamic becomings that unfold in relations and are materially-socially-culturally-historically-politically-discursively enacted. This understanding is in keeping with posthumanist lenses that move "away from an idea of 'man' as sole, sovereign and egoistic individual separated from others by 'his' boundaried body and cultured mind and, instead, apprehend humans as beings in-relation, connected to their surroundings, nature and the world in more meaningful ways" (Taylor & Fairchild, 2020, p. 513).

Such a gender-in-the-becoming perspective has led me to attend to how gender was becoming and materialized in language and literacy learning assemblages in which Qian and Jing came into contact with a wide range of sociomaterial bodies. For example, in analyzing Qian's encounters with the Cinderella tale as well as Qian's and Jing's digital story creation, I highlighted how gender relations were formed among the girls' bodies, language and literacy practices, global capitalism, representations of girls and

women in the media, and social discourses on femininity. I will discuss these intensities in more detail later on in Chapter 4 and Chapter 5.

3.3.2. Participants in Relationships

To gain a better understanding of these girls, I invited some people who might affect their perceptions and practices of learning English with digital resources to participate in this study as well. They included Qian's parents and sister, both girls' English language teachers and homeroom teachers, as well as some school authorities and local government officials from education sectors. Their participation in this study was mainly through open-ended interviews, conversations and their storytelling on diverse topics that might or might not be directly related to the focus of this study. Thinking with sociomaterial theories and working with a post-qualitative methodology, I was reminded of my "response-ability" (Haraway, 2016) to include a consideration of how nonhuman agents also actively constituted and shaped relationships in this study. Thus included as participants there were the digital (smartphones of participants, tools of the researcher), animals (two dogs, a little turtle, and a snake visitor in Qian's home; pigs in a neighbouring yard), buildings (bungalows in the participants' village, home, school, museum), food (snacks, fruits, corns), environmental pollution, English language classes (both physical and remote) and so on and so forth—the list is endless!

This study was coproduced by Qian, Jing, the researcher, as well as those aforementioned participants—both human and nonhuman. Due to my inability to map out all participants and their connections, I will introduce some of them and their relationships in what follows.

Qian and Her Village, Family, Schooling and Smartphone

Qian was 13 years old and in her second semester of Grade 7 when she became a participant in this study. She lived in a village, one of the eight villages in a densely populated town (46,194 residents in 2017) that is well known by the locals for its scenic beauty of a big reservoir. Qian went to kindergarten and primary school in this village. After that, she was enrolled as a seventh grader at Beilei, which was within commuting distance (about 3 kilometres) of her home. She travelled between these two locations usually by bus and occasionally by riding in her 22-years-old sister's car, a secondhand Jetta purchased at a low price in the summer of 2019.

Albeit lying in a zone under rapid urbanization, Qian's village retains much "rurality" as its inhabitants live lifestyles often affiliated with the countryside in China. For instance, mainly living by farming on their land, most of them live in bungalows within walking distance from their relatives' or friends' places, and walk-in visits often come as no surprise. Nonetheless, as some adjacent villages had been urbanized, it was rumoured that Qian's village would soon be removed. Her mother was excited about the news. As she said in one conversation:

> 我们当然愿意搬啊，你瞅瞅，我们家有一晌多地，成天在地里，可累了，也挣不着啥钱。要是拆迁了，人家给赔钱，还给分楼，每家都有。. . . 靠种地咋着也挣不出钱来买房啊，住城里多好啊，打工机会多，孩子上学也方便。
>
> My translation: Of course we are willing to leave the village. You see, our family has about three acres of farming land, which requires a lot of labour but produces few profits. If the village is taken away, every family will be compensated with money and new residences in tall buildings. . . . It would be really nice because we could never make so much money by farming. And we could live in the city, have more work and education opportunities.

Since 2019, the village has been undergoing environmental renovation initiated by local governments in response to increasing air pollution in the village and the surrounding area. The lifestyles of the locals have been changing as policy changes are launched to improve the environment. This includes establishing regulations such as no burning straw outdoors, keeping houses and yards clean and tidy, replacing vegetables at roadsides with flowers, and putting garbage into large bins placed by the government across the village. Chats on environmental issues frequently occurred among Qian's family, who worried about how to make sure nothing would go wrong during regular environmental inspections by government officials.

In a 150-square-meter, six-room bungalow located in the east of the village, Qian lived with her sister and parents, who were in their fifties. Her parents had received little formal education and supported the family through farming and part-time factory jobs. Although having high expectations for Qian's education, her parents rarely engaged in her academic activities. This was partly because they self-identified as having little print-based literacy and worried they would be more of a hindrance than a help to Qian's schoolwork.

Qian's elder sister, referred to here as Tian, was the one who took great care of Qian's studies. On the one hand, Tian was responsible for communicating with Qian's teachers on school-related issues (lunch package, tuition and fees, dress code, paperwork, parent-teacher meetings, etc.), and for making sure Qian's homework was done properly. On the other hand, she devoted considerate attention to scaffolding Qian's academic learning through making learning plans for her and buying her curricular materials (books, test papers, digital resources, and after-school tutoring classes). Unlike her parents who were at a loss as to what to do to support Qian's academic learning, Tian introduced herself as being good at teaching. After graduating from a local college, she temporarily worked as a Chinese language teacher in a private preschool located in urban Jingyue. She preferred to teach in one of local public primary schools and was preparing for her teaching certificate test during the fieldwork for this study. In spite of their 9-year age difference, the relationship between the two sisters was close as they shared one bedroom and enjoyed being with each other.

While Qian was born and grew up in a village, she knew little about farm work, which was related to the family's belief that students should give priority to academic learning over all else (as is the case in most Chinese families). As a middle school student, Qian studied on a tight schedule and did not have much spare time. After spending her day at school from 7:00 a.m. to 4:00 p.m. on weekdays, she did homework until bedtime and did more on weekends and holidays and along with attending tutoring classes.

Qian started attending a small English language tutoring center located in a nearby newly-urbanized neighbourhood in Grade 5, two years after the language was introduced in her education as a compulsory academic subject. Unlike some of her peers who were pushed by their parents to attend after-school classes, Qian voluntarily attended, considering competency in the English language to be important in examinations at all levels of her education and in her future career development. She was rewarded for the extra time she invested in learning English by obtaining good grades on inside-school English language examinations. Possibly because of this, she had been appointed as the Representative of her English class since Grade 7. As such, she assisted her English teacher Ms. Chu in collecting and dispatching students' homework, which was usually in written form. She was also assigned as one of the two Class Monitors empowered to take charge of the classroom in the absence of teachers.

Similar to their peers in other countries, contemporary young Chinese students are often labeled as a first or second generation of "digital natives" who grow up heavily exposed to digital technologies (Zeng, 2018). Growing up in an age that has witnessed a growing national coverage of digital technologies in China, especially in rural areas (see Chapter 1), Qian identified herself as an active digital user who was Internet savvy and particularly interested in using social media such as QQ, WeChat (微信), and TikTok (抖音).

As discussed in Chapter 1, Qian's homeroom teacher was openly hostile towards smartphones, thus urged parents not to buy smartphones for their children or to expose them to other digital tools for too long. Ironically, for a Class Monitor who was often expected to take a lead in following rules and meeting the requirements of her teachers, Qian had had a smartphone at her disposal since Grade 6. This phone was a relatively inexpensive *Vivo* (a Chinese brand) product, which was handed down to her by her sister Tian when the latter purchased a new smartphone. As a "good student" with great school performance and a satisfactory amount of self-discipline, she was trusted by her parents and sister to make a proper use of her phone.

Jing and Qian

Jing was a quiet, hardworking girl who lived in a bungalow one block away from Qian's home. She had the same family structure as Qian— two parents and a grown-up sister who was in a full-time job in urban Jingyue. Like Qian, Jing had a smartphone at her disposal. It happened to be the same brand as Qian's phone and even more coincidentally, it was also given to her secondhand by her sister. Being digital savvy, Jing used her phone for social media and homework on a daily basis. While Qian was not active in publishing digital texts (e.g. posts, images, songs, videos) on the Internet, Jing preferred to frequently update her social media accounts.

In relation to her schooling, Jing ranked high in her class as well as in her grade at examinations. She started at Beilei Middle School the same year as Qian did. Although these two girls were assigned to two different classes with different teachers, they were taught under same syllabi, which had been prepared by all instructors teaching the same subject to students at the same level. Indeed, the two girls had very

similar educational backgrounds, having attended the same kindergarten, primary school, middle school and even after-class schools.

As cousins, neighbours and childhood friends of the same age, Jing and Qian liked spending time together. During their busy middle school days, they were not able to meet face-to-face as frequently as in earlier years. Still, on some weekends, they managed to meet at a bus stop in their village, get on the same bus, and then head to their tutoring classes together. During their summer holiday (about 5 weeks per year) and winter holiday (about 7 weeks per year), Jing would spend a lot of time in Qian's home. In Qian's bedroom, the two girls did their school assignments together, which were given by their teachers and written out as to-do lists by Qian's sister on a whiteboard (see Figure 3.6 and Figure 3.7). In addition to being homework partners, they also enjoyed each other's company in extracurricular activities, e.g., chatting, singing, eating, feeding dogs, skipping rope, playing with their phones, watching movies on television.

Figure 3.6 Jing (left) and Qian (right) writing their homework together
(Photo downloaded from a WeChat post of Tian, July 25, 2019. Used with permission.)

Figure 3.7 A whiteboard with to-do lists of homework for one day[17]
(Photo by author, July 27, 2019)

The Researcher and the Digital

As discussed in the previous chapters and earlier in this one, I started fieldwork as a researcher with rural origins and traces, but also as one deeply entangled within the local sociomaterial assemblages in processes of living, studying and teaching in this place. For me, it was pleasant to work on this project because it constantly called to mind the days of my childhood and pre-tertiary schooling in a village and a nearby town in eastern China, bringing back and forth knowledges and practices from the past but "*enacted in present processes of becoming within the phenomenon of research*" (Schadler, 2019, p. 225, emphasis in original).

As well, this project brought newness to my ways of "knowing/becoming/doing" (Kuby et al., 2019b) digital literacies. In my study investigating how digital technologies shaped girls' English language learning, the digital was far beyond phenomena, artefacts or objects of investigation, but also served as apparatuses of investigation. According to Barad (2007), apparatuses are not mere observational devices or scientific instruments,

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[17] The list in the left column was for Jing and the one in the right for Qian. The girl sitting in front of the whiteboard was Qian. To protect their confidentiality, I blurred their names on the whiteboard with mosaic spots

but more importantly, they are material (re)configurings of the world, that is, "boundary-making practices that are formative of matter and meaning, productive of, and part of, the phenomena produced" (p. 146). Therefore, in thinking about how digital tools participated in language and literacy learning activities in this study, I did not simply consider them as mediators or tools of learning, but paid more attention to how they operated alongside installed apps, software to produce meaning and shape learning as active agents in assemblages.

The digital also worked as prominent apparatuses in carrying out this study. On the one hand, I relied heavily on digital media to coproduce, analyze and report data, including an iPhone 8 Plus used to record (on video or audio) and photograph, an iPhone XS Max used to communicate with participants and search online for information, and a laptop used to read theories, keep field-notes, transcribe and analyze data, as well as write out drafts of this thesis. On the other hand, the digital created a new field for this study that did not require my physical presence. I will discuss further how fieldwork was carried out remotely in the following section.

3.4. Data Coproduction

As discussed above, I take the stance that data are not collected by the researcher(s) but coproduced in a research assemblage. I therefore resist using the phrase *data collection* and opt for the expression *data coproduction* to foreground the messy, becoming, material and relational nature of data production. As well, I see this study as constituted not only by shaped bodies or forms, but also by affective intensities and forces arising among girls-technologies-spaces-time-animals-discourses-policies-pedogogies-modalities-languages-teachers-me. All these sociomaterial things worked together in the research field—physical, virtual and in-between spaces.

3.4.1. Post-Qualitative Participant Observation and Interviewing

With an intention to employ a post-qualitative methodology, I am not suggesting I could get rid of all thoughts and practices of traditional qualitative inquiry. Rather, I acknowledge that I coproduced and approached data in ways that overlapped with traditional ethnographic methods to some extent. Post-qualitative methodologies encourage researchers to create various approaches of engaging in research rather

than following a particular technique or method offered by methodologies. Indeed, new practices can be created with a "combination of methods that already exist, their use in novel ways" (Bhatt & de Roock, 2013, n.p.), or through "redefining the boundaries of analytical tools" (Schadler, 2019, p. 220). To be specific, I applied approaches of what I call *post-qualitative ethnographic participant observation and interviewing*, which are conceptualized as sociomaterial practices rather than human-centric methods of data collection, as discussed in Section 3.1.5.

In traditional ethnographic studies, participant observation is well known for enabling the researcher to adopt an "ethnographer-as-insider" (Atkinson et al., 2001, p. 20) position. It encourages researchers to be immersed in the meaning-making practices of those studied in order to investigate and represent their sociocultural life. However, it places the human as central to the research and overlooks the prominent role that nonhuman bodies play in coproducing the impromptu, emergent and nonlinear data. It presumes a researcher is a distinct entity who can keep a distance from the world to "observe" it and learn from it. Therefore, it is not the same thing as the post-qualitative idea of the researcher forming part of the research assemblage.

With this in mind, I conceptualize my participant observation, or as what Gatt and Ingold (2014) call, "observant participation" as a practice of "correspondence" that is non-representational and non-descriptive. As Ingold (2014) explains, this practice is responsive for researchers as it entails "answering to … happenings with interventions, questions and responses of our own" (p. 389). Therefore, it "is not an activity aimed at objective expert description, but rather a matter of learning and doing with people" (Toohey, 2020, p. 43). In the course of this research, I was aware of the participatory nature of my observation practices, and thus tried not to retreat from Qian's and Jing's language and literacy learning activities. As well, I redirected my attention from a focus on human participants—including me—and our interactions to how we were intra-acting with nonhuman bodies (e.g., objects, discourses, policies, time, modes, languages) in learning spaces. I discuss this in more detail later on in the next section as well as in the upcoming chapters.

In the same vein, I have tried to avoid creeping back too far into conventional qualitative research methodological practices when doing interviews. I see interviewing not as a human-centric technique of evoking, collecting data as pre-given realities, but

as “a Voice without Organs” (VwO)— “a voice that does not emanate from a singular subject but is produced in an enactment among researcher-data-participants-theory-analysis” (Mazzei, 2013, p. 732). Interviewing in this study consisted of nonintentional, unstructured, informal, and open-ended conversations and storytelling between my human participants and me. It was enacted through our *desires* to tell and share stories, rather than through my *designs* of interview questions or forms. More often than not, it led both interviewer(s) and interviewee(s)—the roles being constantly shifting—to a terra incognita, where some topics seemed to be irrelevant to research questions of this study, but proved later to offer insights in understanding how relationships were forming and deforming in the research assemblage. In keeping with non-representational thinking, we experienced the interviewing as impromptu human-material intra-actions bringing forth uncertainties, differences and new possibilities rather than representations of reality. In other words, we did not attempt to represent the world in our conversations, but attended to how our encounters enabled us to become with the world.

3.4.2. Processes of Data Coproduction

Data discussed in this study were coproduced and cogenerated mainly through participant observation, interviewing, field-notes, photography, as well as video/audio recordings of girls’ online and offline learning activities.

After Qian was recruited as a focal participant of this study, I met her and her family for the first time at her home, having conversations mainly about how she learned English in inside- and outside-school settings and in particular, how she learned the language with digital resources. After that, Qian and I had weekly meetings (ranging from 1.5 to 3 hours each time) at her home, where she engaged in digital-assisted (mainly through her smartphone) English learning activities, such as doing homework, taking online tests, reading storybooks, playing video games, watching movies, singing, chatting, and distance learning. With an interest in how girls were “making and unmaking literacy desirings” (Gutshall Rucker & Kuby, 2020, p. 18), I did not design the content of each meeting, nor did I intend to accomplish certain research goals during the fieldwork. However, I acknowledge that the research process was not as open ended as I might have thought because there were many “agential cuts” (Barad, 2007)—research questions, discourses, language norms, cultural practices, gender and so on that were coproducing the research assemblage. As each agential cut enacts a different boundary-

making practice, some things became possible and visible while others were foreclosed in my study. As Bozalek and Fullagar (2021) highlight, "[a]gential cuts necessarily exclude some aspects and include others" (p. 30).

I went to Qian's home with an open mind, letting her decide what learning activities she would like to engage in. Yet, I inevitably influenced her decisions even when I thought I was not, since my presence at her home was already an agential cut bringing her into this research assemblage. Most of the time, she would cooperate with me by adjusting her schedules to learn English with or without digital resources when I was there with her. On a few occasions when she would rather focus on her tasks (usually homework of other classes than the English class) at hand, I would wait for her to finish and was sometimes invited to participate in what she was doing.

During those meetings, most of which were video/audio recorded, my participant observation was twofold. First, learning Qian had rarely engaged in English learning activities involving digital media, especially extracurricular ones, I introduced her to some digital learning resources such as movies, videos, games, dictionaries, translating apps. She was particularly interested in two apps: One is iHuman Books (洪恩双语绘本), providing a wide range of interactive, multimodal, and multilingual (English, Pinyin Chinese, simplified Chinese, traditional Chinese) storybooks; the other one was Fun Dubbing (英语趣配音), an interactive app offering more than 200,000 film clips and videos for users to replace the original English speech with their own oral English. I will show Qian's encounters with these two apps in Chapter 4. Second, instead of attempting to be an unobtrusive or fly-on-the-wall "observer", I was always engaging and responding as one of many "material participants with other participants and materials, all of whom learning and changing in concert with one another" (Smythe et al., 2017, p. 48). I therefore saw myself as being doing-becoming-learning with Qian, Jing who participated in part of the fieldwork, as well as other participants. In the field, I was always with these two girls, affecting and being affected by them in processes of answering their questions and them answering mine, and of assisting them in making digital text production and being in their products.

In order to have a deeper understanding of how Qian's beyond-classroom learning was shaped by her learning at school, I participated in her English language class sessions on a regular basis, usually biweekly, including one session that took

place at a one-day conference providing training for English language teachers in the school district aimed at improving their pedagogical approaches (see Figure 3.8 & 3.9). Invited by her English teacher Ms. Chu, I also “observed” the other class taught by Ms. Chu each time I went to her school. In those class sessions, I took field-notes and photos when data glowed for me, focusing on not only how Qian responded to class activities, but also materials such as oral lectures, equipment, furniture, decoration, atmosphere, and discourse. In particular, I attended five parent-teacher meetings that involved Qian’s parents or sister and occurred in the middle and at the end of each term.

Figure 3.8 An English language class session in classroom[18]
(Photo by author, September 5, 2019)

[18] In Figure 3.8, Qian is standing and answering Ms. Chu’s question. It is the custom at Beilei (as is the case in many Chinese schools) for students to stand up straight when answering the teacher’s questions. As required by the research ethics review committees at SFU, images of individuals who did not participate in my study should be face-obscured.

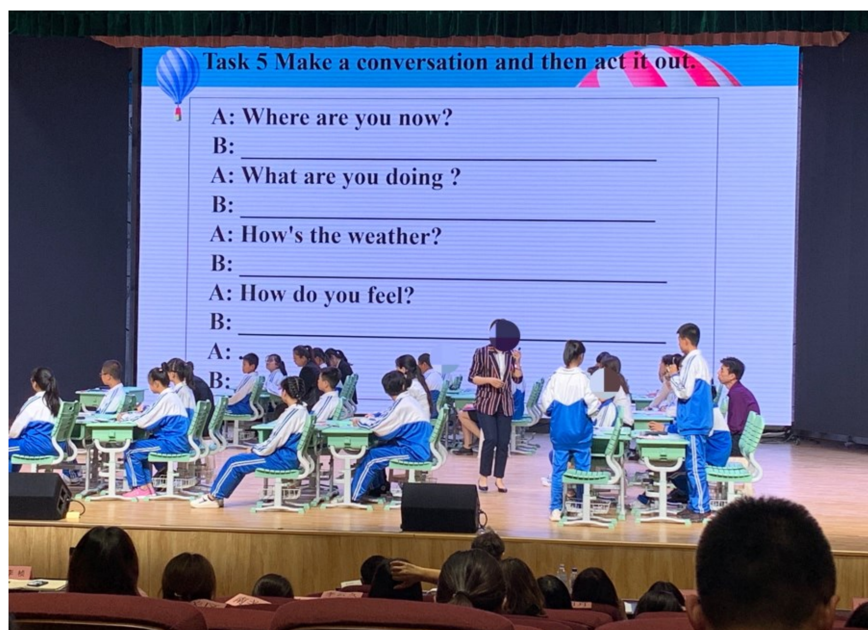

Figure 3.9 An English language class session at a conference[19]
(Photo by author, May 17, 2019)

As briefly mentioned in Section 3.2.1 above, I went to a local palace museum in the company of Qian and Jing to see how language and literacy learning would arise in this setting from encounters among our bodies, history, architecture, sculpture, gardening, etc. To gain insight on how the girls' language repertoires emerged in different learning spaces, I also conducted participant observations in an English language tutoring center, where the girls learn English on weekends and holidays.

Data discussed in this study were also coproduced during processes of "thinking with theory" (Jackson & Mazzei, 2012) and engaging with the following participants in this research assemblage: Official documentation obtained through the school (e.g., policy on English language education and digital literacies, textbooks, test papers, school social media accounts, census on demographic distribution in the school), discourses around rural young Chinese ELLs and learning English with digital resources

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[19] In Figure 3.9, Qian is standing and role-playing a conversation with her learning partner who is also standing. This at-conference class is temporarily formed as it consists of students selected from the four Grade 7 classes at Beilei. Over the course of my study, the teacher in this figure taught Qian only in this one class session. As I did not approach this teacher for consent, I obscure her face in this figure.

appearing in other sources (e.g., peer-reviewed articles, books, news reports, social media), and my focal participants' (non)digital learning materials and artefacts, etc.

This study was carried out not only in a physical field (home, classroom, museum, tutoring center), but also in virtual spaces, especially on platforms of DingTalk and WeChat. As mentioned in Chapter 1, DingTalk is a Chinese teamwork software originally designed for business. During the first half of 2020 when schools were closed because of the Covid-19 pandemic, it came into vogue as a widely used online education platform in China. During this time period, all courses offered by Beilei Middle School moved onto DingTalk, and all of its students from different classes of the same grade were re-enrolled into one big class. Qian and Jing were thus given lectures by the same English teacher simultaneously. I have attended several of their DingTalk English class sessions from my own home, two sessions with Qian at her home, and have been given permission to review all sessions stored on the platform.

WeChat has proven to be a powerful networking site with multiple affordances, such as asynchronous and synchronous one-to-one, one-to-many communication through multilingual and multimodal texts (e.g., languages, voice, images, video, emoji, images, files), posting updates, as well as everyday practices (e.g., banking, paying bills, shopping, food delivery, sharing location). Like many of their peers in China, both Qian and Jing relied heavily on WeChat to communicate with friends, family members, and teachers. This software played a crucial role in producing data for the current study. During and after the fieldwork, I kept in contact with Qian and Jing via WeChat messages and video/audio calls, where we conducted several interviews, scheduled our weekly meetings, and shared learning materials. As well, I paid close attention to how they networked on the platform and in particular, how they participated in their WeChat class groups, where teachers, students, parents and school authorities communicated. There were lots of happenings in their WeChat class groups. For instance, homeroom teachers gave notices; teachers gave homework; students asked questions and handed in homework; parents paid fees; members shared resources.

3.5. Data Analysis

3.5.1. Multimodal Analysis

In order to understand how girls were engaging in literacies as "moment-by-moment unfolding(s)" (Leander & Boldt, 2012, p. 33), I have video recorded most of their on- and off-screen learning encounters during the fieldwork at Qian's home. This produced an overwhelming amount of video data and made for time-consuming transcription of them. As a new researcher, I was initially frustrated by the fact that it was beyond my ability to transcribe and document all happenings in those video recordings. I was then relieved upon reading my supervisor's response in an email: *Documentation in research is always a process of selection as we record some things and not others because of our stance, our gaze and how many things escape our notice*. I then realized as a researcher, I, alongside the research apparatuses (tools, theories, research questions) I brought into the field, was always and already enacting specific boundaries, agential cuts in the research assemblage.

With this in mind, I watched and re-watched these videos again and again, transcribing moments that "glowed" for me (Maclure, 2013) or made me "stumble" (Brinkman, 2014), then conducting "micro-analyses of [those] specific salient moments" (Bhatt et al., 2015, p. 483). During this process, it was particularly challenging to transcribe and analyze the wide range of modalities in video data, which might be embodied (e.g., gaze, gesture, touch, facial expression, silence, movement, emotion), textual (e.g., print, music, sound, image), or relational (proximity of bodies, sociomaterial intra-actions).

As discussed in Chapter 2, I take a stance that all meaning-making practices are multimodal in nature. This understanding has led me to be alert to the danger of predominantly focusing on language and linguistic communication when reading data. I then searched the literature on multimodality for examples of how researchers in this field work with their data. I found work of some researchers who have discussed multimodal transcription, including transcription of video footage (Heath et al., 2010); musical notation (Benzemer & Mavers, 2011); gaze, action and gesture (Lancaster, 2017).

I also found a rich body of research has discussed multimodal (discourse) analysis (e.g., Climasko & Shin, 2017; Kress, 2010; Kress & van Leeuwen, 2001; Machin, 2007; Marsh, 2017; Jewitt, 2011; Zhao, 2019b). In particular, Wohlwend and Thiel's (2019) account of multimodal analysis of video data was helpful in understanding how young learners make meaning in processes of "coordinating complex actions and their knowledge of visual, auditory, haptic, and kinesthetic meanings" (p. 179). As these scholars explain, multimodal analysis is about tracking modes exploited by actors to understand how they make meanings with bodies and materials in a particular context.

This scholarship on multimodal transcription and analysis has inspired me to include photos, screen shots, URLs, hypertext links to files (Microsoft Word, PDFs, audio/video recordings) into my transcripts. I was also encouraged to analyze modalities (action, gaze, emotion, silence, murmur, facial expression, language) through writing moment-by-moment narratives of how they became meaningful in intra-actions with one another and how they simultaneously shaped girls' language and literacy learning. For example, analyzing silence as a mode pushed me to ask these questions: Why do girls choose to be silent rather than to speak? What other modes are mobilized at this moment? How do girls make meaning in this process?

However, such a multimodal analysis might direct my focus toward human bodies. Like Wohlwend and Thiel (2019), I also employed a materialist analysis that highlights how materialities (e.g., the digital, environmental layouts, books, paper, dog barks, homework) actively coproduced meaning with modalities and shaped relationships in this research assemblage. In other words, in analyzing Qian's and Jing's meaning-making practices, I did not think of them as separate processes, but as already entangled, intra-acting with each other and materials. With a focus on dynamics and sociomaterial relations, these analytical practices have guided me to include a consideration of post-coding analysis.

3.5.2. Post-Coding Analysis

As discussed in Section 3.1.2, researchers who have turned to post-qualitative methodologies work against conventional ways of data interpretation or analysis—coding data as numbers and then reducing them into thematic chunks. Rather, they

embrace “post-coding analysis” (St. Pierre & Jackson, 2014), engaging in analytical practices that are emergent, experimental, messy, and thus unrepeatable.

This body of scholarship has encouraged me to search for analytical approaches that could help me document intra-actions that coproduced data, while also distancing myself from representational epistemologies. Understanding data analysis as being “always in a process of becoming” (St. Pierre & Jackson, 2014, p. 717), I have been engaging in an analytical practice that is a recursive, nonlinear, incoherent, unstructured, and ongoing process. In other words, my analysis did not follow the conventional linear process of data collection, data analysis, data representation; instead, it has been occurring simultaneously with data coproduction and data documentation before, during and after fieldwork.

I visited and revisited field-notes and transcripts of fieldwork, plugging theory and data into one another—using theory to think with data and using data to think with theory (Jackson & Mazzei, 2012). In this process of experimenting with theory-data, I made connections between different theories, between different pieces of data, and between theories and data. Like Kuby and Gutshall Rucker (2016), as well as Lemieux and Rowsell (2020), I marked intensities arising from intra-actions among sociomaterial bodies through different text fonts and typeface styles. As well, Brinkman (2014, p. 722) inspired me to understand “research as part of the life process” and thus to pay close attention to “astonishment, mystery, and breakdowns” in my day-to-day life.

For instance, in analyzing a transcript of a conversation between Qian and me about recent air pollution in Jingyue—the research site, I plugged this piece of data into many things, happenings and mapped connectives among them. They include: environmental renovation taking place in Qian’s village; policy initiated by local governments to improve the environment; my embodied, emplaced and multisensory engagement with the air pollution in my everyday life in Jingyue; discussions on social media; sociomaterial theories, e.g., Braidotti’s (2013) account of interconnection between the human and the nonhuman environment, Bennett’s (2010) concept of *Thing-Power.*

3.6. Conclusion

In this chapter, I have reviewed some major concerns of post-qualitative methodologies, then introduced the research site and participants of this study, and in the final parts discussed how data were coproduced and analyzed in this research assemblage. What I adopt in this chapter is a new way of thinking and doing research in language and literacy studies. In keeping with it, this chapter does not attempt to accurately describe or represent what this study was, nor does it offer a methodological example of how a post-qualitative social inquiry should be conducted. Rather, it serves as a threshold for me to think deeply about how this study became and would have become different if different research apparatuses were employed, and different boundaries were made. It also provides a space for me to experiment with "the partiality of the documentation, the indeterminacy of causal relations and the impossibility of permanent knowledge" (Toohey, 2018, p. 89).

Thinking with sociomaterial theories, I was concerned with trying to escape the centrality of "I" when approaching, transcribing, analyzing and reporting data. Nevertheless, it has been difficult for me at times "not to sink into the old habits of humanism" (MacLure, 2013, p. 666). This is partly due to my deeply ingrained habits of seeing myself as having control over methodologies and as having a capacity to represent an external truth. It can also be attributed to those real-world limits of academic writing conventions that legitimatize particular ways of producing and sharing knowledge. For example, while post-qualitative methodologies work against a distinction between theory and method, between knowing and doing, between ontology and epistemology, so far in this thesis I have produced separate chapters for theory and methodology, which has been a struggle and sits uncomfortably with a post-qualitative stance on research.

Chapter 4.

Multimodality, Multilinguality, and Materiality in A Cinderella Thread

4.1. Introduction

Between 2016 and 2019, the Jingyue School District entrusted the pedagogical management of Beilei Middle School to a private education organization (New Quality Education Group [NQEG]), which was initiated by some education experts experienced in helping rural primary and secondary schools. The NQEG has brought to this school new pedagogical approaches, but also extracurricular activities such as the English Language Club (ELC) that enabled seventh and eighth graders who were interested in English to meet every Friday afternoon. Throughout Grade 7, Qian was a member of the ELC and participated in a stage play entitled Cinderella that was performed in English. After attending rehearsals over several months under the guidance of a NQEG English language educator, Qian played the role of the heroine Ella in the Cinderella play at a school festival (see Figure 4.1).

Figure 4.1 Qian performing in the Cinderella play
(Photo downloaded from a WeChat news report of Beilei Middle School, April 22, 2018. Used with permission.)

During the course of fieldwork, Qian's experience with this play and the Cinderella tale frequently emerged and re-emerged in her response to digital literacies activities in English language learning. A digital Cinderella storybook attracted Qian's interest shortly after I introduced her to iHuman Books (iHB), a popular app offering multilingual, multimodal and interactive storybooks. One week after reading the Cinderella storybook together, Qian and I watched a Disney (2015) movie version of Cinderella on a tablet at her suggestion. After that, the Cinderella story kept reappearing in our contacts with an AR (Augmented Reality) game presented on iHB, an app designed to dub videos and movie clips into English (Fun Dubbing, 英语趣配音), a Chinese-English dictionary app (Youdaoshaoercidian, 有道少儿词典), as well as an app chosen by her school as a platform for students to practice English speaking and listening skills after school (Chivox, 驰声听说在线). The Cinderella story also materialized in Qian's formal English language learning as a PowerPoint slide, which was discussed in an online class during the Covid-19 lockdown period in China.

Engaging in these activities of digital literacies, Qian constantly brought up her performance in the Cinderella play and made connections between what she learned from it and what was enacted as she learned with digital materials. It was in these processes that a Cinderella thread started to glow for me and became a "line of flight" (Deleuze & Guattari, 1987) with "the potential to transform a territory by bringing about new and unexpected arrangements and relationships both within and outside of it" (Sherman et al., 2020, p. 108). In other words, the Cinderella thread moved me "away from stable or organised formations or classifications" (Fox & Alldred, 2015, p. 402) of data as thematic chunks. It opened up new possibilities for me to focus on the immanent, unpredictable and rhizomatic nature of entanglements among bodies, materials and intensities in the current research assemblage.

As discussed in Chapter 3, post-coding analysis works against conventional ways of data interpretation or analysis, that is, coding data as decontextualized chunks of text and then organizing them into categories. Working with post-coding analysis, rather than coding data, I engaged in an analytical practice of "tracing-and-mapping" (Lenz Taguchi, 2016) the Cinderella thread to see where it would take me and what unknown potentialities might emerge from following it. As Lenz Taguchi (2016) explains, the movement of tracing-and-mapping "involves extracting events, problems, and

concepts from the chaos of multiple realities" (p. 214) and making connections among them. It encourages creative and active experimentations aiming to explore how an event (in this case the Cinderella thread) is becoming new and different in processes of materialization and intra-action.

Before I go into details about the Cinderella thread in Qian's English language learning with digital resources, it is necessary to discuss the worldwide popularity of the Cinderella tale (as well as some other classic fairy tales such as Sleeping Beauty and Snow White). In their edited book *Cinderella across Cultures: New Directions and Interdisciplinary Perspectives*, Dutheil de la Rochère et al. (2016), alongside other contributors, detail how Cinderella is an ever-changing story constantly reinvented in various genres and forms (e.g., literature, picture book, music, dance, theatre, opera, movie) across different traditions, cultures, languages and nations. According to these scholars, commercialized film adaptations, especially Disney's Cinderella films, have popularized the tale in the global world and "created Cinderella as an everygirl figure, a princess of and for the people" (p. 27). In the twenty-first century, Cinderella has been disseminated more widely with the availability of new digital media and communication networks.

In this sense, Cinderella has been serving "the profit-seeking agendas of communicative capitalism" (Yoshinaga, 2018, p. 163) and functioning as an important material carrier of globalization and westernization. As a result, it is not surprising that Cinderella, as materialized in wide-ranging commodities, is frequently seen in local markets and media of globalized periphery settings. Living in "a digitally networked, globalized, and globalizing Chinese village" (Zhao, 2017, p. 4396), Qian is surrounded with Cinderella and Cinderella-like tales both offline and online. For example, a Disney cartoon of Snow White and the Seven Dwarfs (see Figure 4.2) appeared on the outside wall of a preschool daycare in Qian's village, which she attended for three years. As discussed above, it seems Qian has developed a fascination with Cinderella as she was easily attracted by the story that kept emerging in different forms during her online activities.

Figure 4.2 A kindergarten with murals
(Photo by author, August 12, 2019.)

Nowadays, Cinderella carries different values and serves various interests ranging “from a mere celebration of the ‘consumer romance’ . . . of global capitalism, to socially critical retellings” (Dutheil de la Rochère et al., 2016, p. 1). Feminist scholarship has criticized the conventional Cinderella tales for expressing a heteronormative model of gender roles, romance and marriage (Greenhill et al., 2018). In these Cinderella stories, females are portrayed as either meek, submissive and attractive characters (Cinderella and her late mother) or evil, foolish and unlovable villains (Cinderella’s stepmother and stepsisters). Meanwhile, males are the long-awaited, wealthy and courageous rescuers who bring females out of their miserable or unsatisfactory lives through marriage (the prince’s marriage to Cinderella, the marriage between Cinderella’s father and her stepmother).

Adopting this line of feminist thinking, some language and literacy researchers have investigated how Cinderella stories can be used as teaching materials to cultivate learner’s critical literacies. For instance, Hayik (2016) describes how 10 Israeli Arabi middle-class ninth-graders developed awareness about gender bias and sexism through engaging with a Disney version of the Cinderella tale in an English course on gender issues. Lee (2020) discusses how a group of Korean children from an affluent

socioeconomic background were guided to challenge taken-for-granted ideas embedded in Cinderella by means of retelling the stories in an English literacy workshop. Similarly, Wee et al. (2019) examine how 20 Korean middle-class and upper-middle-class children at a childcare center challenged stereotypes and confronted dominant social norms through reading aloud fairy tales including Cinderella and their parodies. In particular, Young et al. (2018) point out how white supremacy operates in the circulation of Cinderella and Cinderella-like tales (in which the female protagonist is white-only) so that they have come to be seen "as 'credible' and 'classic' examples of 'appropriate' English literature" (p. 103) in English literacy education. Working with critical race feminism that criticizes the racialized and gendered oppression of non-White women and girls, Young et al. discuss how young Black girls can resist dominant literary fairy tales through rewriting these texts from their own perspectives.

Feminist scholarship provides valuable insights into the working of ideologies of patriarchy and white supremacy in the Cinderella tale. In this chapter, this body of scholarship is considered alongside critical theories and theories of the material that shed light on the materiality of relationships formed by Qian and Cinderella as multimodal texts (spoken and written languages, performance, video, game, illustration, sound, animation, music) and the power dynamics operating in the circulation, consumption and engagement with the Cinderella tale. In what follows, I examine how these Cinderella texts offer Qian different English learning opportunities from those offered at school. As detailed in Chapter 2, a sociomaterial lens encourages language and literacy educators to go beyond critique of social and educational inequalities, "to imagine change, to experiment with possible solutions, and to further optimism and hope about the matters that concern us" (Toohey et al., 2020a, p. 1).

In the next sections, I discuss how a Cinderella thread unfolds in three events of digital literacies—digital storybook reading, digital English vocabulary learning, and movie clip dubbing. The first part of each section provides background information on the event (e.g., discourses, learning realities, theories, rationale, mobile apps). A second section features a video excerpt(s) of still screen captures and transcriptions of specific salient moments from the video footage I shot during fieldwork. A third section describes how theories of multimodality, multilinguality and materiality offer insights about the video excerpt(s).

4.2. Digital Storybook Reading

4.2.1. Background

Since 2007, China has been witnessing a significant increase in sales of books (mainly paper-based) for kids and teenagers; however, this took place primarily in big cities (the term for these translates as "first- and second-tier cities" [“一、二线城市”]) (Southern Weekly, 2021). This was echoed in the *Report on Reading of Urban Chinese Children (中国城市儿童阅读调研报告)* (China Children's Book Expo et al., 2016). According to this report, in 2016, 64.2% of children in urban areas of China read more than 10 extracurricular books, and most middle schoolers (from Grade 7 to Grade 9, representing 69.9% of the total urban middle schooler population) read e-books and listened to audiobooks.

In contrast, children in rural areas of China are less likely to read extracurricular books, according to statistics drawn from the *Report on Reading of Rural Chinese Children (乡村儿童阅读报告)* (Amazon et al., 2018). In 2018, up to 74% of children in rural regions of central and western China read less than 10 extracurricular books and 36% read less than 3 books. Only a small number of children in these regions (17.4%) read extracurricular books, while most children (67.4%) spent their time outside school on homework. As well, the majority of rural families in these regions (71%) owned less than 10 extracurricular books and some families (20%) had no such books at all. In addition, most parents (89.9%) engaged in very little paper-based reading and did not participate in their children's extracurricular reading. These parents preferred to spend their limited amount of money on curricular books, which they saw as "more practical" for their children than extracurricular ones considered as "time-wasting" (“浪费时间”) (Guangming online, 2018, n. p.).

There also seems to be little opportunity for rural Chinese children to access quality reading materials in their schools, since these are often inadequately resourced. According to Zhu Yongxin (朱永新), a renowned educator in China, extracurricular books in rural schools are either purchased by the school at a low price or donated as second-hand books but are usually of poor quality and not tailored to children's needs (Southern Weekly, 2021). As well, many rural areas in China, especially in villages and towns, are

not equipped with libraries or bookstores that might provide children with extracurricular reading resources (Book Review of the Beijing News, 2019a).

Like many rural children, Qian seldom reads extracurricular books. While there were no libraries or bookstores in Qian's neighbourhood, her school had a small Book Corner (图书角) (see Figure 4.3), which functioned as a library. While the Book Corner offered a limited number of both curricular and extracurricular books, they seemed to have been untouched for a while since they were covered with dust when I took the picture below. Qian did have several reference and extracurricular books neatly placed on a small shelf in her bedroom (see Figure 4.4). As she explained to me in the dialogue below, she had only browsed through one or two books there.

Figure 4.3 A small Book Corner at Beilei
(Photo by author, June 13, 2019.)

Figure 4.4 Qian's extracurricular books
(Photo by author, September 22, 2019.)

Video transcripts:

Me (looking at Qian and pointing at the book shelf): 为什么没读呢？ [Why have you not read these books?]

Qian (wry face and shaking her head): 每天就是写作业啊，写作业，没时间读，而且这些书也没啥意思，挺无聊的。 [Every day I have to do homework, and homework. So no time to read them. And these books are boring.]

Me (puzzled and smiling): 无聊？[Boring?]

Qian (nodding with a sleepy face): 嗯，和教材似的，都是字儿，一看就想睡觉。 [Yes. With too many written words, they look like textbooks. I feel sleepy once I start reading them.]

Me (laughing and looking at her): 那你喜欢读什么样的书呢？ [So, what kinds of books do you like?]

Qian (hesitating, then stretching out her arms as she breaks into a big smile): 嗯 … 带图片的。 [Ummm … With pictures.]

Me (smiling): 你不喜欢那种全是文字的，对吗？ [You don't like those full of written words, right?]

Q (nodding, stretching out her arms and speaking fast): 嗯，就是一半是图片，一半是文字那种。 [Yes. I like books with half pictures and half written words.]

Qian and I then moved our conversation to picture books, which were of great interest to her. Picture books are distinct material objects for young readers, who might

be involved in a reading process “that is dependent on both physical action (pulling a tab, lifting a flap) and intellectual activity—they *embody* reading” (Field, 2019, p. 4, emphasis in original). In other words, reading picture books involves a range of embodied performances; it “not only invites performance, but also is in itself a performance” (Winters et al., p. 100). As a method of storytelling, picture books allow young readers to connect their own knowledge, identity and life experiences with diverse characters, contexts and materials they encounter in books (Niland & Callow, 2021). Conventional hardcopy picture books, in which pictures and written texts are combined semiotically and aesthetically, are often used to help children develop visual and print literacy (Read, 2013). Facilitated by touch-screen technologies, picture books are increasingly published on digital media that are designed to engage children in multimodal (languages, pictures, sounds, animations) and multisensory (auditory, visual, haptic) reading and learning experience (Wei & Ma, 2020). Picture book apps vary in degree of coherency and narrativity: Some apps seem more like games than stories, whereas others can be viewed as animated versions of their print counterparts (Mangen et al., 2019).

The Western-style picture books (in Chinese 绘本) hit the Chinese market over a decade ago (Book Review of the Beijing News, 2019b). Such picture books have proven to be useful learning resources for young ELLs in rural areas of China (Cheng, 2021; Gu, 2021; Song, 2020; Yu, 2020a). Zhang Lianzhong (张连仲), a professor at Beijing Foreign Studies University and a member of the Ministry of Education (MoE), co-edited the *2011 English Curriculum Standard for Compulsory Education* (MoE, 2011) and led the project *A Study of How ICTs are Applied in English Language Education in Primary and Secondary Schools (信息技术在中小学英语教学中应用研究).* On 17 May, 2019, Professor Zhang was invited by the Jingyue School District and the NQEG as a keynote speaker at a one-day conference, which was aimed at improving pedagogical approaches of English language teachers in Jingyue primary and secondary schools. At this conference, Professor Zhang placed great emphasis on the affordances of picture books in English language teaching. As he explains,

> 我特别希望老师们能接触一下绘本教学，从小学到初中，给孩子们一点“悦读”的机会和空间，让学生进入一个多元阅读意义的空间，不拘泥于某一个具体的语言现象。告诉学生，去看图片里发生了什么。[My translation: I really hope our teachers can use picture books as teaching materials, which may engage primary and middle school students in “happy reading” experience.

> Through reading picture books, students could turn their gaze from certain linguistic phenomenon to their encounters in a space composed of multiple meaning forms. You may tell your students, "See what happens in the picture.] Use your imagination. Use your observation. Use your noticing ability." . . . 让学生 [My translation: Let your students be] thinking in process and processing in thinking. 这样，我们的外语教学不再是灌输知识，是让我们的学生消化之后，能够有所输出，有意义的输出。 [My translation: In doing this, our foreign language education will move from input of knowledge toward output of knowledge, and our students will be able to produce meaning after their consumption of meaning.] . . . Reading is not for the test. Reading is important learning. Reading is to get meaning from texts, in texts, and in context. . . . Finally, meaningful, interesting, colourful, enjoyable learning experience through more reading in English. 这是我今天讲座的核心的一句话。 [My translation: This is a key sentence of my speech today.]

At this conference and elsewhere (Sun, 2019), Professor Zhang has also stressed the importance of employing digital technology in English reading education. Against this background, I was encouraged to introduce Qian, an active Internet participant, to digital-based picture books, which she had seldom read before. I then searched online for apps that might engage her in multimodal and multilingual reading practices and found iHuman Books (iHB) to be promising in that regard. The iHB app provides a wide range of narratives of classic and modern stories from around the world. These storybooks are designed as multimodal (written texts, voice acting and narrating, pictures, sounds, background music, animations, interactive links) and multilingual (English, pinyin Chinese, simplified Chinese, traditional Chinese).

This app enables users to engage in interactive (or more accurately, intra-active) reading and learning experiences. First, each page of every storybook contains multiple links leading users to discover and collect five secret treasures. Secondly, each book contains touchable pop-ups offering facts and information about language, science, mythology, culture, etc. Thirdly, each book ends with tasks and questions designed to track learners' comprehension of the story. Finally, AR technology offers users new ways to intra-act with stories, characters and their reading partners.

Until June 2021, iHB has been downloaded more than 100,000 times on iOS and Android mobile devices, with a good rating of 4.8 (out of 5) on the App Store of iOS mobile devices. While this app offers some stories for free, it charges users for most books. Users can access all storybooks by purchasing a VIP membership card valid for

one month (18 Yuan) or one year (168 Yuan). They can also choose to pay 3 Yuan[20] for each of those charged books, which is relatively inexpensive compared to hardcopy picture books offered in physical and online bookstores.

During the fieldwork, Qian read the following stories on iHB in my presence (in chronological order): Alice's adventures in Wonderland 1 (Lewis Carroll, UK); Cinderella (Grimm Brothers, Germany); The Legend of Mulan (Folk Tale, China); Beauty and the Beast (Grimm Brothers, Germany); Alice's adventures in Wonderland 3 (Lewis Carroll, UK) (with Jing); The Selfish Giant (Oscar Wilde, UK) (with Jing); Momotaro (Folk Tale, Japan) (with Jing); The Crow and the Pitcher (Aesop, Greece); Peter Pan: Nerverland (James Matthew Barrie, UK) (with Jing); Peter Pan: The Battle (James Matthew Barrie, UK) (with Jing); Si Maguang (historical story, China); The Story of Nian (Folk Tale, China) (with Jing); Ali Baba and the Forty thieves (Folk tale, Arab).

Qian read some of these stories for free and each of the others for 3 Yuan—with me making most of the payments. Qian's reading time for each story ranged between 15 minutes and 35 minutes, depending on how she intra-acted with the different modes and languages available for each book. In other words, since various modes and languages were diversely orchestrated, Qian's encounter with each storybook was unique, and her reading practices were complex, shifting and often untraceable. In the following section, I present screen captures and transcriptions of excerpts from the video footage I shot of intra-actions among human bodies (Qian and I), semiotic resources, tablet, interface, and the Cinderella storybook available on iHB.

4.2.2. Video Excerpts

I visited Qian at her home on Sunday 25 May, 2019, one week after the aforementioned conference where Professor Zhang encouraged English language teachers in Jingyue schools to teach with picture books. After I walked through the open gate of Qian's yard, two dogs at the door of her house started barking at me, which woke up Qian from her unplanned nap. On this afternoon, Qian seemed to be half awake, spiritless and in no mood to speak or to act. When asked what digital literacy activities she would like to engage in, Qian chose to read Cinderella on iHB. In a previous visit,

[20] 3 Yuan is around 0.58 in Canadian dollars, according to the exchange rate of March 2022.

Qian and I read Alice's Adventures in Wonderland 1 together, which aroused her interest in this app. To Qian's disappointment, the app could not be installed on her phone for unknown reasons. As a result, Qian read some stories outside fieldwork visits using her sister's or mothers' phones, where iHB was successfully installed. As Qian was home alone with me that day, I lent her a Samsung tablet (Galaxy Tab S2) I had purchased in 2016. After setting up the tablet, I handed it to Qian who was sitting next to me on a sofa in her bedroom, which was covered with a thin cover and a sheet both in light blue. With the tablet sitting on her upper thighs, Qian then started reading the Cinderella storybook.

Following Kuby and Gutshall Rucker (2016), as well as Lemieux and Rowsell (2020), in the excerpts of video transcripts below I highlighted intensities arising in the literacy activity in different text fonts: underlined text signals instances when recorded narrators speak, dotted-underlined text describes what happened in animations, **bold text marks Qian's body movements**, and *text in italics illustrates speech produced by Qian and I.*

Excerpt 1

(Excerpt duration: 1 minute. A piece of background music echoing the intensities of the storyline plays during the whole excerpt.)

A recorded narrator states (see Figure 4.5): A very long time ago, there was a lovely girl named Cinderella. Unfortunately, her mother died very early. Her father remarried her stepmother who had two daughters. They didn't care for Cinderella at all. Instead, she was summoned as a maid. **While listening to this passage, Qian stares silently and motionlessly at the screen**. When the recording ends, **Qian touches the screen (switching to simplified Chinese [CHS]) with her right index finger**, saying: *我能大致懂这个是什么意思，但是有些单词不认识。 [I understand the general idea here, but some words are unknown.]*

Figure 4.5 Page 1 of the Cinderella storybook

The recorded narrator states in CHS: 很久很久以前，有一个可爱的女孩，名叫辛德瑞拉。[A very long time ago, there was a lovely girl named Cinderella.] During this recording, I touch an animation link on the screen, and three female characters in fancy clothes (stepmother and step-sisters) appear on the screen start eating, sneering and moving (see Figure 4.5 above). Almost at the same time, **Qian touches another animation link**, and a girl in a patched skirt (Cinderella) visible on the screen starts frowning and doing chores (see Figure 4.5 above). Both our fingers are on the screen (see Figure 4.6 below). Qian grins at me: *真好玩！ [So funny!]* I smile back.

Figure 4.6 Both Qian's (left) and my (right) fingers being on-screen

The recorded narrator states in CHS: 不幸的是 [Unfortunately]. With **her right index finger hovering around the written texts on the screen**, Qian mutters in a tone of sudden understanding: *哦! 不幸的。 [Aha! buxingde (Chinese translation of unfortunately).]* Before the CHS narrator finishes the whole text, **Qian touches the screen to select the narration in English**.

The recorded narrator states in English: A very long time ago. While **Qian's right index finger is hovering around the written texts on the screen**, Qian asks me in a raised voice: *老师，这是不幸的，是吧？ [Teacher[21], this is buxingde (Chinese translation of unfortunately), right?]* I responded with a nod of agreement: *嗯。[Yes.]*

The recorded narrator continues in English: There was a lovely girl named Cinderella. After this recording, I unfold my crossed arms and tap Qian on the shoulder with my right hand, saying with a smile: *You are a lovely girl.* **Qian's right hand moves from the screen to tapping herself on the chest, saying with a grin**: *And a tiny girl*

---

[21] As discussed in Chapter 3, I was referred to Qian by her English language teacher who somewhat represents school authority. To relieve potential pressure on Qian caused by this fact, I introduced myself to her and her family as a researcher who had no official affiliation with her school. Nevertheless, they insisted on calling me "teacher" (in Chinese 老师) mainly out of respect for me. This might be related to the long tradition of Confucian values that teach people to show respect for intellectuals. Addressing me as "teacher" does not mean Qian has kept me at a distance. Instead, Qian generously shared with me snacks, fruits, and stories; her family was open to conversations on various topics. With all of these expressions of welcome, I felt at ease doing this research, although tensions did arise for me at times, as I explain further on.

(see Figure 4.7). I respond with laughter and tap Qian's shoulder, saying: *Yes! A lovely and tiny girl.* **Qian grins at me while her right fingers are swiping across the screen (turning to the next page).**

Figure 4.7 "And a tiny girl."

Excerpt 2

(Excerpt duration: 35s. A piece of background music echoing the intensities of the storyline plays during the whole excerpt.)

The recorded narrator states (see Figure 4.8): <u>Leave her alone, mother and elder sister. Let's hurry and not be late!</u>

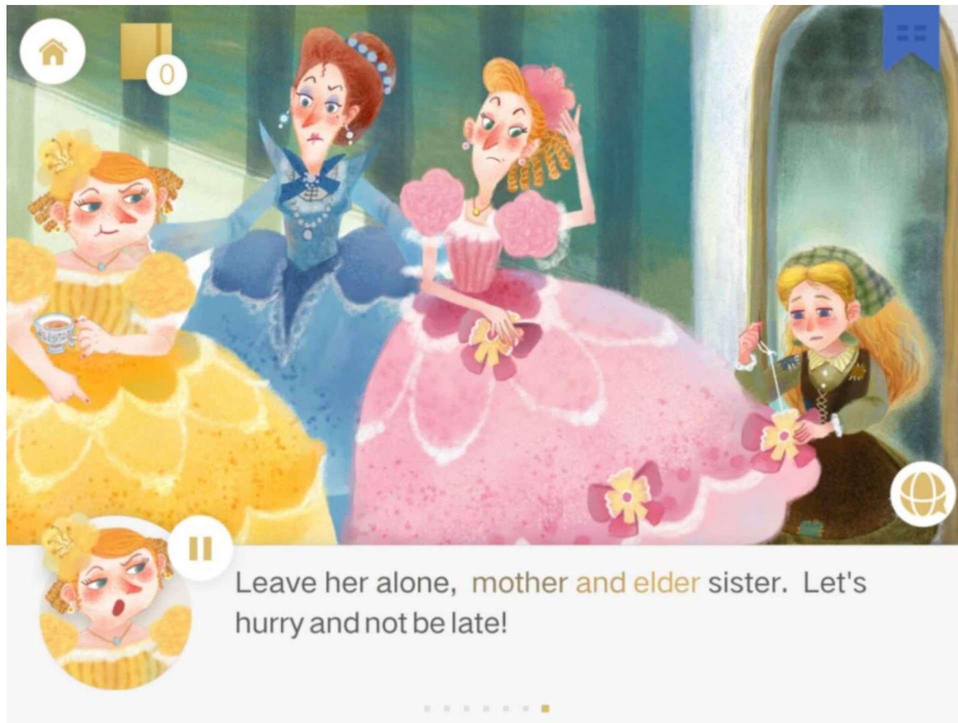
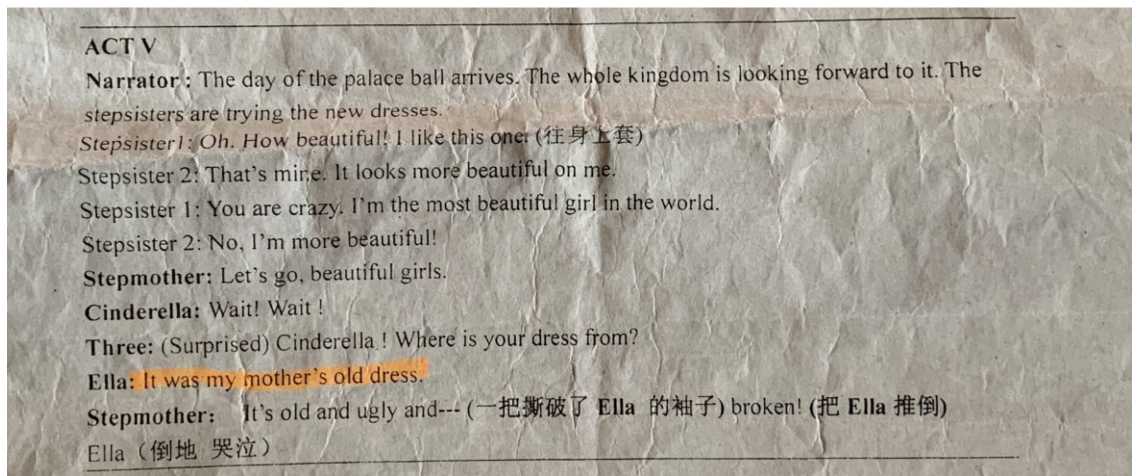


Figure 4.8 Page 3 of the Cinderella storybook

After listening to this statement, **Qian raises her right hand off the screen and points to it,** saying: *哦，这句我们台词中有。 [Ah, this sentence appears in our lines (from the Cinderella play)* (see Figure 4.9).*]*



ACT V

Narrator : The day of the palace ball arrives. The whole kingdom is looking forward to it. The *stepsisters are trying the new dresses.*

Stepsister1 : Oh. How beautiful! I like this one: (往身上套)

Stepsister 2: That's mine. It looks more beautiful on me.

Stepsister 1: You are crazy. I'm the most beautiful girl in the world.

Stepsister 2: No, I'm more beautiful!

Stepmother: Let's go, beautiful girls.

Cinderella: Wait! Wait !

Three: (Surprised) Cinderella ! Where is your dress from?

Ella: It was my mother's old dress.

Stepmother: It's old and ugly and--- (一把撕破了 **Ella** 的袖子) broken! (把 **Ella** 推倒)

Ella（倒地 哭泣）

Figure 4.9 Lines from the Cinderella play
(Photo by author, April 15, 2019.)

Sitting next to Qian and looking at the screen, I respond with interest: *是吗？ [Really?]*

Then, **with her right hand stroking her chin, Qian raises her eyes from the screen** and says: *她的继母说 "let's… let's go girls" 吧，应该是吧，然后我说 "Wait! Wait!" 然后, [Her step-mother says something like "let's… let's go girls." Then I say "Wait! Wait!" And then,]*

Qian's right hand moves from her chin to gesticulating/dancing above the screen. She continues in a more cheerful tone and facial expression: *然后，她就说 "where is 什么 dress from," 然后…就是…我就说 "it was my mother's old dress." 这跟我们那个还挺符合的呢! [then, she says something like "where is what dress from," then… ummm… I say "it was my mother's old dress." This well matches ours (lines from the Cinderella play).]*

Qian's right fingers swipe across the screen (turning to the next page). And her eyes move back to screen.

Excerpt 3

(Excerpt duration: 26s. A piece of background music echoing the intensities of the storyline plays during the whole excerpt.)

The recorded narrator states: Woops, it's the sound of midnight!

Qian's right index finger touches the screen to select the CHS version.

The recorded narrator states: 糟了，是半夜十二点的钟声！[Woops, it's the sound of midnight!]

With her eyes on the screen and **hands holding the tablet**, Qian murmurs sadly*: 啊，到点了! [Ah, time's up!]*.

Qian's right index finger touches the picture on the screen. Qian gazes at the screen with her eyes wide open.

The picture turns into an animation (see Figure 4.10) in which a clock ticks loudly and rapidly. When this clock strikes midnight, a girl (Cinderella) runs across the screen with a worried sigh and we hear sounds like "tap, tap, tap… (suggesting hurried

footsteps). A young man (prince) chases her and cries out “Oh no!” in quite a dramatic way.

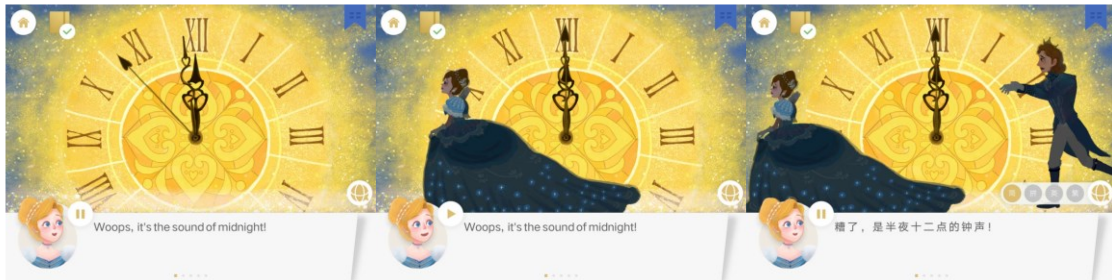


Figure 4.10 An animation of page 12

Watching this animation, Qian frowns with concentration. Qian and I then **smile** simultaneously upon hearing the prince crying out “Oh no!”

Qian’s right fingers swipe across the screen (turning to the next page).

4.2.3. Discussion

Becoming A Multilingual Reader

These excerpts tell a story of how Qian makes meaning in relationship with the researcher as a reading partner. Semiotic resources including embodied expressions (oral languages, movement, gesture, gaze, touch, facial expression) and textual modes (written text, voiced languages, pictures, sounds, background music, animations), as well as other materials (the tablet, the reading app, the Cinderella storybook, lines from the Cinderella stage play) come together in this multimodal, multilingual and material story reading activity as Qian becomes a bilingual reader. She shifts from a somewhat being half awake and uninterested in speaking or acting to mobilizing oral and bodily resources in meaning making in a more animated fashion. As relationships among bodies and things are formed in this digital storybook reading assemblage, it seems she is becoming more motivated and involved as a language and literacy learner.

Indeed, Qian’s practices of digital literacies involving iHB appear to be affecting her and stimulating her interest in reading. This is in line with some studies that have documented how digital texts, especially interactive digital books offered on mobile touch-screen devices, can motivate children to read (Ciampa, 2016; Larson, 2010; Ozturk & Ohi, 2018; Thoermer & Williams, 2012). As discussed earlier, Qian has had

limited experience with extracurricular reading, which is partly a result of her busy academic learning schedule as well as a lack of interest in reading “textbook-like” extracurricular books suffused with the written text. Throughout the fieldwork for this study, Qian expressed satisfaction as she engaged with storybooks on iHB, which led her to read stories on this app outside our encounters during fieldwork. In her direct material engagement with this storybook reading app, Qian is becoming an active reader of multimodal and multilingual texts.

Qian’s on-screen storybook reading practices appeared to have an impact on her learning activities in a formal context as well. In an online class offered on DingTalk in late May in 2020, when Qian’s school was closed because of the Covid-19 pandemic, Qian’s English language teacher asked students to write a digital text about their favorite books. Alice in Wonderland materialized again in this assignment in class when Qian responded that it was her favorite (see Figure 4.11).

Figure 4.11 Qian describing one of her favorite books

Reading “Multimodal Wholes”

Unlike print medium, digital storybooks seamlessly combine static and dynamic modalities, which enables readers to “engage concretely with the content by means of different options for interactivity” (Mangen et al., 2019, p. 239). In other words, reading digital texts is a material process of intra-acting with various modes and their combinations or “modal orchestrations” (Rowsell, 2013). In the excerpts above, Qian is involved in diverse and nonlinear orchestrations of textual modes that scaffold and

shape her reading. For instance, in excerpt 3, after the recorded narrator states "*Woops, it's the sound of midnight!*" Qian switches to the CHS version by touching the screen. One can assume that she was uncertain about the meaning of the voiced sentence. As Qian makes sense of what this sentence means, she sadly murmurs *啊，到点了！ [Ah, time's up!]*. Entangled in this semiotic, meaning-making process are multiple linguistic and material things. These include her knowledge that a CHS version of the story is available as a linguistic resource in the app at her fingertips on the screen of the device. They also include the image of a big clock and her understanding of what it represents in the Cinderella story from her previous encounters with it in her school play and in the fieldwork literacy activities.

During her literacy activities, Qian sometimes seems to focus on a particular mode, but other semiotic resources may be at work as well. Qian's meaning-making of the word "unfortunately" in excerpt 1 above is a good example. At first glance, she figures out what this word refers to in her target language (English) by switching the text to her L1 (CHS). As multi/plurilingual theories discussed in Chapter 2 suggest, the L1 can serve as a potential resource rather than a barrier in LX learning. Along with Li (2018), I take a stance that language is "a multilingual, multisemiotic, multisensory, and multimodal resource for sense- and meaning-making" (p. 22). In keeping with this perspective, language processing takes place in "multimodal wholes" (Jewitt et al., 2016) composed of a wide range of semiotic resources that have no clear and strict boundaries. As I pursued my thinking along these lines, it led me to revisit this piece of data during the write-up of this research and pay more attention to Qian's auditory and visual engagement. I became aware of Qian's semantic processing as she simultaneously draws on linguistic and material resources (the sad background music echoing the storyline, the frowning Cinderella dressed in a patched skirt and busy with her chores as shown in the animation, the tone of the recorded narrator's voice, Qian's previous knowledge of the Cinderella story). In this sense, Qian engages in a translanguaging practice (Li, 2018; Lin, 2020), in which her multi/plurilingual competence forms a single, mixed and dynamic language repertoire, as she mobilizes linguistic signs (speech and writing) alongside non-linguistic modes of meaning making.

A sociomaterial lens leads me to look at how the representation of the multilingual texts (written and speech) in the Cinderella storybook affects Qian as a young Chinese reader. The default language on iHB was CHS in our previous shared

reading activities during fieldwork. This might have affected how Qian read Alice's adventures in Wonderland only in CHS before I reminded her to re-read the story in English. With this in mind, I changed the tablet iHB language into English shortly before Qian started reading the Cinderella storybook. Perhaps this led her to shuttle between CHS and English, as indicated in the excerpts above.

Embodied, Multisensory and Material Reading

It is also apparent that the Cinderella storybook engages Qian in an embodied, multisensory and material reading practice. The affordances of the touch screen tablet simultaneously involve Qian in visual (written texts, pictures, animations), auditory (sounds, background music, voice narrating, animations), emotional (sadness, joy) and haptic (touch) engagement with the story. While all these semiotic resources enter into relationship in this reading assemblage, the materiality of sound and touch particularly glows for me.

Drawing on Takacs et al. (2015), Mangen et al. (2019) point out that interactive features in digital storybooks such as animations, music and sound effects contribute positively to young readers' understanding of the story if they are designed as directly linked to the storyline. Such a perspective leads me to see sound as a powerful medium to communicate emotions and in particular "to invite sympathy and empathy" (Mangen et al., 2019, p. 239). In excerpt 3, Qian watches an animation with a frown of concentration, which suggests she immerses herself in intensities and forces arising from the animation. Qian's frown may come from a feeling of empathy that is closely related to a myriad of sounds, including a piece of background music echoing the storyline, the intonation and tone of the recorded narrator's voice, the loud and rapid tick of the clock, Cinderella's worried sigh and hurried footsteps. What matters as well is the prince's dramatic crying-out "Oh no!" which turns Qian's frown into a smile. The materiality of these sounds affects Qian as a language and literacy learner. As Wargo (2018, p. 506) explains,

> From a post-human perspective, a child's encounter with sound is an intra-action with energy, force, and exchange. Sound is not solely vibrations passing through matter at particular frequencies, but a tool that depicts more-than-human relations. Sound is a quasi-object, an atmospheric partner.

Like sound, touch is a semiotic resource that can be a powerful force in unfolding "literacy desirings" (Kuby & Gutshall Rucker, 2016). As the excerpts above show, Qian's fingers frequently and intensively enter into contact with the screen. This intimate girl-screen relation "can then be transformed into larger relational practices" (Hawk, 2018, p. 315), which involve more and more bodies and things (e.g., me as a reading partner, the story, the app, the tablet, past knowledge and practices). It will then stretch into an infinity of possibility, in which the girl's knowing and learning come from direct material engagement with other human and nonhuman bodies. As Barad (2012) insightfully tells us, "[s]o much happens in a touch: an infinity of others—other beings, other spaces, other times—are aroused" (p. 206). Touching makes us become materially bound to what has been conventionally seen as others and now reconceptualized as a constitutive part of sociomaterial assemblages. Simply put, to touch is not to interact with an external world, but to intra-act with a relational and becoming world (or in Barad's [2007] words, "the worlding of the world") that does not centralize or privilege the human.

For Qian, to touch the screen is to become entangled with this "other" as well as enactments beneath the screen (the storybook reading app, the Cinderella storybook). Knowing the Cinderella story does not come from the girl's cognitive processing, but from a particular material arrangement of her fingers and the screen. In other words, Qian knows the story through her embodied and multisensory intra-actions with its irreducible materiality (reading interface, emotions and actions of characters illustrated in animations, different ways of storytelling enacted by language switching, storyline developing through the act of page turning). In this sense, touching, as the beginning of approaching a narrative, is a form of knowledge gained from immediate proximity of bodies and things in this relational world (Daya, 2019).

Becomings in Shared Reading

My participation in this reading assemblage is obvious as well. As shown in these excerpts, Qian seats herself comfortably on a bedroom sofa in my company as a reading partner who has introduced her to this digital story reading app and developed a good rapport with her. As we share reading on a touch screen tablet, we are inevitably involved in a physical closeness (sitting beside each other) and even direct bodily contact (e.g., I tapped her on the shoulder), which involves entanglement in a sensation of "an exchange of warmth, a feeling . . . of presence" (Barad, 2012, p. 206).

Our bonding is made possible through the visibility of the tablet screen, the design of the reading app, as well as the tactile aspect of animation links (Excerpt 1). These material elements elicit Qian's utterance "So funny!" and her grin. Qian and I connect when Qian checks the meaning of unfortunately with me (Excerpt 1), she shares her previous experience with the Cinderella play (Except 2), and we smile simultaneously in response to the animation (Except 3).

The proximity of our bodies, as well as the materiality of the safe and cozy reading setting, contributes to making our shared storybook reading an enjoyable, unstructured and informal space for Qian's and my joint language and literacy practice. In "moment-by-moment unfolding(s)" (Leander & Boldt, 2012, p. 33) of shared reading practices, clear-cut, fixed distinctions between participant and researcher, between student and teacher, between child and adult are not apparent. More importantly, we are becoming co-readers and co-learners in a process that unfolds in the intra-actions that include us and many other bodies, intensities, flows and productions, and the boundaries between Qian and I are blurred in this storybook reading assemblage.

As well, the relationship between Qian and I further shifts in a pleasant, brief dialogue in English in response to the recorded narrator who reads aloud "*There was a lovely girl named Cinderella*." As shown in Except 1, smiling, I say to Qian while taping her on the shoulder "*You are a lovely girl.*" Qian then responds with a grin "*And a tiny girl.*"—one among several occasions when she produces oral English response while reading the Cinderella storybook. The way Qian mobilizes the English word tiny is closely linked with our previous discussion about a scene in the digital storybook on Alice's Adventures in Wonderland 1, in which a recorded narrator states: *"In the end, she found a tiny golden key on table, and a small door behind a curtain."* At that moment, with the help of an illustration on screen and my paraphrase, Qian figured out the meaning of tiny and joked that she was a tiny girl. The word tiny re-emerges in Qian's communicative repertoire as we read the Cinderella story together, and our shared memory of this past encounter adds to the nice atmosphere in this reading space.

As discussed in Section 4.1, feminist scholarship provides valuable insights into the working of ideologies of patriarchy in Cinderella tales. In analyzing this piece of data, I have therefore tried to look beyond functional English language practices and challenge my depiction of Qian as a lovely girl. As I think with feminist theories, I became

aware of my stereotypical perspective on gender, especially my preconceptions about girls as feminine, lovely. These assumptions have come to be in my day-to-day intra-actions with my gendered body, social discourses on femininity, as well as representations of girls and women in the media (in this case how female characters are described in the Cinderella storybook). Therefore, in my another visit to Qian's home, I intentionally started a conversation with Qian about the heteronormative model of gender roles expressed in the conventional Cinderella tales. In doing this, I attempted to encourage Qian to rethink representations of gender, romance and marriage in children's fairy tales, and to challenge conventionally sociocultural expectations of women as beautiful, attractive, obedient and dependent on marriage or family life.

As discussed above, Qian's learning of the English words unfortunately and tiny are spontaneous, unstructured, and ongoing processes that unfold in her on-screen storybook reading. In what follows, I will discuss how a specific dictionary mobile app offers Qian different English vocabulary learning opportunities from those offered at school.

4.3. Digital English Vocabulary Learning

4.3.1. Background

For Qian and her peers at Beilei Middle School, part of their daily homework was to memorize English vocabulary listed in their textbooks (see Figure 4.12). It was routine as well in each English language class to have a dictation test of vocabulary. Qian was among several students in her class who performed well in these tests, and she obtained full marks at times (see Figure 4.13). However, Qian's English language teacher Ms. Chu was not pleased with the test results of the majority of Qian's classmates. In most uniform English language exams across the Jingyue School District, which usually occur in the middle and at the end of each term, the overall performance of Qian's class ranked last among the four Grade 7 classes at Beilei. According to Ms. Chu, the ranking might have been different if students in this class took memorizing vocabulary more seriously.

bring good luck to ... 给……带来好运 p.59

Unit 11

milk /mɪlk/ *v.* 挤奶 p.61
cow /kaʊ/ *n.* 奶牛 p.61
milk a cow 给奶牛挤奶 p.61
horse /hɔ:(r)s/ *n.* 马 p.61
ride a horse 骑马 p.61
feed /fi:d/ *v.* (fed/fed/) 喂养；饲养 p.61
feed chickens 喂鸡 p.61
farmer /ˈfɑ:(r)mə(r)/ *n.* 农民；农场主 p.61
quite /kwaɪt/ *adv.* 相当；完全 p.61
quite a lot (of ...) 许多 p.61
anything /ˈeniθɪŋ/ *pron.*（常用于否定句或疑问句）任何东西；任何事物 p.62
grow /grəʊ/ *v.* (grew /gru:/) 种植；生长；发育 p.62
farm /fɑ:(r)m/ *n.* 农场 *v.* 务农；种田 p.62
pick /pɪk/ *v.* 采；摘 p.62
excellent /ˈeksələnt/ *adj.* 极好的；优秀的 p.62
exciting /ɪkˈsaɪtɪŋ/ *adj.* 使人兴奋的；令人激动的 p.65
lovely /ˈlʌvli/ *adj.* 可爱的 p.65
expensive /ɪkˈspensɪv/ *adj.* 昂贵的 p.65
cheap /tʃi:p/ *adj.* 廉价的；便宜的 p.65
slow /sləʊ/ *adj.* 缓慢的；迟缓的 p.65
fast /fɑ:st/, /fæst/ *adv.* & *adj.* 快地（的） p.65
robot /ˈrəʊbɒt/, /ˈrəʊbɑ:t/ *n.* 机器人 p.65
guide /gaɪd/ *n.* 导游；向导 p.65
gift /gɪft/ *n.* 礼物；赠品 p.65
all in all 总的说来 p.65
everything /ˈevriθɪŋ/ *pron.* 所有事物；一切 p.65
interested /ˈɪntrəstɪd/ *adj.* 感兴趣的 p.65
be interested in 对……感兴趣 p.65
dark /dɑ:(r)k/ *adj.* 黑暗的；昏暗的 p.65
hear /hɪə/, /hɪr/ *v.* (heard /hɜ:(r)d/) 听到；听见 p.65
Carol /ˈkærəl/ 卡萝尔（女名） p.61

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Figure 4.12 English vocabulary presented in one of Qian's textbooks

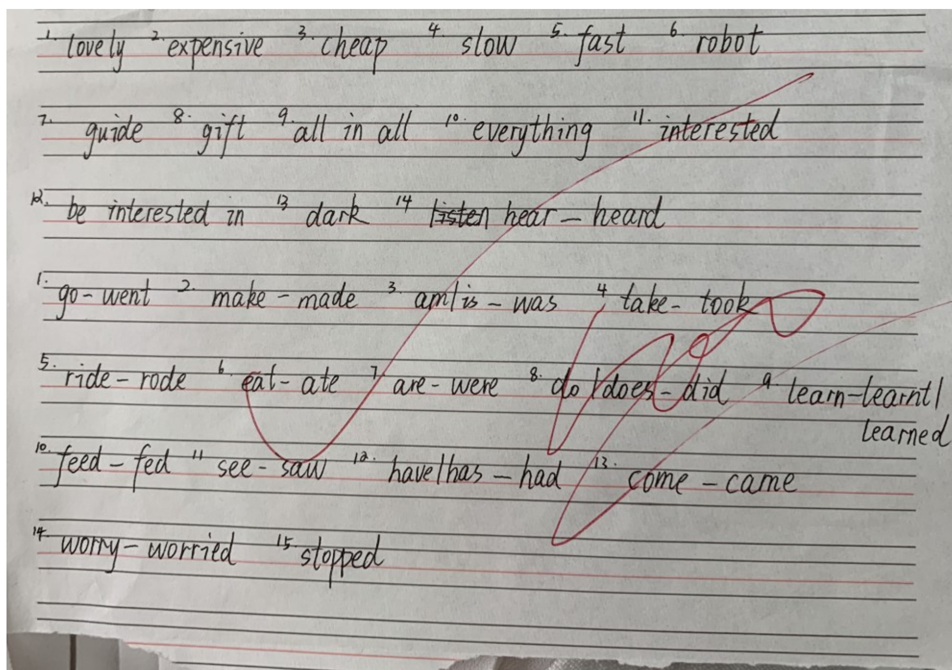


Figure 4.13 One of Qian's marked dictation sheets
(Photo by author, June 13, 2019.)

In classroom lectures, parent-teacher meetings, or Qian's WeChat class group, Ms. Chu attached great importance to memorizing English words. As Ms. Chu explained to parents in an end-of-term teacher-parent meeting on July 11, 2019:

> 尤其是作业单中的背单词，这是最基本的，各位家长一定要重视。. . . 单词不会，到最后孩子啥也不会，没有这个单词做基础，那句子、短语、完形、阅读和作文他都不会。这些单词，我只能教孩子们怎么去背诵，我不能替他们去背单词，那么，背单词就得靠学生自己去背，就得靠家长监督。咱们背单词，没有什么捷径，就是得下上功夫，死记硬背。也可以这么说，背不会，主要是功夫不到位。
>
> My translation: Speaking of homework, you should keep an eye on your kid's memorization of English words, which is the most basic things . . . . If the kid doesn't know words, s/he will know nothing about English. Without the groundwork of vocabulary, the kid would be unable to understand sentences, phrases or to complete test forms such as fill-in-the-blanks, multiple choice and essays. I can only teach kids how to memorize words, but cannot take over the task. Therefore, students can only rely on themselves to memorize words. Parents' supervision is a help. There is no shortcut to memorize words as you have to put in a lot of effort and learn by rote. In other words, failing to memorize words often comes from insufficient effort.

In response to Ms. Chu's remarks, some parents expressed a feeling of helplessness since they did not have high English language proficiency. Elsewhere, Ms. Chu told me she was put in a rather awkward position as she believed students' learning outcomes could be improved through good parent-teacher cooperation. She was at a loss as to what to do about the limited print-based and English language literacy experiences of many parents in her two classes.

What worried Ms. Chu as well was that many of her students might become addicted to online games or other forms of entertainment if given smartphones. As a result, while seeing digital technologies as helpful in developing English language proficiency, Ms. Chu hesitated to encourage her students to use smartphones to look up English words or engage in other kinds of English learning activities.

Against this background, I introduced Qian to a Chinese-English dictionary app entitled Youdaoshaoercidian (有道少儿词典) (hereafter "YDSE"). YDSE is one among many well-received foreign language learning products developed by Beijing NetEase Youdao Computer System Co., Ltd, a New York Stock Exchange-listed company. Targeting Grades 1 to 9 students, YDSE offers free multimodal edutainment learning materials (e.g., video games, animations, illustration) of more than 4,400 English words. Students are supposed to master these words upon leaving Grade 9, as stipulated in *the 2011 English Curriculum Standard for Compulsory Education* (MoE, 2011).

Qian—a seventh grader at the time of the fieldwork for this study—identified herself as a sixth grader on YDSE. As she explained, the app would present her with "small words" listed in textbooks for third-to-sixth graders and thus offer her easier vocabulary to learn. YDSE provides about 700 words for sixth graders, which is in accordance with the above-mentioned *English Curriculum Standard.* As discussed in Chapter 3, Qian started learning English in Grade 3 in a primary school located in her village. In the four-year English program in this school (Grades 3 to 6), Qian did not acquire those 700 English words. While engaging with YDSE, Qian saw many words that were unknown to her.

In "tracing-and-mapping" (Lenz Taguchi, 2016) the Cinderella thread, I carried out a keyword search for "Cinderella" and its Chinese translation "灰姑娘" in a database of video transcriptions I made, and a particular clip involving YDSE stood out for me. In this 40-second video footage, Qian recalled a line from a Disney Cinderella movie (2015), which we had watched together. In the following section, I will discuss digital-human encounters emerging before, during and after the activity recorded in this video footage.

4.3.2. Events Around the Video Footage

Before the Recording

On this weekend afternoon on September 22, 2019, Qian is home with her sister Tian who has a rare chance to take a break from her busy work schedule while their parents are out doing farm work. They are gathered in their shared bedroom with me. Tian, who teaches Chinese in a private preschool, is sitting at a desk and preparing for her next lesson on a Lenovo laptop. A few feet away, Qian is sitting silently at another desk. Qian is watching a physics lesson video on her smartphone while writing lecture notes on a notebook, something she does on a daily basis. About 15 minutes later when Qian finishes her physics assignments, she moves to sit near Tian and invites me to join them. Qian chats cheerfully with Tian and me about stories from school and shows us some updates on her social media accounts.

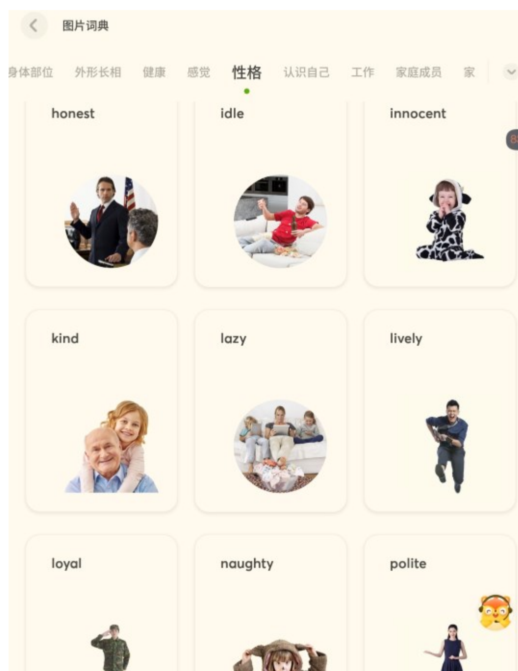
About ten minutes later, Qian seats herself in a far corner of the room and memorizes a short piece of writing presented in her English language textbook. Qian then makes several videos with her phone in which she is reciting the written text with

her eyes closed as required by Ms. Chu. After carefully selecting one of the videos she produces, Qian uploads this video to her WeChat class group, which is accessible to all members in the group and will be reviewed by Ms. Chu. I do not video record this event at Qian's request. While she memorizes and recites, Qian occasionally asks me meanings and pronunciations of some words. I then remind Qian of the YDSE app, which she has used several times for learning English vocabulary over the course of the fieldwork.

As Qian shows interest in learning with the app, I start setting up a phone camera to film her contacts with the YDSE app. Meanwhile, Qian moves back to the area of the room where she worked on her physics assignment and seats herself on a stool with her back to her desk. I sit on another stool besides Qian. The following excerpt illustrates how Qian learns the meanings and pronunciation of the word kind as she plays with the Pictionary game on YDSE installed on her phone. As the "picture+dictionary" name implies, Pictionary is a picture-related word-guessing game, which is often played in teams with players trying to identify specific words from their teammates' hand drawings. On YDSE, the game is adapted as an English vocabulary learning material for young Chinese ELLs who are encouraged to guess the meaning of a word from a given picture. Unlike the vocabulary list in Qian's English textbooks that is organized both alphabetically and sequentially (or according to the time when a word is presented in the textbook), the YDSE Pictionary presents words thematically with one page under a particular theme (animals, buildings, food, arts, utilities, plants, health, feeling, jobs, family members, etc.).

During the Recording

Qian randomly browses through Pictionary pages. She jumps from one page to another and from one word to another within each page. Appearing to be wandering aimlessly around one page, Qian stops at the illustrated picture of the word kind (see Figure 4.14 below). Pointing to the picture, Qian asks me*: 这个是善良吧？ [This is shanliang (one translation of kind in Chinese), right?]*



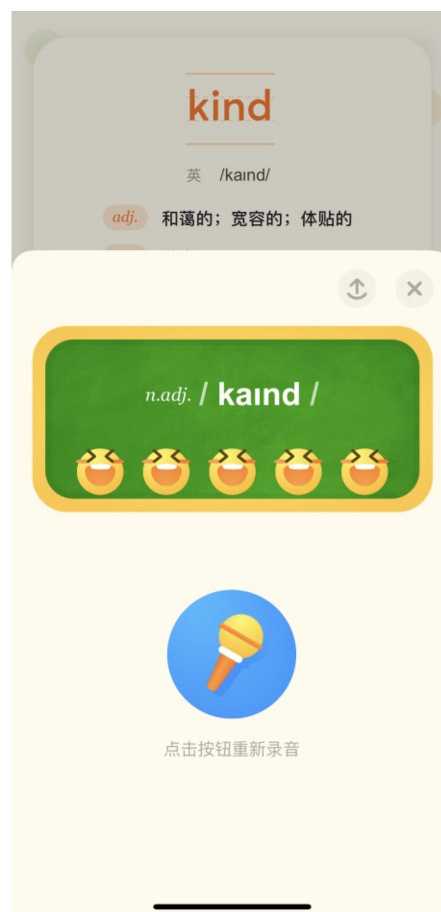


Figure 4.14 (Left) An illustrated picture of kind

Figure 4.15 (Right) A pop-up window with a microphone image and smileys

I respond with a nod, saying: *有这个意思。 [One of its meanings.]*

Qian touches the picture.

A new page pops up. This page offers a dictionary translation and explanation of kind, as well as links to related words. In particular, it provides pronunciation strategies of this word and example sentences. It also supports users' voice recordings of their own pronunciations.

After a quick look at this page, Qian says: *我差不多猜对了。 [I almost got it right.]*

Qian raises her eyes from the screen, saying: *Have courage and … um…. and be kind? 我记得那个灰姑娘电影里有这一句。 [I think this is a line from the Cinderella movie.]*

I respond with a smile, saying: *是的。我记得这句话在电影里出现了好几次呢。[Yes. As far as I can remember, this line recurs frequently in that movie.]*

Moving her gaze back to the screen, Qian touches Listen and Repeat (发音跟读) on the screen.

As we hear sounds of a car speeding by and dog barks outside Qian's bedroom, an app window (see Figure 4.15 above) pops up with a voice that says: *Kind.*

After quickly touching the Listen and Repeat link, Qian bends her head to her phone with her eyes wide open (which suggests to me she is listening carefully).

Qian's phone says: *Kind.*

Qian touches a microphone image on the pop-up window to start recording. She then puts her phone in front of her mouth, saying aloud: *Kind*. After that, Qian touches the image to terminate the recording.

Five animated smileys (beaming faces) appear on the pop-up window (see Figure 4.15 above). Meanwhile, a recorded voice on Qian's phone cheerfully exclaims: *Yeah!*

Qian peals with laughter and shouts to Tian (who is not visible in the video footage): *姐，我是五分！[Sis, I got a five!]* (see Figure 4.16 below)

Tian turns her head and responds with a smile, saying: *过来，我看看。[Come here. Let me have a look.]*

Figure 4.16 The researcher (left) and Qian (right) who shouts “Sis, I got a five!”

After the Recording

Qian then runs to Tian and shows her the pop-up window with smileys. Having a college diploma and identifying herself as an English beginner, Tian shows interest in the game and stops working to play Pictionary with Qian. I join them a few minutes later. Over the next 20 minutes, the two sisters position themselves very close to each other with their bodies touching frequently. Qian’s phone is passed back and forth between Tian and Qian as they vie to guess the meanings of some words on the voiced recordings and earn the five smileys on the screen. It is challenging to report all “moment-by-moment unfolding(s)” (Leander & Boldt, 2012, p. 33) of this language and literacy learning activity within a two-dimensional written thesis. I therefore try to describe some salient moments in what follows, as shown in Figure 4.17.

Figure 4.17 Qian and Tian playing Pictionary

At one point, the three of us lean over Qian's phone resting in Tian's hands, looking at and pointing to its screen as we discuss how to pronounce the word stone. At times Tian turns her head to face Qian who gently pushes Tian's arm or upper thighs. Qian rocks back and forth on her heatable brick bed as Tian plays with the phone. At one point, Qian sits up to make a voice recording as Tian sits with her right hand resting below her chin, which suggests she is thinking and listening carefully.

A few feet away, a phone camera mounted on a tripod is capturing our body movements and contacts with Qian's phone. It also materializes the cheerful atmosphere and a myriad of sounds (voices on the app, the two sisters' voice recordings, our laughter and chatter, an occasional dog barking), which fill the small living and learning space. During this visit, the camera set has to be re-positioned at times in order to capture Qian who moves around in the room.

4.3.3. Discussion

Learning Contexts as Relational

In this home environment suffused with various sociomaterial arrangements, Qian moves around in many different ways as these literacy activities unfold. At the outset of this visit, Qian sits silently at a desk as she participates in a somewhat formal,

structured physics lesson that involves both digital (watching a lesson video) and print-based literacies (pencil-and-paper note-taking). Qian becomes chatty after moving herself close to Tian and me. After that, Qian moves away from us and sits alone in a far corner of the room to focus on her homework of memorizing and reciting a written English text. With the intention to play Pictionary on YDSE, Qian then moves back to her desk but turns her back on it while sitting on a stool besides me.

I read Qian's movements as an illustration of her bodily entanglement with other human and nonhuman bodies, intensities, and forces that join together and become agentive in this activity. Another important participant in this process is my research agenda to use a smart phone to video record Qian's literacies, which led me to document some things on videos and not others. For example, sensing she was about to start working with YDSE, I started recording with the phone camera. Since it was easier for me to record and capture Qian's face on video when she worked with YDSE, I have more footage of when she did that than when she sat in the corner with her back to me while completing a memorization and recitation assignment.

The informal, unstructured nature of learning through digital game-playing may have served to release Qian from sitting at her desk facing the wall. Literacy activities of an academic nature that occur outside classrooms can be quite formal and structured (as was the physics assignment). This kind of learning often prioritizes cognitive learning over body learning. As a result, it tends to organize language and literacy learners' experiences by constraining their bodies between immovable desks and chairs (in this case Qian's desk and stool). In contrast, more informal learning activities (like playing Pictionary on a mobile app) provide opportunities for learners to engage in multimodal and particularly kinesthetic meaning-making practices. This is evident in the recordings of Qian moving around during game-playing sessions when she leaned on her sister, pushed her gently, and rocked back and forth on her bed.

In this sense, research approaches based on a dualistic perspective that equates classroom activities with formal learning and activities elsewhere with informal learning fail to encapsulate how literacy practices may unfold today. As seen in Section 4.3.2, literacy practices are composed of dynamic flows of intra-actions. In the home learning space described here, a variety of sociomaterial arrangements are enacted. As described in the "Before the Recording" section, Qian is enrolled in a learner-desk-lesson-notebook arrangement for a physics learning activity that is more formal and

structured, whereas we see in the “During the Recording” section how she also participates in a players/learners-phone-app-game arrangement to learn English words during a more informal and unstructured activity.

It is noteworthy that these arrangements are not stable but always in a state of becoming as some sociomaterial bodies join in while some others fall off. This is a perspective on ontology as dynamic intra-actions that constantly “cut ‘things’ together and apart” (Barad, 2007, p. 179). As Dagenais et al. (2020) explain, “what matters is not so much to identify everything that comes together temporarily, but to understand what constraining and enabling relations emerge from these combinations” (p. 425).

A Spontaneously Multimodal and Material Learning Process

In analyzing this event, Qian’s encounter with the word kind is particularly compelling to me. It illustrates how Qian’s game-playing-and-learning on YDSE is nonlinear, messy and spontaneous as she keeps jumping about from one page to another and from one word to another within each page. Such learning is a rhizomatic process “proceeding from the middle, through the middle, coming and going rather than starting and finishing” (Deleuze & Guattari, 1987, p. 25). Qian is attracted by the word kind in the middle of her intra-actions with the digital and other materials. What makes Qian stop at kind is an entanglement of diverse things, including her body and senses, the illustration of kind, and the line in Cinderella movie “Have courage and be kind.”

Qian’s game-playing-and-learning is very different from her textbook English vocabulary learning. The latter takes places in a sequential, linear order (unit by unit, page by page, one by one) and is thus likely to systematize Qian’s knowledge-making practices. Such organized learning is closely related to not only a long-established humanist understanding of human being as autonomous and rational, but also a logocentric perspective on learning as a linear process with a beginning or end, or as Deleuze and Guattari (1987) would suggest, a “tree” that has a root and will grow into a certain kind of thing. By this logic, young learners have control over learning materials (usually printed texts) and processes (in this case English words presented in Qian’s textbooks and her memorization of them). As well, their learning is considered as producing one single outcome that is judged either a pass or a fail in school assessments. Therefore, children are often blamed for their learning difficulties and unsatisfactory learning outcomes. As explained in Section 4.3.1, Ms. Chu described

students' failure to memorize English words in terms of insufficient effort invested in the task.

It is also apparent that Qian's meaning-making of the English word kind is a multimodal process. The vocabulary list offered in Qian's English textbooks have a high density of black-and-white written texts (words, phonetic symbols, word classes, Chinese translation, page numbers) (see Figure 4.12 above). In contrast, words are presented on the YDSE Pictionary in child-friendly format using multiple modalities (written and spoken languages, pictures, sounds, animations, colours). This design of the app enables Qian to process the meaning of kind in "multimodal wholes" (Jewitt et al., 2016) rather than through rote learning.

I have discussed so far how the YDSE app offers Qian different English vocabulary learning opportunities from those offered in textbooks. However, my intention is not to argue that the former is pedagogically superior to the latter or more suitable for English language classrooms in rural China, many of which are textbook-based, teacher-dominated, examination-orientated, as discussed in Chapter 1. While rote learning in memorizing vocabulary is often viewed negatively, for many Chinese English language teachers and learners, including me, it has been an effective strategy for internalizing linguistic input and preparing for examinations (Zeng, 2018).

As discussed in Chapter 2, sociomaterial theories bring to light the materiality of language. Such a perspective leads me to see how the sound of the English word kind as it is spoken by both the app and Qian has an affect on participants in this learning assemblage. The first utterance of kind in the app is entangled with the recorded sound of a car speeding by and a dog barking outside Qian's bedroom. These sounds temporarily keep Qian from hearing how the word is recorded on the app. As a result, Qian has to lean over her phone to hear the recording of the word. When the app produces a cheerful sound "Yeah!" and five animated smileys in response to Qian's enunciation of the word kind, it generates a flow of affect that leads Qian to burst into laughter and engage her sister in playing Pictionary.

In the rest of this chapter, I examine how Qian affects and is affected by the English phrase "once upon a time" and how human-digital encounters are involved in dynamic relationships.

4.4. Movie Clip Dubbing

4.4.1. Background

The Cinderella thread takes me to another digital literacies event in which Qian learns English with a mobile app entitled Fun Dubbing (英语趣配音) (FD). Since 2014, FD has become one of the most popular English language learning apps with ELLs in China. In 2020, it was awarded An Influential AI Education Brand (影响力 AI 智能教育品牌) by China Media Group (CMG) (also known as Voice of China) that is under the central leadership of the People's Republic of China. This award-winning app supports both iOS and Android mobile devices. Until June 2021, it has been downloaded more than 187,000 times with a good rating of 4.6 (out of 5) on the App Store of iOS mobile devices.

FD provides a wide range of English learning materials such as vocabulary books for various purposes, picture books, and annotated textbooks. However, it is known mainly for an abundance of movie clips and videos (more than 200,000), in which users can replace the original English speech with their own oral English. While this app offers many resources for free, certain affordances are commercially available, e.g., high-definition videos, lectures of speaking strategies, downloading resources, generating learning reports, and correcting speaking errors. Users are given the option of purchasing VIP membership card valid for one month (25 Yuan[22]), three months (68 Yuan), or one year (198 Yuan).

During the fieldwork for this study, Qian used FD at times for watching free videos and movie clips that include the original speech or the dubbed speech of other users of the app. With the tablet she had used to read the Cinderella story, Qian produced her own dubbings for this app as well, including a dubbing of a clip from the Cinderella movie (2015). Qian worked with the Cinderella clip while she was in her bedroom on Sunday 16 June, 2019, three weeks after our shared reading of the Cinderella storybook and two weeks after we watched the Cinderella movie together.

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[22] 25 Yuan is around 4.83 in Canadian dollars, according to the exchange rate of March 2022.

4.4.2. Video Excerpt

On this weekend afternoon, Qian's encounter with the Cinderella clip is unplanned. This clip attracts Qian's attention when she glances at a FD page. Shortly before that, Qian watched several videos on this app and dubbed two of them halfway through to the end. After watching the Cinderella clip, she cheerfully declares, *我要配这个！ [I'll dub this one!]* With Chinese and English subtitles, this clip features a monologue in English composed of 23 lines, most of which are short, colloquial expressions. Qian dubs 18 lines non-consecutively and this clip remains unfinished, as were her two previous productions. Qian's engagement with each line is spontaneous and unique as is evident in the following video excerpt showing how she engages in intra-action with the seventh line "Once upon a time" (see Figure 4.18).

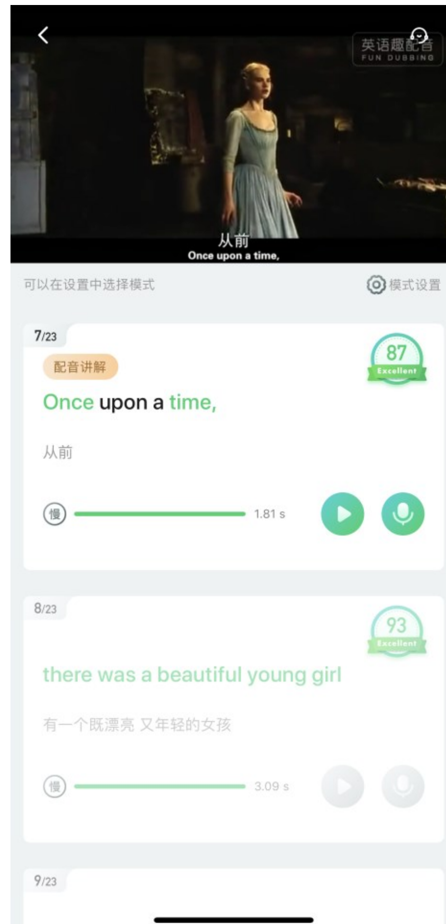


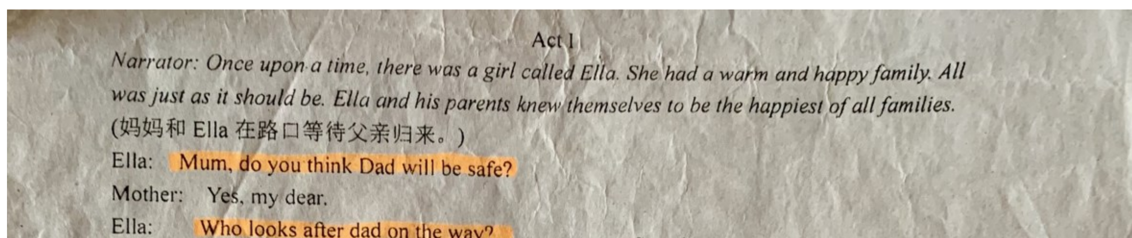
Figure 4.18 The movie line "Once upon a time"

The tablet sits on Qian's lap. Qian and I are sitting side by side on the bedroom sofa. With her head bowed and gaze fixed on the screen, Qian enunciates each word slowly, carefully and enthusiastically (it seems to me she is giving a performance): *Once upon a time.*

FD plays the film clip: *Once upon a time.*

With both arms and hands gesticulating gently above the screen, Qian laughs merrily and speaks in rhythm (she still appears to be performing) (see Figure 4.19): *There was a girl called Ella.* (NB: The next sentence presented in this film clip is "there was a beautiful young girl who married for love." As shown in Figure 4.20, the opening sentence of the Cinderella play, in which Qian played a part, is "Once upon a time, there was a girl called Ella.")

Figure 4.19 "There was a girl called Ella."



Act I

Narrator: Once upon a time, there was a girl called Ella. She had a warm and happy family. All was just as it should be. Ella and his parents knew themselves to be the happiest of all families.

(妈妈和 Ella 在路口等待父亲归来。)

Ella: Mum, do you think Dad will be safe?

Mother: Yes, my dear.

Ella: Who looks after dad on the way?

Figure 4.20 The opening sentence of the Cinderella play
(Photo by author, April 15, 2019.)

A peal of laughter comes from me.

Qian briefly touches a microphone image on the screen for voice recording. She then sways her right hand in wavy lines, which is in rhythm with her speaking to the screen: *Once upon a time*. (NB: The bold type is used in this excerpt to highlight Qian's recordings.)

FD plays Qian's voice recording: *Once upon a ti.* (The sound of -me is not played.)

Qian practices in quick vocalizations: *Once upon a time. Once upon a time.*

Qian touches the microphone image as her speech and the swaying of her hand increase in speed. She makes a second recording: *Once upon a time.*

FD plays Qian's second recording: *Once upon a ti.* (The sound of -me is not played.)

Qian touches the microphone image as her speech and the swaying of her hand accelerate further. She makes a third recording: *Once upon a time.*

FD plays Qian's third recording: *Once upon a time.* (The sound of -me is played.)

After quickly touching the screen and swaying her hand, Qian makes a fourth recording: *Once upon a time.*

FD plays Qian's fourth recording: *Once upon a time.*

Wondering why Qian makes a fourth recording, I bend forward to look closely at the screen, saying: *哦，once 是红色的，你刚才又录是因为这个吗？[Ah, once is marked in red. Did you record it again because of this?]*

Qian responds with a nod: *嗯，才发现它是红色的，应该是我没念对。[Yeah, I just noticed it's in red. There should be an error in my pronunciation.]*

I say with a smile: *我觉得你已经说得很好了,可以不用理它 。[I think you've already done a good job. You can just ignore it.]*

Qian touches the screen while saying: *我再试一下吧。[I'll try it one more time.]*

FD plays the film clip: *Once upon a time.*

Qian practices slowly: *Once. Once. Once.*

After quickly touching the screen and swaying her hand, Qian makes a fifth recording: *Once upon a time.*

FD plays Qian's fifth recording: *Once upon a time.* (Once is marked in red.)

Qian points her right index finger to the screen, saying in low and sad murmurs: *怎么还是 once 呢？ [Why is it still once?]*

A few seconds later, Qian pushes the tablet towards me, saying: *老师，你试试呗。 [Teacher, you give it a try.]*

I reach out my left hand to take the tablet, saying with a smile: *Ok.*

Qian bends over the screen. With my hands holding the tablet, I make a recording: *Once upon a time.*

FD plays my recording: *Upon a time.* (Once is marked in red. The sound of once is not played.)

I make a second recording: *Once upon a time.*

FD plays my second recording: *Once upon a time.* (Once is marked in green.)

Qian sits up and gives me a thumbs-up, saying: *哇，对了，老师真棒！[Wow! You got it right. Teacher, you are awesome!]* (see Figure 4.21)

Figure 4.21 "Teacher, you are awesome!"

I respond: *要等到进度条开始走了，再开始录，不然第一个音可能录不上，你还可以试试说* once *时候稍微慢一点，这样机器能更好地识别。如果还是不行，就别理它了，人工智能有时候也不是那么智能，也会有* bug。*[Record when the progress bar starts running. Otherwise, the first syllable might be not recorded. And you may try to slow down a bit when uttering once. This may make your pronunciation more intelligible to the machine. If it still doesn't work, you just ignore it. Artificial intelligence is not always intelligent. It has bugs.]*

Qian reaches out her hands to take the tablet, saying loudly: *嗯，那我再试试。[All right. I'll try it again.]*

Holding the tablet, Qian makes a sixth recording: *Once upon a time.*

FD plays Qian's sixth recording: *Once upon a time.* (Once is marked in green and Qian is given a mark of 87, as shown in Figure 4.18 above.)

Qian raises her eyes from the screen and bursts into laughter, saying: *终于对了！[Finally, I got it right!]* (see Figure 4.22)

Figure 4.22 "Finally, I got it right!"

4.4.3. Discussion

At the beginning of this excerpt, Qian enunciates "Once upon a time" in advance of FD's utterance of this phrase, which is uncommon in her encounters with other lines in this film clip as she repeats after the app recording. Qian's performance in Cinderella on a school stage play two months ago comes to play an important role in how things unfold at this moment. This becomes even more evident in how Qian improvises "there was a girl called Ella", which is not present as a line from the current clip but from Qian's past stage performance, as well as in Qian's performance-style enunciation (enunciating each word slowly, carefully and enthusiastically; gesticulating while speaking in rhythm). In this sense, Qian's knowledge of the English language gained from her body-and-cognitive learning in the Cinderella play emerges freely in this situation. As an event in which Qian's embodied experiences and memories are invoked, the stage play in this learning assemblage produces affective flows that shape how Qian engages enthusiastically with her target language.

The excerpt also brings to light how Qian's body movements and specifically her hand gestures accompany her spoken English. The close relationship between gesture and speech, or the "gesture-speech unity" (McNeil, 2014, 2017) in language production and comprehension has been well documented in gesture studies across a number of

disciplines (e.g., anthropology, communications, psychology, sociology, and education). In particular, these gesture studies have influenced the advent of L2 gesture research that offers new understandings of language in use, language learning and language teaching (McCafferty & Stam, 2008). It is beyond the scope of this study to go into detail about how gesture is studied in each field, but for the purposes of this study I will focus on what insights multimodal, multilingual and sociomaterial theories offer in analyzing Qian's gestures.

A multimodal lens leads me to look at how Qian's embodied gesturing is a part of her meaning-making as a multimodal whole rather than focusing exclusively on her speech. As the excerpt above shows, Qian's spoken English production is beyond a primarily verbal phenomenon as it is closely related to her manual actions. Qian keeps swaying her right hand in imitation of the rhythm of what she is saying (or recording). The sway of Qian's hand becomes faster in her second recording and accelerates further in her third recording. In this sense, Qian's gestures cannot be understood as an add-on or ornament to her enunciation. Rather, they externalize not only what she is saying but also how she is saying. Compared to looking at speech alone, looking at Qian's gestures and speech together gives me a broader picture of how Qian makes meaning as a language and literacy learner engaged in processes of coordinating moment-to-moment actions and her linguistic resources.

As I think with sociomaterial theories, I pay particular attention to how Qian's gestures are materially entangled in her English learning process. As a specific type of "material carriers of meaning" (McNeil, 2017, p. 78), gestures embody and materialize messages. As Stam and McCafferty (2008) explain, gestures that occur during speech "are phonologically, semantically, and pragmatically synchronic with speech and are external manifestations of a speaker's on-line thinking-for-speaking" (p. 6). In this sense, Qian is speaking and thinking with both her body and mind—there being not clear-cut boundaries between the two. What Qian is gesticulating is deeply entangled in a girl-app-speech-recording assemblage and affected by the materiality of the English language. The sounds of English, especially the stress pattern and the fall-rise tone in English, lead Qian to sway her right hand in wavy lines with falls and rises in rhythm with her speech.

It is noteworthy that gesture is not always reflective of speech but offers distinct potentialities. Qian's gesticulations during recording are spontaneous, nonlinear, momentary and imagistic, which involves both spatial and temporal dimensions. In contrast, Qian's enunciation of "once upon a time" is a relatively linear progression of syllables and sounds, which involves mainly a temporal dimension. This is primarily due to the design of the app that sets a time limit for Qian's speech and employs a progress bar to visualize her speaking progress. Such a design is governed by a native-speakerism that assumes an ideal foreign language learner or multi/plurilingual speaker would be one who conforms to standard norms of the target language and speaks it at a "native speaker" pace, as discussed in Chapter 2. As a result, Qian repeats her voice recordings multiple times and she speeds up each time both her gesture and enunciation to make sure she can finish recording within the given time limit.

The presence of such a native-speaker norm becomes particularly noticeable in Qian's subsequent attempts (fourth, fifth and sixth recordings). Qian tried to make disappear the red colour of the word "once" signaling a mispronounced word, according to the English language conventions programmed in the app[23]. Sensing this, I try to reassure Qian after her fourth attempt by saying, *"I think you've already done a good job. You can just ignore it."* After Qian's fifth recording, I reiterate this statement and suggest the "error" might come from potential bugs in the software rather than from her. This reflects my intention to encourage Qian to practice speaking English without being constrained by worries about conforming to pronunciation conventions. In doing so, I am influenced by theories of multilinguality that work against a deficit-oriented perspective of multi/plurilingual speakers as being incomplete and substandard in target languages (Moore et al., 2020). However, I do not intend to intervene excessively in Qian's perception of pronunciation "errors" or persuade her to give up on self-correction. I refrain from this because I have seen many rural Chinese ELLs struggling with English pronunciation due to limited access to quality learning resources, and I see digital technologies as promising in helping them to improve their spoken English. This issue will be discussed in more detail in the next chapter.

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[23] What is at work in this encounter as well might be a mark given by the app when Qian finishes each recording. Marks of Qian's recordings are not available for data analysis because the app only stored Qian's sixth (final) recording (see Figure 4.18) and there is no discussion between Qian and me about those marks in the video footage for that day.

Frustrated by the result of her fifth recording, Qian pushes the tablet towards me and asks for my enunciation of “once upon a time.” Initially, I read this as Qian’s positioning me as a learning partner involved in a physical closeness with her (sitting beside her). As discussed earlier in this chapter, Qian and I were co-learners at times as boundaries between us became blurred in some of our joint language and literacy practices. As I think more deeply with sociomaterial theories, I realize it would be unethical to evade discussing power relationships in this event. As Appleby and Pennycook (2017) argue, the sociomaterial lens does not aim to abandon the commitment to social justice, but it means that we understand power to include material dynamics with social dynamics.

Adopting this line of thinking, I see in this event how Qian might have positioned me as an expert in English language communication as well. To me, this positioning is entangled with my adult body, my performances as researcher and teacher, the research apparatuses I brought with me (the app FD, the camera) and my suggestions on how Qian can make her pronunciation intelligible to the machine. This entanglement also involves unequal power dynamics in our relationship and in my research that position Qian as a child English language learner. This is further evident when Qian notices the app is responding positively to my second recording (the word I say is marked in green on the screen) and she gives me a thumbs-up, offering verbal praises. This indicates to me that Qian sees me as a “legitimate” English language learner or teacher. Such research-participant power relations are also documented in a publication by Dagenais et al. (2020) who examine how human-material relationships are formed in digital story creation. These scholars discuss how power dynamics were materialized in the presence of the researchers’ bodies, as well as their ideologies around language and literacy instruction that did not conform to the views of their participants.

This discussion indicates how Qian’s English language learning is a more-than-human process that unfolds as a confluence of multiple sociomaterial bodies. It shows how theories of multimodality, multilinguality and materiality helped me look at this digital-human encounter as dynamic relationships composed of not only human bodies, enunciation and actions, but also nonhuman things such as standard language conventions, software designs, researcher-participant power relations in this project.

4.5. Conclusion

In this chapter, I introduced how a Cinderella thread became a “line of flight” for me to engage in an analytical practice that is beyond coding data and organizing them as thematic chucks, as I might have done in earlier research grounded in a conventional humanist qualitative research methodology. In tracing the Cinderella thread, I presented three events of digital literacies in Qian’s English language learning to map multiple relationships formed among a myriad of amorphous intensities and sociomaterial bodies (e.g., modes, languages, objects, digital devices, mobile apps, discourses, learning realities, learning contexts, human bodies). Thinking with theories of multimodality, multilinguality, and materiality, I paid particular attention to the materiality of languages and other semiotic resources (particularly sound, touch and gesture); the immanent, becoming, rhizomatic, and relational nature of language and literacy practices; and agency as affective flows arising from sociomaterial entanglements in these events.

The first event illustrates how a Cinderella digital storybook engaged Qian in an embodied, multisensory and material reading process, in which she was becoming an active reader of multimodal and multilingual texts in the company of the researcher. In particular, I discussed how ideologies of patriarchy and white supremacy in Cinderella tales were constitutive of the storybook reading assemblage, in which Qian’s and my gendered bodies constantly intra-acted with each other as well as with other sociomaterial bodies. The second event shows how a dictionary mobile app offered Qian different English vocabulary learning opportunities from those offered at school. In this event, Qian recalled a line from a Disney Cinderella movie (2015) (“Have courage and be kind”) that played a role in her encounter with the specific English word “kind”. The Cinderella thread unfolds in the third event as human-digital intra-actions among Qian, the researcher, a Cinderella movie-clip line “once upon a time”, and an English language learning app. This event led me to make connections between Qian’s performance in a Cinderella stage play and her improvised oral English production. It also brings to light how Qian’s hand gestures were materially entangled in her English learning process, as well as how a native-speaker norm operates alongside researcher-participant power dynamics that affect Qian’s English learning processes.

Chapter 5.

Multimodality, Multilinguality, and Materiality in Digital Storytelling

5.1. Introduction

5.1.1. Mute-Learning Among Chinese ELLs

China has a large number of ELLs but, according to He (2013), "most of them have learned 'mute English' when it comes to expressing themselves orally in English" (p. 338). For his part, Young (2015) observed how his Chinese (and Korean) students tended to learn the English language quietly and focus on learning activities aiming to develop language comprehension rather than production (e.g., writing terms, completing fill-in-the-blanks, multiple choice, grammar exercise). As a result, they were often found struggling with having conversations in English while scoring "very high on written English exams" (Young, 2015, p. 155).

This focus on comprehension tasks can also be seen in Chinese test takers' performance in the International English Language Testing System (IELTS). According to the IELTS website (Test taker performance 2019, n.d.), in 2019, takers of the IELTS Academic test identified as having Chinese nationality achieved a mean speaking band score of 5.4 (out of a 9-band scale), which was the lowest among their other mean individual (reading 6.2, listening 5.9, writing 5.5) and overall (5.8) band scores. That year, test takers who declared Chinese as their L1 had similar scores (speaking 5.5, reading 6.2, listening 6.0, writing 5.5, overall 5.9). According to the IELTS website (Test taker performance 2019, n.d., n.p.), these "figures are broadly in line with statistics for previous years."

In comparison with urban students who have more access to extracurricular and curricular English-speaking learning resources, ELLs in rural areas of China are more likely to be exposed to mute-learning (Cao, 2016; Chen, 2020; Fang & Liu, 2018; Wang, 2012; Ye, 2012; Zhu, 2018). This makes it more difficult for young rural Chinese ELLs to develop phonological awareness of English (Fan & Antle, 2020). As discussed in Chapter 1, in China English does not serve as a communication tool in rural

communities, which contrasts with the situation in cities where more foreigners are found who use English as a L1 or where it is used as a lingua franca in global communication. In many English language classrooms in rural China, emphasis is placed on teaching reading and writing skills, and students' listening and speaking competence is often overlooked (Hu, 2003; Zhao, 2019a). A contributing factor to this pedagogic imbalance is some rural English language teachers' overemphasis on students' performance in examinations that privilege reading and writing (Zhao, 2019a). It is also related to some teachers' unwillingness to teach English speaking skills, partly due to their own lack of professional competence and limited English language proficiency (Zhao, 2019a).

As ELLs themselves, Chinese English language teachers may experience foreign language anxiety (FLA) and be reluctant to conduct lessons in English or speak the language (Liu & Wu, 2021). According to He (2018), FLA or foreign language learning anxiety (FLLA) has been widely discussed for more than 60 years. It can be seen as second or foreign language learners' negative feelings (fear, nervousness, apprehension) arising from their engagement in activities involving the target language such as communicating with others and taking language exams. He (2013, 2018) argues that one important factor leading to Chinese ELLs' mute-learning and lower communicative competence is FLLA and particularly foreign language speaking anxiety (FLSA). Drawing on McCroskey's (1997) idea of communication apprehension, He (2018) conceptualizes FLSA as "an individual's fear or nervousness associated with either real or anticipated oral communication in foreign language with another person or persons" (p. 4).

FLLA or FLSA has been documented in the literature as a phenomenon among Chinese ELLs, although some scholars may not employ these terms in their research (Chou, 2018; Liu & Jackson, 2008; Liu & Yuan, 2021; Wang, 2020; Zeng, 2018). In her discussion of how positioning and identity shape Chinese ELLs' practices of multimodal and multilingual literacies, Wang (2020, xvii) presents the narrative of one undergraduate participant enrolled in a U.S. university:

> Speaking English is like dancing with shackles. I do not know how to stretch my legs and arms. It is very painful to participate in class discussions because when I speak English, my tongue is tied up. Sometimes I feel stupid and awkward if I do not know the answer related to the target culture . . . . I feel like there is a mark on my face: "you are a failure."

As Wang (2020) explains, this vignette is the epitome of how some Chinese ELLs may experience anxiety, self-doubt and self-criticism when engaging in English-speaking activities. As detailed in Chapter 1, I myself was a rural Chinese ELL who feared speaking English in class and felt inferior and deficient because I was unable to pronounce most English words like others did. I know how frustrating, embarrassing and discouraging it can be when encountering difficulties in speaking English in front of others. During the fieldwork for this study, Qian's English language teacher Ms. Chu, who was in her late forties and received her pre-tertiary education in rural Jingyue, expressed more than once her lack of oral competence and apprehension of speaking this language in class. As she said in a conversation on June 13, 2019:

> 我那口语吧也不咋好，口音重，有些音发不好，学生应该也不愿意听，我也不愿意说，但没办法，毕竟是英语课，怎么也得说吧。. . . 他们都喜欢刚毕业的大学生，口语好，人也年轻，有活力。
>
> My translation: I think students don't like my oral English because it is not good. I have a strong accent and am not able to pronounce some sounds properly. I don't want to speak English. But as an English language teacher, I have to speak it in class. . . . Students prefer taking classes with new college graduates, who are young, energetic, and speak English well.

Jing and Qian seemed to feel that they had a relatively low level of FLSA, which might be due to the fact that they rarely spoke English in real-life scenarios as ELLs living and learning in a monolingual community located in rural China. Jing and Qian occasionally spoke this language in extracurricular environments (e.g., performing in the Cinderella play, participating in this research). Nevertheless, their English-speaking practices were mainly associated with academic learning. The most common one was reading aloud and reciting a written text (vocabulary, sentences, articles, example essays) in classrooms and beyond, which highlighted memorization rather than pronunciation strategies. In English language classes, Jing and Qian sometimes answered their teachers' questions in English related to grammar, vocabulary and fill-in-the-blank tasks instead of engaging in authentic communication practices. Jing regarded herself as a poor English speaker mainly because of her "corn accent"[24] (“大碴子味”).

[24] The expression "corn accent" is often used in a pejorative way to describe a general accent developed by the inhabitants of the three northeastern provinces of China (Heilongjiang, Jilin, Liaoning) when they speak Putonghua (or the Common Speech, which is a variety of Mandarin Chinese and an official language of China). These provinces are known by the country for an abundance of agricultural resources, particularly corns.

Similarly, Qian saw her oral English as "so-so" ("一般般") and her fluency as poor. According to Ms. Chu, while Qian was one of the "good students" whose English pronunciation was acceptable, she still had a long way to go to become recognized as a communicatively competent ELL. Nevertheless, these two girls seemed not to worry much about this as they were asked to focus on written English exams.

5.1.2. Facilitating Oral-English Learning with Digital Technologies

During the 2019 fall semester, Jinyue eighth graders (Jing and Qian included), as well as their English language teachers, practiced English speaking and listening skills on an app entitled Chivox[25] (驰声听说在线), as required by the Jingyue School District. In particular, these students were required to take English speaking and listening tests on this app, which were designed in human-machine conversations materialized in the form of multiple choice and short answer quizzes. This initiative was entitled the "*Teacher-and-Student Take-off Project" ("师生腾飞计划")*, which was set out by a local education sector on September 3, 2019. Implemented over two months, this project aimed at investigating the oral English communicative competence of teachers and students from middle schools in Jilin Province, as well as evaluating the possibility of potential changes in the English competency assessment in the provincial Zhongkao (the High School Entrance Examination). It was said that an English speaking test would be added in the Zhongkao in Jilin, and the then eighth graders might be the first generation of takers of that test.

In late June 2021, Jing, Qian, as well as their peers in Jilin, took the Zhongkao without any English speaking tests, which brought a sense of relief for the girls and their English language teachers. However, the implementation of this project suggests that speaking competence might be included in the provincial English assessment system in the future. This is in line with Pan's (2015, p. 84) perspective that English language education in China has been shifting its emphasis from the utilitarian function of the language (focusing on reading and writing skills) to "the communicative purpose of language learning" (highlighting students' overall language skills). As well, the project opens the possibility that English-speaking learning and teaching in Jingyue middle

[25] Different apps were introduced to Grade 7 and Grade 9 students and teachers in the school district under discussion.

schools might include work with digital technologies. As the initiators of this project explain (JPIE, 2019, n.p.):

> 通过信息技术结合英语教学本身，实现智能批改练、大数据助力英语教学，针对听口练习做质的提升，真正实现师生教学的减负增效。
>
> My translation: With the availability of big data, information technology can facilitate our English language teaching. Such technology helps students practice their speaking and listening skills more independently and efficiently, which may lighten teachers' burden as well.

This statement is in keeping with the observations I discussed in Chapter 4 on Qian's engagement with two mobile apps (YDSE and FD) to practice speaking English. Indeed, within language studies, there has been a fair amount of research investigating how to improve EFL learners' speaking proficiency through various affordances of digital media. They include but are not limited to the use of digital news stories (Lee, 2014), digital portfolios (Cabrera-Solano, 2020; Dougherty & Coelho, 2017), Instagram vlogs (Wulandari, 2019), game-based mobile applications (Wang & Han, 2021), and AR technology (Fan & Antle, 2020).

In particular, the potential of digital storytelling in facilitating ELLs' learning and especially their oral English production has been well documented in the literature (Afrilyasanti & Basthomi, 2011; Eissa, 2019; Hava, 2019; Idayani, 2019; Kim, 2014; Moradi & Chen, 2019; Yang et al., 2020; Yeh & Mitric, 2019). As discussed in Chapter 2, new media assists language learners as they engage in digital storytelling. It enables ELLs "to experience authentic writing opportunities, diverse text types, and differing paths to text composing," and thus is especially useful and powerful for students who are struggling with English writing and speaking (Yi et al., 2019, p. 166).

Reading the scholarship on digital storytelling led me to invite Jing and Qian to make videos on their phones about a visit to a local history museum. I encouraged them to produce digital stories with the only constraint to include both written and oral English in their stories. This digital storytelling project was carried out during the girls' summer holiday (about 5 weeks) in 2019 on the occasion of two visits to Qian's home and a day trip the three of us made to a local palace museum. The narrative I present below describes how the digital storytelling was set in motion during my first visit to Qian's home and our shared visit to the museum.

5.2. Launching Digital Storytelling

5.2.1. Setting up a VivaVideo Account

On this morning of August 7, 2019, when I visit Qian in her home, I walk into her bedroom. Jing—Qian's cousin, neighbour and childhood friend—is in the room doing her math homework, and Qian is reading a history textbook. She is reading a chapter about how China was invaded and brutalized by the European and Japanese colonial powers at the end of the 19th century. The three of us have a conversation about some historical events during and after this troubled period in China. In particular, we touch upon the September 18th Incident (九一八事变) (also known as the Mukden Incident [奉天事变] or the Manchurian Incident [满洲事变]), which occurred on September 18, 1931 and was used as a pretext for the Japanese invasion of the northeastern part of China (known then as Manchuria).

This event leads our conversation to how Changchun—the research site—became the capital of the Japanese puppet state known as *Manchukoku* (1932-1945). Jing and Qian show great interest in this colonial history of their native place and would like to learn more about it. I therefore invite them to visit the Palace Museum of the Manchurian Regime[26] (PMMR) (伪满皇宫博物院) someday, where neither of the two girls has ever been. The PMMR was originally built as the official home of the puppet *Manchukoku* emperor Puyi. Since the 1950s, it has been designated by the PRC government as a museum for patriotic education to display relics of *Manchukoku* and evidence of the crimes committed by the Japanese imperialist invaders in northeastern China. Nowadays, the PMMR serves a broader educational role with exhibitions of artefacts and works of art beyond political purposes. It has become one of the most visited museums in China.

Jing and Qian, who have little experience and familiarity with museums, cheerfully accept my invitation to visit the PMMR and agree with my suggestion to make a video about this sightseeing tour. I ask the girls if they are familiar with any video-making software that supports editing multimodal texts such as image, sound, music,

[26] For more information, visit the museum website at https://www.wmhg.com.cn/en/tour_service.html

and especially oral and written English. While they have no such software to offer, Qian suggests we can check what apps are available on the application shop of her phone that uses the Android operating system. Qian then finds VivaVideo (VV) (小影), which is a top-ranking video editor on the app store of her phone. Until August 2019, VV has been downloaded more than 9,500,000 times on Android mobile devices with a good rating of 4.7 (out of 5). VV has a wide range of free Photoshop features as well as video editing features (e.g., video trim, cut, crop, merge, copy/duplicate, collage; editing animated written texts, images, background music, sound effects, video speed).

To Qian's disappointment, VV cannot be downloaded on her phone as a result of insufficient storage space. Qian blames this situation on a large-size app, on which she has been taking an intensive summer course in physics. Qian says she will only be able to download VV after she uninstalls the other e-learning app tomorrow when she completes the summer course.

Jing's phone is not available at this moment as she left it at home. Under the circumstances, I offer a touchscreen Samsung Android tablet to Jing and Qian, which they have used several times during fieldwork. Qian holds the tablet and seats herself between Jing and me on a bedroom sofa. After VV is downloaded on this tablet, Jing and Qian start setting up their VV account. Qian asks Jing if she has a good idea of their potential VV username. *"Sunshine,"* Jing blurts. Upon hearing this, the three of us burst into laughter as we simultaneously recall our earlier conversation about a sentence "You are my sunshine" that Jing had written on a whiteboard in Qian's bedroom (see Figure 5.1). Soon after entering the room this day, I became curious about this written English text and asked the girls how it appeared there. I was then informed "You are my sunshine" is the title of an English song, which the girls had sung before I entered the room.

Figure 5.1 “You are my sunshine”

Qian enters **sunshine** and says they cannot use this word as it has already been registered on the software. Jing suggests Qian enter **abcsunshine** but this username is also taken. Qian says *我天哪，sunshine 那么火！ [Oh my God, sunshine is so popular!]* and simply enters **shine** but that word turns out to be invalid as well. At that moment, Jing reaches out her right hand to enter **abcshine** on the screen, which does not work either (see Figure 5.2). After Qian enters **ashine** and it is rejected too, she asks me: *这个可以加表情和符号吗？ [Can I use smiley or punctuation here?]* I respond: *我不清楚，可以试一下。 [I have no idea. Can you give it a try?]* Qian then enters **,.shine** (see Figure 5.3). After that, Qian pushes the tablet towards me and says with a big smile: *看！可以了。 [Look! Done.]* I respond with a thumbs-up. In the meantime, Jing laughs and says: *逗点 sunshine, 这组合看起来怪怪的，这能记住吗？[Comma, period, sunshine. This combination looks a bit weird. Can we remember it?]* Qian turns to Jing, laughs softly, and says with gestures: *是一个逗号，一个点，然后是 shine。嗯, 好像是不太好记，我们把它写下来吧。[It is a comma, a period, and then shine. Um, it does not seem easy to remember. Let’s write it down.]* Qian then writes their username **,.shine** on a notebook laid on a desk very close to our bodies.

Figure 5.2 Jing (right) entering "abcshine"

Figure 5.3 The username ",.shine"

Jing-and-Qian's VV account is soon set up after they figure out a password. Jing and Qian then watch and comment on videos made by some other VV users. Twenty minutes later they start playing an AR game on iHuman Books, a multimodal and multilingual storybook reading app. At the end of this day's visit, I leave the tablet with the girls to let them further explore the affordances of VV.

As shown above, Qian's reading of a history textbook leads the three of us to engage in a conversation about a historical event, which arouses our interest in visiting the PMMR. My proposal to make a video about this museum visit leads us to explore VV—a video-making app, which cannot be installed on Qian's phone due to insufficient storage space. As mentioned in Chapter 3, during the fieldwork for this study, Qian's phone, a relatively inexpensive *Vivo* (a Chinese brand) product, was handed down to her by her sister Tian when the latter purchased a new smartphone two years ago. Although this phone engaged Qian in certain digital literacy activities, its limited storage capacity temporarily blocked Qian from entering into contact with some software (in this case VV). Throughout the fieldwork, Qian expressed her dissatisfaction with her phone

storage capacity as she had to keep uninstalling some apps to make room for others. For instance, TikTok—one of Qian's favorite social media apps—was repeatedly installed and uninstalled on her phone. What disappointed Qian in addition to the poor performance of her phone was the low-speed and unstable WIFI connection in her home and the limited budget of her family for buying desired mobile data services.

The poor quality of digital resources available to Qian calls to mind the well-established body of literature on digital inequalities discussed in Chapter 2. Access to technologies and digital literacies are not equally available to everyone (Rowsell et al., 2017). Rather, digital literacies are situated in local spaces shaped by larger sociomaterial forces and inextricably intertwined with power relations. As detailed in Chapter 1, the rural-urban gap in digital infrastructure seems to be narrowing in China and more young rural Chinese students appear to be active Internet participants through mobile phones. However, excitement around the provision of digital tools and network access is somewhat tempered as less importance seems to be accorded to the quality of digital resources available to different groups of people (Wang et al., 2018).

I argue therefore, that more attention must be paid to the constraints of digital technologies (in this case Qian's mobile storage capacity) in rural learning settings as they determine how these resources are used and what digital literacies are adopted. As well, it is important to see how young language and literacy learners are entangled in digital learning assemblages that produce difficult human-digital encounters out of the children's control.

In this digital literacy event, the set-up of a VV account involves an assemblage of multiple sociomaterial participants. They include: The English song title "You are my sunshine" written out on a bedroom whiteboard, the researcher's inquiries about the song title, the tablet (with its screen, interface, and keyboard), the design of the mobile app VV (requiring a username that supports linguistic and non-linguistic resources), the popularity of sunshine with VV users, the girls' digital literacies and multi/plurilingual competencies, the proximity of their bodies (allowing both girls' finger-screen encounters as well as their instant response to moment-by-moment affective intensities), etc.

In particular, the predominance of language in literacy education enters into relation as Qian seems to see non-linguistic semiotic resources as supplemental to

linguistic modes in the encounter described above. This is evident in Qian's effort to add two punctuation marks in front of the English word "shine" after a series of word-letter combinations (sunshine, abcsunshine, shine, abcshine, ashine) entered by Qian and/or Jing are all rejected by VV. It is noteworthy that Qian is initially unsure this punctuation will work for a username, as is evident in her question *"Can I use smiley or punctuation here?"* This can be read as a response to sociocultural conventions in creating usernames, insofar as language is usually given priority as a semiotic resource for names. Qian's question indicates that established English language conventions for forming a name with letters only appears to play an important role in how things unfold in this assemblage.

These language norms further produce affective flows that shape how Jing responds to the username **,.shine** entered by Qian. Jing's comments *"This combination looks a bit weird."* might be read as the girl's awareness that combining punctuation marks with an English word does not conform to standard language conventions. Jing's follow-up utterance "*Can we remember it?"* illustrates how she thinks such a multisemiotic, "non-normative" practice may be difficult to remember. Jing's view may be related to a traditional distinction between linguistic and non-linguistic cognitive processes, i.e., a belief that language is processed independently in mind. In keeping with this assumption, traditional language education was more likely to separate linguistic and non-linguistic resources in pedagogical practices. As Yagelski (2011) suggests, "in school we teach separateness rather than interconnectedness; we see a world defined by duality rather than unity" (p. 17). Such a perspective on language is rejected in theories of multilinguality, which embrace the idea of language as "a multisensory and multimodal semiotic system interconnected with other identifiable but inseparable cognitive systems" (Li, 2018, p. 20).

As well, this event serves as a reminder that ELLs are likely to engage in translanguaging practices involving creative, improvised, multisemiotic and multi/plurilingual literacies. In finding a username for their VV account, Jing and Qian creatively employ their semiolinguistic repertoires to construct spellings and forms of expression that might not be legitimate in their English language classrooms. In this sense, translanguaging "is a transformative, resemiotization process, whereby language users display the best of their creativity and criticality" (Li, 2018, p. 22).

In the next section, I document the multimodality, multilinguality and materiality in the relationships formed by sociomaterial bodies during a visit Jing, Qian, and I made to the PMMR two days after the set-up of a VV account.

5.2.2. Visiting the Museum

On the morning of August 9, 2019, I drive Jing and Qian about one hour from their village to the PMMR with their parents' consent. The PMMR turns out to be a rich place for the girls and me to "practice new, traditional and multiple literacies" (Eakle & Dalesio, 2018, p. 604). These practices, as Freire and Macedo (1987) would suggest, enable us to "read the word and the world." In other words, the PMMR engages us in reading of a wide range of texts, including the printed word (e.g., multilingual labels for exhibited objects, archival materials, instructions for activities, brochures) and other materialities (e.g., images, buildings, artefacts, works of art, garden materials, audiotape guides, video resources). In this sense, the PMMR materials, as well as the spaces they occupy, can be viewed as multimodal texts that impart meanings and thereby are (un)readable. Literacies emerge in processes of our readings and making meanings of verbal, artefactual and spatial texts in the PMMR.

This is an "understanding of literacy as a situated social practice together with literacy as materially situated" (Pahl & Rowsell, 2012, p. 50). Such a multimodal and sociomaterial perspective on literacies challenges assumptions underlying traditional literacy studies, which privilege language and representation. In this vein, I see our museum visit as not only a warm-up fieldtrip for the girls' digital storytelling project, but also as a literacy event that offers them important possibilities for engaging in multiliteracies in the museum, or developing "museum literacies" (Eakle, 2009; Eakle & Dalesio, 2018; Sadiq, 2020; Yasukawa & Widin, 2016). Although the moment-by-moment happenings in the PMMR are not fully documented in the videos produced by the two girls, they provide nevertheless infinite potentialities for literacy learning.

During our visit to the PMMR, I repeat to Jing and Qian that the digital storytelling project is more an entertaining activity than an assignment and their products will not be evaluated or circulated beyond my research. As well, I try to avoid interfering and controlling their encounter with the PMMR. This reflects my intention to put Jing and Qian at ease during their museum visit and involve them into opportunities to develop

multimodal literacies through hands-on participation and exploration in the PMMR. As Eakle (2009) argues, museum education is often considered more informal, less structured, and less guided compared to classroom education. In such a museum learning environment, the girls' literacy learning is more likely shaped by their multisensory, embodied and material encounters with sociomaterial bodies in this space.

We start our experimentation and exploration in the PMMR with a wander around its well-designed garden consisting of plants, trees, grasses, pools with fishes, sculptures, stone inscriptions, rockeries, pavilions, an air-raid shelter used in wartime, etc. Jing and Qian seem excited about engaging with these garden materials and they keep asking questions about them, searching online for information on them using mobile phones, and taking pictures of them. The still pictures taken in the garden reappear later on in both Jing's and Qian's videos, as will be shown further on in Section 5.2.3.

A Catalpa tree glows for Jing and Qian at some point in our tour (see Figure 5.4). Jing stops to look at this tree first and says its long, slender pods look like green beans—a vegetable that is well-known to them. Qian soon joins Jing in entering into contact with this "interesting tree" ("好玩的树")—gently touching the tree pods and guessing at their function. Jing and Qian ask me about the name of this tree, which I do not know. The three of us become sadly aware of how little we know about plants around us. This event leads me to introduce Jing and Qian to an AI-based plant identification app called Xingse (XS) (形色), in which they show great interest. While XS works seamlessly on Jing's phone, Qian decides not to install the app on her phone in order to save her mobile storage space for pictures of the trip. The two girls frequently use XS on Jing's phone to learn about plants and trees for the rest of their visit to the garden. Together with an audio guide to the PMMR installed on our phones, the app XS illustrates how new media is constitutive of this museum learning assemblage.

Figure 5.4 Jing (left) and Qian (right) learning about a tree

At one point, Jing and Qian become interested in a relic of a temple, where the *Manchukoku* puppet emperor Puyi worshiped a Japanese god. After a discussion of a temple stone inscription “第一陣神社” (in traditional Chinese) (literally means the first-line shrine), the girls walk to multilingual labels for the temple (see Figure 5.5) and read the Chinese text silently and attentively. After that, Qian attempts to read aloud the written English text, but soon gives up as, according to her the label has too many unknown long words that are difficult to pronounce. Jing agrees with Qian and says this label looks much like a dense piece of writing from English reading tests that have often frightened her. The girls then glance at the Japanese label and are surprised to discover that traditional Chinese script is part of this language.

Figure 5.5 Multilingual labels for a temple relic

This label-girl encounter shows how Jing and Qian intra-act with different languages in their repertoires. These two girls seem to take advantage of the ideational, functional and representational aspects of their L1 (Chinese)—what the label words mean—to acquire content knowledge of history, culture, or something else. In her attempt to read aloud the written English text, Qian enters into contact with the materiality of her LX (English)—how to use her body to pronounce words. Jing's response to the English label might be read as how the design of this label (the wordy, printed text) evokes memories of her formal English learning and specifically test taking that provokes a memory of foreign language anxiety (FLA). Indeed, throughout their visit to the PMMR, Jing and Qian choose to engage in few literacy events involving long, descriptive printed texts (labels, timelines, gallery walls, brochures, etc.) available in the museum. Rather, they seem to gravitate to visual- and audio-based learning activities. Such a tendency has also been observed in other studies of children's meaning-making in museum spaces. For example, in his work on museum literacies, Eakle (2009) examines how a group of adolescents in the United States resisted printed museum texts but engaged more with museum spaces, images and objects. Finally, Jing and Qian gain certain knowledge of the Japanese writing system through their short intra-action with the Japanese label, although neither of them has ever learned this language

at home or school. At this moment, they are able to map the structure of this foreign language onto their own. In this sense, the PMMR engages Jing and Qian in literacy practices that are spontaneously formed and constantly changing assemblages of materials and bodies rather than rational, intentional designs of meaning-making activities.

What also glows for me is how a tourist-feedback spiral notebook that is lying open on a desk in the PMMR involves Jing and Qian in written English production. We come across this notebook in a hallway and are attracted by a written piece of text composed of both Chinese and English words written by a tourist whose name in letters (not Chinese characters) is Rosa Regan (see Figure 5.6). Jing and Qian cheerfully read aloud this bilingual text. They are pleased that they can enunciate the English words "I Love You" as they read the English text and become even more excited about pronouncing the name Rosa Regan with some effort. With my encouragement, the two girls decide to give their own written feedback on the museum. Jing writes down "Wonderful!" in English in a box under Rosa Regan's message, and Qian subsequently writes down "Great!" in English on the next page of the notebook (see Figure 5.6). This is somewhat surprising for me as both Jing and Qian have seldom written in English in non-academic contexts during my observations.

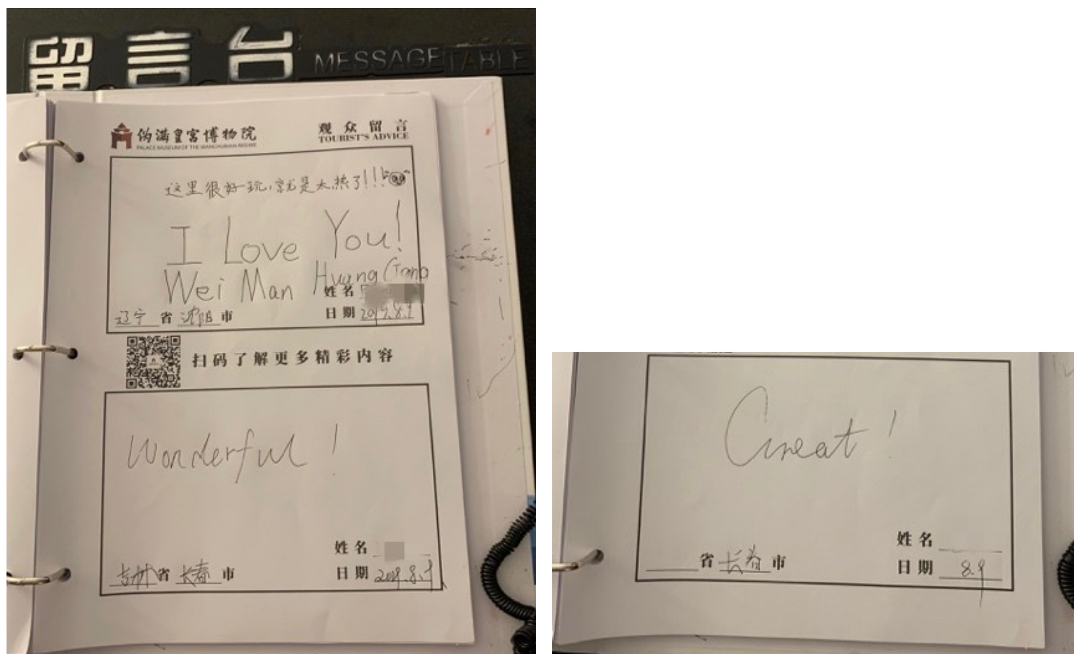


Figure 5.6 A tourist-feedback spiral notebook

A sociomaterial lens helps me to look at how a written-English-production assemblage comes into being in unpredictable ways at the coalescence of multiple things. They include: the presence of a tourist-feedback notebook that attracts the girls' attention and offers them a space to practice printed-based literacy; the representation of non-Asian bodies in a bilingual message from Rosa Regan; the girls' knowledge and competencies in English; the girls' enjoyable experiences in the PMMR that leads them to give positive feedback on the museum; my presence as a researcher interested in English language learning, etc. In particular, the girls' successful attempts to pronounce the English text "I Love You" "Rosa Regan" may encourage them to enter into further contact with the language. As Valverde (2020) argues, museums offer children new language learning opportunities as they open up different "relationships by engaging affect, sensory experience, and perception into linguistic production" (p. 199).

In exhibition halls of the PMMR, Jing and Qian are constantly attracted to a myriad of artefacts (lamps, curtain, furniture, uniform, photograph), handicrafts (fans, toys, embroideries, bamboo weaving, Chinese paper cutting) and works of art (paintings, calligraphy, fine china, etc.). These objects are displayed in carefully designed exhibits that offer Jing and Qian a space for multimodal and multilingual meaning-making. The girls move across various exhibits in nonlinear, unguided trajectories, sometimes stopping for a little while, sometimes for long and intense periods. In their embodied and emplaced engagement with displayed objects, Jing and Qian are more likely to focus on their multisensory (visual, audio, haptic and kinesthetic) experience rather than cognitive learning of explicit knowledge (facts and concepts). In this sense, the girls are involved in object-based learning that highlights process, body, diversity, and material-human encounters. Such learning is different from traditional classroom learning that does "not account for the richness and complexity of learning from objects and experiences, particularly not its rich contextual nature" (Dierking, 2002, p.4).

With sediments of events existing beyond the museum, the displayed objects build a bridge between the girls' in-museum experience and past and future realities. Situated within local sociocultural, sociohistorical, and sociomaterial contexts, these objects arouse personal interest for each of the two girls and become entangled with the girls' own knowledge and life experiences. For example, standing in front of an exhibition of traditional Chinese landscape paintings (see Figure 5.7), Qian is amazed at how exquisite these works of art can be and connects them to a couple of terminologies she

has learned in a school art class. An old-style palm-leaf fan (see Figure 5.8), which was used by Puyi in a local prison during the early 1950s and displayed in an exhibition titled The Life of Puyi Aisin Gioro: From Emperor to Citizen (爱新觉罗·溥仪的一生：从皇帝到公民), evokes Jing's childhood memories of a similar fan seen in her grandparents' home. As Jing merrily recalls, before she went to sleep during hot summer nights, her grandmother used to gently fan Jing with such a palm-leaf fan in order to help cool her off and keep mosquitoes away.

Figure 5.7 Jing (left) and Qian (right) seeing an exhibition of art

Figure 5.8 A palm-leaf fan

The relationships formed in this encounter between objects and girls might not be taken as “literacy-as-usual” (Smythe et al., 2014) in school classrooms that privilege print literacy. Nevertheless, in viewing literacies as the dynamic and rhizomatic intra-actions of material-discursive practices, as discussed in Chapter 2, I see these events as multimodal literacies and the PMMR as a place that supports the girls’ literacy learning.

In what follows, I provide some narratives that speak to how the PMMR visit becomes entangled in Jing’s and Qian’s digital storytelling and video production.

5.3. Digital Storytelling in Action

5.3.1. Before the Video Production: TikTok at Work

On this morning of August 12, 2019, Qian is home with her mother who is busy with household chores while her father and sister are out. When I enter Qian’s room, she is sitting on a sofa and watching TikTok short videos on her phone, something she does frequently at home. Qian is not an active digital literacy producer on TikTok as there is not any multimedia production on her account. Qian tells me Jing is tech-savvy and owns two TikTok accounts, one for publishing short videos while the other for viewing other TikTok users’ publications.

At one point, Qian visits Jing's TikTok page and excitedly shows me a recent video posted on this site three days ago during our shared visit to the PMMR. This video has no recorded voice but includes a piece of rap music and displays several still pictures taken by Jing in the PMMR. Qian thinks this video is awesome and is amazed to find that it has been viewed up to 118 times. Touching the location tag attached to Jing's video, Qian leaves Jing's page and starts browsing more TikTok videos geotagged to the PMMR.

Qian's encounter with TikTok leads me to think that this platform, which is very familiar to Qian and Jing, might be ideal for them to engage in video production. I ask Qian if she would like to use TikTok instead of VV for our planned digital storytelling project. To my surprise, Qian prefers VV because she thinks it is not accessible to her homeroom teacher, Mr. Wang, who is unlikely to use the software according to her. Mr. Wang has repeatedly forbidden his students from using short film apps, especially TikTok, at school or home. Mr. Wang is a TikTok user so Qian worries that he would see whatever she produced on that platform. This might explain why Qian is more of a digital literacy consumer instead of a producer on TikTok. In this sense, Qian's out-of-school digital literacy practices are affected by school discourses. As discussed in Chapter 1, many Chinese policymakers, school authorities and teachers believe digital tools such as mobile phones and tablets have negative effects on children, and they want to protect children against such untamable monsters. To do so, they try to separate digital technologies from school environments and do not see children's use of these resources as legitimate literacy practices.

Such a protectionist approach results in either distancing children from digital media use or in the dataveillance of them to monitor their "'appropriate', 'respectful' and 'responsible' online behaviour" (Pangrazio & Sefton-Green, 2021, p. 22). Admittedly, this approach might reduce harm to children in light of the globally rapid uptake of new media, especially in regions where there is little regulatory protection for young users of digital technologies (Livingstone & Third, 2017). In the case of TikTok that is implicated in considerable online harms (e.g., surveillance, privacy, trolling, hate, and disinformation), there are good reasons for young people not to use this app. Yet, these protectionist efforts also risk invading children's digital privacy and limiting their productive participation in the digital world (Lupton & Williamson, 2017; Macenaite, 2017; Pangrazio & Sefton-Green, 2021). In particular, the surveillance and monitoring of

children's digital literacy activities (often conducted covertly) can intensify social inequalities when children "of a particular race, religion, income, gender and social status are specifically targeted through data processes" (Pangrazio & Sefton-Green, 2020, p. 210).

5.3.2. Video Products

After engaging with TikTok videos geotagged to the PMMR for several minutes, Qian leaves TikTok and goes to VV on her phone. Interestingly, TikTok affects how Qian is becoming a VV digital storyteller. Qian touches something on her phone that gets into "Themes" in the VV app. Themes termed "TikTok popular music" soon attract Qian, who listens to them and saves several to use later in VV production. While Qian is playing with these musical themes, Jing comes into Qian's room, seats herself on Qian's right, and soon after gets ready for video production on VV.

While I assume Jing and Qian will work on one digital story collaboratively, they choose to each make their own video on their own phone using the VV account **,.shine** they set up together several days ago. Over the next two hours, Jing and Qian make slideshow-like videos mainly composed of background music, still pictures, as well as captions and voice-overs in English. During video-making, these two girls employ a wide range of free Photoshop features as well as video editing features available on VV. It is challenging to report on every aspect of the messy, rhizomatic and momentary orchestrations of modes of communication in the girls' videos within a two-dimensional written thesis. I therefore try to present in what follows screen captures of some salient moments and transcriptions of voice-overs from Jing's and Qian's videos.

Jing's Video

Picture 1

Voice-over: We went to the museum. The name is too long. I don't know how to read it.

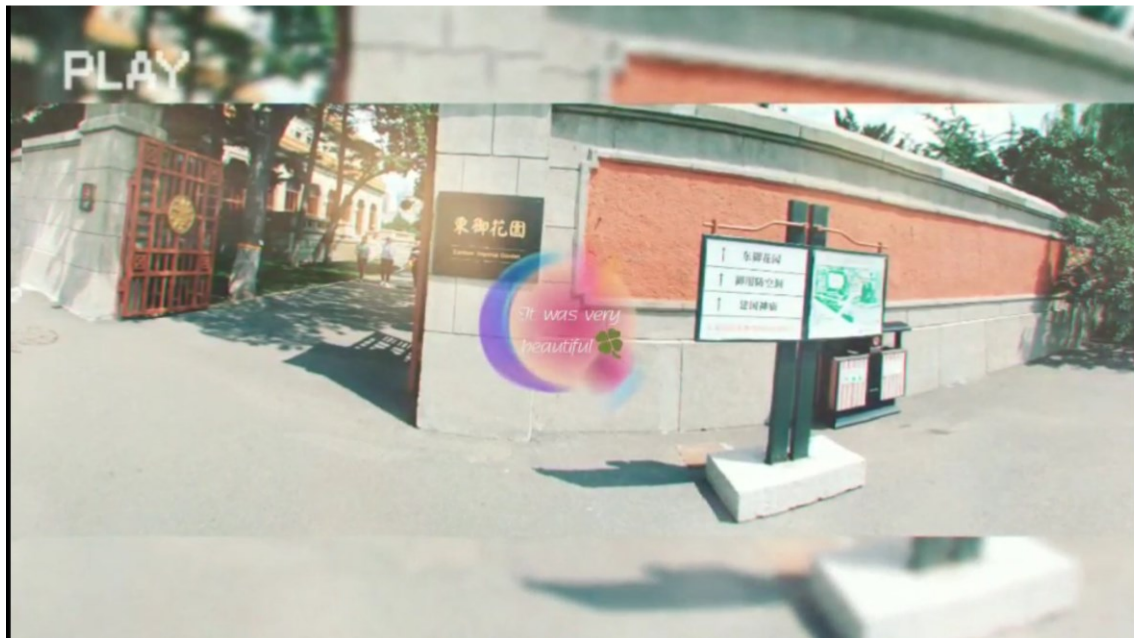
Picture 2

Voice-over: There were many people. The door was big and right.

Picture 3

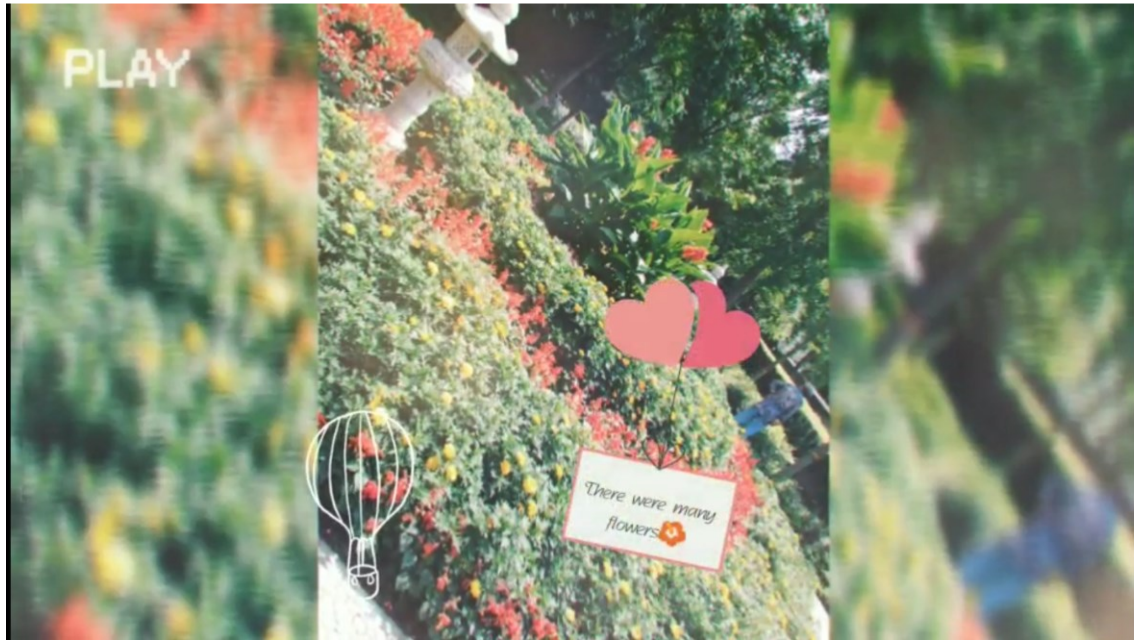
Voice-over: The museum was very big. We stayed at there for three hour.

Picture 4



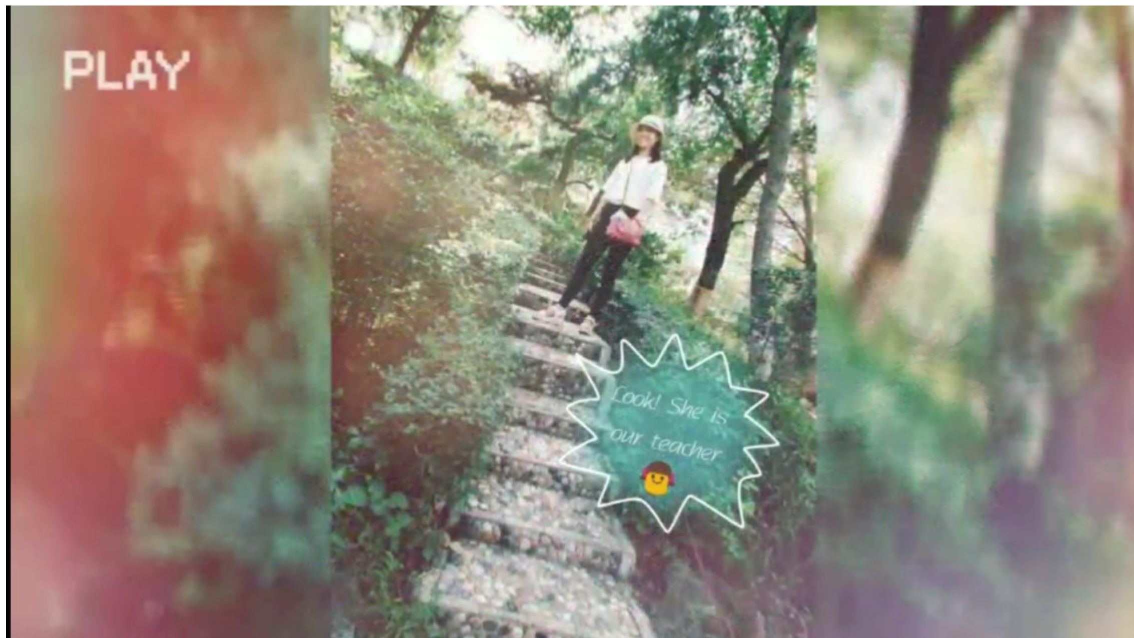
Voice-over: It was very beautiful.

Picture 5



Voice-over: There were many flowers. The flowers are colorful.

Picture 6



Voice-over: Look! She is our teacher.
The researcher's voice-over: Hi, there! It's me—Jade the teacher.

Picture 7

No voice-over.

Picture 8

No voice-over.

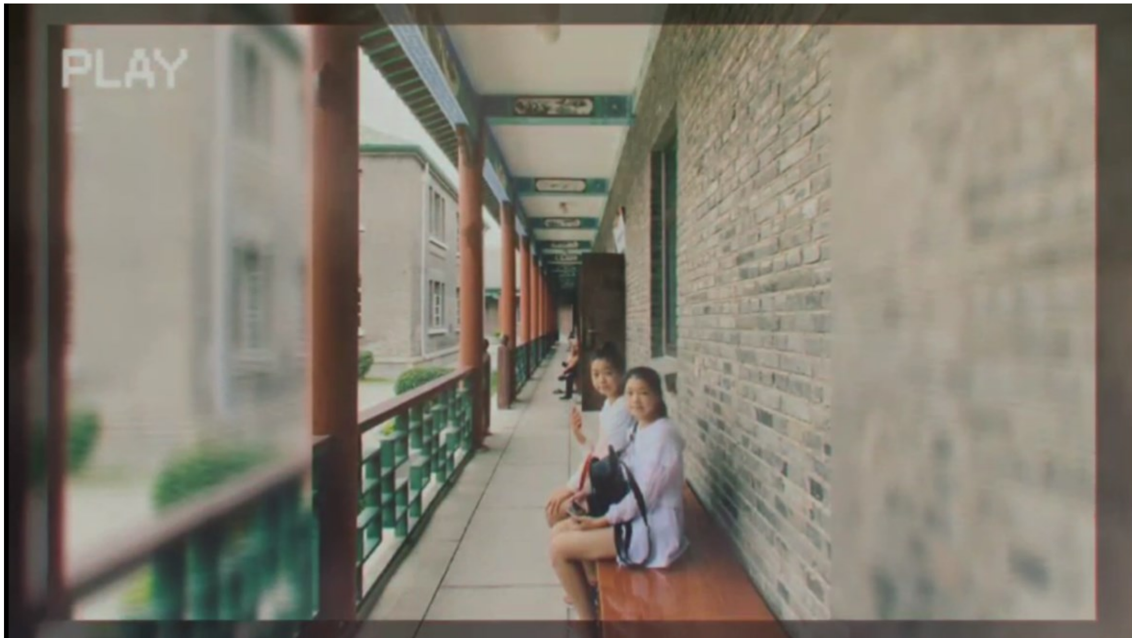
Picture 9

No voice-over.

Picture 10

Voice-over: We were very happy.

Picture 11



Voice-over: I like there very much.

Jing's video lasts for 110 seconds and consists of 11 still pictures; it contains several pieces of light and soothing music in the background. Her storytelling is picture-based as she writes captions and/or record voice-overs for the pictures she has added to her video. It is noteworthy that there are no distinct boundaries of these semiotic resources. As the pictures move, some captions and voice-overs fade in and out during the duration of a picture. Others fade in as a picture appears and out when a successive picture is playing. For example, the caption "*We were very happy*" starts playing as Picture 9 appears and continues playing after Picture 10 shows up. As well, while some captions synchronize with voice-overs, others are not equivalent to the latter. For example, the caption for Picture 1 is *"Today we went to the PALACE MUSEUM OF THE MANCHURIAN REGIME*", whereas the voice-over for this picture is *"We went to the museum. The name is too long. I don't know how to read it."* Therefore, as I indicated above, the screen captures presented here document only certain moments from Jing's video and they were selected as a result of my stance and gaze.

Qian's Video

Picture 1

Voice-over: We went to the museum.

Picture 2

Voice-over: There were many trees.

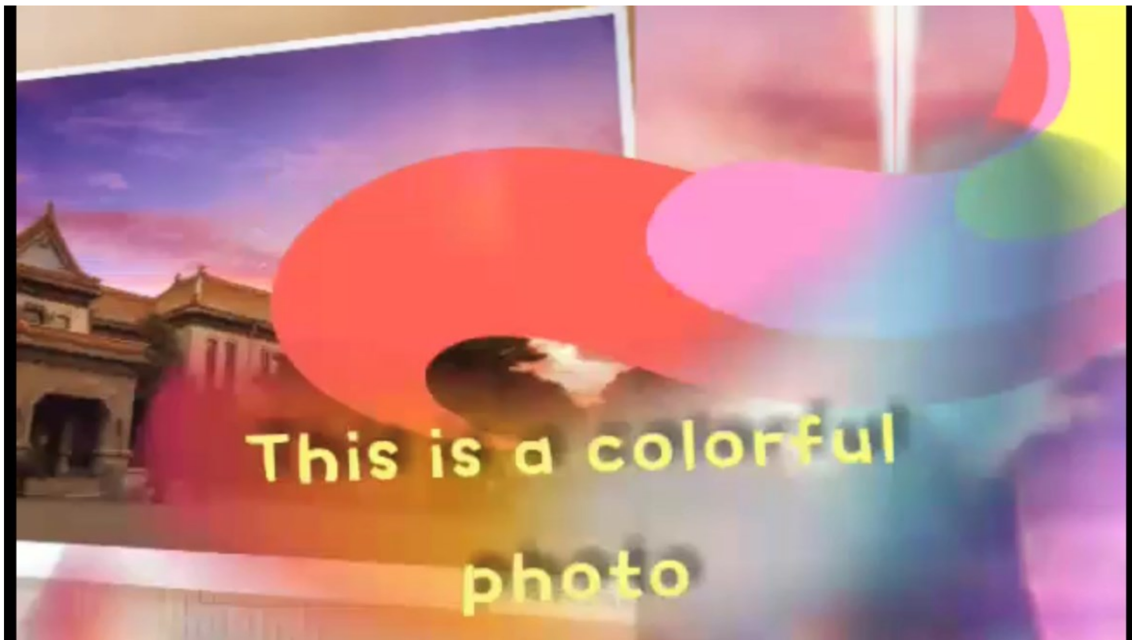
Picture 3

Voice-over: People were friendly.

Picture 4

Voice-over: Do you like the fans?

Picture 5



Voice-over: The house is big.

Picture 6

Voice-over: Today we were very excited.

Qian's video is shorter than Jing's. It lasts for 41 seconds and has 6 still pictures and features a piece of joyful TikTok popular music. Qian decorates her video with a theme entitled "UNICORN RAINBOW". Although Qian does not know what the two English words refer to, she includes a big image of them on her Picture 1 as she thinks

in doing so her video will look cute and attractive. During Qian's video production, she describes herself as "a big fan of the rainbow" (“彩虹控”) and expresses a fondness for its various colours. This is evident in how Qian edits her Picture 5 of buildings in the PMMR as she covers it with moving shades of the rainbow and the written words "This is a colourful photo".

Like Jing, Qian includes both written (captions) and oral English (voice-overs) in her story, and these linguistic modes convey a high level of narrativity. This video-story writing and telling starts with an introductory sentence ("*We went to the museum*") and ends with a summary sentence ("*Today we were very excited*"); the sentences in between these describe sociomaterial bodies (trees, people, fans, house) that Qian entered into contact during her visit to the PMMR.

Rather than analyzing the products of video production, I pay particular attention to the production process and the emergence of video-production assemblages. In other words, I see Jing's and Qian's videos as materializations of highly intricate networks of multiple things. They take form as pictures, themes, background music, wording, emojis, and conversations appearing together in the videos, as finished and unfinished products are shared, as digital difficulties are encountered and digital software crashes. Therefore, I am more interested in exploring how Jing's and Qian's English language learning is entangled in this process and takes shape in it. In what follows, I provide two narrative excerpts of sociomaterial encounters during video production, focusing on how dynamic relations unfold in Jing's and Qian's composing processes.

5.3.3. Excerpts: Unfoldings of the Video-Making Process

Excerpt 1

At the outset of this video-making project, Qian adds one picture I had taken on our museum trip (the Picture 1) to her video. In this picture she and Jing are standing in front of a carved stone placed at the front gate of the PMMR. Qian then adds the written text "*We go to the museum.*" to Picture 1, which lingers after Picture 2 appears. Disappointed at being unable to make this caption fade out before Picture 2 appears, Qian asks for help from me and Jing. I start reading a guide to VV users on my tablet in an attempt to find useful tips for editing captions. Meanwhile, a solution to the problem emerges at Jing's fingertips as she explores VV on her phone. Jing pushes her phone

towards Qian and me and shows us how she has just managed to fix the problem. With a disappointed and somewhat puzzled look, Qian askes Jing to show her and explain how it works on her video. While Jing does so, her phone is resting on a pillow lying on her lap, and they both hold Qian's phone (see Figure 5.9).

Figure 5.9 Jing (left) and Qian (middle) holding a phone to troubleshoot

After that, Jing points out there is a grammatical error in Qian's caption, explaining the present tense should not be used to refer to their visit to the PMMR because it happened several days ago. Qian changes "*We go to the museum*" to "*We went to the museum.*" Jing helps Qian make her caption look attractive. Following Jing's instructions on editing captions and those she has viewed on a myriad of resources available on VV, Qian starts including non-linguistic materials into her caption. Qian seems less concerned with following English grammatical rules, deleting the full stop in "*We went to the museum.*" and ending the sentence with a red-heart emoji instead. As well, she adds various effects (font, colour, outline, fill, shadow) to the text "*We went to the museum*" which, according to her, will make these English words look "cuter and fancier."

Though Jing and Qian each produce their own video, they form a partnership, share their productions and collaborate in unbounded, moment-by-moment literacy desiring that "is always on the move, in the making, with/in relationships" (Gutshall Rucker & Kuby, 2020, p. 26). To be more specific, the caption for Qian's Picture 1 is co-written, co-edited and shared by Qian and Jing. It is not one person's production or

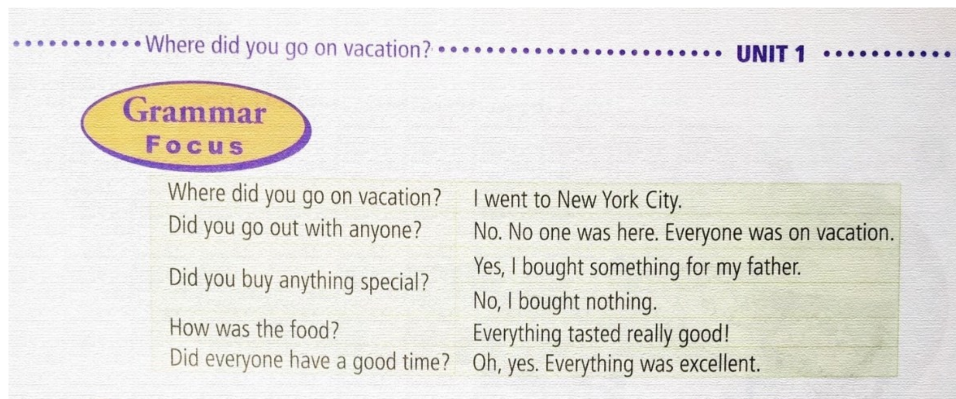
produced by two individual subjects working independently, but it entails a collaborative process of “thinking and writing between-the-two” that produces “new thought, new connectives, new affects, new becomings” (Mazzei & Jackson, 2013, p.451).

This caption could also be seen as a three-way collaboration even though my participation is not obvious in this encounter. As a researcher engaged in this research assemblage, I am doing/becoming/knowing literacies with the girls during their production process, affecting it and being affected by it as well. This becomes more evident when I answer their questions, assist them in making digital texts and appear in their products. For instance, as Jing is editing her Picture 6 of me standing on a stone step in the PMMR garden, she invites me to record the voice-over “*Hi, there! It’s me—Jade the teacher*”.

As well, a sociomaterial stance helps me expand my research gaze from looking only at sociocultural relations to considering how materials are active agents that matter in the production process and affect this caption-writing-and-editing assemblage. I see the caption for Qian’s Picture 1 as an outcome of an intra-active process that involves multiple sociomaterial bodies (e.g., phones, ideas, humans, visual and audio affordances of VV, VV algorithm, English grammatical conventions). These material-discursive entanglements produce emergent, fluid English language and digital literacy practices. This process of multiple authorship unfolds throughout Jing’s and Qian’s video production as texts are written and multimodal compositions emerge (e.g., image, sound, music, written and spoken language). Multiple human-material relationships are formed in both Jing’s and Qian’s videos that “are not treated as separate products of the individual, but expressions of, in, and from the assemblage” (Mazzei & Jackson, 2019, pp. 172-173). From this perspective, ownership of this digital literacy production is shared.

The caption editing process described above centres on ensuring the text conforms to English grammar rules. Although I encouraged Jing and Qian to leave aside English grammar and focus on the expression of ideas during their story production, worries about making grammatical “errors” constrain the editing process. This is evident in how Jing considers Qian’s use of the present tense to describe a past event as a grammatical “error” and how Qian subsequently “corrects” it.

In thinking about this encounter, I wonder to what extent discourses about English language learning affect the girls' preoccupation with conventional grammar in their story-making process. As discussed in Chapter 1 and earlier in this chapter, many Chinese English language learners and teachers seem to believe "examinations are the priority" (Pan, 2015, p. 99) and therefore place great emphasis on "linguistic features and grammar that would appear in major examinations" (Zeng, 2018, p. 10). During the fieldwork for this study, Qian's English language teacher Ms. Chu was no exception as she spent much time in each of her class teaching grammatical rules and gave her students grammar homework on a daily basis. Such stress on grammar was also materialized in Jing's and Qian's English language textbooks. For instance, during the summer vacation when Jing and Qian engaged in this digital storytelling project, although they had just finished seventh grade, they were asked by their English language teachers to become familiar with a textbook for eighth graders, especially the vocabulary and grammatical rules presented in the book. The first unit of this textbook entitled "Where did you go on vacation?" is centered on the past tense (see Figure 5.10 below), which might have led Jing and Qian to proceed with caution in relation to their use of tenses in their writing. In this context, such a circulating discourse might be disciplining Jing and Qian to avoid making grammatical "errors" and see it as an important sign of linguistic competence.


Where did you go on vacation? UNIT 1

Grammar Focus

Where did you go on vacation?	I went to New York City.
Did you go out with anyone?	No. No one was here. Everyone was on vacation.
Did you buy anything special?	Yes, I bought something for my father.
	No, I bought nothing.
How was the food?	Everything tasted really good!
Did everyone have a good time?	Oh, yes. Everything was excellent.

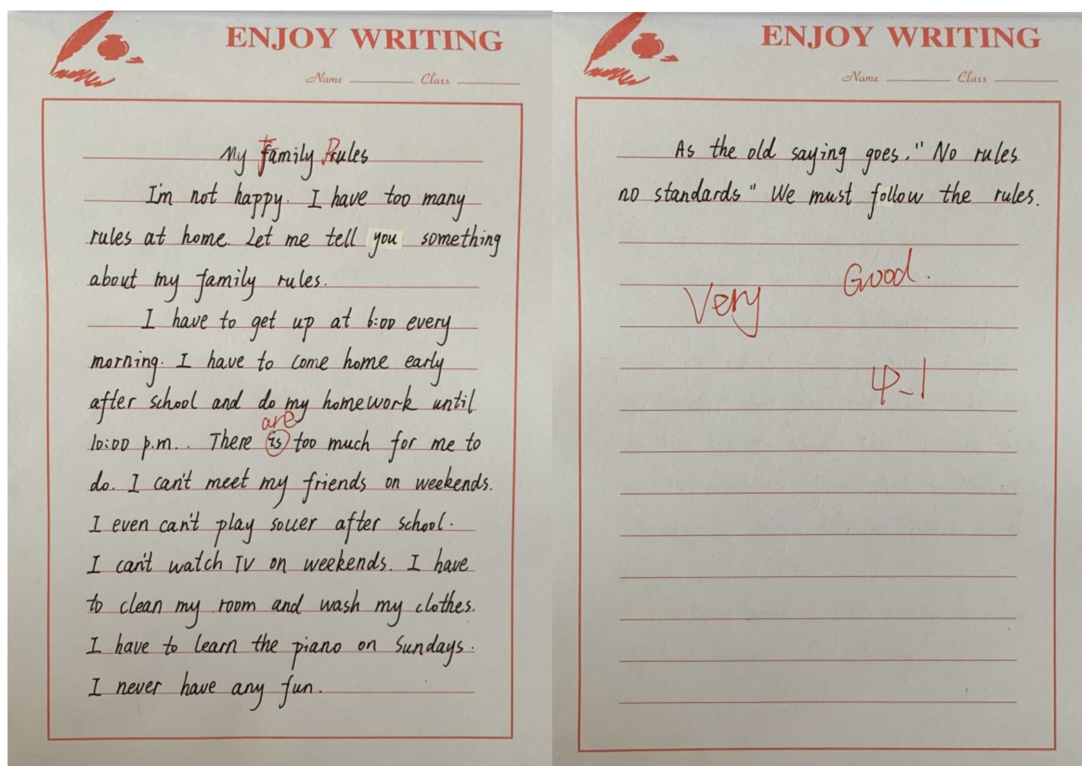
Figure 5.10 The Grammar Focus presented in a textbook

While English grammar seems to preoccupy Qian, the new media provides her "with a sensitivity open to differences, change and innovation" (Cope & Kalantzis, 2009, p. 10) in her language and literacy practices. This is evident in how Qian ends the sentence "*We went to the museum*" with a red-heart emoji offered by VV instead of a full stop commonly seen in conventional English writing system, as well as how she

artistically designs this sentence. The digital media, or more specifically, the VV platform, is also productive here in enabling Qian to make meanings through the use of emojis and other multimodal materials.

Indeed, as Jing and Qian engage with the written mode of expression, they become more creative meaning makers during their video production than for school assignments. On the one hand, the format, design and layout of the English captions in their videos is diverse. The emojis in the girls' videos might or might not be directly related to the written text and a range of effects (e.g., font, colour, outline, fill, shadow, size, image) available on VV are used in the videos. The text is presented in both horizontal and vertical formats (see the Picture 4 from Qian's video) and positioned in different places on the screen—underneath/at the top of/in the middle of the pictures or somewhere else. On the other hand, to produce school assignments, the girls are expected to follow strict rules, such as writing in black ink on white paper, printing in block letters, and presenting text in a horizontal layout. According to Jing's and Qian's English language teachers, a good essay should be coherent and structured in three paragraphs, with an opening paragraph introducing an idea/event, a body paragraph describing the idea/event and an ending paragraph offering conclusions. As well, their teachers have set up writing templates that follow this structure and offer cohesive markers and transitional clauses/sentences (e.g., let me tell you something about, as the old saying goes) for their students. Figure 5.11 shows how Qian used one such template to write an essay on her family rules[27], which her English language teacher assessed as "very good".

[27] According to Qian, this is a made-up essay as rules described in the essay are not really in place in her family.



ENJOY WRITING

Name Class

My Family Rules

I'm not happy. I have too many rules at home. Let me tell you something about my family rules.

I have to get up at 6:00 every morning. I have to come home early after school and do my homework until 10:00 p.m.. There is (are) too much for me to do. I can't meet my friends on weekends. I even can't play soccer after school. I can't watch TV on weekends. I have to clean my room and wash my clothes. I have to learn the piano on Sundays. I never have any fun.

ENJOY WRITING

Name Class

As the old saying goes, " No rules no standards " We must follow the rules.

Very Good.

4-1

Figure 5.11 One of Qian's essays

While the affordances of the video-making platform VV seem to temporarily distance Jing and Qian from the strictures of in-school composing, the latter still persist as participants in this learning assemblage, being entangled with the former and materialized as the girls' narrative structure in their video production. As shown in Section 5.3.2, both Jing and Qian start their video-story writing with an introductory sentence (Jing: "*Today we went to the PALACE MUSEUM OF THE MANCHURIAN REGIME*"; Qian: "*We went to the museum*") and end it with a summary sentence (Jing: "*We were very happy*"; Qian: "*Today we were very excited*"). In this sense, Jing and Qian mobilize practices adopted in school assignments as resources for their digital literacies outside school. In other words, the children's encounter with the digital does not necessarily mean they engage in literacy practices that are qualitatively different from those that rely only on paper and pencil (Ávila & Pandya, 2013).

While the excerpt discussed above documents how video production engages Jing and Qian in English writing practices, the following excerpt highlights how video-making facilitates the girls' oral English production.

Excerpt 2

About 25 minutes after Jing and Qian finish the digital literacy activity discussed in excerpt 1, Qian moves to sit on the edge of her bed so she can charge her phone (see Figure 5.12 below). Qian stays there most of the time for the rest of video production, whereas Jing remains on the sofa a few feet away except when she occasionally moves closer to Qian. I have to move between Jing and Qian to participate in their story creation. As well, a phone camera I have placed in Qian's room has to be re-positioned at times to capture Jing and Qian in turn as the device cannot video record the two girls simultaneously. The following event occurs about 40 minutes after Qian has moved to her bed.

Figure 5.12 Qian sitting on the edge of her bed

Jing, sitting alone on the sofa, decides to record picture-by-picture voice-overs after she finishes adding captions and background music to her video. Jing runs into difficulties with English speaking at the outset of her voice-recording practice. Jing's gaze is fixed on her phone screen as she tries to record a voice-over for her Picture 1. She is working with the caption— *"Today we went to the PALACE MUSEUM OF THE MANCHURIAN REGIME"*. At one point, Jing mutters: *哎呀！我不会读这个。[Ah! I'm not able to read this aloud.]* Jing then looks at me as I sit near Qian on the edge of her bed, asking in a sad voice if she can change the full name of the PMMR (the Palace Museum of the Manchurian Regime, which appears in her caption) into something easier to pronounce.

I sense Jing's hesitation to do so and guess that she initially included the full name of the museum, with its long, unfamiliar words, which she had copied from a brochure picked up at the PMMR, so her video would appear more formal and convincing. Therefore, as I move to sit beside Jing, I do not give her a "yes/no" answer, and instead advise her to think whether there are better alternatives. I then encourage her to learn how to pronounce the Palace Museum of the Manchurian Regime. After repeating the full name after me twice, Jing announces in a discouraged tone: *我觉得我读不好了，这个实在是太难了。[I don't think I can make it. This is really difficult].*

At this point, Qian, who is selecting background music for her video and not visible in the research video, suggests that Jing be honest with her audience and confess she is unable to pronounce the full name of the PMMR. Jing accepts this idea and after a few rehearsals, records a voice-over with confidence and fluency: *We went to the museum. The name is too long. I don't know how to read it.* Jing then touches something on her phone that initiates a playback of part of her voice-over—*We went to the museum. The name is too long. I don't know how…* This playback makes Jing turn down the volume of the background music on her video in an attempt to foreground her voice-over. After that, Jing listens to the playback again, which leads to a conversation between Jing and me as we sit in close proximity to each other (see Figure 5.13).

Figure 5.13 Jing (left) and I (right) in a converstaion

Video transcripts:

Realizing the sound of "to read it" is not included in the playback, Jing murmurs in surprise: *啊？没了！我刚才说了太长时间了。[Ah? Disappeared! I spent too long speaking just now.]*

Pointing at Jing's phone screen, I suggest: *试试把照片加长呢？[Why not extend the duration of the picture?]*

With her gaze fixed on the screen, Jing says cheerfully: *对啊！把照片加长。[Right! Extend the duration of the picture.]*

Looking toward Jing's screen, I respond: *我记得最长可以放十秒，不过我不太确定。[I think each picture could be played up to 10 seconds. But I'm not quite sure.]*

Having touched something on her phone that brings her to a page where the duration of each picture can be adjusted, Jing says: *我也记得是 10 秒。我先把每张照片加长，再去配音。[I also think it's 10 seconds. I'll first extend the duration of each picture, then do the voice-overs.]*

Soon after this conversation, I move to sit near Qian who excitedly shows me what she has selected as background music for her video—a piece of TikTok popular music. I move back to Jing several minutes later and learn she has re-recorded the voice-over for Picture 1 after extending the duration of most of her pictures from 4 to 8 seconds.

In this excerpt, Jing engages in a multimodal literacy practice during video production, which brings to the fore how various modes might be independently edited—visual (still or moving pictures), audio (background music), written (caption) and oral (voice-over)[28]. In gathering together these modes into her video, each offering distinct affordances, Jing is selecting modes that offer her what Kress (2010, p. 156) calls "the best fit (the most apt)" for her meaning-making purposes. In this process, these modes as well as their combinations or orchestrations are not fixed entities, but are entangled and are constantly shifting, becoming something new with each unpredictable unfolding

[28] This classification of modes is drawn on Kalantzis and Cope (2012), who admit there are intrinsic crossovers and connections of these modes of meaning. As these scholars point out, writing happens with some visualization as well as with saying things to oneself in oral meaning; "[o]ral meanings carry with them the basic qualities of audio meaning as we modulate volume and pitch in the sounds of speaking" (p. 303).

or emergence during this video-making activity. In other words, Jing has to modify or repeatedly edit certain modes in order to create meaning and achieve "an optimum effect, impact, and salience" (Rowsell, 2013, p. 4). For instance, Jing turns down the volume of the background music in her video to a degree that, for to her satisfaction, foregrounds her voice-over. Also, she extends the duration of most of her pictures from 4 to 8 seconds so that her voice-overs are synchronized with her video scenes.

The concurrence of multiple modes of meaning in Jing's video calls to mind a phenomenon called synaesthesia or mode-shifting, which is broadly defined by Kalantzis and Cope (2012) as a process of expressing a meaning in different modes and of switching between these modes. In this excerpt, to represent the visit to the PMMR, Jing simultaneously employs a picture (Picture 1) that was taken by Jing soon after she stepped across the threshold of the PMMR several days ago, a piece of light and soothing background music, a well-designed written description (caption), as well as an oral explanation (voice-over). While each editing attempt seems to refer to the same event, each version is likely to produce a different meaning both for Jing and her audience. Such a mode-shifting practice is undoubtedly helpful in conveying an overall, multimodal meaning related to Jing's experience of visiting the PMMR. As Kalantzis and Cope (2012, pp. 195-196) explain,

> Synaesthesia can be a very powerful way to support and deepen learning. . . . Knowing how to represent and communicate things in multiple modes is a way to get a multifaceted and, in this sense, a deeper understanding of these things.

It is noteworthy that the links Jing made between various modes might be interpreted as arbitrary by some video viewers. In other words, some modes that appear in one synaesthesia practice may seem to be unrelated. For example, in her composition of Picture 9, Jing connects a picture of green leaves with the text "*We were very happy*", a rainbow image and a shining-star emoji. Jing does not explain the concurrence of these seemingly unrelated modes in her video. I then re-watch my research video footage of this encounter and am able to see how Jing carefully—not arbitrarily—selected the picture from dozens of photos she had taken in the PMMR. As I think back to our shared visit to the museum, I recall how we became excited about seeing a mass of green leaves with raindrops after we stepped out of a pavilion. This event may lead Jing to use a green-leaves picture to refer to her feelings of happiness. Indeed, it is also

entangled in Qian's video production as she includes a similar picture into her video and writes the text "People were friendly" for it (see Picture 3 from Qian's video). Therefore, the meanings Jing and Qian create in their video stories correspond nicely with their embodied experiences in the PMMR. As Barad (2007) points out, knowledge-making arises from our direct material engagement with the world.

As Jing is editing her Picture 9, she inserts a rainbow image to surround the text "*We were very happy*", which might be related to Qian's contact with a VV theme entitled "UNICORN RAINBOW" as discussed above. In other words, the rainbow might enter into relationship and affect Jing's production as it appears in Qian's video and chats among the three of us. This is also evident in Jing's employment of a rainbow emoji in her Picture 2 as well as images of a rainbow-coloured bubble in Pictures 4 and 7.

While the rainbow colours produce affective flows that shape how both Jing and Qian engage in video production, I wonder how they are made available to the girls and why they draw the girls. In other words, it is not that the girls choose to focus on them independently, but that the girls are entangled in globalization and westernization that make such rainbow-coloured products flood the market and media of globalized periphery settings. I wonder as well whether the rainbow colours are associated with traditionally societal expectations of girls as cute, sweet, gentle and attractive. As described above, Qian thinks presenting a rainbow image and her Picture 1 together will make her video look cute and attractive. Therefore, Jing and Qian might be involved in relationships formed among their gendered bodies, global capitalism, representations of females in the media, and social discourses on femininity. As Fullagar and Taylor (2021b) point out, "[a]ffective relations connect gendered bodies and practices through particular assemblages . . . bound up with economic effects, histories, and embodied intensities" (p. 101).

In analyzing this excerpt, what grabs my attention is how Jing manages to mobilize written and oral modes of expression in different ways during her digital story production. While Jing's original intention is to make her voice-over (oral product) equivalent to the text (written product), she ends up creating a voice-over that deviates from the text. To be more specific, Jing produces an oral description of her PMMR visit that introduces new meanings, new affects and new effects not only in the oral modes but also in her caption. In this sense, the written and the oral modes employed in Jing's

video production are mutually affected and articulated in the dynamics of intra-action. These connections and gaps between Jing's written and oral English productions indicate that, as a multi/plurilingual speaker, she is able to mobilize and play with the English language—a foreign language in her repertoire. As discussed above, language learners are found to display the best of their creativity in their translanguaging practices (Li, 2018).

Admittedly, Jing's solution to her speaking problem might be seen as an avoidance strategy and interpreted as substandard, according to a traditional view of multilinguality based on a native-speaker norm. However, the creativity and fluency Jing demonstrates in solving her oral English problem shows that she has developed (or is developing) knowledge and competencies in the English language. As well, Jing displays confidence when recording her voice-over, although she seems to experience the foreign language speaking anxiety (FLSA) to some degree as evident when she declared with a worried tone: *"I don't think I can make it. This (Pronouncing the name of the PMMR) is really difficult."* Such creativity, fluency and confidence illustrate how digital storytelling facilitates learning among ELLs and supports their oral English production, as shown in Section 5.1 at the outset of this chapter.

Before Jing figures out this solution to her speaking problem, I offered to teach her the pronunciation of the Palace Museum of the Manchurian Regime. This reflects my intention to encourage Jing to face up to or keep learning what she struggles with, regardless of whether it is out of her control. In reflecting on my intervention in this encounter, I become aware of my deep-rooted humanist habits of seeing learners as autonomous, purposeful and rational human beings who have control over a learning process. As I think with sociomaterial theories as presented in Chapter 2, I ask myself: What if I saw learning as related, unpredictable and emerging unfoldings, or as what Gutshall Rucker and Kuby (2020) call "making and unmaking literacy desirings", which focuses on the unintentional, unbounded and irrational nature of learning practices? This understanding of learning prompts me to see how Jing's speaking problem is entangled in spontaneously formed and constantly changing assemblages. It also brings to light how Jing's learning difficulty produces new learning outcomes for her.

Sociomaterial theories also alert me to the intra-actions that give rise to Jing's enunciation of the voice-over "*We went to the museum. The name is too long. I don't*

know how to read it." As discussed in relation to Excerpt 1, neither Jing nor Qian is an independent video producer, despite the fact that they work on different devices, make their own videos, and seat themselves in different areas of the learning environment during most of the video production time. Rather, these two girls are always engaging in a collaborative process of material-discursive entanglements. In this sense, although the sound of the voice-over issues from Jing's body, it is not a product of a separate author. Instead, it comes to be in the dynamics of intra-actions among a myriad of sociomaterial bodies and intensities. They include: The sound of the name of the PMMR that blocks Jing's initial attempt to record a voice-over, Jing's unsuccessful attempt to learn from me how to pronounce the name of the PMMR, Qian who gives Jing the idea of being honest with the audience, a playback that leads Jing to re-edit her voice-over, me who offers tips on extending the duration of still pictures, Jing's English speaking proficiency, etc.

What might also be at work in Jing's oral English production are the non-English linguistic materials (e.g., Mandarin Chinese, the local dialect) in Jing's repertoire, even though their participation is not noticeable in this assemblage. This argument rests on the newly developed theories of multilinguality that see multi/plurilingual competence as a single, mixed synthesis of language repertoire composed of unevenly developed (or developing) and socially situated languages, as discussed in Chapter 2. In this sense, there is no such thing as a clear-cut, fixed-boundary English language in Jing's linguistic competencies. Instead, the English language is already and always entangled with other linguistic—and even non-linguistic—resources, including Jing's embodied experiences.

5.4. Conclusion

In this chapter, I introduced how Chinese ELLs are likely to experience foreign language speaking anxiety (FLSA), which might lead to mute-learning and limited communicative competence. I then briefly examined the potential of digital media, especially digital storytelling, in facilitating ELLs' oral English production. Against this background, I described how a digital storytelling project—in the form of video making—emerged over two visits to Qian's home and a trip to a local museum. Making connections among human-digital encounters that occurred on these occasions, I documented how multimodality, multilinguality, and materiality were implicated in these assemblages.

The digital storytelling project was set up during my first visit to Qian's home. I described how Qian's history homework led Jing, Qian and I to visit the PMMR, and how my proposal to make a video about this visit led to our encounter with VV—a video-making app. I then discussed the constraints of digital technologies in rural learning settings, arguing young language and literacy learners are entangled in digital learning assemblages that might produce difficult human-digital encounters out of the children's control. In particular, I speculated that a setting-up-VV-account assemblage implicates the girls' translanguaging practices, which I described in terms of multisemiotic and multi/plurilingual literacies. I suggested these highlight the youngsters' creative and improvised problem-solving competencies.

The digital storytelling project built on our experience at the museum. I argued that the visit to the PMMR was not only a fieldtrip but also a literacy event that enabled them to practice multimodal and multilingual literacies. To support this argument, I presented several instances of Jing's and Qian's experimentation and exploration in the gardens and exhibition halls of the museum. They included their contacts with a Catalpa tree, multilingual labels for a temple relic, a tourist-feedback spiral notebook, an exhibition of traditional Chinese landscape paintings, as well as an old-style palm-leaf fan.

As I explained above, the digital storytelling project started during my second visit to Qian's home. I explained how TikTok entered into relation with Qian's video production and proposed that her encounter with this software be interpreted in light of protectionist approaches in China concerning children's use of digital media. I then presented screen captures of some salient moments and transcriptions of voice-overs from Jing's and Qian's videos. Following this, I provided a narrative account of video production as multiple sociomaterial encounters involved in a process of orchestrating multiple communicative modes that is both messy and rhizomatic.

In relation to Except 1 illustrating English writing practices, I discussed how Jing and Qian engaged in a collaborative writing process in relation to English grammar rules that cut across sociomaterial boundaries, which calls into question the idea of sole authorship of literacy products like videos. I then recounted how Jing and Qian became creative writers during their video production outside school and reflected on the constraints to creativity in classrooms. In my analysis of Except 2 that documented

English speaking practices, I described how Jing managed to mobilize written and oral modes of expression in different ways during her video production. Highlighting the creativity, fluency and confidence emerging in Jing's oral English production, I argued she be viewed as a competent rather than a substandard ELL. As I reflected on my intervention in the encounter showcased in Excerpt 2, I described how sociomaterial theories led me to see the dynamic relations unfolding in Jing's voice-over creations.

Chapter 6.

Multimodality, Multilinguality, and Materiality in Formal Learning Online

6.1. Introduction

During the first half of 2020 in China, schools at all levels of education were closed due to social distancing restrictions in response to the outbreak of the pandemic and the fast spread of the Covid-19 virus. The school closure began on January 29, 2020 when the Ministry of Education (MoE) of China launched an initiative entitled "Closed Schools, Unclosed Learning" (停课不停学). Schools were asked to move away from in-person instruction and provide flexible online classes for students from their homes. At-home learning became a daily routine for students across the country, who had to receive remote instruction from their teachers on online education platforms such as DingTalk and Tencent Meeting. Such a nationwide shift of formal education from offline to online schooling was unprecedented in scale and scope in the history of China and the world.

While this emergent online education has played an important role in controlling the spread of the pandemic, it was not carried out without problems. In their study of China's formal online education under Covid-19, Zhan et al. (2022) point out several of these problems. They include: the difficulty for students with a limited amount of independent learning ability and self-discipline to adapt to this new way of learning; online teaching and learning occurred over several hours each day, which caused emotional and physical problems for some teachers and students; fairness and justice of assessment practices might not be guaranteed due to the physical distance between teachers and students; some young learners received little or no guidance from parents during learning online as they were too busy to tutor their children or at a loss as to how to be helpful in this regard due to their low traditional literacy proficiency.

As Chinese students relied heavily on the digital for school in the "Closed Schools, Unclosed Learning" campaign, the problem of digital inequalities has come to the fore. It is true that the limited access to digital technologies, the Internet in particular,

in many rural areas has been problematic for years, as discussed in the previous chapters. However, the Covid-19 pandemic has intensified the challenges that come with the rural-urban digital divide, since children in socioeconomically disadvantaged families with fewer digital resources were more likely to fall behind educationally during this crisis (Lai & Widmar, 2021; Marcella et al., 2021).

During this campaign in China, some teachers were proficient in teaching online with high-quality digital resources, but others, especially older teachers from rural schools, might be embarrassed and struggling due to their lack of technology, Internet connectivity, and/or digital literacies. Students with easy access to quality digital tools and fast, stable Internet connections tended to learn online with ease. However, some young learners in rural areas, especially remote and mountainous regions, were ill-equipped with technology or network and unable to fully participate in this movement toward online schooling. One needs only to take a quick look at the following news reports to understand that rural children were more likely to be marginalized during the campaign.

On February 16, 2020, a Sina Weibo post went viral quickly across China with 7.8K reposts, 11.1K comments, and 456K likes (Pear Video, 2020a). As this post showed, a middle school girl had to sponge WIFI off the office of her village committee, where she took her online courses for about two hours each day after dinner in the company of her father (see Figure 6.1). The girl did so because there was no broadband with fixed or wireless connections in her home. In their comments, many Sina Weibo users praised the girl for the diligence she showed in her schoolwork and the girl's father for his deep love. Thanks to the power of social media, this story spread like wildfire and had a happy ending as a local network company charged no fee for installing broadband for this family[29].

[29] The post did not mention whether this family's access to the broadband was fee-free.

Figure 6.1 A girl learning at a village committee office
(Screen shot from Pear Video [2020a])

In May 2020, a similar story was widely reported in the media (e.g., reports in Hongxing news, 2020; Huanqiu.com, 2020; Wevideo, 2020). It recounted how a 7-year-old girl engaged in online formal learning in a small space under the chopping board in her parents' deli (see Figure 6.2). Busy with their small business, the girl's parents decided to tutor her in their workplace instead of leaving her alone at home without Internet. In such a cramped and dark learning environment without broadband connections, this girl had to connect her old, poor-performance laptop to the weak, unstable WIFI signals from her mother's mobile hotspot. This story provoked widespread sympathy and empathy throughout the country. Like the ending of the story above, two local network companies charged no fee for laying in-home and in-shop broadband lines for this family, who could use the Internet free of charge for one year. This story went even further as a distance education organization donated a new laptop and some digital learning resources to this girl.

Figure 6.2 A 7-year-old girl learning under a chopping board
(Photo downloaded from Hongxing news [2020])

The two stories presented above have been read by many from the perspectives of the two girls' commitment to schoolwork in an unexpected predicament, the love and support of their parents, as well as the kindness of local network companies. What they also tell us is the harsh reality that there were children in rural China doing virtual school without sufficient, reliable Internet connectivity at home. While an enormous amount of exposure in the media has brought these two girls in-home broadband services, many other rural Chinese households in a similar situation are invisible to the media or public.

Admittedly, the Chinese government has been striving for a nationwide provision of Internet, especially in rural areas. According to *The 48th Statistical Report on Internet Development in China (English version)* (CINIC, 2021a), in June 2021 "the Internet penetration in China's urban areas was 78.3%, while that in rural areas was 59.2%" (p. 16), indicating a narrowing urban-rural gap of Internet access. However, we should keep in mind that connecting a rural region to Internet does not mean that every local household is equipped, or has the service with sufficient speeds capable of meeting

essential activities, including schooling, that were moved online during the pandemic. Indeed, in June 2021 rural Internet users only accounted for 29.4% of all Internet users in China (CINIC, 2021a). In the long run, even rural households with sufficient Internet service available to them might be not able to afford it. One could speculate that the parents of the two girls discussed above may struggle financially to maintain the broadband access once their fee-free Internet experiences are terminated.

It seemed that many connected rural households only had access to mobile data traffic, which is one of the most used Internet services in China—the others being broadband with fixed or wireless networks, public WIFI connections. According to the Ministry of Industry and Information Technology (MIIT) of China (MIIT, 2021), in 2020 the number of households in rural China connected to broadband was 142 million, which represented only 29.3% of the national households with broadband services. It might be difficult for children in other rural families to engage in online formal education via in-home broadband that is often cheaper, faster and more reliable than mobile data traffic. It seems these children had no option but to scrounge wireless Internet access off neighbouring houses, as was the case for the girl in Figure 6.1, and when they did so they faced further challenges due to social distancing restrictions that limited people's mobility. Or like the girl in Figure 6.2, they could use mobile data traffic, which might be challenging as well due to the high cost of unlimited data plans.

In addition to the limited access to home broadband networks, many rural children seemed to rely heavily on mobile phones—often being low-end—for digital literacy activities, as discussed in Chapter 1. As reported in *The 2020 Report on Internet Usage of Minors* (CINIC, 2021b), in 2020 rural minor Internet users predominantly used mobile phones, whereas their urban peers were more likely to be connected to a range of digital devices (mobiles, desktop computers, notebooks, tablets). As well, while the rural children's digital literacy practices were mainly restricted to entertainment including short videos, animations and cartoons, their urban peers were more interested in using the digital for multiple purposes such as information, social media, news and shopping (CINIC, 2021b).

Like many rural Chinese children, Qian depended much on her poor-performance mobile phone for schooling online, although she occasionally used her sister Tian's laptop for this purpose. As Qian could not afford unlimited mobile data

services, she connected her phone to the broadband wireless network in her home when learning online. Nevertheless, the speed of this home broadband connection at times did not allow Qian and Tian (a preschool teacher) to simultaneously participate in learning and teaching activities. While the low speed of Qian's home broadband was not a new problem, it became more challenging during the first half of 2020 when schooling online became compulsory for students across China. As Qian speculated, this situation resulted from the fact that her family shared bandwidth with many other households in the community and they had more Internet needs during the closure of schools.

During the "Closed Schools, Unclosed Learning" campaign, all courses offered by Beilei Middle School moved onto DingTalk, and all of its students from different classes of the same grade were re-enrolled into one big class. As eighth graders, Qian and Jing were thus given remote instruction simultaneously by the same teachers, whose work might be different to what they used to do before the campaign. For example, Ms. Chu and Ms. Chen were two English language teachers at Beilei. Before the campaign, Ms. Chu taught Qian's class and Ms. Chen taught Jing's. During the campaign, Ms. Chu—in her late forties—was mainly responsible for correcting the eighth graders' work off the screen because she was unfamiliar and uncomfortable with conducting distance teaching; Ms. Chen—a new college graduate—took charge of giving lectures to them on the screen.

I have attended several of Qian and Jing's DingTalk English class sessions from my own home and in particular, two sessions with Qian at her home in April, 2020 when certain in-person social activities (e.g., visiting Qian as a research participant who lived nearby) was allowed. As well, I have been given permission to review all other sessions stored on the platform. In what follows, I offer narrative accounts of several sociomaterial bodies that drew my attention when Qian learned online in my presence. They were essays, phone holders and snacks during my first visit to Qian's home as well as a multiple-choice question and a red pen during my second visit. As I attend to the relationships formed among these things, I examine how amorphous bodies such as pedagogical realities, circulating discourses, language norms, sociocultural values, philosophical traditions, political movements, and educational policies were at work together in Qian's language and literacy learning online.

6.2. Visit 1: Essays, Phone Holders and Snacks

6.2.1. The Narrative

I visited Qian at her home on the morning of April 3, 2020. Qian's mother answered the door and told me Qian was taking a course online in a room that was a bit further away from a noisy street outside their house than Qian's bedroom, where she studied during my previous visits. When I stepped into this new room, which was to me, Qian was still in her math class at around 9:50 a.m. that should have been finished 20 minutes ago. As scheduled, Qian's schooling online took place between 8 and 12 a.m., then again between 1 and 2 p.m. on weekdays, with the first half hour used for instruction and the second for break. However, extensions of class sessions occurred frequently, and some teachers even gave extra lessons after school, as they seemed to believe the more they taught, the more their students would learn. After a very short break from her 56-minutes math class, Qian was involved in an English class that was conducted by Ms. Chen and lasted for 40 minutes.

This English class, as well as most of the other English and non-English classes available for Qian, were conducted in teacher-oriented live broadcasts with little teacher-student interaction. During the class, Qian and her classmates were invisible to Ms. Chen except when they were very occasionally asked to turn on audio to answer her questions. According to Ms. Chen, this teaching form instead of multi-person video conferencing (with every participant showing up on the screen) was adopted out of the following considerations. First, the learning environments available for some students were noisy, which would produce disturbance in the virtual classroom. Second, some students were involved in poor network conditions, and turning off their audio/video might speed up their Internet and extend their connected time. Finally, it would be challenging for her to simultaneously include teaching resources and all 120 students' videos on the small screen of her computer.

Essays

This English class started with Ms. Chen's lecture on six example essays that included one of Qian's, which had been revised by the authors based on Ms. Chu's corrections off screen. In her lecture, Ms. Chen presented each essay via the screen-sharing feature on DingTalk and offered explanations of why she was making further

corrections to the revised essay. A transcription of Ms. Chen's remarks about Qian's essay is presented below. While moving the cursor and making corrections in red to Qian's essay (see Figure 6.3 below), Ms. Chen said:

> 我们来看这篇的错误。看这句话, only I had a dog at home. 仅仅是我有一只狗在家，其实想表达的是只有我和狗在家，only I and a dog were at home. Did the clothes 肯定是错了啊，没有说洗衣服用 did，只能用 wash。然后这儿，I had helped my mother do many chores. Many chores 前面加上一个 so 更好一些，强调做了很多家务, 让这句话看起来更高级。
>
> My translation: Let's look at errors in this essay. Look at this sentence "only I had a dog at home." (Chinese translation of "only I had a dog at home.") What the writer wants to say is ("only I and a dog were at home" in Chinese), only I and a dog were at home. The expression of "Did the clothes" is definitely wrong. You should use "wash" instead of "did". And here, I had helped my mother do many chores. It will be better to add "so" before "many chores". To emphasize that so many chores were done. In doing this, this sentence looks more advanced.
>
> 整体来看呢，这个段落比较乱，比如说完 but I was very happy，后面空了挺大一块儿，那意思就是说一段结束了，对不对？其实不是的，这里明显还没到分段的时候。In the afternoon，在下午，我去遛狗，the air was clean, 她说空气非常清新，然后就没有了。那你紧接着可以拓展一点儿，空气清新了，你可以说 I feel so good，我觉得非常好，to be outdoors, 然后想待在室外，I feel comfortable, 我觉得非常地舒服。咱们说过，写句子可以联想，可以扩充字数，对吧？最后，in a word，我认为每个人都应该做家务，养成做家务的习惯，这个总结是顺理成章的，非常自然。
>
> My translation: In general, paragraphing in this essay looks messy. For example, there was a large space after "but I was very happy", which means the ending of a paragraph. Right? Apparently, the paragraph hasn't finished yet. In the afternoon, (Chinese translation of "in the afternoon"), (Chinese translation of "I took the dog for a walk"), the air was very clean. The writer says (Chinese translation of "the air was very clean"). Then nothing. Why not write more? You can say the air was very clean; I feel so good; (Chinese translation of I feel so good); I want to be outdoors; (Chinese translation of "I want to be outdoors"); I feel comfortable; (Chinese translation of "I feel comfortable"). I have told you that when writing up a sentence, you can use your imagination to extend the number of words. Right? Finally, in a word, (Chinese translation of "I think all of all should do housework and got into the habit of doing housework.") This conclusion comes very naturally.

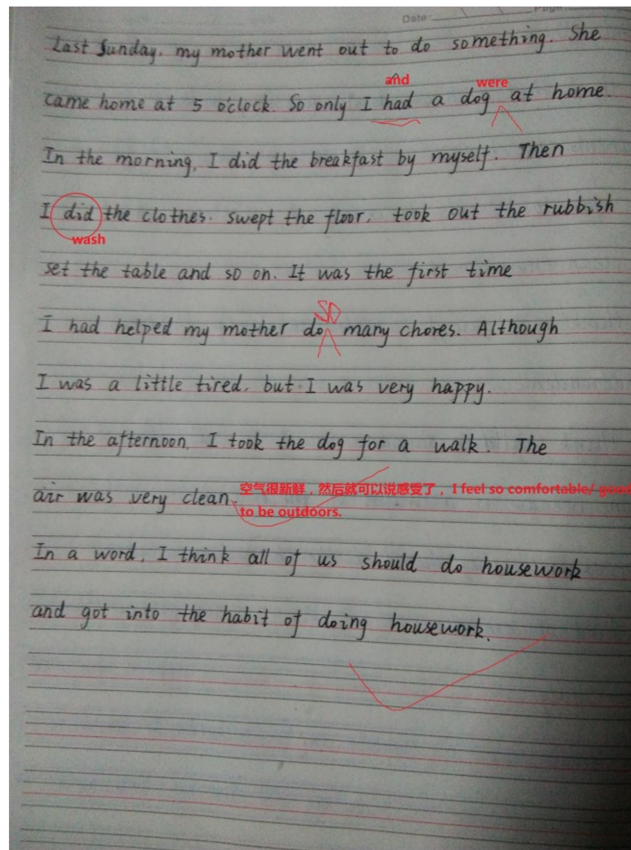


Figure 6.3 The corrections made by Ms. Chen to Qian's essay

Qian listened to these remarks of Ms. Chen on earphones. At one point, Qian leaned over her phone, which seemed to me she was trying to look closely at the small phone screen (see Figure 6.4). Qian's gaze moved between the picture of her essay presented on the screen and her handwritten essay on a notebook that was lying open on her desk. At times, Qian made corrections to the handwritten essay in red ink in accordance with what Ms. Chen was doing with her essay on the screen. At one moment, Qian turned her face to look at me (see Figure 6.5), saying cheerfully and quickly: *我可喜欢上英语作文课了！ [I really like having English writing classes!]* Before I made a response, Qian's gaze moved back to the screen. After this English class, I asked Qian why she made this statement. Qian gave no definite reason for this, saying with hesitation: *因为… 嗯… 我也不知道。可能是因为… 有些错误很好玩吧。我也说不好。哈哈，哈哈…… [Because… ummm… I don't know. Maybe because ummm… some errors are really funny. I don't know. Haha, haha…]*

Figure 6.4 Qian bending over her phone

Figure 6.5 "I really like having English writing classes!"

The following describes a moment when Qian laughed at an "error" that appeared in one of her classmate's essays. *"Today,"* Qian muttered at one point during Ms. Chen's lecture on this essay. She then cupped her right hand around her mouth and whispered to me (see Figure 6.6): *老师说 this day 是中式英语。 [Ms. Chen said "this*

day" was China English.] She then spoke quite slowly and spaced her words out: *This day,今天，可不是中式英语嘛，哈哈哈哈…… [This—day, jin—tian (a Chinese expression of "today" that could be literally translated as "this day" in English as "jin" corresponds with "this" and "tian" with "day"). It is really China English, haha, haha…]* I leaned forward and asked Qian: *This day 不对吗？ [Is "this day" wrong?]* Making a gesture of the letter "s" with her right hand, Qian responded: *应该是 these day**s**，要用复数。[It should be "these day**s** ('s' was stressed)"—in the plural.]* I responded with a nod and Qian went back to Ms. Chen's lecture.

Figure 6.6 "Ms. Chen said 'this day' was China English."

A phone camera that I had set up to video record Qian was unable to document what Ms. Chen was saying on the screen because Qian was wearing a pair of earphones when this event took place. I then reviewed this class session stored on DingTalk and found the following comments made by Ms. Chen on a student's essay (see Figure 6.7):

> This day，这个是很典型的中式英语。他说我想学做饭了，想学做菜了。This day 不行，应该用 these days，也就是最近。如果你想表达今天，只能用 today。没有 this day 这种表达，没有这种表达形式啊。所以我们要把 this day 改成 these days。
>
> My translation: "This day" is a typical example of China English. The writer says "I want to learn to cook some dishes." "This day" isn't ok.

"These days" should be used here. It means recently. If you want to say "jin tian" (a Chinese expression of "today"), you can only use "today". There is no such expression as "this day". No such expression. Therefore, we need to change "this day" into "these days".

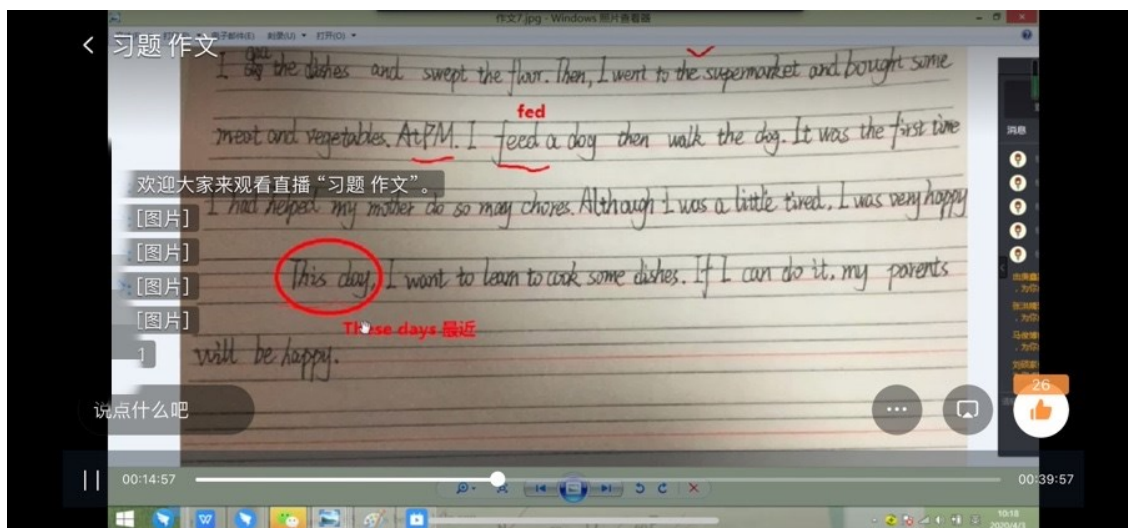


Figure 6.7 An essay with "this day"

Phone Holders

Since the beginning of this English class, a pen had been inserted into Qian's phone case, which created a very gentle slope for the phone and thus functioned as a phone holder (see Figures 6.4, 6.5 and 6.6 above). About 18 minutes after the class began, Qian gave up this pen-phone-holder after several unsuccessful attempts to ensure it could support her phone at a desired angle.

Qian then reached out her left hand to a shelf fixed to her desk for a transparent plastic container—the base of a plastic box originally used for storing cookies and then for storing stationery. She had cut two symmetrical notches (see Figure 6.8) in the container sometime before the English class. Humming a merry little tune, Qian separated her phone case from her phone and positioned the case somewhere on a USB cable that connected her phone with a charger. With her right hand moving the phone case to and fro (see Figure 6.9), Qian chuckled and said: *真好玩！[So funny!]* After a while, she tried to place her phone into the two notches of the plastic container. As her phone got stuck halfway to the bottom of the notches, Qian took out a plastic spoon from the container and tried again. However, her phone still could not reach the bottom of the notches. This made Qian shout out: *妈呀！这怎么还放不进去呢? [Gosh,*

how come it still doesn't work?] After a pair of scissors were taken out from the container, her phone finally sat in the notches with a click. Pointing with a red pen at the container that was holding her phone (see Figure 6.10), Qian happily said to me as I sat nearby and was not visible in the video footage: *看，好了！[Look, Done!]*

Figure 6.8 A plastic container with two notches

Figure 6.9 Qian fiddling with a phone case

Figure 6.10 “Look, Done!”

Snacks

As shown in Figure 6.9 and 6.10 above, a bowl of popcorn and a haw jelly were constitutive of Qian’s English language learning online. The popcorn was placed on Qian’s desk before I entered in her room. Shortly after the English class began, Qian reached inside a desk drawer for two individually wrapped haw jellies. She handed me a jelly and kept one for herself. She then tried to unwrap the jelly in her hands with her gaze moving between it and the screen where Ms. Chen was giving a lecture. This process went on for up to 80 seconds and ended with the jelly partly unwrapped. After a bite of the jelly, Qian spoke in laughing murmur: *真好吃！ [So yummy!]*

Over the next 25 minutes, this haw jelly was in contact with Qian’s left hand, except when she set up a plastic container used as a phone holder as documented above. Concentrating on Ms. Chen’s lecture, Qian seemed to have no time or intention to eat up the small jelly quickly. Peeling off little by little a plastic wrap covering the jelly, Qian at times licked it a bit, and very occasionally she bit deep into it. Gulping down the rest of the jelly during a brief pause in Ms. Chen’s lecture, Qian rolled its plastic wrap up into a ball. She then bent forward to the right of her desk and threw it to a garbage can that was placed on the floor. Her right hand hovered above a bowl of popcorn when she

moved away from the space above the garbage can. At times Qian ate the popcorn during the rest of this English class.

It is noteworthy that Qian and her peers were forbidden to eat snacks such as the haw jelly and the popcorn in either face-to-face or virtual classes. Qian's homeroom teacher Mr. Wang emphasized in a teacher-parent meeting online on May 18, 2020 that snacking should not be permitted:

> 作为家长，你要给孩子创造良好的学习环境，配备基本的学习设备。一张桌子，上面一个本，一支笔，一本书，一个手机，这就是最好的一个基本配置。其他东西不让他放！尤其是零食，一定不要让他放在桌子上。咱们多次说过，上课就要有上课的样子，上课不要吃东西。虽然咱们的孩子已经初二了，但他的定力也不强。如果他们的定力很强的话，就不会出现现在那么不理想的学习成绩。所以打扰孩子学习状态的东西，都不要让他放。你就明确地告诉他，桌面要整洁，啥也别想，静心学习。
>
> My translation: As parents, you should create a good learning environment for you kid and give them basic learning equipment. It includes a desk, on which there is a notebook, a pen, a book and a mobile phone. This is the best basic equipment. Do not let your kid put anything else on the desk! You should pay particular attention to snacks, which must not show up on your kid's desk. I have said many times: Classes are classes, and thus no eating in class. Our kids lack self-discipline, though they are at Grade 8. If they had enough self-discipline, they would have not performed so badly in exams. Therefore, do not let your kid put on the desk anything that will be a disturbance of learning. Tell your kid clearly: Keep your desk neat and clean, and focus on your study.

6.2.2. Discussion

China English as Errors?

The narrative above documented how Qian entered into relationship in a virtual English class with several materials. They were composed of essays that included one of her own presented on the screen to the whole class, a pen and a plastic container that functioned successively as phone holders, as well as snacks—a haw jelly and a bowl of popcorn. As we can see from Ms. Chen's remarks about corrections to these essays, Qian's teacher seemed to be very attached to English grammatical rules and had a negative attitude of China English. Ms. Chen was not alone in this regard. As discussed in the previous chapters, many Chinese English language teachers and learners place great emphasis on conventional grammar. Following He (2020, p. 13), I see China English as:

> a performance variety of English which has standardized Englishes as its core but colored with characteristic features of Chinese phonology, lexis, syntax, and discourse-pragmatics, and which is particularly suited for expressing content ideas specific to Chinese culture through such means as transliteration and loan translation.

It is necessary to point out that China English is one among many seemingly analogous terminologies that refer to the variety of English spoken or written by mainland Chinese, such as Chinese colored English, Chinese style English, Chinish, Chinglish and Chinese English, as summarized in He (2020). It is beyond the scope of this study to go into detail about what these terms specify. For the purposes of this study, I will focus on how discourses about China English affected Qian's English language learning in this virtual class.

The advent of academic discussion on China English is closely related to the global spread of English that has brought to the fore the concept of "world Englishes" (WE) (Kachru, 1985, 1992). The WE concept highlights how the English language has developed into different varieties as it was locally adapted and institutionalized around the world. In his discussion of the WE, Pennycook (2007, p. 21) describes three concentric circles of places where it is used:

> the 'norm-providing' inner circle, where English is spoken as a native language (ENL), the 'norm-developing' outer circle, where it is a second language (ESL), and the 'norm-dependent' expanding circle, where it is a foreign language (EFL).

There are not distinct boundaries between the outer circle (e.g., Bangladesh, Ghana, India, Malaysia, Philippines, Singapore) and the expanding circle (e.g., China, Egypt, Indonesia, Japan, Korea, Russia). This is because some expanding-circle countries are shifting from being completely norm-dependent to norm-developing as they are forming their own varieties of English with a large number of speakers (HE, 2020; Kirkpatrick, 2017; Li, 2007). Nevertheless, there is still a widespread belief among Chinese English speakers that inner-circle countries (the United States, Britain, Canada, Australia, and New Zealand) are norm-providers, and thus they are likely to try their best to speak the language as a "native-speaker" from those countries who conforms to standard language conventions (Pan, 2015).

This phenomenon is in keeping with a native-speaker norm, which circulates in multilingual settings and sees a native speaker as "the most qualified provider of the

purest kind of standard language skills and knowledge" (Lin, 2013, p. 525). It is also entangled in the current hegemony of English around the world that has enabled this language to play an important role in Chinese ELLs' education and career opportunities, as discussed in Chapter 1. As well, such ideologies are closely linked with English language education polices in China. As Pan (2015) points out, the Chinese policy-makers "seem to adhere strictly to the belief that the native speakers of English are the best teachers and that English-speaking countries set the standards" (p. 87). Accordingly, many ESL/EFL textbooks in China have extensive coverage of topics about language and culture of Inner circle countries (Xiang & Yenika-Agbaw, 2021).

In this context, many English language teachers and leaners in China have a preference for standard forms of English (the Englishes spoken in inner-circle countries), thus not accepting China English as an independent variety of English (He, 2020). As He (2018) points out, foreign language teaching in China "often focuses on the models, the standards, and the correctness of the target language acquired" (pp. 176-177). Such circulating discourses and pedagogical realities might have disciplined Ms. Chen to see China English as grammatical errors and linguistic incompetency and thus denigrate her students' attempts to use it in their writing, as evident in the narrative accounts above. As well, it seems that these intensities, including Ms. Chen's remarks in this class, have affected Qian who came to see "this day" as China English and a funny error to be laughed at.

Making "Literacy Desirings"

As described above, a pen and a plastic container (the base of a plastic box) entered into relationship with Qian's phone as she transformed them into holders that became an important part of this virtual class. In their encounters with Qian and her phone, these two things performed a makeshift function that deviated from their designated use. Sometime before this fieldwork visit, Qian purchased the pen with the intention of handwriting—what a pen is usually designed for. As far as I know, the plastic container had two functions before it was turned into a phone holder; it was originally a mass-produced container for cookies and then a provisional container in which Qian stored her stationery. Therefore, both the pen and the container became something else with new modalities and functionalities, which led them to enter into new contact with

other sociomaterial bodies present in this learning environment (e.g., girl, researcher, phone, online lecture).

In other words, this transformation of material functionality was entangled in a learning assemblage in which Qian was ingeniously “making and unmaking literacy desirings” (Gutshall Rucker & Kuby, 2020, p. 18). According to Gutshall Rucker and Kuby, the concept of literacy desirings highlights how children follow their present (ever-changing) needs, wishes and desires to create literacy artefacts when they are intra-acting with humans and nonhumans. Thus, literacy desiring is unpredictable and unstructured. In order to look at her phone screen from a desired angle, Qian successively improvised two phone holders out of materials at her fingertips. She replaced the pen-phone-holder with the container-phone-holder to solve the emerging problem that the former was unable to meet her needs. These dynamics, including Qian’s own “literacy desirings”, engaged her in an embodied and hands-on learning practice.

In contrast, the format of Qian’s English online class, which was carried out in accordance with a carefully designed syllabus, appeared to direct Qian to engage in a systematic cognitive analysis of linguistic features in texts. The girl-material encounter described above was likely to be discounted by Qian’s teacher as an incapability to concentrate on the lesson in progress rather than a literacy practice or literacy encounter. According to my observations, Qian and her peers at Beilei were asked to distance themselves from materials that were not directly recognized as part of in or out-of-class instruction (in this case the makeshift phone holders and the snacks). This is evident as well in the remarks made by Qian’s homeroom teacher in a virtual teacher-parent meeting as shown above. However, following Gutshall Rucker and Kuby (2020), I see this encounter as “an active making, producing, coming to be of literacies in material-discursive relationships” (p. 23).

In this process of literacy desirings, the pen- and container-phone-holders come into being as artefacts that support multimodal literacy practices in online instruction. Interestingly, this coincided with Qian’s cognitive learning of English writing on the screen, where she was expected to focus on print literacy and linguistic norms. Such a concurrence of informal (multimodal) and formal (cognitive) learning would not have been possible without the availability of various materials of both academic and non-

academic natures (e.g., pen, notebook, book, phone, container, haw jelly, popcorn) in this home environment. The unpredictable entanglement of these materials during Qian's lesson illustrates how learning at home can become a more-than-human process of literacy production.

As argued in Chapter 5, material/object/artefact-based learning highlights process, body, diversity, and material-human encounters. Such learning "points a way towards a material-oriented pedagogy that is attuned to the interrelationship between bodies and objects" (Valverde, 2020, p. 187). It is different from traditional learning in classrooms, where things and activities regarded as distracting for students would likely be dismissed. Therefore, although this online English class was formal in nature, it shaped Qian's learning and literacy practices differently than when it took place in physical classrooms.

Resisting Modern Consumerism

What also stands out for me is how a consumption-driven capitalist economy entered into relationship with human and material participants in the literacy processes described above. The plastic container was out of action in terms of its original function as a mass-produced cookie packet until it became a makeshift stationery case and a phone holder. In other words, it was drawn into new material-human assemblages only after it no longer acted as a cookie packet. As Kwek (2018) insightfully tells us, "uselessness is not absolute" (p. 37), arguing the boundaries between usefulness and uselessness are blurred and fluid. Referencing the *Zhuangzi (庄子)*, a foundational text of Daoism in Chinese religious philosophy, Kwek (2018) takes up a new materialist perspective on uselessness to highlight the built-in obsolescence of mass-produced things. As she explains, such things are doomed to become useless in a political economy of the assembly line. In other words, a thing "is made useless by the new products rolling off the assembly line, [and] it is discarded regardless of whether it has lost its functional integrity" (Kwek, 2018, p. 35).

Instead of discarding the plastic container after the cookies inside it were eaten up, Qian mobilized it as a participant that was productive in her learning activities. In doing this, Qian was alert to the multiple layers of materiality and potentiality of the container and engaged more carefully and ecologically with it. This girl-container encounter illustrates a human-material relationship that offers an alternative to modern

consumerism and excessive consumption. As Bennett (2010) points out, we need to experience nonhuman materialities as vibrant and agentic forces and distance ourselves from "wasteful and planet-endangering consumption" (p. 51). Similarly, Braidotti (2013) encourages us to work on the eco-sophy as a generalized ecology that focuses on the inter-connection and mutual accountability between humans and nonhumans (the earth "others"). These scholars challenge a conventionally hierarchical conceptualization of the relationship between humans and nonhumans with the former enjoying a superior ontological status over the latter. They therefore refuse an exploitive and instrumental position toward nonhumans. Such understanding of ethics focuses on potential responsible responses to a material and relational world.

While Qian played an important role in the becomings and transformations of the plastic container, she was not in sole control of her contact with it. This is evident in the several attempts that she made to place her phone into the two symmetrical notches. In this encounter with impromptu and uncertain dynamics, Qian had no prior knowledge of how the notches, her phone and hands would affect and be affected by one another. Rather, she figured out a solution in a trial-and-error fashion as she was involved in direct material engagement with the container and her phone. During this process, the materials were not neutral and inert tools, which waited to be manipulated by Qian to serve her purposes. Rather, they actively shaped how the assemblage was coming to be. This is in keeping with my discussion in Chapter 2 that agency is a matter of intra-acting and a force that emerges in assemblages and thus it cannot be simply granted to either humans or nonhumans as an attribute (Barad, 2007).

6.3. Visit 2: A Multiple-Choice Question and A Red Pen

6.3.1. The Narrative

A Multiple-Choice Question

On the morning of April 24, 2020, Qian attended another DingTalk English class session in her home and in my presence. Like the session discussed above, this one was also conducted by Ms. Chen in the form of teacher-oriented live broadcast. In this class, Ms. Chen gave a lecture about exercises that were presented in a workbook and designed as multiple-choice quizzes to help students practise what they had learned

from their textbooks. This class lasted for about 50 minutes and halfway through it, Ms. Chen offered the following explanation of question 47 (see Figure 6.11):

The boy with two dogs _____ in the yard when the earthquake hit the city.

A. is playing B. are playing C. were playing D. was playing

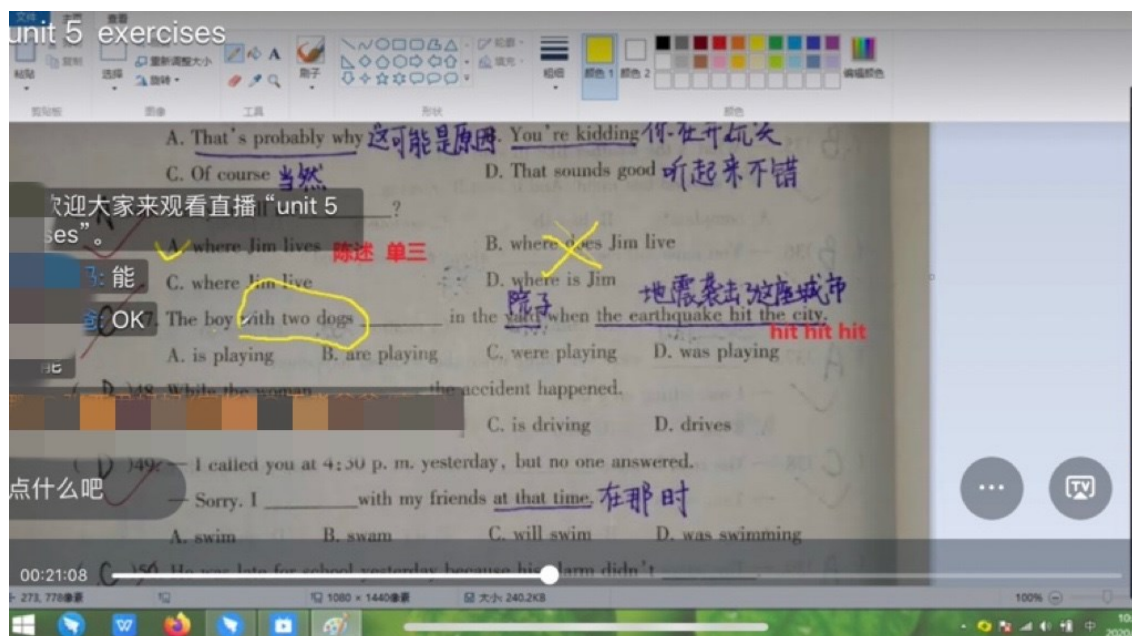
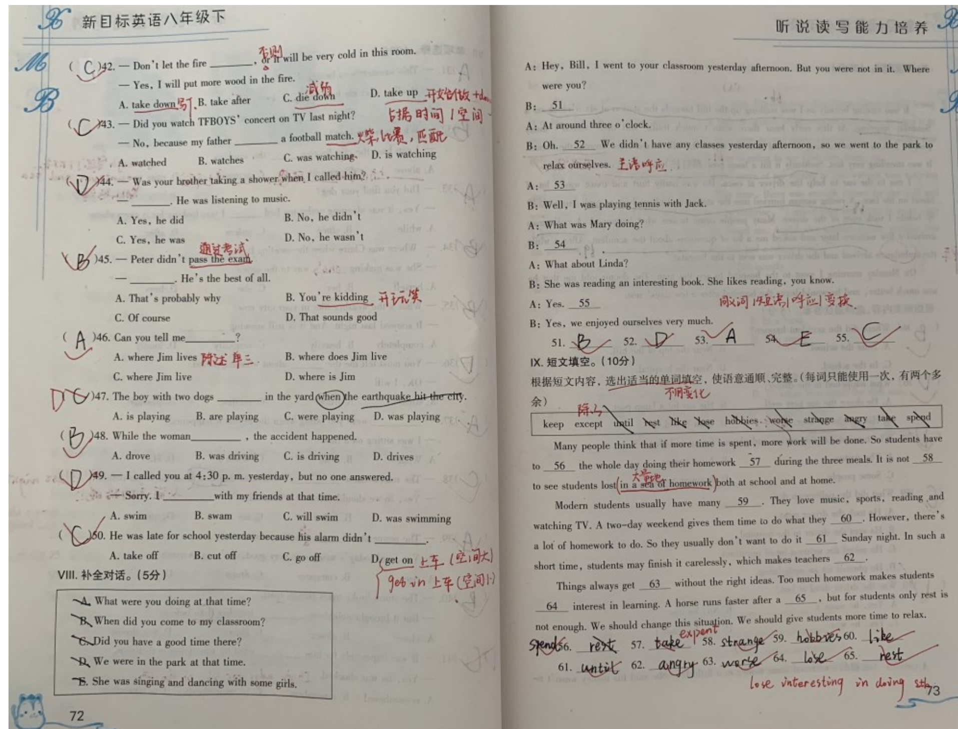


Figure 6.11 Ms. Chen explaining question 47

According to the workbook, the answer to this question was D. However, Ms. Chen appeared to have misread it and was trying to explain why C was correct here in relation to the grammar rules of present/past tense and singularity/plurality. It seemed she soon realized her explanation was not convincing and said to her students: *这个题出得不好，考试不会出这种，它不太精确。[This question is not well designed. Such a question will not appear in a formal examination. It is not a clear question.]*

During Ms. Chen's statement, Qian sat at her desk in a relaxed posture. On the desk there were her phone, her English workbook and textbook and some other materials. At one point, Qian muttered: *不对呀。[Something is wrong.]* Listening to this, I moved to Qian and bent over her desk to look closely at her phone screen and workbook. With a red pen in her left hand pointing to the question 47 on her workbook with handwritten corrections and notes in red (see Figure 6.12), Qian said loudly to me: *书上给的答案是 D，我们老师刚才说的是 C were playing。[The answer given by the*

book is D. Our teacher just said it was C—were playing.] As Ms. Chen moved to the next question and the red pen pointed to the screen, Qian firmly said: *正确答案是 D。 [The correct answer is D.]* (see Figure 6.13)



新目标英语八年级下

(C)42. — Don't let the fire ________, or it will be very cold in this room.
— Yes, I will put more wood in the fire.
A. take down B. take after C. die down D. take up

(C)43. — Did you watch TFBOYS' concert on TV last night?
— No, because my father ________ a football match.
A. watched B. watches C. was watching D. is watching

(D)44. — Was your brother taking a shower when I called him?
— ________. He was listening to music.
A. Yes, he did B. No, he didn't
C. Yes, he was D. No, he wasn't

(B)45. — Peter didn't pass the exam.
— ________. He's the best of all.
A. That's probably why B. You're kidding
C. Of course D. That sounds good

(A)46. Can you tell me________?
A. where Jim lives B. where does Jim live
C. where Jim live D. where is Jim

(C)47. The boy with two dogs ________ in the yard when the earthquake hit the city.
A. is playing B. are playing C. were playing D. was playing

(B)48. While the woman________ , the accident happened.
A. drove B. was driving C. is driving D. drives

(D)49. — I called you at 4:30 p. m. yesterday, but no one answered.
— Sorry. I ________with my friends at that time.
A. swim B. swam C. will swim D. was swimming

(C)50. He was late for school yesterday because his alarm didn't ________.
A. take off B. cut off C. go off D. get on

VIII. 补全对话。(5分)

A. What were you doing at that time?
B. When did you come to my classroom?
C. Did you have a good time there?
D. We were in the park at that time.
E. She was singing and dancing with some girls.

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听说读写能力培养

A: Hey, Bill, I went to your classroom yesterday afternoon. But you were not in it. Where were you?
B: __51__
A: At around three o'clock.
B: Oh. __52__ We didn't have any classes yesterday afternoon, so we went to the park to relax ourselves.
A: __53__
B: Well, I was playing tennis with Jack.
A: What was Mary doing?
B: __54__
A: What about Linda?
B: She was reading an interesting book. She likes reading, you know.
A: Yes. __55__
B: Yes, we enjoyed ourselves very much.

51. B 52. D 53. A 54. E 55. C

IX. 短文填空。(10分)

根据短文内容，选出适当的单词填空，使语意通顺、完整。(每词只能使用一次，有两个多余)

keep except until rest like lose hobbies worse strange angry take spend

Many people think that if more time is spent, more work will be done. So students have to __56__ the whole day doing their homework __57__ during the three meals. It is not __58__ to see students lost in a sea of homework both at school and at home.

Modern students usually have many __59__. They love music, sports, reading and watching TV. A two-day weekend gives them time to do what they __60__. However, there's a lot of homework to do. So they usually don't want to do it __61__ Sunday night. In such a short time, students may finish it carelessly, which makes teachers __62__.

Things always get __63__ without the right ideas. Too much homework makes students __64__ interest in learning. A horse runs faster after a __65__, but for students only rest is not enough. We should change this situation. We should give students more time to relax.

56. ____ 57. ____ 58. ____ 59. ____ 60. ____
61. ____ 62. ____ 63. ____ 64. ____ 65. ____

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Figure 6.12 Qian's workbook with handwritten corrections and notes in red

Figure 6.13 "The correct answer is D."

After this class, I asked Qian to look back at the question 47 and initiated a conversation with her.

Transcript of the research video:

Me: 你觉得老师这道题讲错了吗？ [Do you think Ms. Chen was wrong about this question?]

Qian: 是的，正确答案是 D，老师说是 C。[Yes. The correct answer is D, but our teacher said C.]

Me: 为啥 D 是正确的呢？ [Why do you think D is correct?]

Qian: 因为书上给的就是 D 啊. [Because it is given by the workbook.]

Me: 我也觉得答案是 D，并不完全是因为书上说它对，还有我对这句话的理解。[I think D is correct, not only because it is the answer given by the workbook, but also out of my understanding of this sentence.]

I encouraged Qian to rethink this question. She quickly excluded the possibility that either A or B was the answer according to her knowledge of tenses. As advised by me, she filled the content of C and D in the blank in turn and translated the completed sentences into Chinese. Her translations turned out to be the same and it was *当城市地震时，一个男孩和两只狗在院子里玩耍。[A bog and two dogs were playing* in the yard when the earthquake hit the city.*]* In this representation, Qian used “和” (in English “and”) to connect the two animate bodies (the boy, two dogs). This might explain why she chose C when completing her workbook (see Figure 6.12 above). While Qian was familiar with the use of singular/plural in English, she was confused about the relationship between the boy and the two dogs in the question. Under the circumstances, I explained the syntactic structure of “the boy with two dogs” and the implicated grammar rule to her, something that was similar to what her English language teachers often did in class. This worked well for Qian.

A Red Pen

A red pen was constitutive of Qian’s learning in this virtual English class as it entered into contact with Qian in multiple ways. It engaged Qian in print literacy practices as she made lots of handwritten corrections and notes in red on her workbook that lay open on her desk (see Figure 6.12 above). It also enabled Qian to experience multimodal and embodied meaning making as evident in how Qian used it to point to her

workbook and phone screen during Ms. Chen's lecture. Indeed, it was closely entangled with Qian's hands throughout this virtual English class.

For instance, this red pen in hand moved around intensively for 40 seconds following the event around question 47 discussed above. At first, the pen kept rotating with, in and between the fingers of Qian's left hand while she was looking at the screen. Suddenly, it fell from Qian's fingers and slipped over her workbook. With her gaze fixed on the screen, Qian's left hand groped for it and continued rotating it after picking it up (see Figure 6.14). A few seconds later, the pen dropped on Qian's workbook and was soon back in contact with her left hand, which started spinning it once again. The pen then entered into contact with Qian's right hand as she wrote on the workbook.

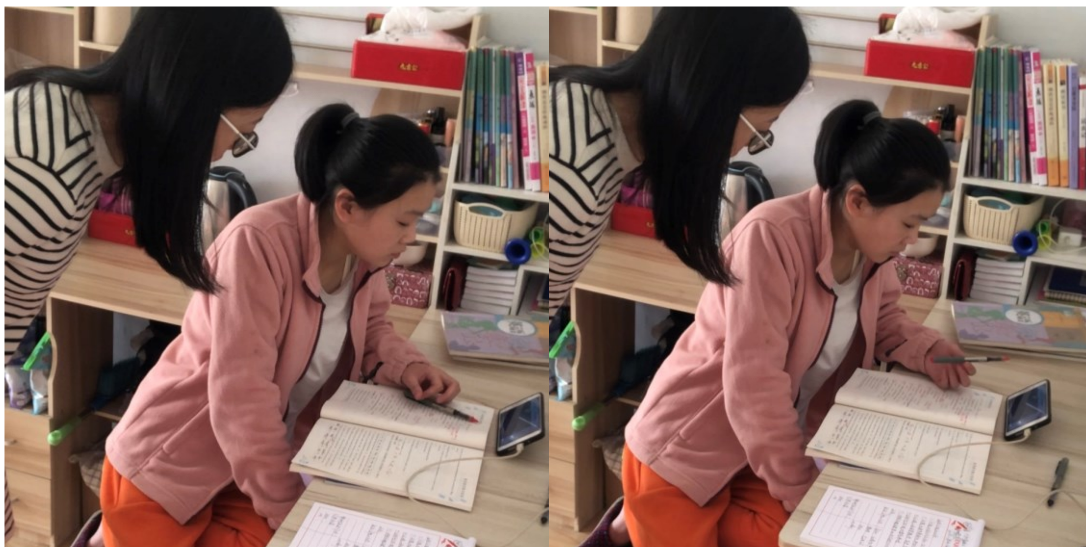

Figure 6.14 Qian and red pen contacts

Such intense pen-hand contacts came to the fore again between the 38th and 40th minutes of this virtual class. As Qian sat sideways at her desk, she repositioned her workbook and phone so that she could face them. All of a sudden the red pen moved back and forth between both hands. Figure 6.15 below presents a set of close-up screen captures of specific salient moments from the video footage I shot during fieldwork. It illustrates how Qian's hands and the pen entered into contact dynamically and rhizomatically.

As we can see from the figure below, the pen was positioned in diverse directions as it kept moving with and in Qian's hands. For instance, at one point it was

positioned vertically between the palms of her hands with the right one facing downwards and the left one upwards while her right hand also supported her chin. It seems to me this posture helped her relax as she had been sitting in front of the screen for up to 40 minutes previously. At another point, the pen was rolling faster and faster between Qian's hands that were wide open and positioned in either the same or the opposite directions, which seemed to signal to me she was becoming bored to some extent with the lecture on the screen. Throughout this pen-hand intra-action, Qian's gaze was fixed on either her workbook or phone screen, which suggests she was participating in Ms. Chen's lecture while in contact with the pen.

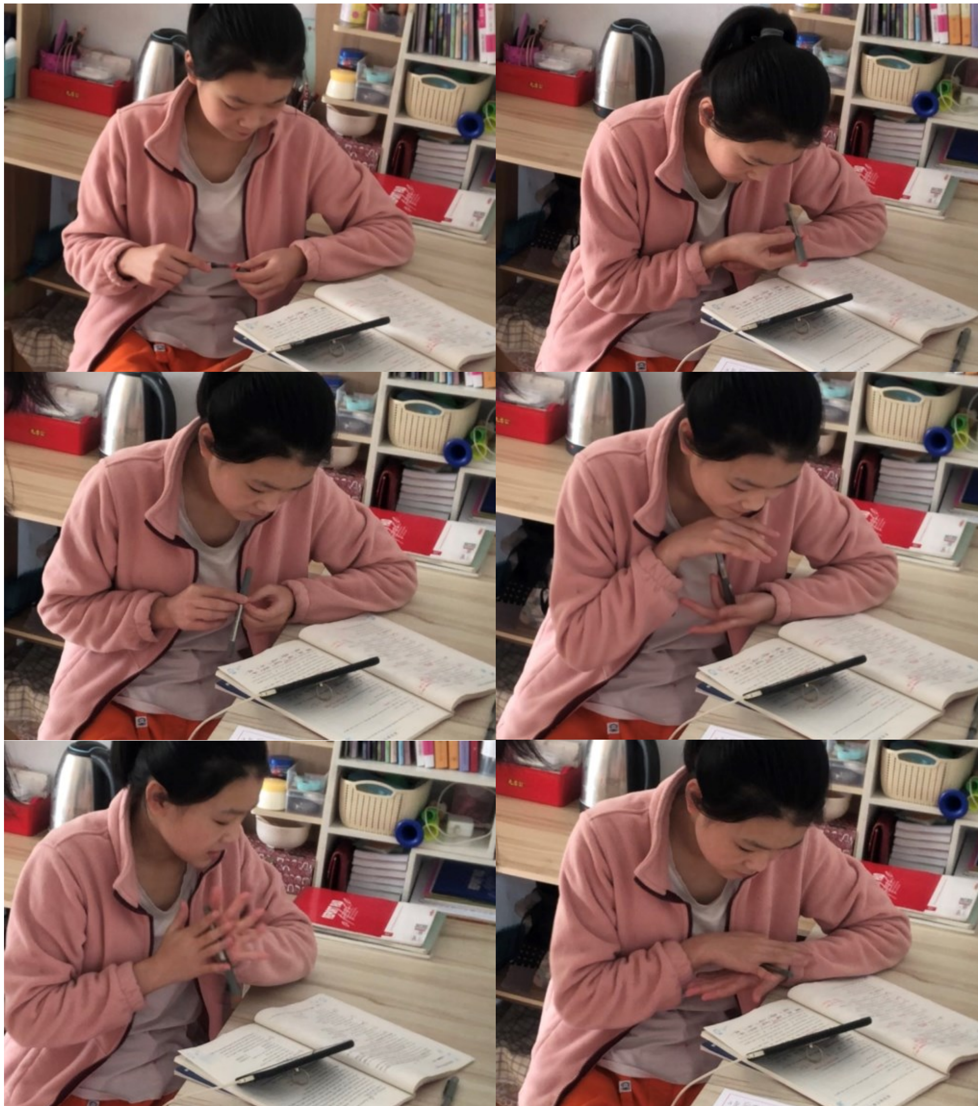

Figure 6.15 Qian and red pen movements

6.3.2. Discussion

Teacher and Textbook-Knowledge Authorities

Qian was unconvinced of Ms. Chen's explanation of the multiple-choice question 47. This is evident in her statement *"Something is wrong." "The answer given by the book is D. Our teacher just said it was C." "The correct answer is D."* as well as in her affirmative answer to my question as to whether she thought Ms. Chen was wrong in this regard. However, Qian was not explicit about her opinion that Ms. Chen's explanation was problematic, but she hinted at it. In other words, although Qian realized Ms. Chen made a mistake, she did not speak her mind either offline or online during this English class. In this sense, Qian challenged her teacher's authority, but only to a limited extent.

I can only guess at what made Qian hesitate to speak out against Ms. Chen's explanation. It was possibly related to the Confucian education tradition, which encourages youngsters to show respect to elders, including teachers, and take their knowledge seriously; therefore, questioning an elder could be viewed as being disrespectful (Guthrie, 2011; Ho, 2017). In Confucian-style classrooms, teachers "are not only the transmitter of knowledge but also the judger of right or wrong" (Zhan & Wan, 2016, p. 681). Consequently, their authority is highly valued and students are supposed to be obedient to them, which causes less classroom management problems but is more likely to normalize structure compared to student-centered classrooms (Lee, 2021). The same is true of many contemporary Chinese classrooms as students are required to focus on content learning and reproduce the "right" information imparted by their teachers in order to excel in examinations (Zhan & Wan, 2010). According to my observations during fieldwork, such Confucian pedagogical practices were evident in both physical and virtual classrooms at Beilei. This context and pedagogical realities might have constrained Qian from challenging or confronting Ms. Chen.

What is at work in this event as well might be the modality and materiality of this English class, which probably made Qian feel uncomfortable and unfree to openly voice her opinion. As discussed above, most of the remote classes available for Qian and her classmates were conducted in teacher-dominated live broadcasts with little teacher-student interaction. Throughout this English class, all students were inaudible and invisible to Ms. Chen and they were supposed to ask permission to turn on their audio or video during the class. This is different from classes conducted face-to-face or in the

form of multi-person video conferencing (with all participants showing up on the screen), where Qian could directly discuss her doubts with Ms. Chen and might find support from her peers.

While Qian challenged the teacher authority somewhat in this encounter, she was quite obedient to the authority of her workbook that she used to practise what she had learned from her textbook. This workbook seemed to represent “authoritative” knowledge for Qian because it was published by China’s education sector and used in her English language classroom as a compulsory teaching material. In other words, Qian appeared to view knowledge reproduced in this workbook (as well as her textbooks) as official, correct and trustworthy and therefore accept it rather than calling into question it. This is evident in how Qian was firmly convinced that the answer given by her workbook was correct. Qian’s preoccupation with workbook/textbook knowledge was likely to be affected by the long-established representationalism paradigm that sees knowing as what language mirrors or represents (see details in Chapters 2 & 3).

There is a line of scholarship that urges educational researchers and practitioners to reconsider the role textbooks play in knowledge reproduction in learning spaces. Referencing a particular concept of Foucault’s, Thoma (2017) argues textbook knowledge is governed by a knowledge-generating logic that forms patterns, standardizes knowledge and produces represented “realities” in textual materials. In their edited book *The New Politics of the Textbook*, Hickman and Porfilio (2012), alongside other contributors, examine how textbooks perpetuate power relationships in schools and in the wider society. All these scholars encourage us to resist the hegemony of textual knowledge through critical analyses and critical pedagogies. As Mencius, a fourth-century BCE Chinese philosopher, thinker and educator who contributed much to teachings of Confucianism, insightfully tells us, “you’re better off not reading if you completely trust what you read” (“尽信书，则不如无书”).

The teacher and textbook-knowledge authorities entangled in this encounter indicate how formal education exerted considerable influence on Qian’s language and literacy practices in a virtual class that took place in her home. Formal education also shaped how Qian responded to the syntactic structure of “the boy with two dogs” in multiple-choice question 47. As stated above, translating the phrase into Chinese did not help Qian figure out why it should be followed by “was playing” rather than “were

playing". To help Qian out, I offered my own grammar-based explanation. As I think about this event, I wonder why this latter approach worked well for Qian. Was it because she was used to learning English mainly through mechanically memorizing grammar rules she had learned from her teachers or textbooks? As discussed in the previous chapters, formal English language education in China focuses on learners' mastery of grammar rules and linguistic norms, which has its roots in a traditional view of language "as a closed system with a given set of organizing rules that need to be imitated" (Olsson, 2020, p. 73).

It is noteworthy that I did not intend to foreground grammar mistakes and teach grammar rules during fieldwork. However, I felt compelled to help Qian learn the grammar highlighted in the multiple-choice question under the circumstances. On the one hand, Qian was learning grammar rules from Ms. Chen in this English class online, and on the other hand, she would take numerous grammar-based English examinations throughout her secondary and even post-secondary education.

Onto-Epistemologies Entailed in English and Chinese

At my suggestion, Qian translated "the boy with two dogs" into Chinese as *一个男孩和两只狗*, which reads as "the boy and two dogs" in English. This translation is likely to be seen by many as evidence of Qian's linguistic incompetency or lack of comprehension of the sematic meaning of the English phrase. A sociomaterial perspective leads me to see how different ontologies and epistemologies entailed in English and Chinese might operate in this learning assemblage and how they might affect Qian as a foreign language learner.

Admittedly, both English and Chinese, as well as many other languages, have played a pivotal role in maintaining the idea of human exceptionalism or in separating humans from nonhumans, and animals in particular (Kwok, 2020; Pennycook, 2018). Theorists who work within the material turn in social sciences commit to deconstructing such long-established anthropocentric ways of prioritizing human languages, and some of them ask "how can a new language express best the ontological inclusion of the material and materiality of a posthuman subjectivity that also includes the excluded and marginalised (Murris, 2016, p. 93)?" While it is not safe to say Chinese is such a "new

language", Chinese is less human-centered compared to English (as are some other non-Western languages, I believe), as is explained below.

One meaning of "with" given by the Oxford English Dictionary (mobile app version) is "having or possessing (something)". In keeping with this definition, "the boy with two dogs" can be explained as the boy who has or possesses two dogs. In other words, the boy is understood here as the "owner" and "master" of the two dogs. Therefore, the boy should be the subject of the grammatically formed phrase "the boy with two dogs" and sentence "The boy with two dogs (was playing) in the yard when the earthquake hit the city." To follow the grammar rule of concord/agreement (having the same number, gender or person), the predicate "was playing" that contains the singular auxiliary verb "was" should be chosen as the answer to the multiple-choice question. Such a syntactic analysis appeared frequently in Qian's English language classrooms, and at the heart of it is "the simple proposition that syntax can only be explained in terms of hierarchical rather linear processing" (Pennycook, 2018, p. 81). These linguistic norms reflect the Western philosophical tradition that establishes ontological hierarchies such as humans over nonhumans, reason over emotion, mind over body, culture over nature. Humans are seen as subjects while nonhumans as objects or brute, inert and passive matters to be mastered and manipulated by humans.

Unlike English that is characterized by a strict "subject+object" structure, Chinese is more flexible in relation to its syntactic structure. In Chinese, a subject can be not only unnecessary but in various forms, be it the doer or the object of an action, time or place, noun or verb; there is no such thing as conjugation, declension or concord in Chinese (Lian, 2010). These language practices are inseparable from Chinese philosophical traditions that embrace coherent and harmonious relationships between nonhumans and humans (天人合一), between knowing and doing (知行合一), and between culture and nature (情景合一). In such a holistic worldview, human and nonhuman bodies are mutually constituted and constrained (相生相克), and each is simultaneously the cause and the effect of one another (互为因果). As well, traditional Eastern philosophies, especially Daoism and Buddhism, emphasize emotion, intuitive feelings and embodied experiences, which is different from Cartesian thought that highlights reason, rational thinking and conscious perceptions (Lian, 2010). Accordingly, the syntactic structure of

Chinese is diffusive and scattered as a sentence is often composed of many independent parts, whereas an English sentence is much more cohesive.

Indeed, the non-Western philosophical traditions discussed above are similar to some ideas emerging in scholarship on materiality (e.g., posthumanism, new materialism and sociomaterial theories) that has been presented in depth in Chapter 2 (Kwek, 2018; Shin & Yang, 2021; Yu, 2020b; Zhao, 2019c, 2021). For the purpose of this section, I will not provide detailed comparisons of these concepts, but suggest how a humanist subjectivity deeply ingrained in English was likely to lead Qian to fail to map the syntactic structure of "the boy with two dogs" onto her L1 that is less anthropocentric and less logocentric. As I think about this event, I wonder what it would look like if we move beyond teaching linguistic skills (reading, writing, listening and speaking) to include social, cultural, material and philosophical aspects of language in English language classrooms in rural China. Foreign language education from this perspective might not help students directly to excel in English competency assessments focusing on grammatical norms as discussed earlier in this thesis. However, it would open up new spaces for young rural Chinese ELLs to access and experience different multimodal, multilingual and material ways of learning.

Neoliberal Education

What also draws my attention is the forceful effect of the handwritten corrections and notes in red made by Qian on her English workbook. The red colour seems to jump out at me, the viewer, as it is overlaid on the black text on white background. It appears so bold and dominant as it highlights what is right, what is wrong and what should be noted. As Qian recalled, back when she was in primary school she and her peers were not allowed to write with pens in red ink, which instead were exclusively used by their teachers to assess or correct their homework or test papers. After Qian was enrolled as a seventh grader at Beilei, she and her classmates were empowered to use red pens to correct some of their own exercises that were usually done in black.

According to Qian, such empowerment happened mainly because their schoolwork had increased sharply since Grade 7 and it was beyond one teacher's ability to read each student's work in detail or handle the assessment or correction alone. Qian assumed as well that their teachers appeared to see them—middle schoolers—as mature enough to assume responsibility for their own learning activities, including

correcting their own exercises in red. As I read this piece of data and, as Jackson and Mazzei (2012) describe it, plug it into theories I am thinking with, I become aware of how the data was entangled in the global neoliberalism of schooling and education. The neoliberal agenda has established competitive education markets that "are accompanied by and situated within the rampant—indeed, exponential—growth of national and international inequalities" (Kumar & Hill, 2009, p. 1).

At Beilei, as well as many other schools in China, the neoliberal education system has pushed teachers to become economic workers as their earnings are paid in line with the overall performance of their classes in exams[30]. In day-to-day pedagogical-didactical practices, Beilei teachers have to drill test-taking skills into their students in order to improve the latter's outcomes in formal assessment. During this process, Qian and her peers seemed to be positioned as liberal, individualized, rational, "competent, autonomous and strong and in the process of *becoming adult*" (Murris, 2016, p. 84, emphasis in original), who were supposed to behave responsibly in relation to their academic learning. They were therefore empowered to perform certain duties once attached to their teachers or school (in this case correcting some of their own informal work in red). However, this empowerment came at a price: The students themselves had to be responsible for these activities and the possible failure thereof, i.e., their learning difficulties or unsatisfactory learning outcomes, as I have described in more detail in Chapters 4 & 5. Lemke (2001, p. 199) explains the double-edged logic of neoliberalism as follows:

> As the choice of options for action is, or so the neo-liberal notion of rationality would have it, the expression of free will on the basis of a self-determined decision, the consequences of the action are borne by the subject alone, who is also solely responsible for them. This strategy can be deployed in all sorts of areas and leads to areas of social responsibility becoming a matter of personal provisions.

Language and literacy researchers and practitioners who apply a sociomaterial lens challenge such neoliberal thought as they understand children as rhizomatic becomings without static, neat identities instead of "trees" that are supposed to grow and develop in a linear way under their teachers' mentoring and scaffolding (Toohey &

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[30] While Beilei teachers' basic salaries are similar, their bonuses vary according to their professional ranks, performances, and achievements that include the overall performance of their classes in exams.

Smythe, 2021). In keeping with such an understanding, these educators attend to how children are involved in learning assemblages that are shaped by multiple bodies, affects and intensities and thus out of the latter's control. In particular, they are encouraged to foreground what is entangled and what is mattering in assemblages when learning problems or failures happen to a student. This is a posthumanist perspective on ethics as "response-ability" (Haraway, 2016)—the ability to respond to what is included and excluded in relations among sociomaterial bodies engaged in an ongoing process of becoming different.

Grammatical Conventions

While Qian was allowed to write in red under some conditions, her English language teachers Ms. Chu and Ms. Chen were still privileged to make corrections in red on her (as well as her classmates') written work in English. In other words, the colour of red was an emblem of teacher authority as it was employed to judge what is the "right" linguistic knowledge and what are mistakes. As presented in Section 6.2.1 and specifically in Figure 6.3 above, Ms. Chen focused on whether Qian's essay conformed to standard English language conventions when she was making remarks about and corrections in red to it in an English class online. This indicates Ms. Chen had little tolerance for grammatical "errors", which is also the case with Ms. Chu as evident in the documentation provided in the previous chapters.

I have discussed above how grammatical rules became emphasized in English language classrooms at Beilei. Although I raise questions about the overemphasis on grammar in this context, I do not intend to argue for complete abandonment of it. I refrain from this because grammar still matters in the linguistic construct, and grammar-based examinations are prevalent in the English assessment system in China.

Following Smythe et al. (2017), I understand grammatical descriptions of languages as representational, essentialistic and static and believe we need other (or more) ways to teach languages. To begin with, it is necessary for newcomers to a language to know that there is no such thing as a unitary, standardized and determinate language and they themselves are part of the relations that shape the becomings of the language. In other words, a language is an ongoing process of becoming through coming into contact with its speakers, be they natives or non-natives, monolinguals or multilinguals (from a sociomaterial perspective, such binaries are problematic), as well

as other sociomaterial bodies. As Toohey and Smythe (2021) highlight, language, or more accurately, languaging, “is assembled and becoming with its human and non-human companions” (p. 6).

The notion of translanguaging supports this argument as it foregrounds the dynamic and hybrid nature of language practices and embraces the creativity of multi/plurilinguals, as discussed in Chapter 2. Needless to say, over the course of history, almost every human language has experienced constant fusion with other languages, which would have been impossible without contributions made by its “alien” speakers. The English language is a good example as it has undergone a long process of borrowing words from Greek, Latin, French, Spanish, Arabic, Chinese, just to name a few. Indeed, it has developed and is developing into various Englishes as discussed above.

Mind-Body Split

As narrated above, Qian was engaged with a spinning red pen while she listened to Ms. Chen who lectured on the screen. If I had only looked at Qian’s print literacy practices involving this red pen, I might have overlooked these close girl-pen contacts as they seemed irrelevant to my focus. Even if they came to my attention, I might have read them as Qian’s idiosyncratic, unconscious and meaningless habits that would be not worth “collecting” as data. According to my observations during fieldwork, many of Qian’s peers had similar habits with pens during class, and some teachers did not allow them because they thought they would distract students from the lecture. Similarly, in the early 2000s when I was in middle school in Eastern China, many of our teachers hated us fiddling with gargets including pens in class. Such apprehension about “the pen spinning thing” (“转笔小动作”)—as what it is often called—can also be found in some classrooms elsewhere in China (e.g., as reported in Luo, 2007; Wang, 2011; Xiaodaoyuwen, 2019).

Why are such juggling actions often forbidden in formal learning environments? As I think with sociomaterial theories, I become aware that it is deeply ingrained in some school authorities and teachers’ humanist habits of distinguishing mind from body and prioritizing cognitive knowledge over physical knowledge. Accordingly, they have attempted to educate the mind and educate the body separately, with the former confined in traditional classrooms and the latter in P.E. classes that only legitimatize

certain physical movements deemed beneficial to students' health and academic learning in the long run (e.g., football, basketball, racing, rope skipping, swimming). In classrooms, students' body movements considered unrelated to cognitive learning (in this case hand movements involving pen spinning) are often dismissed as illegitimate.

By the logic of this Cartesian mind-body split, Qian's skill in twiddling her fingers with the red pen was not likely to be counted as knowledge, be it cognitive or physical. Rather, it might be viewed as a meaningless and annoying repetition that could make her become absent-minded and thus contaminate her learning of linguistic knowledge. However, such an assumption may not be tenable as we see no clear evidence of contamination as Qian's gaze was fixed on either her workbook or phone screen throughout her intense and intimate intra-actions with the pen.

If, however, we think with sociomaterial theories, we will view the mind as an extended part of the body and learning as "an affective and embodied process" (Lenters & McDermott, 2019b, p. 1), or "a process of bodily engagement" (Cutler & MacKenzie, 2011, p. 55) with other sociomaterial bodies. Therefore, the knowledge we gain from learning "is present in the body before it reaches our conscious awareness" (Lawrence, 2012, p. 7). In other words, it is beyond cognitive rationality that is privileged in modern educational systems.

In keeping with this perspective, Qian's learning was not wholly located in her brain, but innately embodied and thus not separated from her movements involving other parts of her body that included her hands in direct or indirect material engagement with the red pen (when it was in and outside hands respectively). However, this is not to say that the linguistic knowledge learned by Qian was confined in her body. Rather, it was materialized in her body that was already entangled in assemblages constituted by multiple things. Since we do not know exactly how the fingers-pen encounter affected and were affected in these relations, we cannot simply subordinate it to Qian's cognitive learning in progress or hold that it produced negative effects on the latter. What matters is to understand the two as flowing relations instead of static dichotomies.

Theories of multimodality also lead me to resist seeing Qian's fiddling with the pen as meaningless repetitions. This lens enables me to gain insights into how meaning was communicated through Qian's contacts with the red pen—or, put another way, how

the close proximity of her hands and the pen enabled her to experience embodied and particularly kinesthetic meaning making. For example, the pen helped to convey that Qian might be relaxing her body, which had been constrained between a desk and a stool for up to 40 minutes. The pen's position and movements made it visible as well that Qian might be becoming increasingly bored with the lecture when it rolled faster and faster between her hands. As well, it made me wonder, was it possible that Qian's spinning pen externalized and materialized her thinking processes? If so, Qian made meaning through coordinating moment-to-moment hand movements and her mental activities. Therefore, Qian's seemingly repetitive actions of fiddling with the pen might actually have been "emergent improvisational movement operations" (Manning, 2016, p. 2) that occurred in dynamic relations and produced qualitatively different meanings and becomings.

Indeed, neuroscience has highlighted the close relationship between body movement and cognitive leaning as the former is believed to be beneficial in producing new neurons that are crucial for forming memories (Kuczala, 2015). This perspective has been adopted by some pen spinners who argued the activity of pen spinning was not a barrier but a powerful resource in cognitive function (Sushuoyuer, 2020). Outside the arena of formal education, pen spinning has gained a growing recognition as a non-mainstream leisure activity and art form across many countries. Since the first website devoted to pen spinning was created in Japan in 1997, various pen spinning communities have been formed mainly through online forums[31] that were targeted either locally (e.g., the German Penspinning Community, the Pentrix in the U.S, the Pserhome in China, the Quebec Penspinning Board in Canada, the Taiwanese Pen Spinning Forum) or internationally (the Universal Pen Spinning Board). These pen spinners started their own competitions and the biggest ones are the Pen Spinning World Tournament and the Pen Spinning World Cup and there is some literature on evaluation of these competitions (Wu & Senda, 2021).

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[31] Over time, some forums have become inactive because users might migrate to a similar or upgraded forum. For more information, please see http://en.volupedia.org/wiki/Pen_spinning

6.4. Conclusion

In this chapter, I have introduced how the Covid-19 pandemic led to a closure of schools across China, which intensified the challenges coming with the rural-urban digital divide in this country. Against this background, I described how Qian was involved in formal schooling online and specifically in learning English remotely. In particular, I examined certain sociomaterial bodies that glowed for me over two visits to Qian's home. I offered narrative accounts of how essays, phone holders and snacks participated in the learning assemblage emerging during Visit 1. Making connections among these materials, I discussed topics related to China English, literacy desirings and modern consumerism. I then explained how a multiple-choice question and a red pen came into contact with Qian during Visit 2. In analyzing relationships formed among these two entities with theories of multimodality, multilinguality and materiality, I examined how shapeless sociomaterial bodies also actively formed Qian's learning practices. They included teacher and textbook-knowledge authorities, onto-epistemologies entailed in English and Chinese, neoliberal education, grammatical conventions and mind-body split.

Chapter 7.

Conclusion

7.1. A Conclusion without Conclusions

Inspired by my personal experience of learning English in rural China, my study aimed to explore how new digital media was taken up by young rural Chinese ELLs. With this in mind, I carried out a 14-month ethnographic fieldwork with two middle school girls, referred to in this thesis as Qian and Jing, in a rural area in Northeast China. In Chapter 4, I recounted three Cinderella-related events of digital literacies in Qian's English language learning at home involving digital storybook reading, digital English vocabulary learning, and movie clip dubbing. In Chapter 5, I explained how a digital storytelling project—making videos about a shared visit to a local museum—engaged Qian and Jing in collaborative multimodal, multilingual and material literacy learning processes. In Chapter 6, I described how Qian was involved in formal schooling online and specifically in learning English remotely during the Covid-19 lockdown period in China.

In these chapters, I discussed how theories of multimodality, multilinguality and materiality offered insights in human-material encounters that came to be in a research assemblage constituted by theories, discourses, data, fieldwork, technologies, my participants, me as a researcher, research tools, etc. Thinking with these theories, I focused on how Qian and Jing came into contact with a myriad of sociomaterial bodies and amorphous forces (e.g., the digital, textbooks, pens, time, spaces, family members, teachers, the researcher, educational policies, cultural conventions, language norms) as they learned English with digital resources. I paid particular attention to the material, relational and becoming nature of children's language and literacy practices, in which subjectivity and agency are not located in human beings, but are rhizomatic affective flows emerging in the ongoing sociomaterial entanglements in learning spaces. In other words, I take the stance that young ELLs are not the sole agentic actors in a learning environment, but only part of the learning assemblage in which nonhuman materials including the digital are active agents in shaping language and literacy practices. By adopting a process ontology as an alternative to humanism and essentialism, I was able

to shift my focus from exploring the end products of my participants' English language and digital literacy production to looking at how these children were drawn in a non-linear meaning-and-knowledge making process.

In the course of this study, I was aware of the participatory nature of my researching practices, and thus did not attempt to be an unobtrusive or fly-on-the-wall "observer". Entangled in the research assemblage, I was always engaging and responding as one of many sociomaterial participants who were becoming together. In my analysis of intra-actions documented in the three analytical chapters (Chapters 4-6), I did not intend to reduce the messy, fluid, unstructured and coproduced data into thematic chunks or produce transparent narratives that represent truth. Working with a post-qualitative methodology, I have tried to identify certain humans—including my own stance, gaze and gendered body—and nonhumans that glowed for me and map our relations as "agential cuts" (Barad, 2007) temporarily enabling or constraining language and literacy learning. Such a practice is what Ingold (2015) calls "correspondence" that works against representational thinking as it is about answering to things and happenings "with interventions, questions and responses of our own" (p. vii).

In order to understand how Qian and Jing engaged in language and literacy learning practices as moment-by-moment intra-actions, I video recorded most of their on- and off-screen learning encounters during the fieldwork at Qian's home. Instead of transcribing all happenings in these video recordings, I transcribed salient moments that beckoned my "interventions, questions and responses" as correspondence with data. During this process, it was particularly challenging to transcribe the wide range of modalities in video data, which might be embodied (e.g., gaze, gesture, touch, facial expression, silence, movement, emotion), textual (e.g., print, music, sound, image), or relational (proximity of bodies, sociomaterial intra-actions). In my transcriptions, I have experimented with intertwining language and linguistic communication with some other modalities and marking affective intensities arising in learning activities through different text fonts and typeface styles. In doing this, I aimed to document as many sociomaterial intra-actions as possible and provide my readers with an immersive 3-dimensional reading experience. While these experimenting practices were promising in distancing myself from humanist and representational thinking, they were still print-based and often human-centered and thus inadequate to make my documentation become entirely consistent with relational and process ontologies (see Chapter 2). I therefore encourage

future language and literacy studies to improvise and experiment with transcription and analysis methods that work more nicely with sociomaterial onto-epistemologies.

In this concluding chapter, I revisit stories I have told in the previous chapters and gather together emerging ideas to respond to my initial research question that guided me to the field and three sub-questions arising during and after fieldwork. In doing this, I do not suggest there are clear, coherent and fixed answers to these questions as each of them involves multi-dimensional dynamics (material, social, cultural, political, historical), which might be beyond my understanding and can hardly be encapsulated in a print-based thesis. Nor do I aim to terminate or summarise my researching-and-learning practices as I believe research is always in a process of becoming and thus is open to new possibilities, as discussed in Chapter 3. As well, I acknowledge these research questions alongside research tools, theories, discourses, power relations and so forth have come together temporarily in producing the current research assemblage. In this boundary-making process, some things became possible while others were foreclosed in my study.

In responding to these research questions, I, therefore, do not attempt to draw any conclusions or generalize any findings from my textual descriptions offered in the previous chapters. Rather, I see this chapter as a conclusion without conclusions, which is inspired by Koro-Ljungberg's (2016) expression "methodologies without methodology" (see Chapter 3). As such, I embrace new affective intensities that might unfold in my writing in this final piece as a discursive-material practice bringing forth different relationships, different ways of becoming-doing-knowing, and different worlds. As Latour (2004) insightfully tells us, "[t]hrough the materiality of the language tools, words finally carry worlds" (p. 210). What I pursue is not to repeat the same old, but to experiment with nomad thoughts as nonlinear, non-hierarchical and ever-changing that create a space for newness and difference. As Deleuze and Guattari (1987, p. xii) explain,

> "Nomad thought" does not immure itself in the edifice of an ordered interiority; it moves freely in an element of exteriority. It does not repose on identity; it rides difference. It does not respect the artificial division between the three domains of representation, subject, concept, and being; it replaces restrictive analogy with a conductivity that knows no bounds.

I acknowledge that my thoughts are not as nomadic as what Deleuze and Guattari suggest above due to my habitual ways of (re)producing artificial boundaries

between interiority and exteriority and privileging order over messiness, human identity over “thing-power” (or the ability of nonhumans to affect) (Bennett, 2010), sameness over difference, representation over intra-action, reason over emotion and so on. Still, I am excited to think and engage with the “nomad thought” as a breath of fresh air. In what follows, I revisit my research questions to see what nomad thought they might provoke for me.

7.2. Nomad Thoughts of Research Questions

7.2.1. Initial Question

As presented in Chapter 1, the initial question that motivated this study was: *How do children engage with digital literacy activities in informal English language learning environments in rural China?* After a prolonged period of experimenting in this study as I engaged in fieldwork, data analysis, reading theories, writing up thesis drafts (these practices were in a nonlinear, recursive process), I realize I might have underestimated the complexities of educational practices in my research context when proposing this question. As I think more deeply with sociomaterial theories that embrace a flattened ontology, I become more aware that the concepts this research question entails such as children, digital literacies, informal learning environments and rural China should be reframed in order to distance myself from the Cartesian thought establishing ontological dualisms (children/adult, digital/nondigital literacies, informal/formal learning environments, rural/urban China). Defining these concepts is a tricky business, especially when we locate them in an ontology filled with relationships, emergence and indeterminacy, namely the fact that being is not static and independent but is always becoming different and entangled with other bodies and things. As I discussed in the preceding chapters, I take the stance that these concepts “do not reflect upon the world but are immersed in a changing state of things” (Deleuze & Guattari, 1987, p. xii). They make sense only when they are placed within moment-to-moment assemblages of intra-activity.

In keeping with this perspective, I understand children as rhizomatic and dynamic becomings without determinate identities who cannot be measured by adults or “defined by what [they lack], through an absence or deficit of linguistic competence (‘illiteracy’)” (Murris & Kuby, 2021, p. 4) (see Chapter 6). There is no clear division between digital

and nondigital literacies as we live in a posthuman and postdigital world where new digital media is not separate, virtual or 'other' to the human and social life (Savin-Baden, 2021). As documented in my study, my participants' digital literacy practices were entwined with their nondigital literacy repertoires and learning materials. For instance, Jing's and Qian's digital story creation was affected by their linguistic knowledge (grammar, writing norms) gained in their textbook-based English language classrooms (see Chapter 5). Qian entered into relationships with various materials often designed for print-based literacy practices (a pen in red ink, an English language workbook, a notebook) when she participated in English language classes online (see Chapter 6). Similarly, enacted in the dynamics of intra-actions, learning environments/contexts/spaces are relational, flowing, and porous; therefore, research approaches based on a dualistic perspective that equates classroom activities with formal learning and activities elsewhere with informal learning fail to encapsulate how language and literacy practices may unfold today (see Chapter 3 & 4). As well, I resist an urban-centric perspective on rural-urban relations and see the rural as material, interconnected and changing diversities rather than as a bounded and coherent social whole standing in a dichotomous relationship with the urban (see Chapter 3).

Encouraged by Deleuze and Guattari (1987) who argue a concept is a "tool box" with an unrestrained potential to act and to be used, I have tried to think with these (re)conceptualizations of children, digital literacies, learning contexts and rurality and plug them into my researching practices. As such, I carried these sociomaterialist concepts with me over the course of this study, which in turn contributed to their becomings in my writing. This process of unifying theory and practice has led me to rethink "deficit discourses of minoritized children learning literacies" (Toohey et al, 2020, p. 8).

All too often, young rural language learners, especially those in globalized periphery settings like China, are considered lacking: Lacking learning initiative, lacking self-discipline, lacking ability to judge right from wrong, lacking linguistic competence, lacking critical and creative thinking and so forth. By this logic, young rural Chinese ELLs are often spoon-fed in classrooms and considered as incompetent and substandard in English, and their engagement with the digital in their homes tends to be discouraged and even forbidden by their adult teachers and parents, as discussed in Chapters 1 through 6.

If, however, we place foreign language learners, the rural, the Global South, which are often designated as subordinate to native speakers, the urban, the Global North respectively, in the flow of assemblages, we will see how they produce forces that are not “either…or” but “both…and”—both wild and civilized, both negative and positive, both passive and active, both conservative and creative. What these bodies and entities *are* or more accurately, what they *are becoming* depends on how they are positioned in dynamic relationships. Such a perspective has led me to refuse to paint a gloomy picture of language and literacy learning ecologies in rural China, which are not doomed to vulnerability or hopeless, but could also be affirmative and productive. In this thesis, I have documented not only moments when my participants entered into difficult encounters with the digital, conventional English grammars, and linguistic skills (reading, writing, listening and speaking), but moments when they engaged in translanguaging practices involving creative, improvised, multimodal and multi/plurilingual literacies. What mattered for me was foregrounding multiplicities a learning practice opened up instead of reducing them to a certain pattern.

This is not to say that I was over-optimistic about educational practices in rural China. On the contrary, I concerned myself with issues of digital and educational inequalities as well as power in researcher-participant, teacher-student and adult-child relations, as discussed in Chapters 1 through 6. I placed these concerns into a relational ontology by pondering over how power flows along the social-material continuum in learning assemblages in which human and nonhuman bodies are entangled with one another. In doing this, I developed an understanding of languages and literacies not only from a critical point of view but also in relation to sociomaterial intra-actions.

For example, in analyzing Qian’s attempts to make a voice recording of a Cinderella movie-clip line “once upon a time”, I highlighted how unequal power dynamics emerged in entanglements among the design of the FD app as the materialization of a native-speakerism, the presence of my adult body, my performances as researcher and teacher, and the research apparatuses I brought with me (the FD app, the camera) (see Chapter 4). By attending to the poor performance of Qian’s phone and the low-speed, unstable WIFI connection in her home, I argued young rural Chinese language and literacy learners appear to be entangled in digital learning assemblages that might produce difficult human-digital encounters out of the children’s control (see Chapter 5).

As well, in my discussion of Qian's academic English language learning online, I examined how power relations were materialized as sociomaterial dynamics in the learning assemblage (see Chapter 6). They included: Qian's limited access to quality digital resources, her obedience to teacher and textbook-knowledge authorities, and a neoliberal discourse intensifying educational inequalities—these would be concerns of critical sociocultural approaches to language and literacy studies. They also Included: the becomings of a pen and a plastic container as resistance to modern consumerism and excessive consumption, Chinese as Qian's L1 not inferior to her LX English but less anthropocentric and logocentric than it, a fingers-pen encounter as a counter to modern education embracing the mind-body split—these would be only visible to me under the guidance of sociomaterial theories. By giving the material its due in my accounts of ethics and justice, I became sensitive to "what matters and what is excluded from mattering" (Barad, 2007, p. 380) in a learning process, especially when learning difficulties or problems happened to my participants.

Including the nonhuman in considerations of ethics has pushed me to rethink the arrangement of linguistic components in the initial research question presented above. I wondered: Why is the very word *children* positioned as the subject of the grammatically formed research-question sentence? Why is the phrase *digital literacy activities* given as the object? Why are *informal English language learning environments* and *rural China* placed at the end of this sentence as adverbial phrases used as add-ons to the subject? In chapter 6, I have touched upon how the syntactic structure of English reflects the Western philosophical tradition that establishes ontological hierarchies between humans (in this case children) and nonhumans (in this case events, space, place). While I have endeavoured to think outside my deeply ingrained habits of privileging the human, I have to admit that at times I crept back into human exceptionalism before, during and after my documentation. Such an awareness has led me to reframe my initial question as two more questions as presented in Chapters 1 & 3. These two questions have opened up different possibilities for me to think differently and they are:

- How do digital literacy activities, informal English language learning environments, and rural China engage with children?
- How do digital literacy activities, informal English language learning environments, rural China and children engage with one another?

7.2.2. Sub-Questions

As presented in Chapter 1, the first sub-question that navigated this study was:

- How do digital technologies offer children different language learning opportunities from those offered at school?

With respect to this question, I believe that new technologies are disruptive to literacy-as-usual and their affordances have opened a new landscape for young language and literacy learners, encouraging multimodal, multilingual and material literacy practices, as evident in digital literacy activities documented in my study. Of course, this is not to say that digital tools (usually smartphones, tablets, computers, laptops) alone could produce these learning opportunities for children because they are only one part of the digital leaning assemblage, in which networks, design of software, budget, instruction, parental views on the digital and their practices with it and so on are affective as well.

As participants of my study, Qian and Jing had opportunities to learn English with some digital materials in their homes, which I, having the expertise in English language education and a positive attitude towards the potential of technologies in facilitating learning, introduced to them. However, this may not occur to most of their peers at Beilei, given the fact that many local parents do not have sufficient print-based, digital and English language literacies to tutor their children, and some children might not have access to basic digital tools and networks. Without enough parental and regulatory protection against the profit-seeking digital capitalism, there are children in rural China (as is the case in many other locations, I believe) being exposed to the evil side of the digital world, e.g., bullying, harassment, pornography, discrimination, violence, disinformation, and dataveillance. Therefore, I do not take a techno-determinist stance that new technologies should be introduced to young learners without considerations of how they can be problematic to children. I encourage future research on critical digital/data literacies to attend more to multiple affective flows in digital learning assemblages and how digital technologies can be imagined and practiced differently in education.

Admittedly, the availability of digital technologies is not confined to home environments. Nevertheless, there is much evidence that many schools—Beilei is no

exception—in China choose to close the door on digital technologies and attempt to ban or curtail children's contacts with them in physical classrooms, as argued in Chapter 1. As a result, English language teaching at Beilei adhered to pedagogy-as-usual, which was likely to engage Qian and Jing in organized, structured, print-based, language-focused and human-centric knowledge-making practices. Such a pedagogical practice is closely related to the predominance of linguistic modes (writing and speaking) in language and literacy education. It also results from a long-established humanist understanding of students as autonomous and rational who have control over learning materials (often printed texts) and processes (often being linear) and thus should be responsible for learning events and the possible failure thereof, as explained in Chapters 4 and 6.

It is noteworthy that the technologies do not necessarily bring forth new ways of learning, even if they are applied in classrooms. This is because they seem more often to be employed to replicate existing pedagogical approaches (Toohey et al., 2015). In other words, children might be provided with digital learning experiences that are not qualitatively different from those that rely only on paper and pencil (Ávila & Pandya, 2013). In that case, the digital literacies adopted are more of digitalized print literacy. In Chapter 6, I reported how Qian's formal schooling online was as teacher-dominated, textbook-based, and examination-orientated as her learning in physical classrooms.

These understandings would have not come to be without the guidance of my second and third sub-questions that were:

- What human-material relations emerge when children learn English with digital resources and how do these relations affect language and literacy learning?
- What insights might theories of multimodality, multilinguality, and materiality offer in analyzing how children learn English with digital resources in rural informal education settings?

These two questions have suffused in my writing and functioned like threads that strung human-material relations emerging in my study together. As I revisit them in this closing piece, I become more alive to the potentialities of thinking together with theories of multimodality, multilinguality, and materiality. I have experimented and am experimenting with these theories that converged to form the theoretical assemblage for my study. Concepts at work in this assemblage are not always unitary or coordinated;

there are differences and even contradictions among them (see details in Chapter 2). I value both the overlaps and tensions as helpful in reorienting my thinking and pushing me to think “differently and then differently again” (St. Pierre, 2019, p. 13). They are lighthouses offering me directions as to where to proceed when I become lost in my research journey that has never been unhindered, but full of uncertainties and difficulties—like traveling in the foggy and rough sea.

At the heart of my documentation was a reconceptualization of children’s English language and digital literacy learning as multimodal-multilingual-material practices. As documented before, my participants’ meaning making arose in multimodal wholes, in which a full range of communicational modes, including both linguistic and non-linguistic resources, were entangled with one another. As ELLs who learned with digital materials, they engaged at times in translanguaging practices, in which they creatively mobilized their semiolinguistic repertoires to construct forms of expression that might not be legitimate in their English language classrooms. Meanwhile, they have shown a profound preoccupation with grammar rules and linguistic norms during their English learning process, which seemed to be affected by a traditional view of language as unitary, bounded, fixed, and standardized. It is noteworthy that Qian’s and Jing’s language and literacy learning was shaped by their intra-actions with the materialities of various bodies and things, including touch-screen devices, software, embodied expressions (e.g., language, movement, gesture, gaze, touch, facial expression), and textual modes (e.g., written text, picture, sound, music, animation, video).

Central to this multimodal-multilingual-material reconceptualization was my belief that children, languages and literacies are changing diversities and thus can never be defined. They are always becoming with one another as well as other human and nonhuman bodies. During this process full of unpredictable intra-actions, children can never have mastery over languages and literacies as, according to Barad (2007), agency is a matter of intra-acting. There are only in-the-moment happenings that generate language and “literacy desirings” (Kuby & Gutshall Rucker, 2016) always on the move and sometimes unintentional, unstructured and thus indescribable.

According to my observations during fieldwork, pedagogy-as-usual practices in my research context pressed young ELLs to take various competency assessments designed to provide a benchmark against which their learning progress, or how much

they have “mastered” linguistic skills, could be measured. As a result, these children would never be considered qualified as native speakers of English, supposedly having the most standard, the purest linguistic knowledge. Such a hierarchical logic was also applied to make boundaries between members in this group of rural Chinese ELLs. Some students were positioned as more incompetent as they fell behind their getting-good-grades peers and thus needed more remediation. As Toohey and Smythe (2021) point out, “notions of the degrees of English competence, fluency, appropriateness . . . posit hierarchies of competence among learners, with negative consequences for some of them” (p. 6).

It is true that there are not quick and easy ways for language and literacy researchers and practitioners to reverse these hierarchical discourses about relations between children and languages/literacies, between foreign language learners and native speakers, between passing-exams and failing-exams students. It seems more challenging to let go of long-standing pedagogical practices entrenching these discourses. Notwithstanding, the following questions are well worth our careful considerations: What if we give up our anthropocentric and logocentric ways of thinking about the world and specifically educational practices? What if we position ourselves as learning the becomings of the world together with children instead of teaching them to reproduce the so-called “knowledge” as representations of pre-exiting realities? What if we admit that we have no ontological privilege to define what count as language and literacy or to judge whether a learner is linguistically competent or incompetent, literate or illiterate? What if we welcome the earth “others” (technologies, animals, plants, museums, objects, viruses, etc.) surrounding us as co-learners with us in our research and classrooms? What if we move beyond cognitive learning to empower children to learn in more embodied, emplaced, and material ways? What if we focus on the processes of children’s knowing-becoming-doing languages and literacies instead of the end products of their productions? What if we expand language and “*literacy practices beyond a test score emphasis, beyond a focus on individual literate kids learning fixed skills to do fixed things with fixed texts (*Lenters & McDermott, 2019b, p. 2, emphasis in original*)*? What if…?

As this thesis winds down, I’m still on the threshold of imagining and experimenting with the new education landscape pictured in these “what if” questions. I believe imagining is the crucial first step toward making a difference in education and the

world. I invite readers, therefore, to start imagining a language and literacy education that is more sensitive to an ethico-onto-epistemic approach to mattering and becoming, in which children are intra-acting and becoming with animate and inanimate things forming their lifeworlds. In closing, I share a sentence written by John Betjeman, former British poet laureate, which I encountered recently when re-watching the movie "The Boy in the Striped Pajamas". It is: *Childhood is measured out by sounds and smells and sights, before the dark hour of reason grows.*

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