Translocating Classroom Discourse Practices during the Covid-19 Pandemic in China: A reflective Nexus Analysis Account

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A B S T R A C T

The present study is a reflective nexus analysis of classroom discourse practices that emerged during the Covid-19 pandemic crisis induced online teaching and learning. Nexus analysis is an action focused approach to discourse analysis that incorporates aspects of ethnography to examine that actions that make up the discourse in complex social behavior. Through a series of case studies, we examine how teachers adapted to teaching and their reflections on the classroom discourse practices that emerged and their reflections on how students adapted to online learning. Using the initiation-response-evaluation sequence (IRE) as a means of comparison across the case studies we discuss how teachers developed novel practices in the online world where the IRE emerged in either flipped or blended practices. Both teachers and students had adapted to this new context in becoming online teachers and online learners navigating new subject positions that reflect Gee's big 'D' Discourse. The study also illustrates how nexus analysis can be used as a reflective analysis through an examination of the discourses in place, interaction order, and historical body(ies) that were affected by the move to online teaching during the Covid-19 pandemic.

Keywords: Covid-19; classroom discourse; nexus analysis; case studies

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Introduction

Over the past the thirty years with the emergence of the information communication technology (ICT) that supports teaching and learning online, teachers have often heard of the benefits of teaching online (Warschauer, 1996, 2004). However, when the recent pandemic forced teachers across the globe to make the unprecedented move online, the initial results were not as friendly (Gacs et al., 2020). Many friends and colleagues complained on social media about teaching online, and arguably some of the teachers most affected by this were language teachers who may rely upon such methods as communicative language teaching or classroom interactional competence (Walsh, 2006, 2011) which requires students to interact with one another in the classroom. The present study contributes to the analysis of classroom discourse by focusing upon the affordances and constraints that emerged when classroom discourse moved online during the recent Covid-19 pandemic. The analysis diverges from the microanalytic analysis of classroom discourse by focusing upon a series of case studies from English language teachers in China. One of our interests here was to discern the effects of the move to online teaching upon the Initiation Response Evaluation/Feedback (IRE or IRF) sequences that are known to emerge in language classrooms (G. Hall, 2011; Mehan, 1979). While the move online created such affordances as mobility and seemingly near ubiquitous accessibility, other constraints such as which application to use and the lack ability to monitor students' behavior during live classes, created new contexts where layered simultaneity (Al Zidjaly, 2012; Blommaert, 2005) emerged as a negative presence in the classroom. The argument we make here is that while the case studies do not represent instances of microanalytical classroom discourse, they do represent discourse in what Gee has referred to as Big 'D' Discourse more reflective of social identity (Gee, 2015). Both students and teachers had to navigate not only new tools for online teaching and learning but had to go through identification practices of becoming online teachers and learners.

Literature Review: Classroom Discourse, Mediated Discourse Theory, Online Learning

To date, classroom discourse includes a vast array of methodological and theoretical approaches many of which were grounded in Hymes' ethnography of speaking (Cazden, 2001; G. Hall, 2011; Philips, 1983; Rymes, 2015; Wortham, 2005; Wortham & Perrino, 2017; Wortham & Rymes, 2003). In addition, the unit of analysis and the greater context of classroom discourse is quite vast such that our preference is to identify the object of inquiry as discourse in educational settings or contexts (Jocuns, 2012).

Different approaches to classroom interaction

As Walsh (2011) notes teachers can enhance their teaching performance and professional development by paying attention to their classroom interactions with students using aspects of conversation analysis (CA) in classroom discourse. Van Lier (1988) developed a typology of classroom interaction in the language classroom that included four types of interaction: less topic-orientation/less activity-orientation; more topic-orientation/less activity-orientation; more topic-orientation/more activity-orientation; less topic-orientation/more activity-orientation. These different orientations of language classroom interaction reflect different ways in which language teachers introduce different activities from free conversation to substitution drills. The language classroom thus reflects a broad range of language behavior that is not reflective of other types of classrooms in addition to naturally occurring conversation. One feature of classroom interaction that is often discussed is what is known as the Initiation Response Evaluation, or IRE (sometimes referred to as IRF, Feedback) where the teacher initiates a question which a student responds to and is subsequently evaluated by the teacher (Mehan, 1979, 1985, 1998). There has been a good amount written about this sequence that goes beyond the present discussion, but suffice to say that the IRE sequence is but one technology of talk (Jones, 2016) that a teacher has at their

disposal. In terms of CA the evaluation is effectively repair in this sequence. Repair in an educational setting has the potential to emerge as a face threatening act and how this is managed by teachers is important in the language teaching classroom. Seedhouse and others have examined how teachers in language classrooms utilize repair as an interactional strategy noting that teachers seemingly go to great lengths to not perform overt repair sequences that are negative (Atar & Seedhouse, 2018; J. K. Hall, 2007; Seedhouse, 1997, 2004; Terzi, 2010). In short language teachers tend to mitigate negative repair sequences which is a language strategy that extends beyond the classroom.

Participant structures

Participant structures are another important feature of discourse in educational settings. As Philips (1983) and others (Jocuns, 2009) have indicated, such structures are a part of the metalinguistic awareness of students, and can be actively used by students as learning strategies, making up the communicative competence that students acquire during classroom interaction. One of the important findings from Philips' research on the Warm Springs Reservation was that while people may be fully competent and socialized in the communicative practices of their respective community, the communicative competence that one acquires as a part of primary socialization may not equate with, and can in fact conflict with, the communicative competence necessary in educational settings. As such something to consider with regards to online teaching is how communicative competence with digital literacy works with online learning. When interaction moves online through computer mediated interaction or other forms of digital literacy, participant structures take on a different form such that perhaps a better way to consider such structures is how Jones (2005, 2010) does as attention structures where during interaction our attention is oriented to actions in terms of time and space. Before we define attention structures a quick overview of mediated discourse theory is necessary as such structures are defined within the mediated discourse framework.

Mediated Discourse Analysis and Attention Structures

Mediated discourse analysis (Scollon, 1998, 2001; S. W. Scollon & De Saint-Georges, 2012; K. Wohlwend, 2013) is an approach to discourse which shifted the focus of analysis from texts and language as domains of discourse to the actions that social actors perform during social interaction. A mediated action involves a social actor performing a social action with a mediational means or cultural tool. Mediational means or cultural tools refer to the various semiotic resources (languages, nonverbal communication, digital literacy, smart phone applications and others) that are employed during social interaction. An additional feature of mediated discourse that is integral to social action is the site of engagement which refers to the real time window of opportunity that emerges enabling a mediated action to be performed, whether online or in face-to-face interaction in the classroom. As Jones (2010) has discussed, attention structures refer to configurations of space and time that enable social actors to perform mediated actions offering a way to describe how mediated actions and social interaction emerge in online classroom interaction. One way this emerges is in the variety of mediational means which are used in online teaching. Attention structures enable students to interact during online teaching but as many teachers who have moved online can assert, students are oriented to a lot of conflicting attention structures during online teaching and learning. Blommaert has asserted that any interaction, online or off, involves various degrees of layered simultaneity referring to the various structures, temporal frameworks, scales, spatial frameworks, and chronotopes (Al Zidjaly, 2012; Blommaert, 2005, 2015) that are in play during social interaction. On the surface this may appear to be a fancy way of saying that students are doing things other than learning during online teaching such as watching movies, etc. While that is certainly true in some cases a more accurate way to think about these attention structures is the notion of polyfocality from digital literacy

where the focus of our attention in digital literacy may be layered on the one hand but also simultaneously focused on multiple actions. As Jones and Hafner (2012) have discussed, there are numerous technologies that enable digital literacy.

Nexus Analysis

Scollon and Scollon's (2004, 2007) nexus analysis nexus analysis is the methodological arm of mediated discourse theory and is a way of analyzing the variety of practices that emerged in our case studies. Nexus analysis itself has been employed as a method of analysis within a variety of educational contexts including: vocational (de Saint-Georges, 2008); informal (Jocuns, 2007); literacy (Wohlwend, 2007); children's play (Wohlwend, 2011, 2009); language learning (Kuure et al., 2018); and educational linguistics (Hult, 2016). Another reason why the Scollon and Scollon (2004) monograph is relevant here is because they are reflecting upon one of the first online remote teaching frameworks which used email and message boards during the 1980s in the American state of Alaska. Nexus analysis emphasizes that social actions reside at the intersection of three related processes: discourses in place, the historical body and the interaction order. Discourses in place refers to the myriad of discourses that are present within a given context. In the traditional classroom these could include: the different languages and registers, participation structures, and texts that students have access to. In the online class we can add technologies that students use to engage in the online learning environment including the applications used for interacting during online teaching and learning. The historical body refers to the accumulation of actions that a social actor has acquired for classroom discourse; these bodily actions include how students respond to computer-mediated learning. The interaction order, similar to participation structures, refers to the various social arrangements that are possible in the face-to-face classroom environment. What makes the online classroom environment different in terms of the interaction order is how the virtual environment enables actions which are both in real-time and virtual time.

One of the observations that the Scollons note in the first few pages of their monograph on nexus analysis is immediately relevant here:

> *A student who had interesting ideas found that he could express them to his classmates and the teacher for the first time. Conversely, of course, other students who were accustomed to holding the attention of the seminar group in face-to-face classes were somewhat sidelined. (Scollon & Scollon, 2004, p. 2)*

Recall that the monograph was reflecting on practices of discourse and technology that were a part of what they describe as the "emerging internet" and suffice it to say that the technologies that enabled digital literacy in the 1980s were not as advanced as they are now. One of themes that emerged in our case studies with regards to online classroom interaction was how some students were able to participate more in the online teaching contexts. The fact that this behavior was also noted during the teaching that occurred online during the pandemic offers a positive effect of online teaching and learning, one that was seemingly an artefact from the move from face-to-face to online teaching. That is to say, some students found a voice in the online learning environment that was absent in face-to-face classroom instruction.

Learning Online

Before we discuss the methods, it is worthwhile to note some things about online teaching and learning. We make the assumption that many teachers who were forced online did not consult the research literature that exists on this subject. Barton and Lee (2013) provide some details about how and what people learn when they learn language online. Taking a social practice view of learning, which asserts that learners take responsibility for their own learning, Barton and Lee note social practices of learning online. In the first instance they draw on the notion of legitimate peripheral participation from Lave and Wenger (1991) where learners move from the periphery to

the center of participation and online learners learn from active legitimate peripheral participation in various social practices online. In addition, online learners draw on the expertise and social practices of others who serve as mentors or guides in learning new online skills. Online learners are additionally reflexive in their online learning experiences, that is to say, they are self-reflective of their learning and in so doing learn how to learn. This behavior is related to the final social practice that Barton and Lee identify as a part of online learning among adults, which has to do with how identity plays a role in becoming an online user of a particular application. Barton and Lee (2013, pp. 160-163) additionally point out that teachers should become aware of the online practices of their students. From understanding such practices teachers are able to comprehend more fully the social practices that students use to learn autonomously online. This point of view is also emphasized in approaches to computer assisted language learning (CALL) (Warschauer, 1996, 2004) which emphasize the adaptability of ICT to language learning, including how students use ICT (Wilkinson, 2016).

Becoming Online

Taking on new identities in learning online is reminiscent of "becoming" first introduced by Howard Becker where as a part of learning to be a member of an occupation, or community of practice, one also learns the identification practices (Becker & Carper, 1956a, 1956b) of the subject position(s) that are used in becoming a member. Becker and colleagues showed how this worked in becoming: a doctor (Becker et al., 1976), a marijuana user (Becker, 2015), and others have shown how this works in becoming an engineer (Stevens et al., 2008). For the present study, this works in how it is that teachers and students can take on new identities in the move from face-to-face classroom discourse and interaction to online. The identification practices that Becker and colleagues discussed are a part of what Gee has referred to as Big Discourse. Big Discourse for Gee are the myriad of ways that social actors adopt historically relevant social identities, whereas the little 'd' refers to the discourse that is used to enact such identities discursively (Gee, 2015). One way this emerges in our case studies was noted in our discussion of Scollon and Scollon's (2004) monograph where students who had difficulty *speaking up* in the physical classroom were able to be *heard* in an online environment through email. Our cases below note similar instances but it should also be noted that in cases where students found a new *voice* (Blommaert, 2005) in the online classroom, they were in effect taking on a new identity or subject position, i.e. they were enacting a Discourse. They moved from being students who were *quiet* and/or *reserved* into the subject position of *active participant* in the online classroom.

The Covid-19 pandemic has had a global impact and it is worthy and interesting to note that the disciplines of sociolinguistics and applied linguistics have already begun to pay attention to how discourse and other interactional norms have been impacted as well. To date two blogs have emerged with prominent sociolinguists and applied linguists contributing poignant well-designed analytical discussions on a variety of topics of the pandemic (Adami et al., 2020; *Viral Discourse*, 2020). There have also been analyses on Covid-19 and globalization (Blommaert, 2020a, 2020b), how sociolinguistics can teach students to research Covid-19 communication (Rampton, 2020), and an article on how linguistic methods can offer variable insight into the pandemic (Hua Tan et al., 2020). Even more recently is a special issue of *Multilingua* devoted to multilingualism and crisis communication during the Covid-19 crisis and many of the articles are situated in China (Piller et al., 2020). The sudden outbreak of Covid-19 closed schools; teachers and students the world over suddenly found themselves teaching and learning online. In China, the "School's Out, But Class's On" approach was adopted and implemented by the government, i.e. classes were suspended but learning was not (Yao et al., 2020), providing students online learning tutoring at home. While it has been discussed as online teaching, it is more accurate to say that it is crisis prompted remote teaching, rather than a planned online pedagogical practice (Gacs et al., 2020; Hodges et al., 2020). Online teaching, usually employs the modes of "recorded video" as well as "live broadcasting"

(Yao et al., 2020). The latter mode was widely used and discussed in the case studies of classroom discourse presented here.

Research Methodology: Case Studies as Nexus Analysis

This study employed five multiple case studies (Duff, 2008) to collect the data, which are, "where the event is the primary focus and multiple perspectives are required to capture variability" (Rose et al., 2019, p.7). Case studies often employ a variety of data collection methods, here the cases were designed around questions that were asked of some of the co-authors of the study. The case study approach was chosen for the present paper because not all of the researchers were able to obtain recorded data but were able to reflect upon how online teaching emerged discursively. Recently there has been discussion regarding how case studies are both generalizable (de Saint-Georges, 2018) and dialogical (Marková et al., 2020). While we elaborate on these points in the discussion, we wish to set the stage for thinking of how our case studies are dialogical. Case studies are said to be dialogical in terms of how they are related to other human beings in a particular place and a particular time (Marková & Novaes, 2020). Because they relate to both place and time, case studies are examples of Bakhtin's notion of chronotope (Bakhtin, 1981; Blommaert, 2015) and it is fitting to consider how these case studies reflect not only a similar timescale (the Covid-19 pandemic) but a similar place (China) as well as dialogical interactions between teachers and learners and the researchers as well.

The researchers in this study made their case studies based on perspectives from four different universities and one middle school teacher from Yunnan province all in China. In all of the cases presented here teachers held online classes during the COVID-19 lockdown period in China. The main objectives of this study were: first, to investigate the classroom discourse changes between face-to-face teaching and online teaching; and second, to learn more detailed information about the classroom discourse of online teaching, such as the applications and technology used in the online teaching process. The cases were developed from five questions. (1) What changed in terms of classroom discourse from face-to-face to online teaching? (2) What applications and technology were used in the move? (3) Were there any new ways of speaking that emerged? (4) What were the affordances and constraints involved with moving online? (5) Lastly, how did the IRE emerge differently?

The above research questions were designed by the researchers in advance from which to report upon their respective case studies. In addition, as mediated discourse is the theoretical perspective that grounds this research the questions were designed with elements of social action discussed in literature review section: discourses in place, the historical body and the interaction order. The participants, who are co-authors of this paper then authored a first-person case study of online classroom discourse. One of the case studies was reporting on open-ended questions asked of two teachers in Yunnan province. Five researchers then wrote up their individual cases based on the questions designed above. The data collected by five researchers were then analyzed using content analysis focusing upon themes that emerged in the cases.

As the methodological component of mediated discourse, nexus analysis involves three main actions: engaging the nexus of practice, navigating the nexus of practice, and changing the nexus of practice. Engaging the nexus involves research practitioners being active participants in their research and being a part of the social actions that emerge in the research context. As teachers reflecting upon teaching practices, they were engaging the social actions of online teaching. Navigating the nexus involves mapping the different cycles of discourse, a task which because of the timescale we used to develop this analysis is not thoroughly captured in the case studies presented here. Lastly in changing the nexus the rese

archer is able to use the data collected on social actions to change the practices that have taken place. While the case studies may not reflect a wholescale change of practices, they do reflect adaptations which had to occur in order for online teaching to emerge smoothly.

Our Cases

In what follows we present the five case studies that describe the differences in how classroom discourse changed from the move to an online format. Each case emerges differently representing a different voice of each teacher.

Case A

This case study is based on two interviews and discusses the differences between face-to-face and online teaching interactions during the Covid-19 crisis. The two interviewees are from Yuxi City, Yunnan Province and were chosen because of their different contexts for learning and teaching. One is a normal university English teacher (T1) and the other is an English teacher from a Yuxi City middle school (T2).

University English teacher interview

The name of the course is "Middle School English Teaching Design." The online course started at the end of February and lasted until the end of June. Two applications were employed, *Tencent Meeting* and *Superstar*. *Tencent Meeting* was mainly used sharing PowerPoint slides with students. *Superstar* was used as a teaching aid. Teachers mainly used it to upload supplementary materials, check student attendance, assign and correct homework, and calculate students' course points. During face-to-face teaching, the most common mode that the teacher uses is something like the IRE. The students also conduct peer or group discussions, and finally present the results of the discussion, and the teacher then gives oral feedback. The difference is that in online teaching, after being asked a question, students can only think individually and then answer. In addition to giving verbal feedback, the teacher also awards points on *Superstar*, which will eventually be counted into the students' final score.

The affordances of this online teaching are obvious. Students can obtain more supplementary materials and read them after class. The final exam was a teaching plan design. Compared with the previous semesters, students this time turned-in higher quality work for this task and the format was more standard. This difference is because students had more time for the task and they had access to more supplementary materials (e.g. teaching plan template and other teachers' online courses). Of course, some shortcomings are also inevitable. For example, the overall amount of interaction between teachers and students as well as between students and their peers had dropped sharply. Online courses have extremely high requirements for students' self-discipline, and some students had passive attitude towards attending classes. Without actual interaction, eye contact or information of students' body language, it is tough for teachers to keep abreast of students' learning situations, as a result teacher's comprehension of student learning affect was greatly hindered. T1 mentioned that the effects of teaching this online course was average.

Middle school English teacher interview

This is an English class for middle school third-grade students. The online course lasted for more than a month, from February to the end of March. The *DingTalk* software was mainly used during class, which has both a mobile app and computer terminal app, and the information of both forms of ICT are updated simultaneously. Mobile *DingTalk* focused on phonetic teaching, like

reading words and explaining texts. At the same time, the teacher often prepared a piece of white paper and used the phone's camera to write teaching content on the white paper, which is equivalent to the function of a blackboard. In addition, the teacher used *DingTalk* computer desktop to share PPT, play videos, songs and pictures. It is worth noting that teachers can import the prepared questions and exercises into the computer, and students can participate and answer the questions interactively. Teachers could also use *DingTalk* for attendance checking, assignment and homework correction, statistical analysis of students' homework scores, and class meetings.

When T2 asked a question all the students were in "silent mode" and they answered questions by typing. This was because she was worried if all students' microphones were turned on at the same time it would be very noisy. A practice which was totally different from the classroom teaching. During the online class, 100% of homework assignments and corrections were done in the software. T2 noted three advantages in online teaching. The first is that during the epidemic period, teaching can be guaranteed, students can continue to attend classes online, and homework can be corrected and explained timely. Secondly, students' parents can join class online groups and listen to classes with students, where parents can not only observe their children's learning conditions, but also increase their empathy for teachers. Third, the *DingTalk* system has a playback mode by default. Some students cannot attend classes normally due to personal or network problems, and they can learn by themselves after class remotely.

There were some notable disadvantages. One disadvantage included that because students had to type to answer questions (either on applications, email or message board), the interaction between teachers and students was extremely poor. In addition, there was basically no interaction between students. Secondly, due to the lack of communication and interaction, teachers could not grasp the level of students' knowledge, nor could they promptly supervise and manage students with poor autonomous learning skills. Third, some homework required students to take photos and then upload it. When students submitted homework, they could see the homework of other students, which could easily result in issues of academic integrity. Finally, students were easily distracted when using ICT for a long time. T2 said that online teaching during the epidemic had little impact on the usual top students, but it had a greater impact on some students with poor self-discipline. Some teachers had to teach some content again after the students returned .to school.

Case B

Facing the arrival of online classes, students had to adjust their work and rest time to better participate in online classes. At the beginning, students were not very comfortable with online teaching, and were not able to get up. Gradually, students found that online classes make their lives more fulfilling and they can learn a lot that they do not understand. They can watch videos repeatedly and check information online anytime, anywhere, discuss with classmates on social media software, contact teachers when encountering problems. This undoubtedly provides great convenience for students' learning.

Most of my students have relatively strong self-learning-ability and are familiar with the use of the Internet. If they encounter some unexpected minor faults, they can solve them by themselves. However, some of their classmates are in remote rural areas, where computers are not widely available, and internet access is slow, making it impossible to complete online lectures.

On campus the supervision of teachers can play a certain role in making sure that students can participate in actively. At home, through online classes, parents can supervise students' learning, which will make some students distracted from learning easily in the face of parents who are usually focused on themselves. It is difficult to complete learning tasks, which is quite different from school. Students' class and study are all done in the school. Out of school, communication

between students is not convenient and smooth, which results in the teacher's poor grasp of students' comprehension making it difficult to guide learning. For many years, parents have been worried about students' internet addiction. Now, with the special opportunities given these times, students can use learning online as an excuse to engage in other activities besides learning online. If you sit in front of the computer for a long time, it will have a great impact on your eyes and your body.

In the actual teaching, through the software I can monitor the students' behavior before class, and randomly ask questions in class. After teaching a knowledge point in class, you can ask questions through the teaching software and have them answered within a fixed time. For the questions that most students answer incorrectly, the knowledge points are retaught until the students answer correctly. This practice tests the effectiveness of the instruction and also prevents ambiguity. Online teaching time is precious. After learning about the students' pre-study, targeted lectures can be given and summative teaching can be achieved.

I try to stimulate students' ability to think independently in the classroom, such as answering questions, and increase students' interest in the class. Students think this is better than just teaching in class. It is essential to maintain classroom order in traditional teaching, but online teaching students are silent in the classroom turning off their microphones and devoting themselves to the classroom. However, no matter how good online teaching is, I cannot know whether the students are really listening to the class or whether they are doing nothing. It is a cold computer screen or mobile phone screen, which hinders my control of the classroom. In traditional teaching, the teaching method and progress can be adjusted according to the student's mental state, but now I can only rely on teaching experience. And some students use mobile phones to go online, using their computer to play games, this kind of behavior cannot be determined only with the background supervision of learning software. Face-to-face teaching is not the best way to teach, but it is the most effective for most students who do not have self-discipline.

Case C

The course I taught was *International Chinese Culture Teaching:* a bilingual English and Chinese class taught to Chinese students. This semester, when we received the notice of changing our teaching from face-to-face to online courses we were all very confused and did not know how to proceed. The first thing I thought about was how to solve the problem of interaction with students. The second was that online teaching has poor control over students. The face-to-face courses included a lot of discussion, pedagogical practices, questionnaires and other interactive activities, in the online environment many of these pedagogical practices could not be achieved. So, choosing software became a top priority. Although the basic functions were basically the same, the functions of different software can be vastly different. In order to ensure the interaction of students, we have tried many different software and applications including *Tencent* and *Dingding* and so on. Different courses have different requirements for software. For example, some courses such as foreign language teaching, require students to speak and communicate, especially beginners. Some courses need pedagogical practice.

My preferred choice of software is *Dingding*, because *Dingding* can not only broadcast live but can also allow the students to leave messages during the live broadcast. The teacher can also have a dialogue with students, but only one-on-one dialogue can be conducted. At the same time, *Dingding* also has a video conference function. My class included 50-60 people, and the effect of online video is good. I divided the whole class into several groups. In the video conference, each group can do presentations and discussion. The students in other groups can comment on it, which can achieve the same interactive effect with classroom teaching. In addition, in order to

improve students' interaction and control, I will communicate with students throughout the class, carry out questionnaires and classroom quizzes. After class, I will share the learning materials in the group, carry out student attendance, submit homework and other activities. Through a semester of online teaching, I found that online courses and offline courses are very different.

First of all, due to the large number of students in my class, students cannot have their camera turned on all the time, so we lose control of the students in the classroom. Some students may be sleeping, watching TV, playing games and so on, the teacher has no way to know. Teachers can't communicate with students by using paralanguage such as with eyes or bodies, therefore, the language requirements of online teaching are higher. Although facing a cold machine, sometimes it is necessary to show affinity appropriately. It is necessary to assume that my students are looking at me under the platform, communicate in interactive language, and give students some time to think. At the same time, students' interaction can be improved by checking in, issuing questionnaires or class quizzes from time to time.

The online learning environment stimulates the interest of some students who are usually introverted and don't like talking, and improves their participation. In the face-to-face classroom, many students are afraid to speak because they have to speak in front of many people. But in the online classroom, the form of leaving messages makes up for this problem. We can't see each other's faces, so this kind of shyness and fear is also reduced. Many students communicate with each other on the message board, and sometimes even the students themselves start to discuss a problem on the message board. In order to improve students' English ability, I make the students discuss in English and express their own ideas. In classroom teaching, many students are not good at English and dare not express themselves. But in online teaching, students can translate the words they want to express through translation software, and then leave messages on the message board. This can assist students' English ability.

The major I teach is *teaching Chinese as second language*, and a large part of students' future work is to be teachers. There are many differences between online courses and offline courses, so teachers are required to have the skills of teaching online courses. This semester, I supplemented the knowledge of online teaching skills in online class. I taught my students the use of online second language teaching software, the layout of teaching environment, the cultivation of lens sense, the use of paralanguage, how to mobilize students' enthusiasm online, how to carry out the practice of online culture course, and the cultivation of the most basic psychological quality. So, the students can carry out online teaching practice, which was previously impossible in face-to-face courses.

Online courses are flexible to some extent in foreign language teaching. My course is to teach Chinese students how to teach Chinese culture to foreign students. Most of the time, it involves related vocabulary of Chinese culture, especially nouns. Many foreign students don't know what these are even after hearing them. There are many times when it is difficult to express or make students understand the vocabulary of Chinese culture, because many foreign students have not seen these things or understood the process or details with their own eyes. Because of the inconvenience in class, they can only use pictures. But online courses, because they are taught from home, many physical objects can be directly displayed to students. For example, I showed the students how to make boiled dumplings and how to eat them in class. In this process, students learned a lot of nouns, such as chopsticks, bowls, plates, and also learned many verbs, such as making dumplings, pinch, pick up. Therefore, this was a very positive aspect of foreign language teaching, which increased students' interest and improved their interaction.

Case D

I had to transfer face-to-face teaching to online teaching. I chose the live broadcast platform *DingTalk* to interact with my students online. When teaching moves from face-to-face to online, I didn't simply just copy the traditional face-to-face teaching or transfer the teaching contents and methods into online. I found that I should do something different to meet the teaching objectives. In my class, I found that due to the lack of heteronomy, non-verbal means of communication, and a sense of classroom ceremony, my students' learning became an active and conscious behavior. Meanwhile, due to the lack of on call support of teaching interaction in the learning process, learning in my class was more dependent on individual learning methods and abilities. In my class, I think that online education is much more likely to be an active and creative learning method instructed by teachers. Firstly, I believe that online education is an integral part of education, which requires interactions between me and my students. Furthermore, my online teaching relies on my guidance and I need to provide more scaffolding instructions to achieve the teaching goals. Finally, my online teaching focuses on students and highlights the importance of independent learning.

I think that online education is a process of interactions between teachers and students. My online teaching provides more opportunities for those students who are afraid to answer questions in the face-to-face classroom to communicate. We can interact with each other through texts, voice or pictures, which greatly improves students' enthusiasm for learning. My live broadcast platform can record and mark the process of interactions, like student presentations, group discussions, and mutual evaluation encouraging them to join in the interactions. However, there are still some challenges in the interaction environment, from face-to-face interaction to "face-screen-face" interaction. When our interactions move to online, we have to sit in front of "cold" screens, which lack proxemics or "warm" interactions. For example, it is difficult for me to interact with students through gaze or gestures because of the screen. I felt that online teaching had a negative effect on the efficiency of interactions.

Like face-to-face education, my online teaching also needs scaffolding instructions. I think that online education makes it possible to provide more resources to my students, such as movies, music, pictures, or related websites. These resources may enlarge the range and depth of student knowledge. The resources are available for students any time anywhere so they can take full advantage of their time. At the same time, I could guide students to better use the resources. However, without face-to-face instructions, sometimes I was unable to give feedback immediately. When I assigned homework online and required the students to hand in online, some students may make a perfunctory effort or copy other students' answers. Such useless feedback may mislead my scaffolding.

The online teaching platform that I used provided both live and recorded broadcast. And enabled playback of the live broadcast. This function gives my students the opportunity to review any part of the class in case they have some difficulties of understanding or try to consolidate the language points. This kind of learning method highly deepened students learning motivations and self-discipline. However, some of my students got distracted during the online class. They may leave the classroom, or do something else like playing computer games, listening to music, reading novels, watching TV, eating snacks, or charting online. Therefore, I focused on stimulating students' learning motivation and tried to make them want to learn more.

Case E

From offline to online it's hard to scrutinize what students are doing at the other end of the screen even through the video camera. Sometimes they can always find "reasonable" excuses for absence or delay, such as low loading, poor network connection and mechanical defects. The students I teach are low-proficiency university students with poor motivation, English majors' who will be prospective teachers in primary or middle schools after graduation. Because I am a doctoral student my working university combined my two classes into one and the class size went from 28 to 56.

The low proficiency students who make up the majority of my students are not accustomed to online interaction in the form of the traditional IRF because of their deficiencies of linguistic and metalinguistic knowledge. This is the first time I have taught and I was required to balance the language learning and pedagogical function. Emotional scaffolding was prioritized over epistemological scaffolds in this special period. To navigate this, I made a decision to chunk the big long-term goal of the curriculum into more short-term goals within students' respective ZPD's. Simultaneously, the typical IRF exchange in classroom interaction had to be fine-tuned because the offline classroom switched into the online chatroom, or the meeting room, and the teaching time was compressed from 90 minutes to 60 minutes. When the original timescales and places (learning time and space), the students' historical bodies (learning goal and life experience), and the interaction orders changed (students in a bigger class size learning collectively online), a new form of IRF can emerge.

Considering all of the above factors, I designed the IRF into I(offline)-R(offline)-I(offline)-R(offline)-I(offline)-R(offline)… F(online). The IR part is moved from online to offline in the form of a series of emails. The main reason for this was to save time in class making the 60 minutes of simultaneous online teaching more efficient. I provided my students with guided reading, summarizing and paraphrasing the text material to enrich their academic content. After at least three rounds of email exchange, their revised presentations were shown in class online. The final feedback from the teacher was given during their carefully prepared presentations. Because I am instructing low-efficiency university students with poor motivation, I faced more difficulties online than offline.

First, like scanning a QR code, it seems that I can get a quicker response from a face to face interaction with students than a message exchange through *Wechat* or *Dingding*. Sometimes student response from social media was out of my control. For instance, one day, an underachieving student was absent for our mock final exam online. I had to contact almost everyone who may know where he was to attend the important event.

Second, I feel more pressure. On the one hand, I have more commitment and time to prepare an online student-centered class due to the fact that the vast majority of my target students have low autonomous learning awareness. On the other hand, I realize that these future teachers' professional growth will occur in a technologically-rich world. I have to keep up with ICT. In a very short period, I have learned at least six apps that can be used in an online teaching medium. They are used for various purposes, such as *Zhihuishu* for lectures, *Dingding* as a Plan B for the same lectures, *Ketangpai* for the final exam, *Tencent* and *Zoom* for class meetings, *Wechat* for consultation in terms of academic content.

Third, the absence of some offline routines in school, such as morning reading time and evening self-study time, seems to make more students lackadaisical in their school work. Without the offline presence from peers, they are easy to get lost due to their lack of self-discipline.

I benefited from the quick assessment and evaluation digitalization brings to me as a teacher. Online tests accelerate information gathering and synthesizing, making judgments and playing a value to students' daily performance. All the teaching documents, students' work and teaching videos are recorded and can be retrieved at any time for teaching and learning reflection.

Discussion

To situate our findings first within the method of case studies it is worthy to reflect upon some recent work on case studies which note their generalizability (de Saint-Georges, 2018) on the one hand and their dialogicality (Cornish, 2020; Marková et al., 2020) on the other. De Saint-Georges (2018) uses genre analysis to reflect upon how case studies are generalizable noting five moves: using concepts, building a model, vivid examples, formulate generalizing questions, and create models for actions. In using concepts, we discussed the IRE, the nexus analysis framework, and the notion of becoming. Our model incorporates nexus analysis as a reflective tool that enables us to perceive the Big 'D' Discourse that the case studies reflect. Each of our cases reflected upon specific experiences of teaching online during the pandemic while also being reflective of the experience of learners. The five questions that we raised in the discussion section enable generalizing through considering: the IRE, technology, affordances/constraints, ways of speaking, and general situational changes from the move online. Our model for action was to pose questions of teachers which could be developed into cases and generalize from themes that emerge from those cases.

Earlier we noted how our cases represent dialogical relations between them. This dialogicality emerges in part through Bakhtin's notion of chronotope (Bakhtin, 1981), the spatial and temporal relations that emerge in the novel. Recently Marková and Novaes (2020, p. 134) have discussed how case studies are chronotopes which involve as they describe, "chronotopic thinking" which involves orientating the research towards, and within, the network of dialogical relationships among the studies, what they refer to as "epistemic genres." Our cases emerge dialogically in terms of how it is they are referring to a similar timescale (the move to online teaching during the Covid-19 pandemic) and within a similar spatial scale (all of teacher's case studies were reported on online teaching practices in China). Notably the similarities spatially include how teachers in China were constrained by the variety of apps that they could use.

Figure 1 provides a summary of the cases. For example: the role of different apps performing different functions; students' autonomous learning ability; lack of teacher's panoptic power; ICT enabled some students who do not participate more chances to do so; the lack of nonverbal communication as an effective communication strategy in classroom discourse; the IRE framework emerged differently; students could use different mediational means to participate in class; a noticeable drop interaction among students; and that it was hard to perceive what the students are doing during live broadcast. In the next section we discuss how the cases answered the five questions discussed in the methodology section.

Case study A T1 – a noticeable drop in interaction during class. Use of apps made the class run smoothly. Student's performance was better than in previously classes. Non-verbal communication was absent from online interactions. Apps: Superstar & Tencent meeting

Case study A T2 – students used a different mode in responding to the R in the IRE sequence. No interaction between students, because of lack of communication teachers had difficulty tracking student's comprehension. Teachers were not able to manage students with poor discipline. Also, the noise. Not able to use nonverbal communication. Apps: DingTalk

CASE B – students were slow to get started but gradually realized that the online environment has a lot of advantages. Most students are savvy with ICT and are self-sufficient with these technologies. However, some students had accessibility issues. The role of parents' presence even among university students is a distraction. Hard to perceive if the student's comprehension is up to par because the students do not interact as much among themselves during class. The effects of being in front of the computer for a long time. Suggestion that the software allows for blended learning and flipped classroom. Lack of knowledge as to what students are really doing. Apps: Dingding

CASE C – not really sure what the students are up to. Lack of interaction among students in class. Hard to control students in class. Lose control over the students. not able to use nonverbal communication as a form of control in classroom discourse. Conducting activities that force students to interact. Some students are more prepared to interact online and have their voices heard whereas in class they find it difficult. Students use the message board to interact. Use of things in the home to teach, making dumplings. Apps: Dingding & Tencent

CASE D – students were required to learn more individually, autonomous learning and "becoming" and on-line student. Students who were not able to speak in class found a voice. Face-to-face transforms to face-screen-face. Lack of non-verbal communication in on-line discourse. Students may not be as attentive in the online environment. Apps: DingTalk

CASE E – hard to determine what students are doing, bigger class was more efficient. Students had difficulty adapting to the IRF sequence during online teaching interaction. Emotional scaffolding was prioritized over epistemological. Because of time, space and other factors the IRF sequence was altered. The use of different apps for different functions. Online teaching was a challenge for low performing students with little autonomous learning ability. Apps: Dingding, Ketangpai, Tencent, WeChat, Zhihuishu, and Zoom

Figure 1. summary of the cases

1) What changed in terms of classroom discourse from face-to-face to online teaching? The big change that nearly all of the case studies discussed above noted was that communication within the online environment was more between teacher and student, the move online had a negative impact on interaction between students. Teachers also had difficulty discerning student uptake of lessons. Also, teachers had to adapt their scaffolding practices to ICT.

2) What applications and technology were used in the move? The teachers mentioned using a number of applications in their move to online teaching in China. Because of China's restrictions on internet usage the teachers discussed here primarily used Chinese applications including: *Dingding* (*Dingtalk*), *Ketangpai*, *Superstar*, *Tencent Meeting*, *WeChat*, *Zhihuishu*, and also *Zoom*. Zoom is arguably one of the more popular applications to use for online teaching. Kohnke and Moorhouse (2020) have discussed how Zoom has a number of tools that facilitate communicative language teaching online. However, we note how teachers regardless of the application noted how online teaching had negative effects on communicative interaction between students, and as a result negative impacts on classroom interactive competence (Walsh, 2006, 2011). For example, the lack of interaction between students would make it difficult for them acquire interactional competence in using and noticing turn construction units (TCUs) or transition relevance places (TRPs) (Girgin & Brandt, 2020). Other cases noted that students used different technology to take part in classroom discourse, raising questions on message boards, different apps, and different forms ICT.

(3) Were there any new ways of speaking that emerged? The teachers in our case studies noted that some students were able to find a "voice" in the online learning environment that they otherwise could not in normal classroom interaction. This finding was similar to what Scollon and Scollon (2004) noted with regards to their reflection upon their remote teaching experiences with the emerging internet in Alaska in the 1980s. Another feature of classroom discourse that most of the cases discussed was how the use of nonverbal communication was absent during online interaction. The lack of proxemics made classroom space seem "cold" and teachers often lacked the ability to panoptically monitor the student's behavior as they would normally be able to do in the physical classroom. Language teaching methods textbooks often contain a section or chapter on how the classroom space can be arranged for different types of methods and/or classroom activities (Harmer, 2007; Richards, 2015; Scrivener, 2011). During the move online these classroom arrangements were dictated by the application(s) used by the teachers.

(4) What were the affordances and constraints involved with moving online. The major of affordance of teaching online was its accessibility and mobility anywhere. One of the authors recently observed an English teacher teaching online while in a van on the way to obtain a new visa in Thailand. A few cases noted how the applications made the class administrative tasks more efficient. One notable constraint was in how teachers were not always able to observe what students were doing during simultaneous teaching, e.g. engaged in the learning experience or watching a movie. Another constraint is accessibility, while internet technology is available not all students in every country have the same access. China's single gateway can slow the internet exorbitantly, in short some of the cases noted how the internet was not stable.

(5) How did the IRE emerge differently? While as Walsh (2011) notes the IRE is but one form of classroom discourse, it has been noted as a unique feature of classroom discourse and was used as a means of comparison across the case studies presented here. In terms of classroom discourse interaction, the IRE sequence emerged differently, some teachers revised it to make part of it online and offline as noted in Case Study E where the IRE emerged as a series of initiations and responses offline through email or chat exchanges, and the evaluation part of the sequence emerged during online simultaneous teaching. This use of the IRE sequence is unique in that the chronotope (time and place relations of the text) emerged along a different timescale and different places, both virtual and simultaneous online teaching.

We also wish to discuss how students and teachers were involved in the practice of "becoming" where they had to take on new identities, new classroom discourse practices in this new context. In effect acquiring the Big 'D' Discourse of online teaching and learning. Students had to become online students, which as we noted in both navigating and changing the nexus, involved students drawing on and learning to be autonomous learners, or adapt to autonomous learning practices. For teachers they had to become online teachers who had to learn how to use applications, adapt teaching practices and course materials to flipped or blended learning pedagogies, and adapt their classroom discourse. In short in becoming online learners and teacher's new classroom discourse practices emerged in the form of using applications and other technological practices. These technological practices then emerged as pedagogical innovations.

Lastly, we return to our discussion of nexus analysis as a reflective practice. Social action occurs at the intersection and interaction of three factors: the historical body, the interaction order and discourses in place. In terms of the historical body we have to consider how the historical body of teachers in our case studies was affected by the move to teaching online. Here we note how teachers had to acquire a series of new practices of using applications and a variety of ICT in order to be involved in the social of action of teaching online. Another element of this historical body was how teachers were constrained by not being able to closely monitor students' behavior in the classroom. The panoptic gaze of the teacher could be thwarted by students who turned off

their cameras or were possibly doing other things. This is equally related to the interaction order as the normal arrangements of the classroom which can entail readily known participation structures were absent in teaching online. Rather these emerged much more in the manner of Jones' (2005) attention structures as both teachers and students in the online teaching and learning environment attend to polyfocal behaviors. This polyfocality was evident in how the IRE sequence emerged across ICT and across space and time. This suggests not only a level of distributed cognition (Brown et al., 1993; Hutchins, 1995) but also distributed agency (Enfield, 2017) where both students and teachers had to learn how to learn to become online teachers and learners. The social action of teaching and learning online also involves a variety of discourses in place which intersect and interact with different forms ICT and software applications. Different ICT affords and constrains different types of discourse. For some students learning in the online world enabled them to have a voice. For some teachers they had to adapt to new ways of using forms of classroom discourse.

While we are comfortable with how we analyzed the case studies this research is not without its limitations. A study of classroom discourse without the microanalysis of interaction of video or audio transcripts is limited in the contribution it can make to classroom discourse at a microanalytical level. We do believe that the case studies accurately handled how the IRE emerged online across the cases comparatively but we acknowledge that specific microanalytic examples of how these digital literacy practices emerged in the online and offline worlds would have made for a stronger argument. Another limitation has to do with the chronotope that emerged across these cases, specifically that the cases are related to China during the crisis induced online teaching that emerged during the Covid-19 pandemic. Other chronotopes and Discourses would emerge from other places in the world where teaching was forced online. In terms of generalizability our discussion here is generalizable across studies that employ nexus analysis as a reflective analytic method.

Conclusion

Although these crisis-prompted remote teaching experiences are not comparable to carefully designed online courses, the Covid-19 pandemic so far has been the largest online teaching practice in human history providing a great opportunity to explore some issues about distance education including our interest in classroom Discourse with a Big 'D'. Online teaching in different learning stages has its affordances, and critical reflection is worth considering through the case studies discussed here. Lowered expectations on teaching and learning quality should be taken into consideration, especially in regards to technology, accessibility, testing security, copyright, sophistication and learning outcomes (Gacs et al., 2020). Our contribution here to classroom discourse reflects how both students and teachers reacted to a new context and in effect altered their classroom discourse to that situation. Hence becoming online teachers and learners was evident in the cases which noted that there was an adjustment period to the online learning environment. Teachers and learners had to acquire practices that make up the nexus of teaching and learning in this crisis: new interaction orders emerged (an IRE distributed across ICT, time and space); new discourses in place were acquired where some students found a voice in online learning; and historical bodies were altered in the move to online teaching.

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