



Understanding Changes in EFL Teachers' Feedback Practice During COVID-19: Implications for Teacher Feedback Literacy at a Time of Crisis

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Abstract The unexpected COVID-19 pandemic posed significant challenges to teachers' feedback-giving practice. This study reports on an inquiry into 16 Chinese EFL teachers' feedback changes during the pandemic, with a focus on whether and how the teachers changed their feedback practice when a range of digital assessment tools and online instructional technologies were introduced to them. Data were gathered through semi-structured interviews and artifacts, including the course materials and screen recordings of teaching in online virtual classrooms. A qualitative and interpretive analysis reveals three patterns of changes in the teachers' feedback-giving practice. The first pattern was positive changes in the teachers' feedback-giving motivation, design, and awareness of the relational nature of teacher feedback, and the second pattern was reduction in formative feedback activities, difficulties in securing student response, and increased physical and emotional feedback workload. The third pattern was unchanged, underpinned by a conception of feedback as information transmission. A range of factors influencing such changes, including student readiness to uptake feedback, were also revealed. The findings highlight the importance of teacher feedback literacy in mediating the changes and call for attention to how constructive feedback-giving practices can be better supported.

Keywords Teacher feedback · Teacher assessment · Feedback literacy · COVID-19 · Digital assessment

Highlights

- This study examined EFL teachers' feedback changes during the COVID-19 pandemic.
- This study reveals three patterns of changes in the teachers' feedback-giving practice.
- The first pattern was positive changes in the teachers' feedback-giving motivation.
- The second pattern was a reduction in formative feedback activities.
- The third pattern was underpinned by a conception of feedback as information transmission.

Introduction

Feedback has long been documented as an important but challenging issue for teachers across global contexts and disciplines, including but are not limited to L2 education (Evans, 2013; Lee, 2017; Winstone & Carless, 2019). It seems to become even more challenging for teachers to give feedback during the COVID-19 pandemic due to school closure and the accompanying massive shift to online education, which means a novel feedback environment for most teachers. Given the "new normal" presented by COVID-19, it is timely and of significance to explore whether, how, and why teachers may change their feedback practice and the pertaining factors that may shape such change if any. Research along this line of inquiry, however, remains limited, partly due to the recency of COVID-19.

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Although there are no lack of studies (e.g., Jiang et al., 2020) on how teachers may change their feedback practice in response to using certain feedback technologies (e.g., automated writing evaluation program), these studies may not reflect the feedback-giving experiences of teachers during the pandemic, a time when teachers are usually confronted with multiple digital assessment tools and online feedback technologies. A comprehensive analysis of teachers' feedback practices in relation to teacher feedback literacy during the pandemic, without confining to some particular feedback tool, is thus warranted.

This study reports on one of the first research endeavors to investigate a cohort of teachers' feedback changes, if any, during the COVID-19 pandemic, with a purpose to understand what feedback literacy may be required of teachers at a time of difficulties. To minimize the potential impact of differences in disciplines and digital access and to yield an in-depth understanding in contexts, we focused on the feedback-giving experiences of 16 teachers of English as a foreign language in one technology-rich university in southeastern China. Informed by Carless and Winstone's (2020) tripartite framework for teacher assessment literacy, we also discussed how teachers can better plan and organize their feedback practice with a range of digital tools and feedback technologies for more effective feedback uptake during a time of social distancing. Specifically, the study was guided by the following research questions: (1) How did a cohort of English teachers change their feedback practice during COVID-19? (2) What factors may influence such change or lack of change? An exploration into these questions would not only increase our understandings on teacher feedback literacy at a time of crisis but also contribute to how teacher feedback can be administered and constructed in a way that is more conducive to student learning.

Changes in Teachers' Feedback Practice

Previous research on teacher feedback has mainly examined its effectiveness upon student learning (e.g., Guo & Wei, 2019; Lee, 2017), teacher identity (Donaghue, 2020), teacher beliefs and practices (Goldstein, 2006; Lee, 2008; Mao & Crosthwaite, 2019; Vattøy, 2020), or compared it with other forms of feedback (e.g., automated feedback) (e.g., Zhang & Hyland, 2018), with rather limited research on teachers' feedback changes. There are only a few studies indicating how changes in teacher feedback can be conceptualized. For instance, Wilson and Czik (2016) suggested that teachers may manifest changes in the amount, type, and level of teacher feedback when they started to incorporate automated feedback into their classroom practice. Feedback amount reflects feedback workload and feedback type refers to different manners

through which feedback is presented, such as directive, query, informative, and praise (Link et al., 2020). Feedback level refers to specific language skills and it can be characterized as a dichotomy of lower-level and higher-level subskills (or surface-level and content-level skills) (Link et al., 2020). Wilson and Czik (2016) observed that with the use of technology, teachers can be freed up to concentrate on higher-level of writing skills (i.e., content, idea, organization, style).

Changes in feedback amount, type, and level, however, do not necessarily lead to more productive student learning (Lee, 2014, 2021). In their sociocultural inquiry, Jiang et al., (2020) observed that for teacher feedback to mediate student learning, there should also be changes in the intentionality (be intentional and focused), reciprocity (teacher-student interaction), transcendence (transfer learning from one feedback situation to another), and meaning (meaningful learning experience) dimensions of teacher feedback. While the use of technologies and feedback tools (e.g., automated evaluation program) can facilitate these four dimensions of change, the extent to which these changes would occur and sustain is subject to the mediation of individual teacher beliefs about feedback and students' needs, teacher willingness to offer scaffolding, and contextual factors (e.g., big class size) (Jiang et al., 2020; Lee, 2021; Yan et al., 2021).

In terms of teacher beliefs about feedback, previous research suggests that traditionally, feedback has been conceived as information transmission in cognitive terms, with limited impact on students' feedback uptake (Jiang et al., 2019; Lee, 2017). In recent years, there is a growing scholarly call to view feedback as dialogic communication between teachers and students (Ajjawi & Boud, 2018; Carless, 2020; Carless & Boud, 2018; Winstone & Carless, 2019). Yet it remains unclear whether such calls have been taken up by teachers and to what extent teachers may change their feedback practice accordingly.

Teacher Feedback Literacy: A Tripartite Framework

To further explicate the role of teachers in rendering feedback changes and constructing a feedback environment conducive to student learning, this study further draws on the construct of teacher feedback literacy (Carless & Winstone, 2020) as one theoretical lens. By definition, teacher feedback literacy refers to "the knowledge, expertise and dispositions to design feedback processes in ways that enable student uptake of feedback" (Carless & Winstone, 2020, p. 4). In essence, knowledge refers to knowledge of feedback principles and practice, and expertise includes pedagogic skills to design and implement feedback processes. Disposition refers to the

willingness to overcome any challenges in relation to constructing productive feedback processes for students.

To account for the use of technology in contemporary teacher feedback practice, Carless and Winstone (2020) proposed that a contemporary feedback-literate teacher would design assessment environments in ways that promote feedback engagement/uptake, attend sensitively to the relational and emotional aspects of feedback with students, and make pragmatic choices in handling the practical difficulties of giving feedback. This tripartite framework highlights the role of design in using various technologies for “generating, storing, accessing, and using feedback from various sources for the purposes of ongoing improvement” (Carless & Winstone, 2020, p. 8). It also foregrounds the emotional nature of feedback-giving process, an aspect that has received little research attention over the past decades (Yu, 2021; Lee, 2021). The widespread involvement of multiple technologies and feedback tools during the COVID-19 pandemic has rendered a unique opportunity to explore whether and how the design, relational, and pragmatic dimensions of teacher feedback literacy may have any role to play in explaining teachers' feedback changes at a time of change and digital advancements.

The Study

The study stems from a larger research project on teachers' use of technology in their feedback activities in the Chinese higher education context. The outbreak of COVID-19 and the subsequent “stopping class without stopping learning” policy initiated by the Ministry of Education of China rendered a unique opportunity for the present study to be conducted because a number of online learning platforms and assessment tools had been introduced to teachers by universities and governments across the country. The curricular context for the study was a course called *College English* (CE), which is a compulsory credit-bearing course for every university student of non-English majors, with a purpose to develop students' competence to use English for both general and academic purposes. While focusing on English education in one course may limit the generalization of the findings across disciplines, this is the course with constant top-to-down curricular efforts for technology integration and a wider range of online teaching platforms and feedback tools (e.g., automated writing evaluation tool) has been adopted for pedagogic reforms. The findings would thus be particularly revealing about teachers' perspectives and the pertinent changes in their feedback and assessment practices during the pandemic, a time when teachers of the CE course were expected by their institutions to uptake various forms of technologies for teaching and feedback purposes.

The participants for the study were 16 English teachers from one university in southeastern China. The university was technology-rich and it had purchased several platforms for its CE course, including one for reading and listening (i.e., *Unipus*), one for speaking (i.e., *Fif*), and one for writing (i.e., *Pigai*). To support online teaching during the pandemic, two more online teaching platforms with virtual classroom and recording functions (i.e., *Ketangpai*, *Rain Classroom*) were purchased and offered to teachers. The teachers also had access to a range of social media tools (i.e., *QQ*, *WeChat*), instant student response system (i.e., *Xuexitong*) and online instructional platforms (i.e., *UMoocs*, *Tencent Meeting*) that offered free access to them. Different from its counterparts in other universities, the CE department of the university had developed over 10 MOOCs, which are accessible to university students and the general public free of charge. Based on these MOOCs and digital tools, the department had engaged teachers of the CE course with blended teaching for over five years. This relatively long-time exposure to blended teaching and technologies means that any potential novelty effects of using digital tools in feedback and teaching can be minimized and hence allowed the present study to focusing mainly on teachers' feedback changes, if any, during the pandemic rather than to the impact of technology in and by itself.

The 16 teachers were recruited for three main reasons: (1) they were CE teachers with over five years of blended teaching experience; (2) their willingness and availability to share their feedback-giving experiences during the pandemic; (3) they manifested diversity in demographic details (e.g., gender, educational background, teaching experience). Their information was presented in Table 1 for an overview.

To understand whether and how the teachers changed their feedback practice during the pandemic, semi-structured interviews were first conducted with each participant in an in-depth manner, with each lasted around 70 min. The interviews were conducted between June and July 2020, a time when the teachers had accumulated over four months of online teaching and feedback-giving experiences during the pandemic. During the interviews, each teacher was invited to recount his/her teaching and feedback-giving experiences during the pandemic, with a focus on whether they had experienced any changes. The teachers were then asked to explain their rationales for changes/lacking changes. Apart from interviews, each teacher also shared with us a complete unit of their recorded online lessons, together with snapshots of their digital footprints when using online platforms and social media tools for feedback-giving purposes. It was the university policy that the teachers record their online lessons for both institutional and student reviews. These recordings and snapshots

Table 1 Participant information

Name	Gender	Edu	Years of teaching
Juan	F	MA	25
En	M	PhD	7
Fang	F	MA	20
Yan	F	MA	22
Hui	M	MA	10
Chuan	F	BA	28
Jin	F	MA	19
Lian	F	BA	30
Lin	M	MA	21
Bo	F	PhD	8
Xu	M	MA	17
Ruo	F	MA	13
Min	F	MA	23
Xue	F	MA	15
Yi	F	MA	10
Zhou	M	MA	23

served as alternatives to classroom observations and allowed us to situate the teachers' self-reported data into their concrete classroom and feedback activities.

We followed an interpretive and qualitative paradigm when analyzing the data. The interview recordings were first transcribed verbatim and an accuracy check was done with the participants. Facilitated by NVivo 11.0, open coding was done in an extensive manner, followed by selective coding after a recursive and repetitive process. For instance, we first coded "more willingness to give feedback" when five teachers reported that they found themselves more motivated to give feedback during the pandemic. Then we further categorized this code into an overarching category of "positive change". Informed by the conceptual framework, we also attended to how the teachers designed feedback-giving practice during the pandemic, how they related their feedback to students, and how they tackled practical challenges, if any, in using various feedback tools. We then examined whether and how the changes/lack of changes in the teachers' feedback-giving practices were related to their knowledge, expertise, or disposition of using technologies for feedback purposes. Triangulation with other types of data was conducted so as to illustrate what the teachers had reported in their interviews. When inconsistencies were spotted, the teachers were invited for follow-up interviews through emails and WeChat to further explain their feedback practices. After an in-depth comprehensive analysis of all the 16 participants' data, a taxonomy of positive change, negative change, and unchanged (see Table 2) emerged from the data. The reasons for such changes and the influencing factors were further coded in response to the research

questions and the conceptual framework. The following section reports the findings with representative data excerpts translated from Chinese to English by a certified translator.

Findings

In this section, positive changes in the participants' feedback-giving practices are first presented, followed by negative changes and unchanged. Reasons that offered by the participants for each change were also presented within each subsection.

Positive Changes: "I am more aware of the importance of feedback when I cannot meet my students"

Three forms of positive changes were reported by the teacher participants. The first salient theme is an indication of a stronger motivation and willingness to give feedback on students' language learning during the pandemic, a time of school closure due to the lockdown and social distancing policy. Among the 16 participants, 11 reported such an inclination:

I cannot meet my students in person during the pandemic. So, I care more about student learning and their learning outcomes. I cannot see them and I know little about their learning. In online virtual classrooms, few students turn on their video camera. I am uncertain whether they have paid attention to my teaching or they just log onto the system...Naturally I have a stronger desire to give them more feedback because I really want to help them learn. (Hui).

It became clear that it was out of a sense of responsibility over students' learning and the differences in physical spaces between teachers and students during online teaching that drove Hui to rely more on their feedback as one instructional strategy to help their students. Three teachers (i.e., Hui, Zhou, Yi) also suggested that they became better aware of the importance of feedback as a way to reach their students, who cannot return to campus for normal classroom-based face-to-face interactions during the pandemic.

Closely associated with an enhanced awareness of the importance of feedback and an increased motivation to give feedback was a more agentive use of various feedback-giving tools in the experience of 13 teacher participants. Such positive change was evident in the following statements:

Table 2 Feedback changes

Changes	Sub-theme	No. of participants
Positive change	More willing to give feedback	11
	More varieties of feedback-giving tools	13
	More sensitive to student emotion	5
Negative change	Less varieties of formative feedback	10
	More difficult to know student response	12
	Increase of emotional labor and workload	7
Unchanged	Feedback style unchanged	3
	Habituated use of technology	3

There are lots of changes in my feedback-giving. Because I cannot meet students in person and that makes me feel uncertain about how students learn. So, I used different social media tools and platforms to interact with students and let them know what I think about their language learning. For instance, I used *QQ group* (an instant messenger very popular in China) more frequently to communicate my feedback to my class. I also answered any queries from students through *QQ* after class whenever I had time. (Min)

During the pandemic I developed more conscious use of various platforms to give feedback to different students. I relied on *Unipus* to give scoring feedback to students' reading and listening. I used *Fif* to comment on students' speaking and I supplemented the automated feedback rendered by *Pigai* with my comments on content and organization of students' writing. In virtual classrooms, I also used the point rewarding system to give feedback on students' in-class participation and oral performance. So, during the pandemic, I feel that I have many sources of feedback offered to students and these feedbacks came to each student in packages in a timely and comprehensive manner. I also used instant messengers to check whether my students had any problem in unpacking my feedback. (Fang)

There seems to be an emergent literacy of designing a constructive feedback environment (Carless & Winstone, 2020) by using multiple feedback technologies in the narrations of Min and Fang, which were further reinforced in their video-recorded lessons and the snapshots of their interactions with students online. Figure 1 displays how Min communicated her feedback with her students in the *QQ* group that she set up for her class as a virtual space for just-in-time feedback and response after class. Yet it should be noted that using social media tools such as *QQ* group for just-in-time feedback was not shared by three other teachers as a novel experience during the pandemic. This

individual difference will be further displayed in the subsection of "unchanged".

Another significant positive change, although reported by only five participants, was an enhanced sensitivity to cater for students' psychological and emotional wellbeing through their feedback-giving practice. Different from what they normally did before the pandemic, these five teachers (i.e., Juan, Lin, Bo, Ruo, Xu) suggested that their feedback during the pandemic had become more encouraging, focusing on student efforts rather than on correction and scoring. There was also an intentional avoidance of critique and harsh comments in their feedback.

During the pandemic my feedback was more encouraging because, due to the quarantine policy, students stay at home and they may have conflicts with parents. They may have psychological pressures for online learning in an isolated environment without much peer interactions. So, I won't say directly that they made a mistake in their writings. Instead I usually say by doing this, the sentence would be better...(Xu)

I used to be angry if students fail to complete their assignments on time. But during the pandemic, I would wonder whether students had encountered some technical problems in accessing the online assignment system. I became more caring and empathetic about students' needs and difficulties in my feedback. (Juan)

To be encouraging, three teachers also indicated that they started to use emoticons in their feedback on students' performance. Figure 2 displays how Lin used "thumbs-up" and "smiles" in her feedback interaction with her students. By using such emoticons in her feedback, there was an obvious intention to relate to students in an encouraging and distance-closing manner.

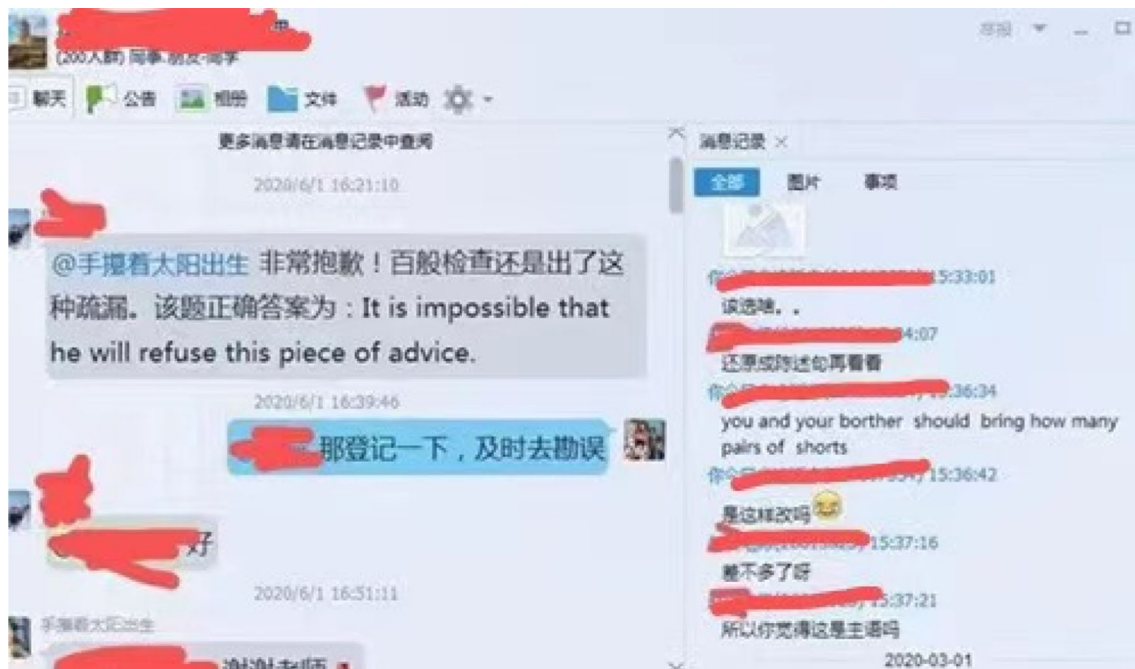


Fig. 1 Feedback interaction in QQ group

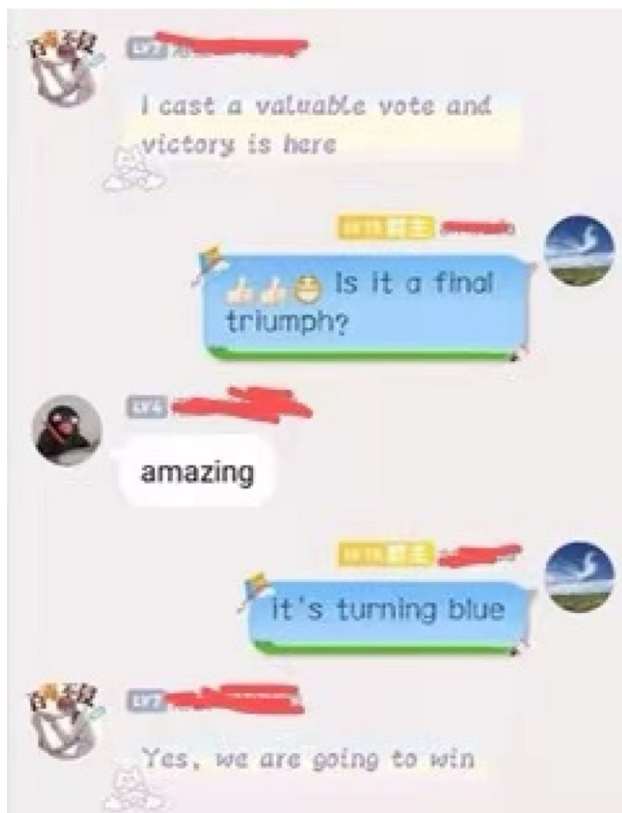


Fig. 2 Emoticon use in feedback

Negative Changes: “It becomes more difficult to know student response to my feedback and there is less formative feedback”

The positive experience of feedback changes did not turn out to be universal among the participants. Three forms of negative experiences in feedback-giving were also reported by the teachers. First, although some teachers welcomed the affordances of various technologies for more timely feedback, 10 of the teacher participants confessed that they had reduced the varieties of formative feedback activities (e.g., face-to-face conferencing, group discussions, oral synchronous feedback) in online virtual classrooms. Instead, there was an increased use of online quizzes and drills with automated scoring feedback and asynchronous written corrective or, in some circumstances, audio-recorded corrective feedback. These changes were evident in the following narrations:

This semester I had less group discussions...because time is always an issue in online virtual classrooms as internet connection is not always stable. My class is also big with around 60 students. (Fang)

I had less interactions with students, who seems “comfortably” hiding behind the screen...Some students, when nominated by me for a question, would either had no response to me or simply told me that they were in hospitals or somewhere not really suitable to answer my questions. So, I gave less oral synchronous feedback to them...Some students seem

not disciplined enough and they may not be ready for online learning at home. (Chuan)

In online teaching I find it difficult to interact with them or to give them instant oral feedback...Most of the time I was talking to a screen. A lot of activities such as debate or group projects in face-to-face classes had to be cancelled...Instead I designed more online quizzes through the platforms and gave students two more writing assignments on *Pigai* in order to engage students with language practice. (Yan)

It became clear that synchronous oral feedback was reduced due to the teachers' reported difficulties in conducting online real-time interactions and giving oral feedback with students. Such difficulties were further compounded by external factors such as big class size, internet connection problems, and students' self-disciplines and readiness for online learning. Consequently, along with the reduced use of formative feedback activities, there was an increasing use of summative testing/drills as a strategy to determine what students have learned and what needs to be highlighted by the teachers in their feedback.

Another closely related challenge was an enhanced difficulty to get instant responses from students to teacher feedback and the pertaining challenge for the teachers to know whether and how their feedback has been received by their students. Such difficulty and challenge were reported by 12 of the participants as follows:

During the pandemic we had classes in online virtual classrooms and obviously, students became less active in classroom participation and it became difficult for me to get instance responses from students. We used to rely on students' facial expressions and body languages to tell whether students understand us and then if no, we gave more feedback. These became something impossible in virtual classrooms and I felt uncertain about whether the students really understood my feedback... (Jin)

I used to feel that I know my students' problem in learning quite well because I can meet them in class and I can talk directly with them. During the pandemic, I am unsure about whether and how students responded to my feedback because I simply cannot see their faces. This is really a difference and it seems that my teaching and feedback is becoming less dialogic. (Lin)

To tackle the issue of lacking synchronous interactions and feedback during the pandemic and the difficulty to further adjust teaching to cater better for students' learning needs, the 12 teachers reported two divergent strategies in their feedback practice. Two teachers (Min, Jin) reported that

they would lower their requirements and shift focus in their feedback:

In my feedback on students' in-class presentation, I used to focus on whether the students can give impromptu speeches without relying on scripts. Now during the pandemic, I lowered my requirements on this because I know some students may just read in front of the screen as I cannot see it if the students do not turn on the video camera. I then focused more on the students' content and articulation rather than on their impromptu skills. (Min)

Instead of reducing requirements and changing feedback focus, the other six teachers reported that they would try other asynchronous means to establish a feedback dialogue between them and their students:

During the pandemic, I have to try all the means that I can access to interact with students. For instance, I would send instant messages to those who did not show up in virtual classrooms on time. I would also send private messages to those who fail to do online quizzes, asking what had happened to them and what their difficulties were. I also relied on instant messengers such as *QQ* and *WeChat* to establish private conversations with students whose performances seems problematic to me until the students had some responses to me. (Yi)

A third change that appears not so pleasant to the teacher participants was related to the increased workload in giving feedback, which one can easily tell from Yi' account. Seven teachers complained about the increased feedback workload, which derived from three main sources in their experiences: the increased amount of assignments, the additional workload of switching among various platforms, and the increased intensity of emotional labor in giving feedback during the pandemic.

Because I cannot get immediate response from students in virtual classrooms, I have to give students more assignments and quizzes in order to know about students' performance. So, naturally, there are more feedback to be given to students. (Fang)

For me, online teaching is a holy new experience and to tell the truth, I felt a bit anxious about learning to use various platforms and tools. What impressed me most is a need to switching from platform to platform. In the beginning, I used *Xuexitong* offered by *Chaoxing* platform, then I had to shift to *Rain Classroom* and *Ketangpai*, the two platforms officially endorsed by the university. Then since the virtual classroom functions of *Rain Classroom* and *Ketangpai* did not work well, I was then directed to

use *Tencent Meeting* instead. There seems to be constant problems here and there and a lot of colleagues complained about these increased workload and anxiety about using so many different tools and platforms. (Min)

One problem is that giving feedback to students during the pandemic requires extra care, particularly to those who frequently missed classes and failed to submit assignments. I cannot directly tell them their performance had failed to reach my expectation because the university has reminded us of the importance to attend to students' psychological wellbeing during the pandemic. I am supposed to give very enthusiastic and encouraging comments, even when I feel angry about students' performance. This is something really hard for me. (Yan)

It became clear that the increased feedback workload during the pandemic can be both physical and emotional for the teachers, who also raised a concern over students' readiness for online learning. For instance, Jin and Lian commented in their interviews:

During the pandemic, I need to do extra work in giving feedbacks to students. I need to remind them of a need to viewing my feedbacks on different platforms. I did not expect that there are students who even have problems in accessing my e-feedbacks. So, I need to spend extra time to prepare students for my online feedbacks. (Jin)

Apart from students' readiness for online feedback, what seems to be even more problematic is the institutional neglect of these increased feedback-related workloads in the experiences of teachers, who were on the other hand required to screen record every of their lessons for institutional review and checking purposes. Such institutional requirement increased the emotional intensity of most of the teacher participants, who lamented over a lack of institutional trust in their professionalism and a lack of institutional support for their difficulties in feedback-giving.

The university wants us to screen record every class for fear that we may not give our lectures when we work from home. The university does not really trust us. I agree that the recorded lectures may be useful for those students who cannot attend the classes timely for various reasons. But the problem is that there is always an internet congestion issue with the institutionally sanctioned platforms. The university should give us either a very reliable platform or autonomy in selecting our feedback and teaching channels. The university should also acknowledge our additional workloads when teaching online.

Working from home does not necessarily means a reduction in workload. (Chuan)

Unchanged: "I have been used to using technologies for feedback these years"

Three of the participants (Bo, En, Yi) insisted that they experienced not much change in their feedback-giving during the pandemic, except for the fact that they cannot meet their students in physical classrooms.

There is no much change, actually, because I have been doing blended teaching for quite some time. Those platforms and online teaching tools were not really unfamiliar to me. The only difference is that I cannot meet the students in physical classrooms. But I can have individual online meetings with students. I can send them audio and video messages. (Bo)

In terms of using technologies in feedback and teaching, I would say there is no much change. In our department, we have been using MOOCs and SPOCs in our teaching for some time. We have also been using automated writing evaluation and speech evaluation programs for about two years. My ways of teaching and feedback-giving remains almost the same. The only difference is that during the pandemic, we conducted teaching in online virtual classrooms. My feedback to students remains the same. (En)

From the narrations of Bo and En, it seems that these teachers reported confidence and competence in using technologies for feedback purposes and such competence/confidence is mediated by their long-time experience of blended teaching in the research context. Yet it should be noted that these teachers manifested an inclination to take feedback as information transmission from teachers to students and such cognitive orientation explains their conceptualization of technologies as facilitating the "sending" of their feedback messages to their students. This techno-centric view of using technologies and their cognitive conceptualization of feedback as information transmission may explain why they perceived little change in using technologies for their feedback-giving during the pandemic.

Discussion

Different from previous studies that explore teachers' feedback changes in response to one or two types of innovative feedback technologies (e.g., Wislon & Cziki, 2016; Jiang et al., 2020), this study contributes to literature

with a comprehensive analysis of whether and how language teachers may change their feedback-giving practice during the pandemic, a time of quarantine and online teaching with multiple feedback technologies. Situated within 16 teachers' narratives and experiences, this study reveals three patterns of changes (see Table 2) in the teachers' feedback-giving practices. The first pattern is manifested in positive changes in 11 teachers' increased willingness and motivation to give feedback, 13 teachers' enhanced inclination to design a constructive feedback environment with multiple technologies and tools, and five teachers' enhanced awareness of the relational and emotional nature of teacher feedback to students at a time of social challenges and crisis. As manifested by the findings, these positive changes were mainly driven by these teachers' conception of feedback as dialogic and interpersonal between teachers and students (Jiang et al., 2019; Carless & Boud, 2018; Lee, 2017). Such conceptions were evident when Min and Fang used instant messengers to check students' uptake of teacher feedback and when Lin used emoticons to encourage her students.

The second pattern of change, on the other hand, reflects the challenges for the teachers to give timely and emotion-friendly feedback to students at a time of crisis. A novel finding of the study is that the involvement of multiple feedback platforms and technologies may not necessarily lead to a designed constructive feedback environment. On the contrary, it can lead to an increased feedback workload and increased use of summative scoring feedbacks, with reduced use of formative feedback activities. There is thus an important need to avoid romanticizing the role of technology in innovating feedback practices (Lee, 2017). Given the difficulties to reach students across a distance via technologies (as reported by Yi, Jin) and the intricacy of tackling the emotional labor of giving critical feedback in encouraging words (as reported by Lin, Ruo), the importance of teacher willingness to tackle the pragmatic issues (Carless & Winstone, 2020) about using multiple feedback tools for more constructive feedback environments should also be highlighted.

Unsurprisingly, the findings also reveal an unchanged pattern in some participants' experiences, given the participants' self-claimed familiarity and competence in using technologies to deliver feedback. Underlying the unchanged pattern, however, is a tendency to view feedback as information transmission (Carless & Boud, 2018; Lee, 2017). Again, this finding reinforces the idea that technologies can be used to serve traditional purposes if there are no accompanying changes in teachers' feedback literacy and conceptions (Jiang et al., 2019, 2020).

Apart from teachers, a range of external factors, including technology failures, students' access to internet, students' self-disciplines, and the institutions' policies

(such as the requirement of screen recording every class), were also identified as mediators that shaped the three patterns of changes in the feedback-giving experiences of the participants. On the one hand, it should be acknowledged that the constant blended learning reform initiated by the institution in the researched context has prepared at least technologically some of teacher participants for the feedback changes during the pandemic. Nevertheless, in addition to offering feedback technologies and platforms to teachers, it is perhaps, more important to engage teachers with designing feedback more as dialogues rather than as merely information transmission. Institutional recognition of the subtle emotional labor associated with feedback-giving during the pandemic, together with institutional trust and professional autonomy, should also be given to teachers. On the other hand, another factor that has seldom been reported in early literature is students' readiness to access and uptake teacher feedback given through online platforms and social medias (a problem reported by Jin). The concern over student readiness for online feedback lends further support to avoid labelling contemporary learners as "digital natives" (Prensky, 2001) and calls for further research on how students can be supported to uptake e-feedbacks prepared by teachers with multiple feedback tools and technologies.

Aligning with Carless and Winstone's (2020) tripartite framework, the positive changes suggest that giving feedback during the pandemic can mediate the development of teacher feedback literacy along with the pragmatic, design, and relational (i.e., emotional) dimensions. The other two types of changes, however, indicate that such development cannot be assumed, given the complexity of external factors and individual conceptions of feedback. Overall, the three patterns of change lend empirical support to the ideas that feedback-literate teachers (e.g., Juan, Lin, Bo) are more likely and willing to attend to students' emotional needs at a time of difficulties and to design a constructive feedback environment through managing practical challenges (e.g., increased workload) of using multiple feedback technologies.

Conclusion

Situated within 16 language teachers' feedback-giving experiences during the pandemic, this study presents three patterns of changes in teachers' feedback-giving practice. Although as a qualitative inquiry, the findings cannot be generalized across contexts, the study reinforces the importance of teacher feedback literacy (Carless & Winstone, 2020) in mediating feedback changes at a time of pandemic and online teaching. The challenges posed by the pandemic to teachers' giving timely and interactive

feedback, as the study indicates, can be tackled with motivations to handle the increased workloads of giving feedback, dispositions to design a constructive feedback environment with multiple technologies, and enhanced awareness of the relational nature of teacher feedback to students. Positive changes in such motivation, disposition, and awareness also necessitate institutional changes from policing teachers' feedback-giving practices to supporting innovative feedback changes with more favorable policies. Further research on how teachers may develop their feedback knowledge and expertise at a time of crisis is warranted.

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