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Language teachers' emotions in online classrooms: Relations among teachers' appraisals of classroom events, emotional responses, and instructional practices

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Abstract

Drawing upon Frenzel's (2014) framework of appraisals, the current study explored language teachers' emotional experiences and their antecedents in the online teaching context. Moreover, the interrelations between teachers' emotions and their instructional practices were also investigated. Data were collected through semi-structured interviews with eleven language teachers from a top-tier international university in China. Our findings revealed that positive appraisals of online classroom events, including goal attainment, the capacity in and responsibility of effectively delivering lessons online, and the importance teachers attached to online teaching, tended to result in positive emotional experiences, which consequently led to motivational stimulations in more creative and productive instructional practices. By contrast, teachers who had negative appraisals of online teaching events tended to experience more unpleasant emotions and emotional vulnerability, which would possibly impede effective instructional practices and steer their teaching towards more traditional teaching methods. Our study contributes to the understanding of the relations among teachers' appraisals of classroom events, emotional experiences, and instructional practices in online language classrooms. Implications for how to prepare teachers emotionally for online teaching are also discussed.

Keywords: Emotional experiences, Online teaching, Instructional practices, Teacher appraisals

Introduction

Teaching has been recognised as an emotionally demanding profession instead of a merely cognitive process (Hargreaves, 1998). Teachers usually experience a range of emotions during teaching, including both positive ones (e.g., confidence, satisfaction, passion, joy, and enthusiasm) and negative ones (e.g., annoyance, anxiety, anger, dissatisfaction, frustration, worry, and nervousness). Teachers' emotions are affected by many factors, for example, their perceived intrinsic value of teaching, their relationship with students, and whether classroom teaching is under control (Hagenauer & Volet, 2014;

Sutton & Wheatley, 2003). These emotions play a significant role in affecting teachers' instructional practices (Schutz, 2014; Trigwell, 2012).

Recently, it has been recognised that teachers' emotions are rooted in teachers' cognitive appraisals of classroom events and situations, for example, whether instructional goals are achieved and whether students' behaviours facilitate goal achievement. A close interplay has been observed among teachers' emotions, their appraisals of situations, and their instructional practices (Frenzel, 2014; Nias, 1996). With online teaching becoming popular in recent years, how teachers respond to such a context emotionally and how those emotions affect their instructional practices have become topics worth further investigation. In particular, online teaching may put teachers in a vulnerable position, which requires teachers to teach in an unfamiliar context and use various techniques. Our study aims to unpack language teachers' emotional responses toward online teaching and the influence of those emotions on instructional practices. Drawing on the framework of teachers' appraisals of situations developed by Frenzel (2014), our study contributes to the understanding of the interplay between teachers' appraisals of classroom events, their emotional responses, and instructional practices.

Literature review

Teachers' emotions

Teachers constantly experience a wide range of emotions, including enjoyment, pride, pity, anger, and helplessness, triggered by various factors embedded in their teaching professions (Frenzel, 2014). In this article,teachers' emotions are defined as teachers' evaluative reactions, uniquely embedded within the specific events and social contexts encountered in their profession (Frenzel et al., 2021). The existing literature has broadly documented the factors that can trigger teachers' emotions. Sutton and Wheatley's (2003) review article emphasised that negative emotions such as frustration and anger often arose from teaching goal incongruence; in other words, when students' misbehaviours or contextual factors obstruct the teaching process. On the other hand, teachers are more likely to experience positive emotions such as joy and pleasure if they have positive relationships with students, sense learning progress from them, and perceive a supportive teaching environment (Sutton & Wheatley, 2003). These emotions were investigated in empirical studies. On the side of positive emotions, for example, Hagenauer and Volet (2014), employing in-depth qualitative exploration, uncovered that university teachers' positive emotional experiences, such as passion, enthusiasm, and enjoyment, are associated with their perceived intrinsic value for teaching and their positive bonding with students. In a similar vein, the quantitative study on secondary teachers in Austria by Hagenauer et al. (2015) demonstrates a notable positive correlation ($r = 0.80$) between teachers' perceived closeness with their students, and the experience of joy in their instructional practices. These findings suggest that teachers' positive appraisals of the value of teaching and teacher-student relationships tend to be positively related to their positive emotions.

In contrast, one major source of teachers' negative emotions is their perceived uncertainty about teaching situations and insufficient controllability (Ellsworth & Smith, 1988). For instance, Hagenauer and Volet (2014) found that a range of negative emotions such as nervousness, insecurity, and fear, were experienced when teachers felt they could

not fully control their instructional processes. In addition, students' misbehaviours or non-engagement, especially those that are perceived as being inhibiting the implementation of teachers' instructional and class management goals, are argued to be another main cause of negative emotions (Chang & Davis, 2009; Hagenauer et al., 2015). Apart from these situations in the face-to-face teaching context, the uncontrollable factors in online classrooms, such as the constraints on interactions, uncertainty about students' comprehension and engagement, teachers' insufficient knowledge of technology, and technical problems, would pose further challenges for teachers and increase the likelihood of experiencing negative emotions (Lee & Jung, 2021; Moorhouse et al., 2021; Oducado, 2020). Past research found that even highly experienced teachers had negative emotions (e.g., disempowerment, vulnerability, isolation, and frustration) when they failed to engage students, provide effective feedback and achieve effective learning outcomes due to issues with using online teaching tools (Downing & Dyment, 2013).

Teachers' emotional vulnerability and professional role identity

One critical aspect of teachers' professional role identity involves teachers' self-perceptions of the teaching context and appraisals of self-related knowledge like teaching capacity within the context, which are associated with teachers' emotional experiences (Garner & Kaplan, 2018). Therefore, in a teaching situation, the perceived loss of control over the teaching processes and tasks that the teachers are responsible for can lead to a sense of emotional vulnerability (Kelchtermans, 2005; Lasky, 2005).Such experience may arise when there is a sizable gap between "what teachers try to feel" about their professional identity and "what they feel" in teaching reality (Zembylas, 2002, p. 196). Therefore, teachers' emotional vulnerability can be evoked by the diminished professional role identity in changing educational environments. For instance, Gao (2008), drawing upon substantial qualitative data from an online teacher community, concluded that emotional vulnerability was experienced by teachers facing educational reform, which caused insoluble contradictions between the expectations of fostering students' personal literacy skills and the reality of demanding improved exam results; consequently, teachers were questioned by stakeholders and themselves whether they were doing a proper job, which undermined their professional role identity as teachers.

The feeling of vulnerability is also associated with teachers' professional role identity crisis over their subject and pedagogical expertise. In terms of subject knowledge, Song (2016) found that a group of English teachers underwent emotional vulnerability when they felt inferior to those students with overseas learning experience and proficient English ability, which undermined their identity as competent English teachers. As for pedagogical expertise, Bennett (2014) identified that a group of teachers experienced emotional vulnerability when they were trying to integrate technology into their teaching practice. Those teachers' lack of technology literacy deprived themselves of confidence in certain pedagogical practices and undermined their identity of being professional teachers, which led to negative emotions such as humiliation, fear, and infuriation. Given these illuminating findings, it is reasonable to assume that online teachers may experience emotional vulnerability in fully online teaching situations due to technological constraints and possible changes in their perceived identity (Comas-Quinn et al., 2012; Downing & Dyment, 2013). However, limited research on teachers' emotional

vulnerability in the online teaching context necessitates further investigation to fill the gap.

Relationship between emotions and instructional practices

Emotions have a strong influence on one's behaviours. Specifically, positive emotions are related to tendencies to explore novel situations while negative emotions are associated with avoidance behaviours (Lazarus, 1991a). When experiencing positive emotions, teachers tend to demonstrate high levels of creativity and react to difficult teaching situations flexibly, while those who recurrently have negative emotional experiences are prone to predominantly using rigid teaching strategies (Frenzel et al., 2009).

There are only a limited number of studies examining the influence of teachers' emotions on their instructional practices. Postareff and Lindblom-Ylänne (2011) reported that teachers who believed that they had achieved their pedagogical and professional goals tended to demonstrate positive emotions such as joy and enthusiasm. They also exhibited more passion in engaging their students via student-centred teaching approaches. Similarly, Trigwell's (2012) study found that teachers' negative emotions were associated with teacher-centred transmission-focused teaching approaches, which were perceived as being safe for content delivery, whereas positive emotions were connected with a student-centred approach that encouraged students to construct their own knowledge. These two studies contribute to our understanding of the influence of emotions on instructional practices via highlighting the connection between teachers' emotions and the selection of teaching approaches. Nonetheless, both studies were conducted in offline teaching contexts, and thus there is a need for more evidence about the influence of teacher emotions on their teaching practices in other contexts, such as the online environment.

Emotional vulnerability was also implied to influence teachers' instructional practices in Song's (2016) empirical study. Although this study uncovered that teachers' emotional vulnerability influenced their perceived roles, which in turn affected their reactions when their teaching was questioned by students, there was a lack of evidence to show whether and how emotional vulnerability would directly influence actual instructional practices. In short, further investigation is warranted to gain a deeper understanding of the relationship between teachers' emotional experiences and their teaching practice in a broader educational context, particularly in the increasingly popular and important online environment.

Online language teaching and teachers' emotions

In short, there is a substantial body of literature on teachers' emotions in offline classroom settings (Hangenauer & Volet, 2014; Hangenauer et al., 2015; Postareff & Lindblom-Ylänne, 2011), which generally found a reciprocal link between teachers' emotions and their teaching behaviours (Frenzel et al., 2021). On the one hand, teachers' emotions can shape their identity (Teng, 2017) and influence their decisions in trying out novel pedagogical methods to engage students and being committed to teaching (Naylor & Nyanjom, 2021; Richard, 2020). On the other hand, teachers are likely to gain emotional satisfactions from high-quality instruction and students' achievements (Frenzel et al., 2021). However, only a limited amount of research to date has investigated language

teachers' emotional responses in the online teaching context (e.g., Harsch et al., 2021; MacIntyre et al., 2020; Pham & Phan, 2021; Song, 2022). In this context, teachers were reported to have encountered challenges including limited chances for meaningful interaction (Lantolf et al., 2014; Long, 1996), reduced student engagement, uncertainty about students' understanding of the learning content, technical problems, and a lack of technological skills. These obstacles brought unavoidable challenges for language teachers endeavouring to create effective teacher-student and student–student interactions, as well as adapting to their new roles as online teachers (Harsch et al., 2021; Tao & Gao, 2022).

Empirical studies have provided evidence to show that integrating new technology into classroom teaching can lead to teachers' emotional changes. For example, a study conducted by Wang (2014) among university English teachers in Taiwan revealed that while teachers initially experienced positive emotions such as curiosity and excitement when introducing technology tools into their teaching, negative emotions such as frustration, anger, and disheartenment arose when the expected student engagement was not achieved, or when the sudden technology failure interrupted their class schedule. Azzaro and Martínez Agudo (2018)'s study explored the relationship between language teachers' prior emotional experience with technology use and their subsequent behaviours, and the results indicated that those who had a positive emotional experience with technology tools tended to use them more often in their teaching practice than those who experienced negative emotions (e.g., anxiety, sadness and anger) with such tools. Although not conducted in the online teaching context, these studies offer valuable insights, implying that teachers' emotional experiences are likely to vary and can potentially influence their instructional practices, particularly in the context of technology-dependent online teaching.

More recently, Pham and Phan (2021) explored the emotions of English language teachers in the online setting during the COVID-19 pandemic, and their findings suggest that those teachers' emotions were negative at the initial stage due to the diminished role as an experienced teacher, while a switch to positive emotions was observed as they perceived themselves as being more capable of using online teaching tools. However, this study focused more on the impact of sociocultural and institutional factors on language teachers' emotions, rather than the influence of situational factors such as online teaching itself, and little was explored about the influence of teachers' emotions on their instructional practices. Meanwhile, Li (2022) conducted an online survey among Chinese secondary EFL teachers to investigate their acceptance of online teaching tools. This study found that teachers with low technology literacy tended to exhibit resistance and dissatisfaction towards online teaching, probably because they faced challenges in adapting their face-to-face instructional strategies to the online context, resulting in difficulties in student interaction and decreased teaching effectiveness. Although the aforementioned studies have shed some light on the potential influence of online teaching on teachers' emotions, there is still a gap in the relation between language teachers' emotions and their instructional practices in such a special context. Further investigation is needed to fill this gap.

Theoretical framework: The appraisal theory

To understand emotions from the perspective of appraisal theory, a basic assumption is made that emotions are not directly linked to situations or events, rather they are evoked by one's cognitive appraisals of situations and events (Luzarus, 1991b; Roseman, 2001). Accordingly, teachers' emotions are rooted in cognitions that are closely linked to their perceptions, affectivity, and judgment (Nias, 1996).

Guided by the appraisal theory, Frenzel (2014) proposed a reciprocal model on the cause and effect of teacher emotions, which presents a comprehensive picture of the antecedents of teachers' emotions and the connections between teachers' emotions and their behaviours in instructional practices. A key proposition of this model is that teachers' emotions are determined by their appraisals regarding what happened during their instructional processes. Five aspects of appraisal are highlighted in this model, including *goal consistency*, *conduciveness*, *coping potentials*, *goal attainment/impediment responsibility*, and *goal significance*. These appraisals are formed through teachers' evaluation and judgments of whether their teaching goals have been attained or impeded, which is based on observations of students' behaviours that are relevant to their goals (e.g., whether students' behaviours are against the purpose of interaction). Consequently, emotions arise following these teachers' appraisals.

In addition, Frenzel (2014) pointed out that emotions may not be evoked by one single dimension of appraisals, rather there are appraisal combination patterns for different emotions to be triggered. For example, one of the patterns suggested by Frenzel (2014) that may trigger anger is the combination of negative goal consistency and external goal impediment responsibility. The model further proposes that teachers' emotions tend to influence their instructional behaviours in terms of cognitive and motivational stimulations, classroom management, and the social support they provide to students. For example, teachers' positive emotions may lead them to be more creative and adopt less traditional teaching strategies, increasing the chance of providing better cognitive and motivational stimulations.

Given its specific delineation of the relationships between emotions, situations, and behaviours through the mechanism of appraisals, Frenzel's (2014)'s model is adopted by the current study to capture teachers' emotions that are triggered by their appraisals of situations and events in the online teaching context. It can be assumed that in the relatively new online teaching situations, teachers may have a range of positive and negative emotions, and possibly emotional vulnerability, which would affect their instructional practices. Therefore, two research questions will be answered in this study:

RQ1   What specific emotions do language teachers experience in the online teaching context and what are the possible antecedents of these emotions?

RQ2   What are the perceived impacts of teachers' emotions on their instructional practices in the online context?

Research methods

In view of the exploratory nature of the current study, we adopted a case study approach and collected data through in-depth interviews to understand participants' perspectives, practices and emotions related to online teaching. The investigated case was a top-tier English-medium university in China. Due to the COVID-19 pandemic, this university adopted both fully online and synchronous (i.e., mix-mode) teaching for students who could not return to campus between January 2020 and May 2023. For almost all teachers, it was their first encounter with online teaching during this period. Therefore, it became intriguing to explore how they felt about online teaching and whether and how they developed corresponding strategies to manage their emotions and handle the challenges they met over the past three years.

Participants

In selecting participants, we followed the principles of purposeful sampling and maximum variation as proposed by Merriam (2009). First, all participating teachers should possess both online and offline teaching experience, so that they were able to provide clear explanations regarding whether their emotions came specifically from online teaching. Second, we intentionally included teachers with various teaching experiences and teaching different language-related subjects. More specifically, among the 11 participants eventually recruited, ten had more than 5 years of teaching experience, with three years' experience of teaching online. That means they started to teach online after the outbreak of the pandemic in 2020. Eight teachers taught the English for Academic Purposes (EAP) courses, which focus on speaking and writing skills in the academic and professional context. Three taught modern language courses, including French, German, and Chinese as the second language courses, focusing more on communicative skills in modern languages at the beginner level.

Table 1 provides an overview of the profile of the participating teachers and their pseudonyms. The names starting with E indicate they are EAP teachers while those starting with M are modern language teachers.

Table 1 Participants' profile

	Participants	Subject taught	Teaching experience (years)	Online teaching experience (years)
1	Ellie	English for Academic Purposes	5	3
2	Ethan		3	1
3	Emma		6	3
4	Elena		7	3
5	Eva		8	3
6	Emily		7	3
7	Evelyn		12	3
8	Edward		30	3
9	Mia	Modern languages	6	3
10	Maggie		8	3
11	Molly		10	3

Data collection

Data were collected through semi-structured interviews via a video conferencing software between November and December 2022, considering at that time all participants had got certain experience of online teaching and they could reflected on what happened in classroom as well as their own emotions better. The interview protocol was constructed based on the *Model of Cause and Effects of Teacher Emotions* developed by Frenzel (2014), with the aim of finding out how teachers emotionally reacted to events in online classrooms and how these responses affect their pedagogical practices. The interview questions covered four major themes: (1) teachers' overall emotional responses to online teaching; (2) critical incidences that happened in online classrooms and teachers' related emotional responses; (3) how teachers handled what happened in classrooms; and (4) teachers' confidence regarding teaching in online classrooms. The first two themes aimed to address the first research question by investigating teachers' emotional responses towards online teaching. Participants were asked to give examples of the most exciting, satisfying, frustrating, and challenging incidents that happened in their online classrooms so as to help us gain a deeper understanding of their emotional responses. The last two themes addressed the second research question, exploring teachers' coping strategies in response to those emotions (e.g., taking proactive actions to solve the problem or adopting an avoidance approach). Each interview took about 30–40 min and was audio recorded. To enhance the credibility of the data collected, we conducted member checking either through sending a brief summary of the interview to the participants or confirming the key information they expressed during a post-interview meeting. The interview protocol can be found in the Appendix.

Data analysis

Data were analysed through NVivo 11. Two of the authors first coded two sample transcripts together to develop the analytical framework and the initial codes. Then all the transcripts were re-read, coded, and checked for consistency by all three authors. Our

Table 2 Coding framework for teachers' appraisals of situations in online classrooms

Teachers' appraisals	Description	Examples
(1) Appraisal of goal consistency/ attainment	Whether teachers feel the expected goals for online teaching have been achieved.	Whether goals such as *creating an interactive language classroom*, or *successfully delivering pedagogical content* were achieved.
(2) Appraisal of goal conduciveness	Whether teachers feel students' actual behaviours in the online classroom contribute to the realisation of expected goals.	Whether students were able to *concentrate, willing to answer questions online*, or *willing to collaborate with peers* to complete an assigned task.
(3) Appraisal of coping potential	Whether teachers feel capable of achieving or optimising their goals.	Whether teachers were *proactive in seeking alternative solutions* to the problems they faced in the class, or whether they felt confident regarding their capacity to teach online.
(4) Appraisal of goal importance	How important it is for teachers to achieve the goal in the online teaching context.	Whether teachers believed *the importance of developing skills to teach online*, or merely considered that online teaching was only a *temporary solution*.

data analysis focused on how teachers' appraisals of what happened in the classroom affected their emotional experiences and instructional practices. Guided by the framework developed by Frenzel (2014), teachers' appraisals of situations in the classroom was analysed from four aspects (see Table 2).

Apart from teachers' appraisals of what happened in the classroom, the related emotions and pedagogical responses were also coded. Sample codes of emotional responses include enjoyment, pride, anger, anxiety, frustration, and helplessness. Sample codes of teachers' instructional practices include proactive ones such as adapting teaching practices to the online context and avoidance approaches such as using less complex activities. Finally, the interplay among teachers' appraisals of classroom events, their emotional responses, and instructional behaviours was examined.

Findings

Guided by Frenzel's (2014) model of the cause and effect of teacher emotions, our analyses revealed reciprocal relationships among language teachers' appraisals of events in online classrooms, their emotional experiences, and the perceived impact of emotions on instructional practices. Findings are reported according to the four dimensions of appraisals mentioned above.

Emotions triggered by the appraisals of goal consistency

Our participating teachers kept evaluating whether their pedagogical goals had been achieved (i.e., goal consistency) and their emotions appeared to be associated with their appraisals of goal consistency. Two main pedagogical goals were articulated: (1) creating an engaging online classroom; (2) conducting online teaching smoothly.

Firstly, teacher's positive emotion—satisfaction—came from their perceived goal attainment of conducting interactive practices, as shown below:

> *As long as students had a chance to speak, my goal was achieved. Online teaching does not affect me that much, so I am quite satisfied. (Maggie)*
> *I tried to have one-on-one conversations with every student in my class. I did not need them to turn on their cameras. As long as every student had a chance to talk, I felt satisfied. (Mia)*

Participants' satisfaction in the aforementioned excerpts came from their perception that their instructional goal of engaging students had been achieved to a certain extent. Similarly, teachers' frustration came from their failure to motivate students to engage:

> *It is easier to get students to talk in the face-to-face class. When they sat together, they started to talk naturally…In online teaching, it was so difficult to take care of different groups, which was also part of my teaching belief. I felt so helpless about this. (Ellie)*

Ellie's negative emotions of feeling helpless were closely linked to the perceived goal inconsistency, as the online context could not satisfy her goal of catering to different

students' needs. Similarly, the emotional vulnerability expressed by Eva also came from the feeling that online classrooms could not meet her expectations:

> I do not like online teaching because there is no sense of interaction. I feel like I am a webcaster who is recording a video and this has a large influence on my emotions. I like teaching largely due to the interaction with students in the real classroom. Teaching in the classroom made me feel safe and certain, but for online teaching, even if they [students] turn on cameras, I cannot feel any interactivity. I think this terribly affected my emotions. (Eva)

Secondly, emotions could also be triggered by an appraisal of whether online teaching was smoothly conducted. Negative emotions, such as uncertainty, insecurity, anxiety, and annoyance, were most frequently mentioned when teachers recalled their experiences at the initial stage of online teaching, as shown below:

> When I first started to teach online, I was relatively anxious as there were many unpredictable issues, such as students' microphones did not work, their internet getting cut off, PowerPoint page flips not synchronised on the student side, which interrupted the instruction. (Ethan)
> I am experienced enough to fix problems in the classroom, but in online teaching, I just felt so helpless and useless when something went wrong and I could not fix it. (Edward)
> I remember at the beginning the network was not good, but it suddenly stopped working in the middle of teaching, and sometimes students disappeared and reappeared...my major feeling was helpless then. (Evelyn)

The above excerpts demonstrate the association between teachers' negative emotions (helplessness and anxiety) and the incontrollable incidents which teachers perceived as interruptions to their teaching process. According to Edward, the feeling of being emotionally vulnerable was particularly strong as he shifted from an experienced teacher in face-to-face class to a novice one in the online context. However, as would be expected, these negative experiences were alleviated after teachers adapted to online teaching. For example:

> But now, it is much better, the class can be delivered more smoothly as I gained more experience. I know how to deal with these situations, and I can also prevent some anticipated small issues from happening, so now the whole instructional process is smooth...so I am not that worried and anxious. (Ethan)

The goal of taking control of online classes was perceived to be more attainable as the teachers gained enough experience in handling technical issues. Such an emotional shift could also be a result of recognising the fact that online teaching was not always controllable and still their compromised pedagogical goal can be achieved, as Emily noted:

> Initially, I just honestly don't know how to fix it, deal with it. But by now, for example, when I was teaching my last class online when the internet just disconnected, I just thought, ok, here goes again, nothing bothers me. I would just go back on the screen, apologise and continue teaching. So, by now, after 2 years, there's not much going on emotionally regarding these issues. (Emily)

Table 3 Appraisals of goal consistency

Appraisals of goal consistency	Emotions
Consistency: 1) Interactive goal basically achieved; 2) Taking maximum control over the instruction with the realisation that the situations are only partially controllable.	Positive or neutral emotions: Satisfied; Not anxious; Not resistant.
Inconsistency: 1) Difficulty in engaging students in complex tasks; 2) The challenge in motivating students to engage; 3) The missing social presence.	Negative emotions: Uncertain; Anxious; Insecure; Annoyed; Unhappy; Emotionally vulnerable.

Such acknowledgement seemed to have exerted a positive impact on Emily's appraisals of goal achievement after she made a compromise. Thus, the improved emotional experiences seemed to be associated with either improved expertise in online teaching or altered appraisals of goal consistency.

In sum, the interview data suggest that online teachers' appraisals of goal consistency may affect their emotional experiences (See Table 3). The teacher informants reported that they felt satisfied or at least demonstrated little resistant emotions when they found their goals were approximately achieved. Negative emotions and the feelings of vulnerability were expressed when they felt their instructional goals were not met and impeded by factors related to online teaching.

Emotions triggered by the appraisals of goal conduciveness

According to the informants, emotions were also triggered by their appraisal of whether students' behaviours (e.g., engaging, uncooperative behaviours) contributed to or impeded their pedagogical goals. Negative emotions were reported when the informants found their students were less responsive and engaging, as Eva noted:

> *If students did not respond to the tasks, I felt frustrated and a bit annoyed. In the face-to-face context, I could do complex tasks and they had to participate. But online, once the tasks were complicated, they may pretend not to hear me....or use the internet congestion as an excuse. (Eva)*

Eva perceived that her instructional goals were hindered by students' unresponsiveness, hence feeling helpless to a certain extent. In the next excerpt, Edward expressed the feeling of annoyance and uncertainty when students were not cooperative:

> *The experience can be negative in many ways...I was chasing the students to include their student ID so I could do attendance... sometimes he just logged on and then was doing something else...so chasing the students to do the right thing, you actually were not spending time teaching or facilitating learning. (Edward)*

Edward's negative emotions seemed to arise from his experience that his perceived goal of teaching and facilitating students' learning were adversely affected by his students' uncooperativeness.

Positive emotions were also reported when teachers perceived that students demonstrated goal-facilitating behaviours, as shown below:

I now feel online teaching is quite good. For example, when I put students in break-out rooms, they shared their own screen, discussed together and everyone in the group can see their peers' sharing. It is easier for them to engage online. (Emma)
When I saw students chat in the chat box, no matter they were talking about the content or just sharing some fun things, I felt happy. I want my class atmosphere to be relaxing and alive, seeing this I know they were participating and the course was successfully conducted. (Mia)

The satisfactions above were derived from students' supportive behaviours, which were considered to be facilitating the achievement of instructional goals. Positive appraisals of goal conduciveness were particularly evident when teachers found that students who were shy to talk in face-to-face classrooms participated actively in the online classroom. For example,

I was kind of happy that students were more active than I had imagined as I had not expected them to respond. Some of them sent me long private messages to talk about the content…so I know they want to learn but they may feel embarrassed talking about this in front of their peers. (Eva)
I noticed that some students felt more comfortable talking to me online than in the classroom, in particular, those who felt their spoken English was not fluent. Those kids were really less shy to talk to me on Zoom. So online teaching has its own advantages. (Emily)

The positive emotions mentioned above, such as feeling happy, satisfied, and relieved, were associated with the perceived engaging behaviours of students.

To sum up, the participants appraised their goal conduciveness based on how students' behaviours *promoted* or *impeded* their goal attainment. Positive emotions were associated with supportive behaviours. On the contrary, uncooperative and non-engaging behaviours tended to result in negative emotions or even emotional vulnerability (See Table 4).

Emotions triggered by the appraisals of coping potential and responsibility

The third theme concerns teachers' appraisals of whether they feel capable of achieving or optimising their goals, as well as whether they feel responsible for doing so. Teachers

Table 4 Appraisals of goal conduciveness

Appraisals of goal conduciveness	Emotions
Goal attainment was prompted: 1) Students engaging in activities; 2) Students responding to interactions; 3) Certain students more willing to participate in online classes.	Positive emotions: Satisfied; Surprised; Happy.
Goal attainment was impeded 1) Students' non-participation; 2) Students' non-engagement; 3) Students' non-responsiveness; 4) Students' non-cooperative behaviours and misbehaviours.	Negative emotions: Frustrated; Anxious; Disheartened; Dispirited; Annoyed; Emotionally vulnerable.

tended to express negative emotions when they felt incapable of coping with challenges and attributed failures to factors beyond their control, as Edward noted:

> *You are helpless because you just can't fix it ... you're supposed to be in charge of the situation, and facilitate learning... not supposed to be a helpless wreck hiding in the corner ...So I think it makes me probably more conservative. In my teaching I think it restricts the opportunities of doing more creative work... there's also that element I don't want to become wise with Zoom, it's not my ambition; it's not why I became an academic. (Edward)*

The above quotation suggests that Edward's negative emotions and vulnerability were triggered by his lack of confidence in handling technical issues, which seems to have also threatened his identity as a proficient teacher.

Similarly, Evelyn expressed a feeling of helplessness when her planned or routine teaching activities could not be fully executed online:

> *I felt upset that we cannot do some activities online. I certainly felt this was a pity. I can only think about the best alternatives, but if there were no proper alternatives, I had no choice but to quit the activities or just practice something else...so I was help-less and upset. (Evelyn)*

It seems that Evelyn's frustration was also associated with her feeling that effective online teaching was beyond her capacity. However, these negative emotions became mild as some participants understood and accepted those limitations, as Mia elaborated:

> *I am used to these troubles of technology. I still feel they are troublesome but it does not affect my emotions, as these are technical issues that are out of control, so we have to be patient when dealing with it, and I can accept these things happening. (Mia)*

Mia's negative emotions seemed to be alleviated after she accepted that technical issues were unavoidable and lowered her expectation for online teaching.

Despite the potential restrictions of online teaching, several teachers tried to optimise their teaching practice via cognitive strategies such as adjusting their teaching content or activities to accommodate the online context. For example:

> *Some scenario-based activities were not feasible to conduct online (such as selling and trying on clothes). Therefore, I changed the form of the exercise though the effect would not be as good as expected, but at least it can be realised online ...It is still a pity a little bit. (Molly)*
> *Writing practice with peers was difficult to do online so I changed the activity...and let students discuss their work in groups. (Elena)*

Teachers above seemed to take a more proactive action to adapt their teaching to the online context, which can be regarded as good cognitive strategies although there was not much creativity. Some other teachers demonstrated a stronger sense of responsibility to make changes, as Maggie noted:

> *As a teacher, I have the responsibility to guarantee the stability of the internet... this made me feel safe and relieved as I already did my best ...At the start of online*

teaching I bought a new computer, paid for the best network…Even if the students have network issues, we can get over it. (Maggie)

In the response above Maggie expressed a strong sense of responsibility for maintaining a stable online teaching environment. Through such appraisals, she felt confident and her practice in managing her teaching environment indicates a certain extent of motivational stimulation. Similarly, Emily also adopted a more proactive stance in adapting to the new teaching mode:

The first two semesters, I was almost like a self-taught how to fix problems …my second semester I was teaching in the US … Zoom China literally did not work well. So, I asked the school many times for a more advanced version of Zoom. I always ask for help so I really do not have negative feelings. I talked to IT; I talked to the school to improve the technology… I always helped my students there…I talked to my students, and myself, let's have the patience to deal with this. I was trying to prevent the upset moments. (Emily)

Emily's proactive action could be a result of her positive appraisals of her capacity to address technical problems. Probably because of such appraisals, Emily's emotional experience was generally positive, which in turn led her to be motivated to solve problems and provide her students with sufficient social support to reduce discomfort in her online classroom.

To encapsulate it, the interview data demonstrate how teachers' appraisals of coping potential and responsibility may have affected their emotional experiences (See Table 5). Negative emotions were associated with low coping potential and attribution of online teaching failures to external responsibility, whereas positive emotions were associated with high coping potential and a strong sense of internal responsibility.

Emotions triggered by the appraisals of the importance of online teaching

Almost polarised appraisals of the importance of online teaching were identified: 1) online teaching as a temporary solution during the pandemic; 2) online teaching as a trend of education whose benefits are far beyond supporting education during

Table 5 Appraisals of coping potential and responsibility

Appraisals of coping potential and responsibility	Emotions	Instructional practices
Low coping potential plus external responsibility	Negative emotions: Emotionally vulnerable; Helpless; Frustrated; Lack of confidence. Mild negative emotions: Showing understanding and acceptance of the limitations of online teaching reality.	Cognitive stimulations: adjusting content, teaching materials, and the design of activities; Conservative teaching approaches with little creativity.
High coping potential plus internal responsibility	Overall positive emotions: Safe; relieved	Motivational stimulations; Social support for students.

the pandemic. Our findings revealed that the perceived importance of online teaching played a significant role in teachers' overall emotional experience and behavioural orientation in their instructional practices.

Three out of the eleven language teachers articulated positive appraisals of the importance of online teaching. For example,

> *I know in the future, not just during the pandemic, this is going to be another kind of normal situation. This is going to be part of our tools to use. And now it's all about education. I don't have this kind of negative or resistance about this online teaching…I would teach myself using Google, YouTube, and so on to learn online teaching tools. I think this is something both teachers and students should master sooner or later. (Emily)*

With such positive appraisals of goal importance and responsibility, Emily directly pointed out she felt positive about online teaching. Therefore, she had strong motivational stimulations in improving her online teaching expertise and providing social support for her students. Molly also demonstrated strong motivation in teaching online:

> *I love studying these teaching technology things. I subscribed to some online channels or read online posts to learn how to make the online classroom more effective…I tried out those new tips and tools…after trying something new, I would communicate with my students to see what works well for them and then refine my practice. (Molly)*

In the response above, Molly's positive appraisals of online teaching led to a positive emotional experience as well as proactive instructional practices.

In sharp contrast, other participants who appraised online teaching as a short-term alternative to offline teaching experienced different emotional experiences:

> *For so long I did not have an interest in online teaching…I am not motivated to learn new skills for online teaching. I just moved my face-to-face pedagogy to the online context and I still tried to motivate students with the same methods offline. I just hope the pandemic can be over as soon as possible so that we no longer have to teach online. (Ellie)*

As Ellie only considered online teaching as a short-term solution, it is unsurprising that she demonstrated insufficient motivation to adapt her teaching to the online context. Meanwhile, her account of "end it soon…no longer online" indicates that her overall emotions during online teaching were generally negative.

Teachers' emotional responses and instructional practices may also change as their appraisals of goal importance changes:

> *At first, I felt upset and just wanted to finish activities as soon as possible. I think it would be used for just one semester…then I realised this was going to last for a long time. I became more motivated to make online teaching better… I became more cautious about students' attention. I constantly reminded them to concentrate online and turn on their cameras so that I can see them listening, and my emotions became better too. (Emma)*

Table 6 Appraisal of goal importance

Appraisals of the importance of online teaching	Emotions	Instructional practices
Long-term benefits: Online teaching as a trend in future education	Positive emotions: Motivated; Satisfied; Eager to make changes.	Proactively learning online teaching skills, searching for institutional support, and being creative; Providing social support to students; refining pedagogical practices based on students' feedback.
Short-term alternative: Online teaching as a temporary solution during the pandemic	Negative to neutral emotions: Upset; Lacking motivation; Hoping online teaching ends soon	Adjusting teaching content to cater to online needs; Using fewer activities; Conservative teaching practice such as teacher-centred approaches.

This excerpt emphasises how Emma's recognition and embrace of a new appraisal of the importance of online teaching facilitated her to take more responsibility to optimise the effect of this teaching mode. Her initial upset was also turned into a brighter emotional experience, which was a result of the positive changes in her teaching practice.

In short, those language teachers' emotional experiences and their instructional practices seemed to be closely associated with their appraisals of the importance of online teaching (See Table 6 for a summary). Compared with those who took online teaching as merely a temporary solution, those who valued its importance tended to demonstrate positive emotional responses and be more proactive in making online teaching more productive.

Discussion

Our study revealed that language teachers experienced a range of emotions (including positive ones such as satisfaction, security, motivation, passion, understanding, and acceptance, as well as negative ones, such as anxiety, helplessness, insecurity, frustration, and annoyance) regarding the potentials and challenges brought about by the online teaching context. They underwent emotional vulnerability in particular when they encountered negative or less postive emotional experiences. Guided by Frenzel (2014)'s model on teacher emotions, our analyses disclosed that the teacher participants' overall emotional experiences during online teaching were closely related to their appraisals of classroom events, including appraisals of instructional goal consistency, goal conduciveness, the ability to cope with challenges, and the importance of online teaching; teachers' emotional experiences and appraisals would, in turn, affect their instructional practices.

Appraisals of goal importance, coping potential, and attainment responsibility

Aligned with previous studies (Lazarus, 1991b; Scherer, 2001), our findings highlight that teachers' appraisals of goal importance is essential for their emotional experiences. Our participants showed positive emotions, such as satisfaction and enjoyment, if they believed in the value of online teaching and considered being a competent online

teacher as something internal to their professional values. Such findings also affirm that teachers' intrinsic value of teaching as a profession tends to evoke their positive emotions including passion and enthusiasm (Cranton & Carusetta, 2004; Hagenauer & Volet, 2014; Smith & Lazarus, 1993).

Additionally, appraisals of multiple dimensions may have a joint impact on emotions (Frenzel, 2014). Our study revealed that appraisals of goal importance (e.g., the long-term value of online teaching) always appeared together with appraisals of coping potential and responsibility (e.g., perceived high coping potential and an internal responsibility to optimise online teaching goals). Informants who considered online teaching to be important in the long term and who were confident in their ability to cope with challenges reported to have experienced positive emotions such as passion, curiosity, and satisfaction, which in turn inspired more motivational stimulations in their instructional practices according to them. For example, they shared that they were motivated to learn online teaching techniques via multiple resources and sought support when needed. The link between teachers' emotions and motivational stimulations in their instructional practices can be well explained from the view of self-determination theory (Ryan & Deci, 2000), which highlights that feelings of autonomy, competence, and relatedness are necessary preconditions for intrinsic motivation.

In contrast, teachers who negatively appraised goal importance, coping potentials, and responsibility tended to have negative emotions and showed emotional vulnerability. Our data corroborated the findings of MacIntyre et al. (2020) by revealing that teachers' negative emotions and emotional vulnerability tend to cause conservative teaching approaches and avoidance strategies in the online context. Although those informants who shared negative emotions also reported cognitive stimulations such as accommodating course content and activities to online teaching, their instructional practices seemed to be less creative and relied more on tools and resources already available, which indicates that negative emotions tend to reduce teachers' motivation to engage in creative and productive practices (Pekrun et al., 2002; Sutton & Wheatley, 2003).

Teachers' negative emotions or feelings of vulnerability, however, may not remain unchanged. The teacher participants in our study seemed to become more satisfied with online teaching once they became familiar with it (Pham & Phan, 2021), probably because negative emotions were alleviated after they became more skillful and could better cope with challenges in various online teaching situations. Such findings can be explained by the control-value theory, which believes that the emotions people experience are related to whether they evaluate that they could take control of a specific goal (Pekrun & Perry, 2014).

Appraisals of goal consistency and conduciveness

Appraisals of goal consistency and conduciveness were found to be associated with teachers' satisfaction with online teaching. The participating teachers expressed positive emotions when their instructional goals were achieved, when they conducted online teaching smoothly, and when students' active participation facilitated the goal achievement. Such findings are in line with previous research that teachers' pleasant emotions

can be evoked when their normative expectations of students' engagement are met (Hagenauer & Volet, 2014).

Conversely, perceived goal inconsistency and non-conduciveness were reported to have caused negative emotions. Echoing the previous studies (Chang & Davis, 2009; Hagenauer et al., 2015), our study also shows that teachers' negative emotions, such as annoyance, anxiety, frustration, disheartenment, and helplessness, were evoked when students did not cooperate with teachers and showed no response or non-participation in teaching activities. For example, teachers felt annoyed and frustrated when students refused to turn on Zoom cameras, which was believed to impede their instructional goal of conducting interactive activities. Such findings can be explained through the lens of the appraisal theory (Frenzel et al., 2009), which points out that unpleasant emotions can be induced if an event is perceived as being inconsistent with or an impediment to the attainment of teachers' goals.

Teachers' professional role identity and emotional vulnerability

Our findings also revealed that different emotional experiences and instructional practices are related to teachers' diverse self-perceptions regarding what counts as professional teachers. One main source of teachers' emotional vulnerability could be their deprived or lost identity as well as their feelings of uncertainty about their pedagogical efficacy and themselves as teachers (Gao, 2008; Song, 2016).

The experience of emotional vulnerability can be attributed to the tension between the appraisals of the context, their teaching capacity within this context, and their professional role identity concerning their teaching goals in this context (Garner & Kaplan, 2018). In our study, teachers' appraisals of the value of online teaching affected teachers' self-perceptions in their professioanl role identity. Those who attributed greater importance to online teaching believed that being effective in this domain was integral to their professionalism and were motivated to enhance their online teaching skills. The extent to which their teaching capacity in online teaching aligned with their desired their professional role identity determined their overall emotional experiences (Higgins, 1987; Markus & Nurius, 1986). Besides, the desired professional role identity is pivotal in motivating and directing behaviours via guiding a person's behaviour towards an desired self-concept in a particular teaching situation but away from the undesired self-concept (Higgins et al., 1994), which explains the differences in the amounts of motivational stimulations demonstrated in different participants' instructional practices.

Conclusions, implications and limitations

Our study extends Frenzel (2014)'s reciprocal model of teachers' appraisals and emotions to the online teaching context and identifies the relations among teachers' appraisals of classroom events, emotional experiences and instructional practices in online language classrooms. Most importantly, our study adds to the understanding of teachers' emotional vulnerability and reveals that such vulnerability comes from multiple sources, including instructional goal inconsistency, students' uncooperative behaviours, the lost identity, and the conflict between online classroom reality and their identity as professional teachers. Such findings further support that teachers tend to experience emotional vulnerability when there is a gap between "what they try to feel" and "what they

feel" (Zembylas, 2002). The feeling of vulnerability, as our study suggests, can be more common in the online context due to its various uncontrollable factors.

The above findings have practical implications for handling teachers' emotions in online classrooms. First, to alleviate negative emotions, teacher professional development programmes should help teachers develop technology literacy and pedagogical expertise to teach online (Pham & Phan, 2021). Besides, teacher professional training should mentally prepare teachers for the challenges brought by online teaching, help them establish a realistic expectation for the uncertainty in the online setting, and help them recognise the shared nature of pedagogical challenges among different teachers (MacIntyre et al., 2020; Postareff & Lindblom-Ylänne, 2011). To achieve this, explicit instruction is needed to develop teachers' tolerance for uncertainty and their ability to take action even under uncertain situations. Additionally, emphasising the benefits of online teaching among teachers may help alleviate concerns that online teaching is less efficacious than face-to-face teaching as well as worries about uncertainty (Oducado, 2020).

There are a few methodological limitations of this study. First, due to the exploratory nature of our study, it only investigated teachers' perceptions in one university where Zoom was used as the online teaching tool; meanwhile, the small number of modern language teachers available was not sufficient for us to make an in-depth comparison between them and EAP teachers. Therefore, further studies may explore teachers' emotional responses among teachers using different learning platforms and teaching different subjects. Second, our study only focused on teachers' self-reported emotional experiences and practices, and future studies may consider combining the use observational and self-report methods to gain a more rigorous and dynamic insight into the relationship between teachers' emotions and teaching practice in the online teaching context.

Appendix
Interview protocol

1. Could you please briefly introduce your language teaching experience, including both online and offline teaching experience? 您可以简单的介绍一下您的语言教学经验吗?包括线上教学和线下教学的经验。
2. How have you felt about online teaching in general since you started teaching online? What kind of emotions have you experienced?从开始进行线上教学以来, 您对于线上授课总的来说有什么样的感受?您认为自己经历了哪些情绪?
3. Why do you think you felt such emotions about online teaching? (Or why did you feel anxious/excited/not feeling anything in particular...?) Could you please share some events that made you feel these emotions? 您认为你对线上教学为什么会有这样的情绪呢? (或者为什么会感到焦虑/激动/没有特别的感受......?) 您可以分享一些让您产生这些感受的事情吗?
4. How did you cope with negative emotions when having them? What did you do to address the things that made you feel negative? Can you recall some specific exam-

ples? 面对消极感受, 您是如何应对的?面对让您产生消极情绪的事情, 您会怎样去解决呢?可以回忆一些具体的例子么?

5. How did those measures you took help you overcome the difficulties at that time? Did those measures improve the situation? If those measures were effective, did they change how you felt emotionally (e.g., did your anxiety diminish)？您采取的这些措施对当时的困难起到了什么样的帮助?是否改善了当时的状况?如果有效, 是否改变了您情绪上的感受 (比如您的焦虑是否减弱)？

6. What impact do you think your emotional experiences had on your online teaching practice? How did your positive and negative emotions affect your teaching practice? 您认为您在线上教学中的情绪对于您的教学实践有哪些影响?积极情绪和消极情绪是如何影响您的教学实践的?

7. Do you think you have adapted to the online teaching mode? How have your emotions about teaching online changed compared with when you first started teaching online? 您觉得您适应了线上教学模式了么?您现在对线上教学的情绪相比于刚开始线上教学的时候有哪些变化?

8. Has online instruction changed the way you teach, such as how you prepare lessons and your teaching materials? Have these adjustments been affected by your emotions? Did the outcomes of your adjustments in teaching practice change your emotional experiences? 线上授课是否改变了您的教学方式, 比如备课方式和您的教学材料?这些调整是否受到了您情绪的影响?调整后的效果是否使您产生一些情绪上的变化?

9. Is there anything else you would like to add about your emotional experiences in your online classes and the impact of those emotions on your teaching practice?对于您在线上授课中的情绪体验和情绪对您教学实践的影响, 您还有其他想要补充的吗?

Declarations

Ethics approval and consent to participate
Ethical approval has been obtained from the Ethical Committee of The Chinese University of Hong Kong, Shenzhen (Approval Number: 2-ENG-XY) in accordance with the standard established by the university. The consent to participate has been obtained from the participating teachers in written before the study.

Competing interests
The authors declare that they have no competing interests.

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