



Research paper

Novice teachers' appraisal of expert feedback in a teacher professional development programme in Chinese vocational education

Xinglin Jin ^{a, b,*}, Dineke Tigelaar ^b, Anna van der Want ^c, Wilfried Admiraal ^d^a Institute of Vocational and Adult Education, East China Normal University, North Zhongshan Road 3663, Shanghai, 200062, China^b ICLON Graduate School of Teaching, Leiden University, P.O. Box 905, Leiden, 2300 AX, the Netherlands^c Marnix Academie University of Applied Sciences, 3571 ZM, Utrecht, the Netherlands^d Centre for the Study of Professions, Oslo Metropolitan University, PO Box 4 St. Olavs Plass, N-0130, Oslo, Norway

HIGHLIGHTS

- A framework was built to appraise expert feedback in a TPD programme.
- The most frequently mentioned appraisal domains refer to teacher characteristics and educational context.
- The most frequently mentioned appraisal categories are feedback benefit, teachers' expertise and students' characteristics.
- Novice teachers hold a pragmatic attitude towards expert feedback.
- Novice teachers in different school subjects appraise expert feedback differently.

ARTICLE INFO

Article history:

Received 11 November 2020

Received in revised form

9 January 2022

Accepted 23 January 2022

Available online xxx

Keywords:

Appraisal

Expert feedback

Novice teacher

Expert teacher

Vocational education and training

Teacher professional development

ABSTRACT

This study is focused on exploring novice teachers' appraisal of expert feedback in a professional development programme for vocational schoolteachers. Twelve novice teachers in different school subjects were interviewed after the programme. An appraisal framework with 4 domains and 12 appraisal categories was built based on coding and analysing interview transcripts. The most frequently occurring appraisal categories and the differences between Chinese language teachers and vocational subject teachers were also analysed qualitatively. The findings revealed novice teachers' concerns and expectations for expert feedback, as well as provided an appraisal framework for future studies on feedback in teacher professional development.

© 2022 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

1. Introduction

In the context of Chinese vocational education and training (VET), feedback from expert teachers is commonly used in many teacher professional development (TPD) programmes to improve the teaching practices of novice teachers. The title 'expert teacher' in China is usually granted by local education committees and is given to teachers with rich experience and outstanding contributions in the teaching profession. Relevant activities conducted in TPD programmes in China include lesson observations, novice-

expert interactions, teacher apprenticeship, and master-teacher studios. Research has shown that these activities have positive effects on novice teachers' teaching ability and their students' learning performance (Cui, 2012; Jin et al., 2021; Shao & Zhou, 2013; Zheng et al., 2019). Studies from other countries have also provided evidence on the positive effects of other forms of expert feedback. For instance, 'video clubs' which involve expert feedback in the form of 'discussions in a video club' and 'suggestions and comments on teaching videos' have been found effective to shift teachers' focus from themselves to their students and to stimulate teachers to relate their pedagogy more to student thinking (Sherin & Han, 2004). The impact of expert feedback has also been studied in the context of mentoring. Mena et al. (2017), for example, found that non-directive feedback with less input from mentor teachers

* Corresponding author. Institute of Vocational and Adult Education, East China Normal University, North Zhongshan Road 3663, Shanghai, 200062, China.
E-mail address: x.jin@clon.leidenuniv.nl (X. Jin).

can improve the mentored pre-service teachers' generalised knowledge of practice, while directive feedback with more input from mentor teachers often enhanced situation-specific knowledge.

Although the literature has shown that expert feedback on novice teachers' learning is effective, few studies have focused on the perspectives of novice teachers. Studying novice teachers' perspectives with regards to expert feedback can provide information about novice teachers' learning needs and can help to identify the expert feedback that novice teachers perceive to be useful for their teaching practices. To improve the effectiveness of expert feedback in the TPD context, a better understanding of how novice teacher perceive expert feedback is needed. The purpose of the current study is to examine novice teachers' appraisal of expert feedback within the context of a TPD programme in the Chinese VET system.

2. Literature review

Learners' appraisal of teacher feedback has been widely studied in the fields of higher education and second language learning (Meerah & Halim, 2011; Vattay & Smith, 2019). However, only a few studies have examined how teachers evaluate feedback provided by more experienced peers. To provide more insight into teachers' appraisal of expert feedback, we first review studies on feedback content and then on teachers' appraisal of feedback.

2.1. Feedback content

The effect of feedback relies not only on how it is formulated, but also on the information conveyed by the provider. It is therefore necessary to clarify what kind of feedback is usually provided to novice teachers in general before going deeper into novices' appraisal of it. A look into existing feedback practices in the TPD context reveals some general aspects of feedback content. For example, Chien (2017) examined a TPD programme called 'teaching demonstration', in which a group of in-service English teachers were asked to observe each other's teaching and provide feedback to each other on eight aspects: lesson structure, classroom management strategies, learning activities, teaching strategies, teacher's use of materials, teacher's use of language, students' use of language, and student interaction. Ma, Xin et al. (2018) studied a teacher online learning programme, in which teachers were asked to provide feedback on each others' teaching plan from three perspectives: teaching analysis (teachers' analysis of the students' capabilities, students' needs, and teaching goals), teaching design (the design of learning activities and development of teaching materials), and pedagogies (instruction method and student-teacher interaction). Karagiorgi (2012) also studied a teaching observation activity in a TPD programme for primary school teachers, in which teachers were provided with an observation instrument that allowed them to provide feedback to each other with respect to teaching method, student-teacher interaction and classroom organisation, as well as some general comments. In addition, Soslau (2015) focused on developing a feedback protocol to guide the discussion between teacher educators and student teachers. Based on both the previous literature and a self-study of her own experience with teaching observations, a protocol with 15 questions was developed. The main questions considered students' prior knowledge, the strategies used to engage students, teaching objectives, students' feelings about the lesson and teachers' reflections on the lesson. The above-mentioned studies make clear that feedback to teachers is mostly about the learning and teaching process in class, including both instruction and interaction with and among students.

The specific context may also influence the feedback provided during a TPD programme. First, in previous research it has been found that VET students in China show more behaviour problems in class than students in general schools (Ma, Zhao et al., 2018; Ren, 2018). This might mean that VET teachers – and novice VET teachers in particular – need feedback that focuses on motivating students, managing their classes, adapting their teaching to their students' ability, and setting their teaching goals. Second, popular educational ideas in the Chinese VET context may also be given attention when providing feedback to the novice teachers. One of these popular ideas is the 'vocation-oriented teaching method', which requires teachers to relate teaching to students' vocational specialty (even for teachers who teach general subjects, such as Chinese or English languages). This practice is regarded by many researchers in China as a good way to motivate vocational students to learn both vocational and general subjects (e.g. Xu, 2012). In addition, school subjects in VET are quite diverse. In China, the VET curriculum system is generally divided into two types of school subjects: general subjects (e.g., language, history, and arts) and vocational subjects (e.g., mechanical engineering, transportation, and accounting). General subjects are usually focused more on declarative knowledge and are often taught in a theoretical way; vocational subjects usually contain more procedural knowledge and are taught with a lot of practical training (Bi, 2020). The general subject teachers are usually graduates from normal universities, while many vocational subject teachers are well-skilled workers who mostly don't have an educational degree (Sun, 2013). Due to these differences, novice teachers in the two different types of subjects may also have different needs with regards to expert feedback.

2.2. Teachers' appraisal of feedback

In many studies, the effects of many kinds of feedback activities have been examined, such as 'peer observation', 'mentoring conversations', and 'performance feedback on teaching' (Herbert et al., 2018; Sockman & Sharma, 2008; van Ginkel et al., 2016). In their study on adaptive mentoring, van Ginkel et al. (2016) found that adapting mentoring conversations to novice teachers' reflective capacities is one of the most important activities recognised by mentors. Based on their findings, van Ginkel et al. (2016) argued that feedback is effective for novice teachers' teaching practice only if they understand how the feedback is related to reflections on their functioning. However, what kind of feedback is most valued by novice teachers has not been systematically examined up till now, since studies on mentoring of novice teachers have mostly been focused on the procedures and effectiveness of programmes, and not so much on the feedback content and novice teachers' perception.

A few studies, however, do provide relevant information in this respect. Wynn et al. (2007) distributed a survey among beginning teachers to investigate their perceptions of mentoring programmes with regards to four aspects of mentoring procedures: (i) adequacy of mentors to address concerns, (ii) usefulness of mentor feedback, (iii) clarity of understanding of mentoring procedures, and (iv) adequacy of time to interact with the mentor. The first two were valued the most by the participating novice teachers. More specifically, the novices wished to receive emotional support, suggestions on paperwork, information about school procedures, and feedback on teaching strategies and classroom management from their mentors. Löfström and Eisenschmidt (2009) also explored novice teachers' evaluations of feedback from their mentors. They interviewed 16 novice teachers and asked questions about their relationships with mentors. These novice teachers expressed their satisfaction with both positive and negative feedback from their

mentors. The positive feedback was regarded as helpful for developing their professional identity, and the negative feedback was considered as a trigger for reflection. Another example comes from Thurlings et al. (2012), who observed, interviewed, and surveyed 12 primary school teachers who participated in a TPD programme involving peer feedback. They found that feedback that was valued by the teachers as effective was often goal-directed, specific, detailed, and neutral, whereas ineffective feedback was often person-directed, vague, non-detailed, and either too positive or too negative. In addition, Nami et al. (2016) examined five English teachers about their perceptions of the different phases of lesson study, and they found that teachers preferred critical feedback over positive feedback because the teachers believed that critiques are more meaningful for improving the quality of their lesson plan.

Previous research thus provides valuable perspectives on what kinds of expert feedback novice teachers may receive in a TPD programme and how novice teachers may think about these kinds of expert feedback. However, these findings are rather general, without specific information on how and why novice teachers appraise particular feedback. To improve existing feedback-based TPD programmes, a more in-depth understanding of novice teachers' appraisal of expert feedback is necessary. We thus formulated our research question: How do novice teachers in Chinese VET appraise expert feedback in a TPD programme?

3. Method

3.1. Setting

This research was carried out within the Standard Training Programme for Novice Vocational School Teachers in Shanghai (China). This is an annual programme developed and organised by the Shanghai Municipal Education Committee and the Institute of Vocational and Technical Education at Tongji University. The programme aims to support the development of novice VET teachers by providing them opportunities to interact with expert teachers in their subject domain. The expert teachers were full-time in-service teachers in vocational schools, and there was no formal power relation between expert and novice teachers. The novice teachers participated voluntarily in this programme, and the expert teachers were paid by the local government to work as consultants in the programme.

During the programme, novice and expert teachers were divided into different groups based on the school subjects they teach. Every group consisted of 8–12 novice teachers and 3–5 expert teachers. In the feedback session for each group, the novice teachers presented their teaching videos one by one, and after watching each video, the expert teachers provided feedback to the presenter. When interacting with a novice teacher, the expert teachers were dominant because they were regarded as consultants in the context of this programme. All novice teachers in the same group could attend each other's feedback session, which they usually did, while in most cases only expert teachers provided feedback to the presenter.

3.2. Participants

To study the novice teachers' appraisal of expert feedback, individual interviews were conducted to collect data from novice teachers who participated in the programme. Invitation e-mails were sent to all of the novice teachers ($n = 144$) participating in the programme, and a total of 15 novice teachers responded positively to the invitation. However, three of these respondents failed to attend the interview due to their busy schedule. Table 1 shows the characteristics of the respondents. Half of the participants taught

Table 1
Characteristics of the participating novice teachers.

Name	Gender	Teaching experience	School subjects
John	Male	1–2 years	Chinese language
Martha	Female	1–2 years	Chinese language
Ellie	Female	2–3 years	Chinese language
Sophie	Female	1–2 years	Chinese language
Amy	Female	Less than 1 year	Chinese language
Emma	Female	Less than 1 year	Chinese language
Louis	Male	1–2 years	Photography
David	Male	Less than 1 year	Electro-mechanical engineering
Alice	Female	Less than 1 year	Electro-mechanical engineering
Jake	Male	Less than 1 year	Animation
Henry	Male	Less than 1 year	Electro-mechanical engineering
Sarah	Female	1–2 years	Accounting

general subjects (i.e. Chinese language), and the other half taught vocational subjects (photography, electro-mechanical engineering, animation, and accounting). Given that there is a huge difference between the two types of subjects in terms of their nature, teaching methods, and teachers' backgrounds, we take them into account when analysing the data and reporting the results in the following sections. Research clearance was obtained from the Ethical Committee of the ICLON Graduate School of Teaching, Leiden University, file number: ICLON-IREC 2019-09.

3.3. Data collection

In order to investigate participants' appraisal of expert feedback, typical types of expert feedback were formulated to construct the interview protocol of the current study. These types were based on a pilot study that focused on novice-teachers' learning from expert feedback. In that study, data have been gathered from audio recordings of four feedback sessions from the same TPD programme as in the current study. We transcribed the audio recordings, and then the four transcripts were segmented and coded based on different feedback content through a bottom-up analysis procedure. The analysis yielded 74 specific categories, which were then clustered into 10 types of expert feedback, and each of these types was aiming at an aspect of teaching practice (see Table 2).

These 10 types of expert feedback were included in the interview protocol to prompt novice teachers' appraisal of expert feedback. Each of the expert feedback types was followed by two concrete examples in the interview protocol to help novice teachers understand the expert feedback types. Novice teachers were asked to evaluate all 10 types of expert feedback by indicating how these were addressed in their meeting with expert teachers and how valuable these types were for them. Each interview usually started with a general question: "Out of the 10 types of expert feedback, which one do you think is the most important and relevant to you and why?" After the respondents elaborated on their perceptions of the most important type of expert feedback, the first author continued with follow-up questions covering all other expert feedback types. Some typical follow-up questions were: "Is there another type of expert feedback you got during the programme besides what we just talked about?" "So we just talked about the most important ones, then how do you think about expert feedback type (number and type, e.g., 6. 'improve your lesson design' [see Table 2])?".

3.4. Coding procedures and analysis

To answer the research question, the coding and analysis of the 12 interviews was carried out according to the following four steps:

Label the transcribed text. After transcribing the audio-

Table 2

Ten types of expert feedback and examples.

Expert feedback types	Teaching aspects	Examples
1. Provide proper explanation and summary for your students	Explanation and summarization	"Give a more precise explanation for students when introducing a new concept." "Provide a summary at the end of the lesson to emphasise the main point."
2. Assess and evaluate your students	Assessment and evaluation	"Observe students' reactions in the class and provide feedback." "Encourage your students by providing more compliments when assessing their homework."
3. Relate your teaching to students' experiences	Students' experience	"Use cases that students have experience with." "Relate the current lesson to students' prior knowledge."
4. Arrange the lesson according to the main point of the teaching content	Teaching content	"Remove irrelevant cases." "Relate task and homework to the main point of the lesson."
5. Work on your long-term professional development	Professional development	"Ask support from colleagues when you encounter a problem in teaching." "Improve your knowledge about and experience of the subject content."
6. Improve your lesson design	Lesson design	"Re-arrange the sequence of your presentation." "Prepare intriguing questions in the introduction part of the lesson."
7. Provide proper tasks and homework	Tasks and homework	"Adapt the tasks/homework to your students' ability level." "Provide more clarity about what students have to do with their tasks and homework."
8. Improve the quality of teaching materials	Teaching material	"Include the latest concepts and information in your teaching materials." "Use different forms of teaching materials."
9. Engage with your students	Engagement	"Encourage students to present and share work with each other." "Include more interactive activities in your teaching to motivate students."
10. Relate your teaching to students' future work situation	Students' future vocation	"Use authentic tasks that happen in students' future workplace." "Use examples with real cases in the workplace."

recorded interviews, the text was labelled based on the aspects according to which novice teachers appraised the 10 types of expert feedback. The authors used a coherent and continuous opinion towards certain expert feedback as an analysis unit, no matter the length or number of sentences. Each unit of analysis was labelled as one appraisal, and 197 units of analysis were preliminarily labelled throughout the entire transcripts. The authors also marked the analysis units with expert feedback types to explore the relationship between particular appraisal categories and expert feedback types. In Table 3, a labelled excerpt from an interview transcript is provided as an example.

Generate and adjust the categories. After the preliminary labelling, the labels were merged based on the similarities of the main issues about which novice teachers were concerned when appraising specific expert feedback. For example, labels such as 'problems in managing students', 'don't have enough experience', and 'already be able to do so' were all included in the category 'teachers' expertise'. In total, 23 categories were generated. A discussion among the co-authors then revealed that there was still overlap and similarity between some of these concepts. The 23 categories were merged again, which led to 13 categories. To check inter-rater reliability, an independent researcher was invited to code 10% of the data independently using the 13 categories. Inter-rater reliability was determined by comparing the ratings of the independent coder and the first author ($n = 22$; Cohen's kappa = 0.788 with a 95% confidence interval $0.602 < \text{kappa} < 0.974$). Differences were then discussed, which led to the final 12 distinct appraisal categories. Important changes based on the inter-rater reliability check were: (i) the category 'potential risks' was

merged into the category 'feedback benefit', because the 'risk' was a negative evaluation of feedback benefit instead of an independent appraisal category; and (ii) some specific labels were re-categorised—for instance, two labels classified as 'personal needs' were re-categorised as 'teacher expertise' because, in the transcript, when the novice teachers evaluated certain expert feedback as unnecessary for them, they actually meant the expert feedback did not fit their current level of teaching expertise.

Group categories into domains. In a further discussion among the co-authors, it was found that the final 12 appraisal categories described factors in different aspects of novice teachers' work and learning. We then grouped them into four main domains based on the different aspects (i.e. 'characteristics of feedback', 'characteristics of teachers', 'characteristics of educational context', and 'professional development needs').

Calculate the frequencies. The frequencies of the four domains and 12 appraisals related to the 10 types of expert feedback were counted to show the most frequently mentioned appraisal categories, the relationship between appraisal categories and expert feedback types, and the differences between teachers in different school subjects.

4. Results

In Table 4, we provided an overview of the four domains and 12 appraisal categories, with an example for each appraisal category. The definition and typecasting of these appraisal categories are elaborated with examples. The findings were also interpreted based on the frequencies of the appraisal categories in relation to

Table 3

Coded excerpt from an interview transcript.

Text	Labels	Categories
Researcher: "Then how about the expert feedback type 'improve quality of teaching materials'?" Ellie: "I don't think it's very practical and valuable. How can you improve it? <u>In Chinese literature teaching, improving the material usually involves providing extra information about the literature, giving more explanation and exploring the value of the literature, there is a risk of over-interpretation. I doubt if it will work out well.</u> "	Potential risks in implementing feedback (F8)	Feedback benefit (F8)
Researcher: "Ok, but this type of feedback is not only about the explanation of literature, it's also about adapting and changing the improper content of teaching material." Ellie: "Oh, if so, this feedback is valuable to some extent, but still it's not very practical. <u>For new teachers, you have to have enough content knowledge to find out unsuitable content, and then replace these with suitable one—that won't be easy.</u> "	The current level limited the use of feedback (F8)	Teacher expertise (F8)

Note: this appraisal is on expert feedback type 8 'improve quality of teaching materials'.

Table 4

Domain and categories of novice teachers' appraisal of expert feedback and examples.

Appraisal domains	Novice teachers' appraisal of expert feedback	Examples
Characteristics of feedback	Feedback benefit	Martha: "It's important, I think, because well-designed homework can help you to examine your students, so you know if they truly understand, and, on the other hand, it extends your students' knowledge of what they had learned in the class."
	Feedback frequency	David: "Actually I already can't remember some of the feedback you presented here, but this one about lesson design is very impressive to me because I remember that the expert teachers gave me a lot of suggestions about this during the meeting, which made me pay more attention to it."
	Feedback specificity	David: "Mr Zhang (an expert teacher) not only provided me with some principles, but also showed me his own lesson plan and some of the teaching tools made by himself. They are all very visual and specific, and I can do that for my students, too."
	Feedback adaptiveness	Amy: "It depends on the specific teaching content. For example, I can use some cases or examples related to students' future vocation when teaching practical writing, but there are a lot of lessons that have nothing to do with students' vocational specialty."
Characteristics of teachers	Teachers' expertise	Amy: "I think this one is very valuable, because I'm not good at designing lessons, and I do sometimes stray from the topic when teaching."
	Teachers' belief	Jake: "I was told to remove some of the irrelevant cases, but I believe these cases can be of interest to my students. I think it would be very hard to motivate my students if I based my teaching only on the textbook."
	Teachers' lessons	Louis: "I don't have that problem ('engage with your students'), because my courses are based on practice training. I have to keep guiding my students on how to operate the camera and how to film through the whole training course, so we have to be engaged, it's not like giving lectures."
Characteristics of educational context	Students' characteristics	Sophie: "I don't think creative homework will work out in my class. The vocational school students care more about their vocational specialty, rather than the Chinese language."
	School conditions	Sophie: "We usually don't change the teaching material by ourselves, because we have a plan what and how many lessons need to be taught in each week; it is planned by the Teaching and Research Group (a widely conducted school-based teacher learning community in China). If you want to change the material you use or change the sequence, you need to inform the group. I don't want to make things complicated."
	Opportunities and resources	John: "Long-term professional development involves a lot of issues. You need to learn from others, communicate with peers, and participate in professional development programmes, but there is not enough cooperation between our school and teacher education institutions."
Professional development needs	External pressure	Henry: "Just like the expert teacher said, this job may be replaced by an AI technique in several years. Who knows if the subject I teach may be cancelled in five years ... they (expert teachers) can share advice, guidance or experience about how to cope with these changing situations in general, which is valuable for my long-term development."
	Personal needs	John: "As a beginning teacher, currently I don't think I need to do so. I need to focus more on my basic expertise and competency."

expert feedback types (see Table 5) and the school subject types (see Table 6).

4.1. Feedback characteristics

The first appraisal domain 'characteristics of feedback' shows how novice teachers value expert feedback based on their evaluation of feedback features and consists of four appraisal categories: (i) **benefit**, which is the novice teachers' general estimation of how certain expert feedback may facilitate/hinder their teaching

practice; (ii) **frequency**, which describes how frequently certain expert feedback is provided by expert teachers and can influence novice teachers' perceptions of the value and importance of particular expert feedback; (iii) **specificity**, which refers to how detailed the expert feedback is—specific feedback often targets concrete issues that novice teachers encountered and provides detailed steps on how to improve teaching practice; and (iv) **adaptiveness**, which means the transferability of expert feedback and indicates whether certain expert feedback can be applied to multiple teaching situations and content.

Table 5

Frequencies of appraisal categories in relation to expert feedback types.

Novice teachers' appraisal of expert feedback	Expert feedback types										Total
	Explanation and summarization	Assessment and evaluation	Students' experience	Teaching content	Professional development	Lesson design	Tasks and homework	Teaching material	Engagement	Students' future vocation	
Feedback benefit	2	4	2	3	0	8	3	1	3	3	29
Feedback frequency	0	0	1	0	0	2	2	1	3	0	9
Feedback specificity	1	0	0	1	1	1	0	0	3	1	8
Feedback adaptiveness	0	0	1	0	0	0	0	0	1	5	7
Teachers' expertise	2	4	6	7	3	6	3	6	6	4	47
Teachers' belief	1	0	3	0	1	0	0	0	2	4	11
Teachers' lessons	0	1	1	1	0	0	1	0	2	3	9
Students' characteristics	1	0	6	2	0	0	12	2	7	6	36
School conditions	0	2	0	0	3	3	0	10	3	1	22
Opportunities and resources	0	0	0	0	9	0	0	0	0	0	9
External pressure	0	0	0	0	5	0	0	0	0	1	6
Personal needs	0	0	0	0	1	0	1	2	0	0	4
Total	7	11	20	14	23	20	22	22	30	28	197

Table 6

Frequencies of appraisal categories mentioned by teachers in different subjects.

Appraisal domains	Novice teachers' appraisal of expert feedback	Chinese language	Vocational subjects	Total
Characteristics of feedback	Feedback benefit	12	17	29
	Feedback frequency	6	3	9
	Feedback specificity	1	7	8
	Feedback adaptiveness	6	1	7
	Total	25	28	53
Characteristics of teachers	Teachers' expertise	19	28	47
	Teachers' belief	8	3	11
	Teachers' lessons	4	5	9
	Total	31	36	67
Characteristics of educational context	Students' characteristics	21	15	36
	School conditions	11	11	22
	Opportunities and resources	5	4	9
Professional development needs	Total	37	30	67
	External pressure	1	5	6
	Personal needs	2	2	4
	Total	3	7	10

In this domain, 'feedback benefit' was the most frequently mentioned appraisal category and is related to many different types of expert feedback. Table 5 shows that 'improve your lesson design' is the most frequently recognised beneficial expert feedback for novice teachers. For example, Sarah was once advised to move some simple tasks from the end of the class to the beginning when designing a lesson. She expressed her approval of this expert feedback: "because it helps me to grasp my students' attention in a short time and inspires my students to continue with a more difficult task." Similarly, many other types of expert feedback were also evaluated as beneficial, such as 'provide proper tasks and homework'. The example of Martha provided in Table 4 shows that she realised that expert feedback on refining the homework may help her to assess students and extend students' knowledge.

In addition, novice teachers who teach different school subjects seem to have different concerns related to the appraisal categories 'feedback specificity' and 'feedback adaptiveness'. Table 6 shows that 'feedback specificity' was mostly positively appraised by novice teachers who teach a vocational subject (especially when appraising the expert feedback 'engage with your students'). As shown in Table 4, David, who teaches electro-mechanical engineering, agreed to engage his students by using more teaching tools and visualising the knowledge. His example also indicated the reason why specific expert feedback is necessary for novice teachers who teach vocational subjects. Vocational subject teachers need to make procedural knowledge visible to their students, which means that they profit from being informed on how to present the knowledge with some tools step by step.

The appraisal category 'feedback adaptiveness' was mostly mentioned by Chinese language teachers (see Table 6), especially when appraising the expert feedback type 'relate your teaching to students' future work situation'. The reason is explained by Amy, as shown in Table 4, who did not know how 'relate your teaching to students' future work situation' should be applied in language teaching. Another Chinese language teacher, Sophie, also commented: "how am I going to know their future work situation ... of course, it would be nice if I can use some materials or cases that are related to their vocational specialty, but it's not very feasible."

4.2. Teacher characteristics

The domain 'characteristics of teachers' contains appraisal categories that refer to the novice teachers themselves. This domain was usually mentioned by novice teachers when expressing their perceptions of how expert feedback could be adapted to their practice. Three specific appraisal categories are included: (i)

expertise, which indicates whether the expert feedback is appropriate to novice teachers' current level of teaching abilities; (ii) **belief**, which refers to novice teachers' understanding of teaching and includes teachers' values, perspectives, judgments, personal theories, and practical principles; and (iii) **lessons**, which is the school subject a teacher teaches and includes novice teachers' considerations on how the nature of the lesson may influence their implementation of expert feedback.

'Teachers' expertise' is the dominant appraisal category in this domain because, as one of the novice teachers, Henry, stated: "you have to have enough pedagogy and experience to support your change of teaching practices, you can't just do that (implement expert feedback) based on nothing". Moreover, 'teachers' expertise' is also often used by novice teachers to evaluate all kinds of expert feedback. For example, a Chinese language teacher, John, expressed his negative attitude towards the expert feedback 'relate your teaching to students' experience', because he thought he was not able to implement it with his current teaching level:

They (expert teachers) made this suggestion because they are better at managing the class and have more knowledge about students' experience, but I don't have the experience and knowledge to do so; that's why I think this feedback doesn't suit me.

Limited expertise is also the reason David evaluated the expert feedback 'provide proper tasks and homework' negatively; as he mentioned: "providing proper tasks means you need to make your tasks adaptive to every student ... paying attention to every single student in the class and knowing their different levels is too hard for me."

Another finding about 'characteristics of teachers' is that the appraisal category 'teachers' belief' is considered mostly by Chinese language teachers when referring to the expert feedback types 'relate your teaching to students' experience' and 'relate your teaching to students' future work situation' (see Tables 5 and 6). As already mentioned in Section 4.1, Chinese language teachers may have different opinions about how they can relate their teaching to their students' future work situations. Concerning the expert feedback type 'relate your teaching to students' experience', there are different kinds of 'experience' that a Chinese language teacher could relate to when teaching literature, and language teachers tend to teach based on their own preferences and choices, as explained by John:

They (expert teachers) suggested I relate to students' life experience to make it more understandable for them, but I already built the scaffold by reviewing the prior lesson. I think my students can understand easily ... of course their feedback is very good, but there is no perfect way to teach language and literature. I want to try my own way first and see how it works out.

4.3. Context characteristics

The appraisal domain 'characteristics of educational context' refers to the features of both the general education system in China and the specific school where the novice teacher works. 'Characteristics of educational context' is also referred to very often by novice teachers. This domain contains three appraisal categories: (i) **students' characteristics**, which refers to whether the expert feedback is adaptive to students' interest, personality, experience, and current level; (ii) **school conditions**, which includes the support and constraints at the novice teachers' schools and is usually regarded by novice teachers as an important factor that affect their implementation of expert feedback; and (iii) **opportunities and resources**, which refers to the chances and support a novice has to implement certain expert feedback.

Within this domain, the most frequently mentioned appraisal category was students' characteristics. Adapting new teaching strategies and methods to students was considered by novice teachers as the biggest challenge when implementing the specific expert feedback 'provide proper tasks and homework'. Martha, one of the respondents, commented in her interview: "vocational school students differ in many ways, such as their personalities, interest, and academic level ... how to make homework proper for every student is a challenge." 'Students' characteristics' was also commonly considered by novice teachers when appraising many other types of expert feedback that involve engaging or motivating students, such as 'relate your teaching to students' experience', 'engage with your students', and 'relate your teaching to students' future vocation work situation' (see Table 5).

The appraisal category 'school conditions' was mainly related to teachers' appraisal of the expert feedback type 'improve quality of teaching materials'. The reason for this might be that the use of teaching materials is dependent on school regulations and curriculum plans. Table 4 shows that Sophie refused to change her teaching material because the teaching material is determined together with her colleagues and she would need to inform the group before she could change her teaching plan or teaching material.

'Opportunities and resources' is a unique appraisal category that was only used by novice teachers to appraise the expert feedback 'work on your long-term professional development'. For instance, Martha had a positive appraisal of expert feedback on her long-term professional development because of sufficient resources and support from her school. She reported in the interview:

I agree, and I'm actually doing that ... We have some teaching skill competitions, and my colleagues and I participated as a team, so we have a lot of opportunities to discuss many issues during the activity ... besides, other teachers in my school are all very nice and willing to help with my problems.

4.4. Professional development needs

The domain 'professional development needs' indicates how the

expectations of novice VET teachers about their future development may influence their attitudes towards different types of expert feedback. This domain contains two appraisal categories, and these were mentioned relatively less often than the appraisal categories in the other three domains. The first appraisal category '**external pressure**' refers to the pressures on novice teachers' development caused by school regulations, policy requirements, and technology development. **Personal needs**, on the contrary, refers to the internal needs of the novice teachers, which usually involve teachers' interests and learning goals.

In this domain, 'external pressure' was mentioned more frequently than 'personal needs', and 'external pressure' was mainly mentioned by teachers who teach a vocational subject when appraising the specific expert feedback 'work on your long-term professional development' (see also Tables 5 and 6). The latter finding might be related to the effect of technological development on teaching vocational subjects. Henry, who teaches bench work in a VET school, expressed his concern about keeping up with technological development, and he therefore appreciated expert feedback on his long-term professional development (see Table 4). This concern about technology change was typical among vocational subject teachers. Louis also commented: "In this field (photography), equipment, software, and editing concepts, etc. are all being updated very rapidly ... if we don't learn and update ourselves, what we can teach our students would be outdated, and my students would lose their interest."

5. Discussion and conclusion

In the current study, novice teachers' appraisal of expert feedback was examined in the context of a TPD programme in Chinese VET schools. The main contribution of the study was that we built an appraisal framework with four domains and 12 appraisal categories based on novice teachers' perceptions of different types of expert feedback. We also reported the most frequently mentioned appraisal categories, different appraisals from novice teachers who teach different school subjects, and the relationship between appraisal categories and expert feedback types. Based on these findings, we discuss three main points.

5.1. The pragmatic demands of novice teachers

The four domains generated in our appraisal framework are 'characteristics of feedback', 'characteristics of teachers', 'characteristics of educational context', and 'professional development needs'. The findings from the current study show that novice teachers frequently referred to 'characteristics of teachers' and 'characteristics of educational context' when asked about their appraisal of expert feedback, which indicates that novice teachers have a pragmatic attitude towards expert feedback. Their concerns show they are trying to adapt particular expert feedback to their authentic teaching practices and the specific challenges they encounter. This can be regarded as a unique and original contribution of this study, because previous research focused merely on the features of feedback. For example, Thurlings et al. (2012) found four main dimensions that underpinned teachers' appraisal of peer feedback: goal/person-directed, specific/general, detailed/non-detailed, and positive/negative. Another example is a study on postgraduate students' perceptions of feedback from their university lecturers (Meerah & Halim, 2011), in which it was found that students appraised their lecturers' feedback in terms of frequency, timing and quality.

Another finding supporting this argumentation is that the specific appraisal categories 'feedback benefit', 'teachers' expertise', and 'students' characteristics' were commonly mentioned when

novice teachers evaluated all 10 different types of expert feedback (see Table 5). This indicates that being beneficial for their future practices, being suitable for novice teachers' current level, and adapting to students' characteristics are the three basic features of effective expert feedback, no matter what the feedback content is. In the interviews, novice teachers also stressed their expectation of being able to use expert feedback to solve their practical problems, and they frequently mentioned their concerns with authentic teaching situations. These results are supported by previous research on mentoring, such as from van Ginkel et al. (2016), who found four adaptive mentoring activities based on interviews with 18 mentor teachers. Two of the adaptive mentoring activities in their study were about teachers' expertise, i.e., 'adapting the mentoring conversation to novices' reflective capacity' and 'building tasks from simple to complex based on the novices' competence level'. The findings from these earlier studies show the importance and value of practical advice during feedback sessions in TPD programmes.

5.2. Possible reasons for the differences between teachers in different school subjects

In the current study, we built a generic framework which can be used for appraising expert feedback in many different educational settings. However, some findings also present unique characteristics of the VET context. For example, the appraisal categories 'feedback adaptiveness' and 'teachers' belief' were more frequently mentioned by Chinese language teachers when appraising the expert feedback 'relate your teaching to students' future work situation' while vocational subject teachers referred to the appraisal categories 'feedback specificity' and 'external pressure' more frequently. We therefore try to provide an explanation of these findings based on the Chinese VET context and the natures of the two different kinds of subjects.

The Chinese language teachers' concerns about 'feedback adaptiveness' may be caused by the Chinese VET context where teachers (both general and vocational subject teachers) are encouraged to teach in a vocation-oriented way (e.g., using materials from the vocational fields and providing examples from workplace). Many Chinese researchers in the VET field argue that relating teaching to students' vocational specialty can promote students' interest in studying both vocational and general subjects (Peng, 2013; Xu, 2012). However, novice VET teachers may need a longer time to find their position in vocational education and develop their teaching towards the vocation-oriented way. More feedback thus should be provided to support novice teachers in constructing their teaching routines or patterns in a way that fits the vocational education context.

In addition, the result about 'teachers' belief' could be explained by the characteristics of language teaching. Borg (2006) has found that teaching a language requires the teacher to have a wide range of knowledge, so they can be creative and flexible in their classroom and provide various cultural perspectives to their students. This means that there are many different kinds of perspectives that Chinese language teachers can touch upon in their teaching, such as students' prior knowledge of the subject content, life experience, and cultural perspectives. Chinese language teachers could make such decisions based on their own beliefs.

Concerning the findings about vocational subject teachers, it could also be explained by the nature of vocational subjects. As suggested by many previous studies, vocational subjects are supposed to be taught in a competence-based and vocation-oriented method, and teachers should work as an adaptive coach or role model who provides enough training to students (de Bruijn, 2012; Wijnia et al., 2016). Thus, teachers in vocational subjects need to

combine their professional skills and pedagogy, which might cause them to be concerned with 'feedback specificity'—such as how to transfer expert feedback into concrete steps in their teaching of procedural knowledge.

The nature of vocational subjects may also explain novice teachers' concerns about 'external pressure', because teaching a skill-related subject requires teachers to update their knowledge and keep pace with the current rapid development of technology. This has also been argued by Broad (2016), who emphasised that VET teachers need to keep on updating their knowledge through workplace learning, which is crucial for them to transfer vocational knowledge from occupations to classrooms. In addition, the vocational subject teachers usually have work experience in companies. This background may lead them to concern about the development of the industry, and they would possibly hope expert teachers to provide feedback on how to include emerging technology into their teaching.

5.3. Limitations and suggestions for further research

As we expected the differences between teaching general and vocational subjects in VET schools, we planned to compare the differences between teachers of the two types of subjects. However, due to the limited number of participants who were willing to take part in an interview, the general subject teachers were all Chinese language teachers, and the vocational subject teachers were in four different subjects. Therefore, the findings may not fully represent the differences between general subject teachers and vocational subject teachers. In addition, female teachers were dominant for the Chinese language group, whereas the vocational subject group contained more males. The Chinese language teachers were also more experienced than vocational teachers. The differences between the two groups of teachers could therefore have been affected by a lot of unknown or unmeasured contextual variables. We suggest that future studies should be focused on the effects of the school subjects on teachers' appraisal of expert feedback in a more strictly designed context.

When analysing the data, the frequencies of each appraisal category were calculated; however, these frequencies were merely interpreted qualitatively. In future research, quantitative research might be conducted to compare teachers of different school subjects and explore the association between the types of expert feedback and appraisal categories as a follow-up for the qualitative results in the current study.

5.4. Practical implications

The comprehensive framework of appraisal domains and categories highlights the importance of the characteristics from the novice teachers and the educational context when evaluating expert feedback. This has consequences for mentors and teacher educators, who are supposed to provide expert feedback that is adapted to the specific educational sector and the level of mentees. In the current study, it was found that not all expert feedback suits the needs of the novice teachers. We suggest that mentors and expert teachers should figure out what kind of feedback novice teachers need the most. To do so, mentors and expert teachers are supposed to have more communication with novice teachers to promote their understanding of novice teachers' needs. It could also mean that expert teachers need more practical experience in teaching situations similar to those in which novice teachers are struggling so that they can share more alternative teaching methods or strategies in dealing with these situations. Furthermore, novice teachers' concerns with regards to the domain 'characteristics of educational context' also show that environment,

resources, and opportunities are associated with novice teachers' development, which places a demand on school management. Flexible regulations, suitable teaching resources, supportive colleague relationships, and responsible leadership would be necessary for novice teachers to apply what they have learned from expert feedback into practice.

Some of the most frequently mentioned appraisal categories were found to be 'teachers' expertise', 'students' characteristics', and 'feedback benefit', which suggests that these are the fundamental issues about which all novice teachers are concerned. These results provide important information for mentors and teacher educators about what they should focus on when giving feedback and how they should formulate their feedback. We suggest that mentors and teacher educators provide feedback that fits the level of the novice teachers and their students, and the benefits of feedback should be explained to novice teachers to enhance their acceptance of the expert feedback.

Different appraisals were found between Chinese language teachers and vocational subject teachers, which provides insight into the different learning needs of teachers in different school subjects. This should also be taken into consideration when organising teacher induction or TPD programmes involving expert feedback. For example, feedback with various perspectives and alternative methods that can be used in different conditions may be more useful for a language teacher, whereas highly detailed and specific feedback may be more appropriate for novice teachers in vocational subjects.

Funding

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Declaration of competing interest

The authors declare that they have no conflict of interest.

Acknowledgements

The authors acknowledge that assistance during data collection was received from Tongji Li, who is an associate professor of the Institute of Vocational and Technical Education at Tongji University.

References

- Bi, C. (2020). 公共基础课和专业课融通的模块化教学内涵、特点、价值 [The connotation, characteristics and value of the integrated module of general course and vocational course]. 试题与研究 *The Examination and Research*, 35, 116–117. <https://www.cnki.com.cn/Article/CJFTOTAL-STYJ202035078.htm>.
- Borg, S. (2006). The distinctive characteristics of foreign language teachers. *Language Teaching Research*, 10(1), 3–31. <https://doi.org/10.1191/1362168806lr182oa>
- Broad, J. H. (2016). Vocational knowledge in motion: Rethinking vocational knowledge through vocational teachers' professional development. *Journal of Vocational Education and Training*, 68(2), 143–160. <https://doi.org/10.1080/13636820.2015.1128962>
- de Bruijn, E. (2012). Teaching in innovative vocational education in The Netherlands. *Teachers and Teaching*, 18(6), 637–653. <https://doi.org/10.1080/13540602.2012.746499>
- Chien, C. W. (2017). Elementary school English teachers' professional learning from teaching demonstrations as professional development. *Cogent Education*, 4(1), 1294229. <https://doi.org/10.1080/2331186X.2017.1294229>
- Cui, Y. (2012). 课堂观察LICC范式:一种专业的听评课 [class observation in LICC form: A professional class evaluation model]. 教育研究 *Educational Research*, 5, 79–83. <https://www.cnki.com.cn/Article/CJFTotal-JYYJ201205015.htm>.
- van Ginkel, G., Oolbekkink, H., Meijer, P. C., & Verloop, N. (2016). Adapting mentoring to individual differences in novice teacher learning: The mentor's viewpoint. *Teachers and Teaching*, 22(2), 198–218. <https://doi.org/10.1080/13540602.2015.1055438>
- Herbert, L. P., Allen, J. M., & McDonald, C. V. (2018). Exploring the influence of multi-field classroom observations on early career teachers' professional practice. *Teaching and Teacher Education: An International Journal of Research and Studies*, 73(1), 192–202. <https://doi.org/10.1016/j.tate.2018.04.005>
- Jin, X., Li, T., Meirink, J., van Der Want, A., & Admiraal, W. (2021). Learning from novice-expert interaction in teachers' continuing professional development. *Professional Development in Education*, 47(5), 745–762. <https://doi.org/10.1080/19415257.2019.1651752>
- Karagiorgi, Y. (2012). Peer observation of teaching: Perceptions and experiences of teachers in a primary school in Cyprus. *Teacher Development*, 16(4), 443–461. <https://doi.org/10.1080/13664530.2012.717210>
- Löfström, E., & Eisenschmidt, E. (2009). Novice teachers' perspectives on mentoring: The case of the Estonian induction year. *Teaching and Teacher Education*, 25(5), 681–689. <https://doi.org/10.1016/j.tate.2008.12.005>
- Ma, N., Xin, S., & Du, J. Y. (2018b). A peer coaching-based professional development approach to improving the learning participation and learning design skills of in-service teachers. *Journal of Educational Technology & Society*, 21(2), 291–304. <https://www.jstor.org/stable/26388408>.
- Ma, L., Zhao, J., Han, N., & Zhao, J. (2018a). 中职课堂教学现状调查问卷分析——以保定市为例 [The analysis of classroom teaching in secondary vocational schools—a case in Baoding]. 新课程研究. *New Curriculum Research*, 5, 131–136. <https://www.cnki.com.cn/Article/CJFTotal-XKCT201805052.htm>.
- Meerah, T. S. M., & Halim, L. (2011). Improve feedback on teaching and learning at the university through peer group. *Procedia-Social and Behavioral Sciences*, 18, 633–637. <https://doi.org/10.1016/j.sbspro.2011.05.093>
- Mena, J., Hennissen, P., & Loughran, J. (2017). Developing pre-service teachers' professional knowledge of teaching: The influence of mentoring. *Teaching and Teacher Education*, 66, 47–59. <https://doi.org/10.1016/j.tate.2017.03.024>
- Nami, F., Marandi, S. S., & Sotoudehnama, E. (2016). CALL teacher professional growth through lesson study practice: An investigation into EFL teachers' perceptions. *Computer Assisted Language Learning*, 29(4), 658–682. <https://doi.org/10.1080/09588221.2015.1016439>
- Peng, Y. (2013). 中等职业教育公共基础课程职业化转型初探 [An exploratory of turning general courses into vocational related in secondary vocational schools]. 中国职业技术教育 *Chinese Vocational and Technical Education*, (23), 27–29. <https://www.cnki.com.cn/Article/CJFTOTAL-ZONE201323009.htm>.
- Ren, Y. (2018). 中职学校活力课堂的构建策略研究——基于课堂教学管理的视角 [Research on the construction strategies of dynamic classroom in secondary vocational schools—from the perspective of classroom teaching management]. 职业教育研究 *Vocational Education Research*, (5), 41–45. <https://www.cnki.com.cn/Article/CJFTOTAL-JLKF201805009.htm>.
- Shao, C., & Zhou, P. (2013). 基于认知学徒制理念的青年教师导师制实践模式 [A model of mentoring for young teachers based on modern apprenticeship]. 中国职业技术教育 *Chinese Vocational and Technical Education*, (18), 82–86. <https://www.cnki.com.cn/Article/CJFTOTAL-ZONE201318021.htm>.
- Sherin, M. G., & Han, S. Y. (2004). Teacher learning in the context of a video club. *Teaching and Teacher Education*, 20(2), 163–183. <https://doi.org/10.1016/j.tate.2003.08.001>
- Sockman, B. R., & Sharma, P. (2008). Struggling toward a transformative model of instruction: It's not so easy. *Teaching and Teacher Education*, 24(4), 1070–1082. <https://doi.org/10.1016/j.tate.2007.11.008>
- Soslau, E. (2015). Development of a post-lesson observation conferencing protocol: Situated in theory, research, and practice. *Teaching and Teacher Education*, 49, 22–35. <https://doi.org/10.1016/j.tate.2015.02.012>
- Sun, C. (2013). 职教师资培养:一个亟待关注的问题 [training of vocational teachers: A problem that needs urgent concern]. 职教论坛 *Journal of Vocational Education*, (25), 63–70. <https://www.cnki.com.cn/Article/CJFTOTAL-ZJLT201325027.htm>.
- Thurlings, M., Vermeulen, M., Bastiaens, T., & Stijnen, S. (2012). Investigating feedback on practice among teachers: Coherence of observed and perceived feedback. *Mentoring & Tutoring: Partnership in Learning*, 20(4), 473–490. <https://doi.org/10.1080/13611267.2012.725981>
- Vattøv, K. D., & Smith, K. (2019). Students' perceptions of teachers' feedback practice in teaching English as a foreign language. *Teaching and Teacher Education*, 85, 260–268. <https://doi.org/10.1016/j.tate.2019.06.024>
- Wijnia, L., Kunst, E. M., van Woerkom, M., & Poell, R. F. (2016). Team learning and its association with the implementation of competence-based education. *Teaching and Teacher Education*, 56, 115–126. <https://doi.org/10.1016/j.tate.2016.02.006>
- Wynn, S. R., Carboni, L. W., & Patall, E. A. (2007). Beginning teachers' perceptions of mentoring, climate, and leadership: Promoting retention through a learning communities perspective. *Leadership and Policy in Schools*, 6(3), 209–229. <https://doi.org/10.1080/15700760701263790>
- Xu, G. (2012). 论职业教育中的普通文化课程改革 [On the reform of general course in vocational education]. 职教论坛. *Journal of Vocational Education*, (3), 4–11. <https://www.cnki.com.cn/Article/CJFTOTAL-ZJLT201203002.htm>.
- Zheng, X., Zhang, J., & Wang, W. (2019). Teacher learning as boundary crossing: A case study of master teacher studios in China. *Teachers and Teaching*, 25(7), 837–854. <https://doi.org/10.1080/13540602.2019.1673358>