NATIONAL INSTITUTE of Teaching

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Feedback Literacy in the 'Initial Teaching Training and Early Career Framework' (ITTECF)

Overview

Feedback is a crucial part of teachers' professional development, and the feedback that beginning teachers receive from their mentors can make a deep impression on their practice as their careers unfold. For this reason, a lot of effort goes into understanding which kinds of feedback are most valuable, and in which contexts, as well as the optimal time to give it. However, as Hattie and Clarke (2018) put it, 'there seems little point in maximizing the amount and nature of feedback given if it is not received or understood".

Being able to receive and engage effectively with feedback involves a complex but often underestimated set of skills and habits known as **feedback literacy**: defined as 'the understandings, capacities and dispositions needed to make sense of information and use it to enhance work or learning strategies' (Carless & Boud, 2018).

In a recent Teacher Tapp survey of over 9,000 teachers in England, 60% agreed that 'Initial Teacher Education needs to better prepare trainees for how to engage with feedback on their teaching.'

In the same survey, when asked to think about the last time they received feedback on their teaching from a colleague, only 80% of ECTs agreed that they had understood the feedback, and just 63% agreed they had 'understood how I should act on the feedback.'

Findings like these suggest a need to better equip beginning teachers for using feedback effectively.

The majority of research on feedback literacy focuses on students in higher education contexts, with relatively few studies on school teachers. In addition, there is little insight within the literature into the role that mentors' play in shaping the feedback literacy of their mentees. Our research therefore sought to gain insights into how (self-reported) feedback literacy behaviours develop among beginning teachers, and whether certain kinds of mentors drive greater change.

Research Aims and Objectives

Our research set out to answer three main questions:

1. Do teachers' (self-reported) feedback literacy behaviours change across their ITTECF programme?
2. Do any changes in teachers' (self-reported) feedback literacy behaviours over time depend on their mentors' own feedback literacy, mentoring self-efficacy, mentoring experience, or mentoring approaches?
3. Are higher feedback literacy scores associated with higher teacher self-efficacy, job satisfaction, and mentor-assessed teacher skills?

Research Design

We administered three short online surveys to teachers enrolled on the National Institute of Teaching's (NIoT) ITTECF programmes over the course of one school year, and two similar surveys to their mentors. To assess our key constructs of interest while being mindful of teachers' time, we used abbreviated versions of published, validated scales:

	Wave 1		Wave 2	Wave 3	
	Trainees/ ECTs	Mentors	Trainees/ ECTs	Trainees/ ECTs	Mentors
Demographic details (e.g., Age, Gender, Ethnicity)	✓	✓			
Programme (ITT vs. ECF)	✓	✓			
Experience of teaching and mentoring		✓			
Feedback Literacy	✓	✓	✓	✓	
Teacher Self-Efficacy	✓	✓	✓	✓	
Job Satisfaction	✓	✓	✓	✓	
Mentoring Self-Efficacy		✓			
Mentoring Approaches Experienced			✓		
Assessment of mentees' Feedback Literacy, and against the Department for Education's "Teachers' Standards"					✓

Participants

Participation rates, despite our efforts, were lower than expected, and attrition rates over time were higher than hoped. These challenges led to low sample sizes for some of our analyses, which affects our confidence in some of the conclusions we can draw – we note these concerns below where they apply. The table below summarises the number of teachers (ITT or ECT) who participated in just one wave, two waves, or all three waves of data collection, and how many of these teachers' mentors contributed to the dataset.

Participant Group	Participated once only (and matched with mentor data)	Participated twice (and matched with mentor data)	Participated in all three waves (and matched with mentor data)
Trainee Teachers	174 (40 matched)	131 (37 matched)	58 (18 matched)
Early Career Teachers	577 (146 matched)	110 (35 matched)	14 (4 matched)

Analyses and Findings

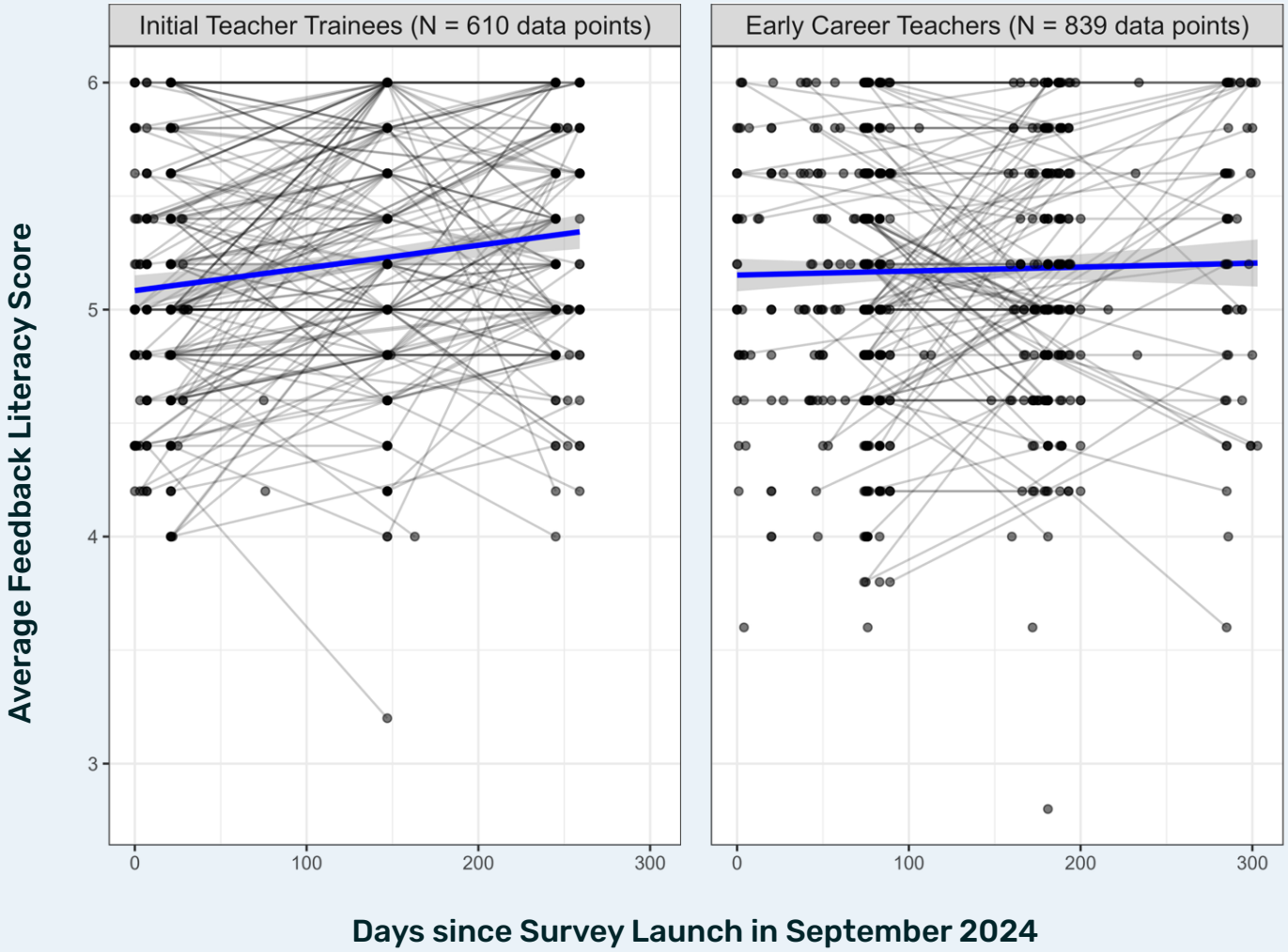
Research Question 1: Did teachers' (self-reported) feedback literacy behaviours change across their ITTECF programme?

Yes, they did. Even though teachers were already highly optimistic about their feedback literacy behaviours from the start of the year, we found a very small but statistically significant increase in their scores over time. This increase was primarily seen among trainees, rather than early-career teachers.

Some technical detail:
To answer this research question we used a statistical approach called 'multi-level linear modelling' to predict participants' feedback literacy scores from (1) time (the number of days between the start of the study, and their response); (2) their programme (ITT vs. ECF), and (3) the interaction between time and programme. We used random effects for participants.

As shown in the graph (over page), even at the very start of the year, teachers were highly optimistic about their feedback literacy behaviours, rating them toward the top of the scale on average (maximum possible score = 6). Notwithstanding these ceiling effects, we found a statistically significant overall increase in perceived feedback literacy behaviours over time.

There was no significant effect of programme, which tells us that trainees rated their feedback literacy behaviours similarly to early-career teachers at the start of the year. However, we found that feedback literacy scores increased more over time among trainees (shown in the left-half of the graph) than among early-career teachers (the right-half of the graph).



In this graph, the black dots represent individual participants' responses, whereas the blue line shows the average trends in the data (and the shaded region around the blue line shows the confidence intervals around those averages). The black lines between the black dots represent responses from the same participants over time.

Research Question 2: Did any changes in teachers' (self-reported) feedback literacy behaviours over time depend on their mentors' own feedback literacy, mentoring self-efficacy, mentoring experience, or mentoring approaches?

We found no evidence for any of these predicted relationships. However, in some cases our ability to answer this research question was severely limited by the very low numbers of respondents for whom we had matching mentor data.

Some technical detail:
To answer these questions, we used a multi-level linear model for each moderator variable (i.e., mentors' own feedback literacy, mentoring self-efficacy, number of mentees mentored previously, constructivist mentoring approach, and transmissivist mentoring approach). In each of these models we included time, the respective moderator variable (each of which was measured on only one occasion), and their two-way interaction. We used random effects for participants.

The two-way interactions in these five models test our predicted relationships: that is to say, whether any changes over time in teachers' perceived feedback literacy behaviours depended on the above moderator variables.

Note that mentors' feedback literacy, self-efficacy, and mentoring experience were assessed through mentors' self-reports; therefore, the models testing these potential moderators therefore only included those teachers for whom we also received data from their mentors. The two mentoring approaches were assessed by mentees' self-reports in Wave 2, and the models testing these potential moderators therefore include those mentees who responded in Wave 2.

Across all five models we again found positive changes in teachers' feedback literacy behaviours over time, but we found no evidence that the extent of these changes over time depended on any of the mentor measures.

For the two mentoring approaches, the analyses were reasonably well powered, and we can therefore have some reasonable confidence in these conclusions. However, because the number of mentees with matched mentor data was low, we have low confidence in drawing conclusions about mentor feedback literacy, mentoring self-efficacy, and mentoring experience.

[1] A transmissivist mentoring approach focuses on passing on the mentor's expertise. A constructivist mentoring approach focuses on guiding the mentee through reflection on their experience.

Research Question 3: Were higher feedback literacy scores associated with higher teacher self-efficacy, job satisfaction, and mentor-assessed teacher skills?

Yes. Teachers who reported having higher levels of feedback literacy behaviours also tended to report having higher levels of self-efficacy and job satisfaction. However, teachers who reported having higher levels of feedback literacy behaviours were not rated more (or less) highly by their mentors against the teachers' standards.

Some technical detail:
First, to test whether better feedback literacy behaviours at Wave 3 were associated with greater teacher self-efficacy, job satisfaction, and mentor-assessed teacher skills at Wave 3, we ran three multiple regression models. Each dependent variable (self-efficacy, job satisfaction, mentor-assessed skills) was modeled as a function of feedback literacy at Wave 3 and programme (ITT vs. ECF). In the analysis predicting mentor-assessed skills, we only used responses from those teachers with matched mentor data.

Second, to test whether better feedback literacy behaviours at Wave 1 were associated with greater teacher self-efficacy, job satisfaction, and mentor-assessed teacher skills at Wave 3, we ran multiple regression models for each outcome. Each dependent variable (self-efficacy, job satisfaction, mentor-assessed skills) was modeled as a function of feedback literacy at Wave 1 and programme (ITT vs. ECF). In the analysis predicting mentor-assessed skills, we only used responses from those teachers with matched mentor data.

Note that both analyses of mentor-assessed skills were based on very small samples, and their results should therefore be interpreted cautiously.

Third, we asked whether people with better feedback literacy behaviours at Wave 1 were more likely to improve in self-efficacy and job satisfaction by Wave 3, given where they started at Wave 1. To do this we ran multiple regression models for each outcome. These were identical to the models described in the previous paragraph, but with the addition of baseline (Wave 1) scores of either teacher self-efficacy or job satisfaction as a control variable.

We found that higher feedback literacy scores at the end of the academic year (i.e. at Wave 3) were moderately associated with higher teacher self-efficacy and job satisfaction – but not with mentor-assessed teacher skills – at the end of the academic year. Likewise, higher feedback literacy scores at the start of the academic year (i.e. at Wave 1) were moderately associated with higher teacher self-efficacy and job satisfaction – but not with mentor-assessed teacher skills – at the end of the academic year. Finally, higher feedback literacy scores around the start of the academic year (i.e. at Wave 1) were not associated with significantly higher levels of teacher self-efficacy or job satisfaction at Wave 3, after controlling for their baseline levels.

Summary

This was one of the first longitudinal studies to track quantitative changes in feedback literacy behaviours over time, and one of relatively few studies exploring this topic among trainees, ECTs, and their mentors. The data indicate that beginning teachers – especially trainees – perceived improvements in their own feedback literacy behaviours across an academic year. Moreover, these improvements did not meaningfully depend on the kinds of mentoring approach they believed they were receiving. Teachers who tended to be more optimistic about their feedback literacy tended also to feel more confident in their teaching skills, and more satisfied in their job roles.

There are many limitations to this study, not least of which are our reliance on self-report measures, and the relatively small numbers of teacher-participants for whom we had multiple time-points of data and matching mentor data. Teachers are time-poor, and the low response-rates and high attrition rates that this study suffered are likely testament to this fact. But teachers who are time-poor will need, even more pressingly, to be skilled in drawing value from their feedback encounters. This fact therefore underscores the importance of building an evidence-base on, and developing effective practices for, growing teachers' feedback literacy.

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