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Mediated Performance in the Feedback Process: Reinforcing improvement

Abstract

Feedback on writing, we argue, consists of a series of micro-events which encourage students to make sense of task requirements, negotiate assessment decisions, and reorganize their performance. While students' interpretations of 'effective feedback' have been widely discussed and problematized, less attention has been devoted to how they improve their sense-making and navigate different feedback experiences. Drawing on interview and textual data from two Chinese students studying their master's degrees at a British university, this study explores how the students used coursework feedback to improve their writing. We show how they worked to create internal knowledge structures with the assistance of external resources. We see this as the students' *mediated performance* resulting from their engagement with feedback and reinforcing self-coordination at intrapersonal and interpersonal levels. We believe our analysis contributes to a better understanding of the influence of feedback by highlighting how it shapes, and is shaped by, ongoing interpretations of disciplinary, task-specific requirements.

Key words: feedback, writing improvement, master's students, mediation, agency

1. Introduction

A central aspect of writing in traditional British higher education is the provision of personalized feedback to promote interaction and redrafting. Resource cuts and shortened courses (Henderson et al. 2019), however, have increasingly detached feedback from the kind of supportive environment that allows students to negotiate their concerns and learning decisions (Orsmond et al. 2013). While research has discussed optimal conditions for effective feedback (e.g. Lockyer et al. 2019), how students actively engage in different feedback encounters remains largely unexplored. Research suggests, however, that feedback can be acted upon as a dialogue (Morrell 2019), a mediational tool (Jansson 2006) or a process of sense-making (Esterhazy & Damşa 2017). But while the literature has widely discussed

students' active participation in the feedback process, there has been little attention devoted to their engagement as mediated performance. The picture is further complicated by the fact students' engagement with feedback may not always be observable as they interact with different resources (in-class feedback, task specification, informal conversations with peers) and adjust their positions to them (Author 1 & Author 2 2022). The question therefore arises of how students see these feedback resources and incorporate them into their writing.

To build a rich, contextualized picture of how students use advice to guide their learning decisions, we observed two Chinese master's students, Yana and Dan, as they interpreted and used feedback to structure their understandings of written tasks. Our focus on Chinese learners is influenced by the fact they comprise a significant proportion of the international student body and seem to face particular cognitive and emotional challenges during their stay in the UK (e.g. Tian & Lowe 2013). Among the most significant of these is the need to adapt to both academic discourse and the new academic environment. More specifically, they need to interpret the conventions and norms of their disciplines and preferred argument forms often conveyed in the feedback they receive (Esterhazy 2018). Clearly, feedback functions as a crucial institutional resource which mediates students' performance, their approaches to problem-solving and learner transitioning. However, we know little about the feedback resources which are made available to students and negotiated over a course to scaffold their interpretations of an ongoing task.

Here we explore how these master's students interpret their feedback and the challenges they encounter in doing so. In particular, we are interested in their academic performance as mediated by their use of different resources, such as written comments, oral discussions, feedback forms and debriefings. We see such *mediated performance* as a consequence of engaging with different task-specific requirements and seek to illustrate this engagement by examining two questions:

- (1) What feedback resources are used by students in the process of engagement?
- (2) Which forms of mediated performance are produced in feedback encounters to reinforce engagement and achieve improvements?

2. Feedback and learner improvement

Feedback is a crucial educational resource that evaluates students' understandings while scaffolding their acquisition of subject matter (Author 2 2013). We regard it as a social practice that, through a dialogue with advisors, helps to build a communicative context which collaboratively reinforces learning and improvement. Seen as a social practice embedded in

a sociocultural context, feedback is ‘deeply intertwined with the standards and the implicit rules and conventions of the given discipline and institution’ (Esterhazy 2019, 69). In other words, feedback is mediated by the characteristic practices of a discipline. It is manifested in different ways which influence the kinds of interaction surrounding it.

Because this is a practice embedded in, and delivered through, different events and written artifacts, feedback requires learners to manage complex relations and contextual dynamics, such as power structures and disciplinary norms, which, in turn, shape how they understand feedback itself. This is why feedback should also be seen as a socially embedded process (Esterhazy & Damşa 2017) which is organized around a range of interactions with other participants and knowledge resources such as assessment criteria, standards of writing, and relevant concepts.

As learners negotiate the use of feedback in different encounters over time, they improve their performance in various ways. Aoun et al. (2016) stress the need to examine how students recognize, grasp, interpret, and reflect upon feedback and to link this back to course materials and learning objectives. Ajjawi et al. (2022) suggest that students’ perceptions of relatedness, competence and autonomy are key mechanisms contributing to this gradual development of self-efficacy and learning. These different forms of engagement are assisted by the extent students exercise agency in the process as this assists them to build feedback into a *coordinated* activity and regulate their efforts to make improvements.

Students’ active engagement can be promoted by teachers in different ways, such as through the use of feedback request forms or interactive coversheets. Lockyer et al. (2019) found students exercise agency in feedback through reflection, comparison, calibration, and filtering activities which lead them to create achievable plans for improvement. For Jansson (2006), engagement consists of ongoing sense-making and recontextualization and this can be demonstrated through incorporating teachers’ voices, more specifically by extracting these utterances and putting them into a new context of meaning-making.

This kind of individual agency can mediate engagement and lead to improvement by offering a meaning-making trajectory for learners to draw on both their content and general knowledge. In order to transform feedback into improvement, however, students need to grasp ideas such as complying with task demands and understand criteria for good writing (Sadler 2010). While task compliance is concerned with whether students can conform to the expected form and structure of a writing task, their understanding of criteria, particularly abstract criteria such as coherence, originality and rigor, involves evaluative judgements about quality which are particularly challenging for students. This is often because they lack

an overall perspective of a text and tend to focus on superficial differences of individual items rather than the deeper, subtler and more abstract aspects of them (Sadler 2010). Teachers' scaffolding strategies, which guide students to see what is hidden in the feedback message, thus become a crucial condition for achieving improvement.

If we see engagement as an iterative process of restructuring existing understandings, then the uptake of feedback will be influenced by the flow of information, both within individual students and between those participating in the encounter. This means that knowledge structures can be produced both internally and externally. As Aben et al. (2019) argue, a feedback-receiver's prior domain knowledge can influence how he/she comprehends the feedback-giver's domain-specific remarks and so associates this information with other kinds of information. In this sense, engagement inevitably requires learners to connect their (reorganized) internal knowledge structures (e.g. prior domain knowledge) with those offered as external resources (e.g. domain-specific remarks). Students, then, have to learn to negotiate their understandings and concerns so as to more tightly entwine their own sense-making with the teachers' expectations for how the task should be represented.

Students can actively engage with the task to achieve improvement, such as taking more control of the ongoing dialogue around feedback, reinterpreting comments and adjusting interpersonal positioning. This engagement is realized through individual agency, manifested in their efforts to regulate different sources of information, such as associating information in memory and relating their own feelings to external resources (Nicol 2021). The use of feedback often unfolds through spiral sense-making, which is, in Linell's view (2009), a dynamic undertaking involving discursive moments. Esterhazy and Damşa (2017) have, through detailed discourse analysis, identified orientation-elaboration sequences which contribute to these sense-making trajectories and reveal something of students' step-wise achievements through their evolving interpretations and meaning-making. These achievements are shown, for example, in the changing engagement of students as they move from their initial processing of comments, to gaining shared understandings, and eventually to creating a representation (Esterhazy & Damşa 2017). Through the interactions between student ideas, teacher advice and available knowledge resources, these understandings also mediate subsequent interactions (Esterhazy & Damşa 2017; Author 1 2023), forming a continuing process of mediated learning.

3. Mediated performance

For Esterhazy (2019, 70), learning is the

construction and reorganization of internal knowledge structures that result from the social interaction of the learner with the environment.

Learners thus assemble their *mediated performance* in the feedback process through the coordination of various knowledge resources, including feedback. The concept of *mediated performance* was proposed by Hutchins (1995) to describe a student's representation of what a task requires by way of rearranging his or her internal resources to meet the demands of the external world. It suggests how meanings, actions and tasks are coordinated and so points to the learner's sophistication in understanding and utilizing intellectual and material tools. Novice and skilled writers, however, seem to differ in how they reorganize their actions. The former often alternate 'between coordination with the written procedure and coordination with the world', while more skilled writers can perform 'simultaneous coordination' (Hutchins 1995, 304-5) as they have developed internal representations of what is required by the task. Hence, skilled writers are able to integrate their internal resources (their understanding of concepts/methods) with external structures embodied in different artifacts, in ideas or in systems of social interaction (Hutchins 1995).

Mediated performance thus arises from different forms of interaction and is reiteratively shaped, occurring repeatedly in different ways as learners build on their experiences with ideas and artifacts. It is the outcome of interacting with the task environment which can show how learners apply their knowledge and gain control of their learning. Different knowledge resources can shape learner performances in different ways, with one form of engagement mediating another; their actual impacts, however, are also regulated by collaboration and task management (Esterhazy & Damşa 2017).

Studying this mediated process can help reveal the workings of concrete forms of mediated learning. Internal feedback, for example, shows us something of how students learn by comparing the knowledge and competence they currently possess with their target performance (Nicol 2021). Eriksson and Mäkitalo (2015) argue that what leads to effective task representation is the integration of mediating means (e.g. comparisons, models) for reasoning and illustrating the discipline's epistemic practices.

The regulation of one's mediated performance can be empowering – giving learners a sense of agency – as they learn to negotiate concrete forms of guidance. Tuck (2012), for example, found that a student developed a preferred feedback style and negotiated a desired coaching dialogue with the teacher. In this sense, the student became an active participant by deciding how to coordinate and co-develop a partnership with the instructor to promote productive changes in the feedback process.

Feedback is a crucial knowledge resource regulating learners' coordination of themselves and others, and between themselves and different resources in the social world. We see *mediated performance* as a concrete form of, and condition for, improvement generated through the iterative engagement with these resources and the activation of individual agency.

This engagement involves *spiral* sense-making in a trajectory of negotiating meanings, and can be constantly adjusted as students learn to decipher dominant conventions of academic discourse and teacher expectations. We are therefore interested in examining learners' trajectories using feedback resources which discursively regulate their mediated engagement. We therefore explore improvements by tracing the ways two master's students manage different feedback resources to coordinate with task requirements and shape their *mediated performance*.

4. Participants and data

We collected the data for this study from two international students working towards Master's degrees at a research-intensive university in Britain. Yana, studying Film and Television Studies (FTS) in the Faculty of Arts, and Dan, studying TESOL in the Faculty of Education. Both students speak Mandarin Chinese as their first language but had different educational backgrounds and learning/working experiences. Yana obtained her bachelor's degree in News and Media in Macau. She developed a strong interest in producing and analyzing films, incorporating innovative ideas gained through extensive travel experiences. Dan taught IELTS courses in a Chinese tutoring center for some years and developed theories of how best to teach ESL students. Both had little experience of academic writing before they began their master's studies. Yana, however, attended two month-long pre-session courses and received tutor feedback on several written tasks during this period.

The first author of this study observed several L2 students during their first semester and interviewed them several times during the second and third semesters, together with several informal conversations and email interviews. We chose to report the accounts of the two students as they offered interpretations of assessment materials, such as assignment guidelines, debriefing notes, and specific feedback points, in a detailed way. In addition, their interview accounts revealed both the variety and rich complexity of their use of disciplinary feedback, allowing us to examine the connections between different feedback resources and how they navigated between them.

A systematic data-collection plan was devised. In-depth, semi-structured interviews

with the two students (lasting between 60 and 80 minutes) were conducted by the first author to explore different aspects of their feedback experiences, including their feedback histories, details of obstacles, forms of engagement, and strategies for handling conflicts arising from their engagement. We discovered how Yana, for example, shaped her gradual adaptation to the learning process using feedback delivered through reflecting on the task, debriefings and oral discussions with her teacher. Dan, on the other hand, showed us how his awareness and approaches to academic writing were shaped by disciplinary preferred ways of interpretation.

These interviews also incorporated elements of narrative inquiry, encouraging the participants to reveal their relations to course teachers and any difficulties they had in the learning process. In Yana's case for instance, interviews were carried out after she finished the two assignments in order to get a more holistic perspective on her views of the main challenges she encountered in the assessment process.

Before these interviews, we collected a range of textual data from them, comprising:

- teacher written feedback (e.g., in-text comments, feedback forms, advice on Blackboard, debriefing notes)
- assessment and course materials (e.g., criteria sheets, handbooks)
- students' written notes and drafts.

These textual data were reiteratively associated with the in-depth interviews after they were transcribed in detail and carefully analyzed through thematic analysis to identify key themes depicting how the students integrated feedback and other assessment materials. The analyses were then member-checked with the two students to verify their agreement that the themes identified accurately revealed their concerns, described their use of feedback and represented their feedback trajectories. The analyses were then discussed, with the second author of this paper, to refine and synthesize the themes to present a coherent categorization of the themes.

Due to limited space, we are only able to include qualitative data sets that present clear connections with the mediating artifacts the students used to interpret teacher written feedback. Our focus is on how the students combined aspects of both formative and summative advice and coordinated their internal resources to achieve closer alignment with teacher/task requirements. Following standard definitions, we use 'summative' to refer to input mainly to deliver judgement and evaluative decisions (though it could contain formative suggestions); and 'formative', to talk about comments with a clearer developmental purpose which offer more space for dialogue and revision. In this way, we

seek to reveal their mediated performance. Figure 1 presents the artefacts analyzed.

Yana (Film and TV Studies)
<ul style="list-style-type: none">• Advice posted on Blackboard, offered during the writing process, including ‘Advice 1’ and ‘Debriefing 1’ (550-700 words)• Teachers’ summative comments and the grades on two written assignments• Three interviews with the student
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Dan (TESOL)
<ul style="list-style-type: none">• Teacher’s formative written feedback on an assignment outline (306 words)• Teachers’ summative comments in track-changes on three assignments• Comments on feedback sheets (after grades were given)• Two interviews with the student

Figure 1 Data sets analyzed for the presentation of two cases

As mentioned, we view feedback as a contextually specific social practice embedded within learners’ efforts at meaning-making and reflecting instructional methods and disciplinary requirements. We interpret feedback processes as discursive sense-making occurring in classrooms and subsequently reinforced through (re)writing and interacting with teacher comments and other assessment materials. This view helps us to understand the students’ mediated performances as influenced by a continuous orientation towards what is required and valued in their disciplines. In Yana’s program, students’ creative analysis of the use of media and multimodal resources is one of the essential requirements of many tasks. In Dan’s discipline, an integration of theories, methodologies and prior teaching experiences is often required. In both cases these requirements are learnt implicitly through writing and then become a crucial mediating structure regulating task performance.

In our analysis of feedback and student engagement, we explore their mediated performance by highlighting concrete forms of co-ordination performed in responding to feedback. More specifically, we report how they interpreted the two aspects of feedback:

- (1) features of teacher written comments (i.e., developmental, content-based, task-specific) and related aspects of (desired) improvement;
- (2) the ways students integrate different types of feedback to show their evolving understanding and mediated performance.

While aware that improvement is hard to measure, we sought to identify the links between teacher comments and students’ responses through intertextual analysis which could

help reveal two levels of coordination, namely: (a) students' internal coordination among different structures/resources and (b) their coordination with teacher expectations. In Yana's case, for example, we highlighted the connection between 'Advice 1', 'Debriefing 1' and teacher summative comments. We then associated these connections with her reported emotional struggles which reshaped her attitudes towards learning and engagement. In Dan's case, we captured developmental elements embedded within the teachers' formative advice on the assignment outline, feedback through Track-changes, and comments in feedback forms. We then traced how Dan combined these resources to generate active engagement.

5. Mediated performance as *adaptive* engagement

We present mediated performance as *adaptive* engagement resulting from the two students' ongoing self-coordination in the feedback process. This is the continuous coordination of internal (cognitive, emotional, familiarity) resources with the external requirements of the task which were reinterpreted in different feedback encounters. We see this form of engagement as enabling the students to organize their experiences and locate themselves within the process of understanding task requirements and the preferences of their disciplines.

5.1 Yana: *coordinating cognitive and emotional resources for agentic participation*

Yana's active engagement was characterized by her sense-making of the different assessment materials and by her personal adaption to a continuously mediated learning process. We present the concrete forms of engagement she displayed in the process as follows (Figure 2). The central feature of her engagement, we observed, was her shifting away from managing the task requirements towards coordinating her internal needs with the external world.

Feedback resources used in different stages or encounters	Major forms of engagement
<ul style="list-style-type: none"> • Before writing process began: classroom task specification; assignment guidelines 	<ul style="list-style-type: none"> • Interpreting; cognitive processing; discussing with peers
<ul style="list-style-type: none"> • During the writing process: assignment guideline; <i>internal</i> reflections on movies and other readings 	<ul style="list-style-type: none"> • Associating <i>external</i> task requirements with <i>internal</i> resources (i.e., memories, familiarity with assignment topics, personal insights)
<ul style="list-style-type: none"> • After receiving a grade and teacher summative feedback: internal knowledge structure; teacher written feedback and oral feedback sought from the course teacher 	<ul style="list-style-type: none"> • Inviting clarification for the assessment decision
<ul style="list-style-type: none"> • After meeting with the teacher: teacher feedback but primarily her emotional resources 	<ul style="list-style-type: none"> • Reprocessing oral feedback; withdrawing attention and emotionally distancing herself
<ul style="list-style-type: none"> • Several weeks after the course was finished: both internal and external forms of support, such as conversations with different people 	<ul style="list-style-type: none"> • Managing emotions; reorganizing learning actions; self-repositioning

Figure 2 Feedback resources and forms of engagement

Yana’s cognitive processing of feedback often began when she learnt to interpret the task specification and assignment guidelines offered in the classroom. She also participated in discussion with her peers about what was required by the task, for example, what an ‘analytical’ analysis of the music in the chosen movie should be like. This led her to link the discussion of disciplinary subject matter with her individual reflections on life, drawing on memories and personal insights. However, it was not until she received teachers’ summative feedback, together with a grade, that she began to see the more abstract and subtler aspects of the assessment requirements.

The teacher’s comments on her essay (Figure 3) addressed the scene selection and concrete ways to present a sequential analysis. Such feedback showed Yana how well she had understood disciplinary subject matter (*‘make some interesting points about the function of music...’*). Combined with hedged criticism on analytical issues (e.g., *‘at times a bit vague’*), these task-specific comments suggested the direction she should take to improve (e.g., *‘It might have been more interesting to... bind the three different stories together’*).

... But while the introduction to the essay makes some interesting points about the function of the music in the film overall, especially with regard to its discontinuous structure, and with regard to the minimalist simplicity of the music, the analysis does not follow up on this, and focuses on one character and on relatively conventional musical functions. (It might have been more interesting to look at the way the music helps to bind the three different stories together.) The analysis is precise with regard to action and visuals, but the musical descriptions are at times a bit vague, and terminology is not always used clearly...

Figure 3 Teacher summative comments on essay 1

Yana appreciated the teacher's comments which paired praise with criticism of aspects of her work (Author 2 2001). But she did not accept the main critique concerning the analytical scope and strength of her writing – the problem of choosing one female character as the focus of discussion. Yana felt she had already justified her musical decision in line with the teacher's suggested approach '*it could be how it helps to introduce or accompany a character...*' (stated in 'Advice on essay 1') which was offered to all students before they started writing (Figure 4). Yana also noted a few points made by the teacher in 'Debriefing for essay 1' (which summarized general problems of all students' texts), and in 'Advice on essay 2' (which provided suggestions on planning essay 2, Figure 4). Based on these directions, she believed that she had performed the required analysis of the scenes, incorporating analytical details and examples.

Advice on essay 1 (advice to students before writing):

What you focus on in your analysis depends on what is interesting about the scene or sequence in question: it could be the way music imports meanings and connotations into the scene...it could be how it picks out characters or aspect of the scene as the ones we're meant to pay attention to; **it could be how it helps to introduce or accompany a character or her development through the scene...** it really depends on your scene or sequence.

Debriefing for essay 1:

... You should also indicate what kind of film it is: what it is about (though careful with long plot summaries - only write what is necessary to make sense of your analysis of the music), and **possibly, depending on the angle of your analysis, something about genre, period, style: anything that explains what the options and the requirements are for the music.**

Advice on essay 2:

...a film that uses a lot of different music in different ways for different purposes would probably require you to talk about a larger number of scenes and musical material in less depth, while **a film with a sparser or more consistent musical strategy would allow you to discuss fewer examples in greater depth.**

Figure 4 Different forms of advice on essay 1 and essay 2 posted on Blackboard

Yana's performance was clearly mediated by the teacher's task instruction and by her internal beliefs. Her response to the task showed a degree of task compliance, revealing the use of feedback as an external source of mediation. Nevertheless, she failed to co-ordinate with the teacher's requirements, and in the teacher's view, she did not demonstrate the expected degree of sophistication in analyzing musical materials and strategies.

There is a mismatch here between the required knowledge presentation (an analysis illustrating certain musical strategies) and Yana's approach to the task (mainly descriptive drawing on her interpretation of a particular story). Yana said,

The teacher provided a lot of suggestions on what to analyze and how to present the analysis. But I do not understand why I should analyze three stories instead of one, and I think I've included enough descriptions of one story, using some screen shots and tables. (1st interview with Yana)

Yana also said she could not fully understand what 'analytical' meant, indicating that her prior knowledge did not allow her to comprehend the conventions of the task in ways that met the teacher's expectations. Lacking an all-things-considered perspective (Sadler 2010), she was unable to combine different aspects of the criteria, such as originality and coherence, to make sense of the assessment decision. She then approached the teacher to negotiate her

view but without success. Yana said:

He suggested that my essay should discuss three women's stories, but I want to focus on one story as the music I chose to analyze primarily articulates the scenes of this story. I don't understand why I should discuss three women's stories... In our meeting, I tried to explain my rationale for focusing on one woman's story. But he interrupted me, saying 'let's talk about the second assignment you are going to write'. He did not want to explain his decision on my first assignment because it was finished, and the grade assigned. But I need to know why he offered those suggestions so I could better plan my second assignment. (1st interview)

While Yana wanted to understand the assessment decision, the teacher saw the discussion as an orientation towards the future task, or possibly a challenge to his decision. In this encounter, Yana did not receive the feedback she wanted and felt this diminished her agency. The experience made her feel powerless. Her emotions possibly interfered with her cognitive processing and influenced her sense-making. She said,

I couldn't fall asleep that night. I considered all he said, and I think I should have insisted on getting an answer. I wanted to send him an email to discuss this, but eventually I didn't. I did not want to have a conflict with him. (1st interview)

While Yana sought to relate her thoughts and actions to the task requirements, she lacked the experience to organize her knowledge structures and verbalize a rationale for her decisions. She also saw a mismatch between her interpretation of *what the task says* and *what the task actually requires*, undermining her ability to use her conceptual knowledge to perform the analysis.

The teacher may have simply been maintaining his professional boundary but this prevented Yana's further interaction on the issue. She emotionally distanced herself and adopted an unhelpful guarded style, as she notes below. Yana talked about how she reprocessed her feelings and repositioned herself as a learner to minimize the negative effects of that experience:

I tried to filter all my negative emotions so I wouldn't feel too hurt. Perhaps, I did not phrase my questions well or clarify my intentions in that meeting. I was not good at communicating my thoughts and feelings, you know, I was learning to express myself. But I really hope my teacher can be more open for discussion. (2nd interview)

Yana, in fact, spent several weeks navigating her emotional hurdles, but by the time she started to work on her thesis she had developed a more reflexive attitude, shaping her *mediated performance as adaptive engagement* in the feedback process. As she said in the

3rd interview, she began to see ‘learning as a process of adjusting my expectations for learning.’ Her mediated performance was thus driven by her greater engagement with ‘what is outside this feedback’ (Yana’s words, 3rd interview) and *coordinating* her internal (emotional) needs, which shaped her self-repositioning as spiral engagement.

Through Yana’s story, we can see that her mediated engagement was a sense-making trajectory that revealed her vulnerability and agency in utilizing feedback resources (Molloy et al. 2019). Developing oneself as an effective learner involves agentive coordination, a process of resolving internal conflicts and reorganizing one’s cognitive and emotional resources when interacting with the task. While this process provoked Yana’s sense of personal limitation and frustration, it also prompted her to rethink how to mobilize her affective responses more effectively. Such a *coordinated* process could assist in rebuilding the feedback conversation into a space for improvement, with more openness and joint responsibility.

5.2 Dan: shifting directions of engagement as a coordinating strategy

Dan received feedback on written assignments which considerably scaffolded his planning and conceptual framing of his work. His engagement was shown by his self-coordination at both conceptual and interpersonal levels as he used internal and external resources in the feedback process (Figure 5). His interaction with written comments often began after receiving the teachers’ formative feedback on his assignment outlines during his writing process.

Feedback resources used in different stages or encounters	Major forms of engagement
<ul style="list-style-type: none"> • After the assignment given: assignment outlines with teacher comments 	<ul style="list-style-type: none"> • Email discussion with teachers; cognitive processing
<ul style="list-style-type: none"> • During the writing process: formative feedback; assignment guidelines; <i>internal</i> reflections on prior teaching experiences 	<ul style="list-style-type: none"> • Associating <i>external</i> experiences with <i>internal</i> resources (i.e., conceptual framing, personal theories)
<ul style="list-style-type: none"> • After receiving a grade and summative feedback: <i>internal</i> and <i>external</i> knowledge structures; detailed written feedback through Track-changes 	<ul style="list-style-type: none"> • Re-analyzing task requirements (i.e., methodological/theoretical justification)
<ul style="list-style-type: none"> • After finishing several courses in the second semester: resources for improving writing 	<ul style="list-style-type: none"> • Seeking peer feedback; reinterpreting conventions and preferences of disciplines
<ul style="list-style-type: none"> • After engaging with local community groups: daily conversations and voluntary work as opportunities for socialization 	<ul style="list-style-type: none"> • Connecting the <i>social</i> self with the <i>academic</i> self for deep enculturation

Figure 5 Feedback resources and forms of engagement

Dan particularly liked detailed feedback on his assignment outlines, which addressed different ways to improve his work (Topic, Situation, Method, etc.), offering advice on where to go next (*'You're certainly not going to talk about...'*, *'you need to be asking questions...'* Figure 6). Questions, such as *'But isn't there a danger...?'* and *'Is it really possible for students...'*, prompted Dan to think more critically and to review the course materials, including the handbook, key readings and useful websites. The teacher's end comments, which associated concrete suggestions with assignment guidelines, also reinforced his cognitive processing of the task-specific requirements.

Teacher's margin comments:	Teacher's end comments:
<p>1. Your assignment is not going to be a manual for teaching. Ask 'what is the benefit of translation for IELTS preparation?'</p> <p>2. But isn't there a danger in talking short cuts? Who doesn't care about communicative competence? You are certainly not going to be taking about IELTS examiners here.</p> <p>3. I don't think what you are talking about is actually grammar translation methodology.</p> <p>4. You need to read about the IELTS, it's purposes and aims. http://www.ielts.org/PDF/Guide_Teachers_2013.pdf</p> <p>5. ...you need to be asking questions here. E.g. how does translation promote language proficiency as it is assessed in the IELTS? Is it really possible for students genuinely to improve their proficiency scores in a short time?</p>	<p>Dan, this is a good quick start, but you need to be more research focused. You need to structure the assignment so that it corresponds with the structure of the assignment task as laid out in the handbook. Section 1 of the assignment question asks you to describe the context and approach. Who are the students? How many in a class? What are their goals or purposes for learning, i.e. what is the IELTS test for? ... Section 2 asks you to critique the approach described in the first part. This means you need to research the ideas, identify any fundamental problems with the approach and discuss these with reference to your reading.</p>

Figure 6 Teacher comments on Dan's assignment outline

These formative suggestions, often made through questions and clarification, led Dan to co-ordinate his thoughts with the teacher's advice for improvement. Dan talked about how his conceptual framing and personal ideas were shaped by engaging with these comments:

I think the approaches used in many classrooms are very teacher-centered and exam-led. They help students to get a good grade instead of developing their communication skills. I wanted to address this problem in my paper. But my teacher asked me to rethink a few important issues concerning students, teaching materials and teaching methods, and to theorize my discussions about them. He asked me to

think about ‘who doesn’t care about the development of communicative competence?’ and ‘Is it possible to improve grades in a short time?’. These are important questions I hadn’t considered, and they led me towards thinking of grammar translation methodology. (1st interview)

Dan’s performance was thus mediated in how he used the teacher’s advice to modify his plan to discuss exam-oriented English language teaching and develop a stronger sense of disciplinary methods. Lacking an internal knowledge structure of how to arrange source materials, however, Dan was not sure how to relate the teachers’ comments to disciplinary content or the standards and assessment criteria of the course. He further noted that:

There are lots of complicated issues, particularly about methods and theories I need to think about. My discussion needs to be more theoretical, I think. I mean, I should not just focus on describing my teaching context, but analyze it using a theory and justify my decisions. But I still don’t know how to do that. (1st interview)

Recognizing that the teacher’s feedback only took him so far, Dan explored ways to use the assessment formatively by engaging with the summative comments in Track-changes after grades were awarded. Dan’s cognitive structuring of his knowledge domains was, in fact, promoted by these comments suggesting concrete ways to articulate disciplinary knowledge. These detailed comments reveal the teacher’s topic knowledge, judgements and professional insights (*‘This is a concept developed from Swain’s work’, ‘I think this is where the myth of NS begins’*, Figure 7). Dan saw these kinds of feedback as extremely useful, partly because they contained mediating structures, such as how to use footnotes to unpack a concept.

Excerpts from Dan's assignment:	Teacher comments in Track-changes:
The first activity is referred to as collaborative dialogue and the latter is regarded as private speech.	I would have been inclined to have a much bigger section introducing the overall theory of learning that SCT proposes...and then focused on the two that you suggest.
This means children take private speech as a tool for self-regulation in language acquisition.	You might want to unpack this concept in a footnote
Despite the fact that vicarious responses are not addressed to the teacher because of its low volume, it shows a form of legitimate, peripheral participation (Lave and Wenger 1991).	This is an interesting point – and all concepts need to be explained – so again you can define this and have it in the text or in a footnote
Therefore, the collaborative effort to build up knowledge and meaning in the social context is of vital importance from the sociocultural perspective.	This is a concept developed from Swain's work so I would expect to see a quote here from the reading of her extensive research
Native speakers are fully capable of producing language without effort and they have a more profound knowledge of the language.	That would make an assumption that all NS study grammar and think about language in the same way as L2 learners – I think this is where the myth of NS begins

Figure 7 Dan's text excerpts and associated summative comments

In Dan's view, these comments strengthened his ability to create meanings by providing him with a conceptual scaffold of disciplinary effective and valued meaning-making techniques ('...so again you can define this and have it in the text or in a footnote', Figure 7). As he said, 'I realized that my discussion needs to be more theoretical and supported by relevant quotations. My teacher pointed out where I should add a quotation' (2nd interview). This feedback thus enabled him to monitor the gap between his response and the task requirements, coordinating his internal knowledge (thoughts and rationales) with the teacher's judgements and advice.

Dan thus developed his theoretical mapping of the task by reprocessing and analyzing the experts' views, connecting the external knowledge structure with his own reflection. Here we can see a seamless integration of *interpersonal* and *intrapersonal* coordination performed to structure his learning and his mediated performance.

Another key source of personalized feedback, which gave him a sense of teacher expectations, were comments praising different aspects of his written work, such as 'knowledge and understanding', 'approaches/analysis' and 'organization and structure' in the feedback form (Figure 8). For Dan, these praising acts, though primarily conveying the assessment decision, were a sign of individualized attention and a clear indication of what is valued by the discipline ('a strong line of argumentation on SCT', 'a very clear and coherent assignment that follow very well'). Dan said:

I really appreciate the comments of my teachers which showed the strengths of my writing. I read them several times, and I feel they really responded to me as a writer. My self-confidence was boosted. But I want to know a bit more about why they like some of my arguments so I can reproduce them, maybe using similar sentences in future. (1st interview)

Here we can see while perceiving these praise acts as an emotional resource, Dan desired more scaffolding on how to produce patterns of effective knowledge making – a skill that he could apply to future written tasks. He, in fact, started searching for useful resources and soliciting peer feedback after finishing the courses in the second semester. His reorganization of knowledge then appears to be driven by his desire to improve sustainably, and this further promoted an integrated use of his growing content knowledge and the knowledge gained from other social encounters.

Knowledge and Understanding

- Excellent insights developed from a deep and comprehensive understanding of the issues.
- Good understanding of the issues is demonstrated; some insights developed.
- Satisfactory, reasonable level of understanding of the issues is demonstrated.
- Limited or weak understanding of concepts and somewhat superficial grasp of the issues.
- An inadequate level of understanding of key concepts, ideas and issues is apparent.

Comments on knowledge and understanding

There is a clear argument of the main concepts and rethinking of learning established by SCT and research from this position. You balance the research issues well but at times I feel you could have gone further in the critical analysis of it.

Approach/Analysis

Evidence of:

- a) Strong ability to weigh evidence, of critical thinking & excellent range of perspective.
- b) An ability to weigh evidence, of critical thinking & good range of perspective.
- c) An ability to weigh evidence satisfactorily.
- The assignment is largely descriptive. There is little or no evidence of critical thinking.
- The assignment is very descriptive and shows no evidence of critical thinking.

Comments on approach/analysis

There is a very good grasp on how to stack up different perspectives addressed from research using a SCT approach. You provide good discussion that is also interwoven with your own reflections

Organisation and Structure

- An extremely well organised, well structured and coherent assignment.
- Good rhetorical structure, & arguments develop logically.
- Structure and organisation are satisfactory but at a rather basic level.
- There are distinct weaknesses in the organisation of the text
- Very little structure or effective organisation has been achieved.

Comments on organisation and structure

This is a very clear and coherent assignment that flows very well through the different sections to develop a strong line of argumentation on SCT, private speech and collaborative dialogue

Figure 8 Teacher comments in the feedback form

Expanding coordination beyond what was offered by teacher feedback, Dan realized he needed not only *guided thinking* on his writing, but also *guided enculturation* into local

communities:

I hope I can have more informal discussions with my teachers, talking about my personal challenges, life, and how to be a better communicator. I really want to learn more about how to communicate, you know, in appropriate ways. I think this should be part of learning in higher education, and this could help me to develop a stronger sense of belonging in this country. (2nd interview)

Dan's accounts suggest that making sense of the task and self, particularly of developing an academic self, is an interlinked process. In fact, in the third semester Dan engaged in more social activities, doing voluntary work in local community groups to better connect the *social* self with the *academic* self. His mediated performance was thus revealed in not only his spiral sense-making and cognitive reworking of different feedback resources, but also his ongoing socialization into communities that offered different knowledge structures for learning.

In Esterhazy's (2019) sense, this involves locating the self within a web of epistemic and social relations. It engages the student in transforming existing patterns of thinking, acting and socializing into those used by target groups, exploring a wider process of becoming. This process presents mediated performance as *adaptive* engagement revealed in the reorganization of internal knowledge structures which results from the social interaction with a complex web of intrapersonal and interpersonal factors (Aben et al. 2019).

6. Discussion and conclusion

We have discussed mediated performance as an *adaptive* engagement which results from continuous coordination of one's internal resources with the external requirements of the task. To address our original questions, our findings show:

1. The feedback resources which reinforce the two students' agentic participation, in the feedback process include *cognitive, emotional, and experiential* elements, which are the vital means of academic or social engagement.
2. The different forms of mediated performance they developed, include *reprocessing, reanalyzing, repositioning* and *emotional distancing*, which help them to overcome cognitive barriers and navigate emotional hurdles.

These forms can also be seen as coordination strategies utilized to filter, compare and reflect on information (Lockyer et al. 2019) to achieve spiral sense-making. Like Linell (2009), we view this sense-making as a dynamic undertaking; but more than this, we also

conceptualize it as an ongoing process of reinterpreting meanings and adjusting action-based engagement for self-directed improvement.

The two students' agentic engagement with diverse feedback resources becomes both the means and outcome of their mediated performance. In both cases, we observed the students' difficulties in linking their internal knowledge structures, such as their preferred ways of knowing, with external mediational mediums, particularly the abstract criteria of assessment tasks and the implicit messages carried by teacher written feedback. We observed Yana's weak alliance with her teacher and lack of shared understandings of core terminologies, leading to a failure to communicate an expected critical analysis. In Dan's case, we noticed that despite appreciating detailed summative comments, he struggled to achieve a relationship with his teacher in which he could employ his theoretical and practical understandings with effective language patterns. These difficulties, however, activated their agency in responding to individual feedback, particularly in soliciting and negotiating the concrete form of guidance they desired (Tuck 2012).

Despite their agentic use of feedback resources, neither writer could perform simultaneous coordination between written procedures and task representations. Like Eriksson and Mäkitalo (2015), we found these writers lacked sophistication in utilizing intellectual and materials tools, partly due to their restricted knowledge and unfamiliarity with the discipline's epistemic practices. But similar to Esterhazy and Damşa (2017), we interpret writers' changing engagement as step-wise achievements made through transforming the use of feedback. These achievements were visible in what Nicol (2021) sees as the re-association between existing knowledge, feelings and other external criteria, something we regard as mediated feedback.

With a focus on just two cases, we can provide only a partial picture of learners' engagement in the feedback process. Nor have we the space to report their improvements through detailed comparisons of their written drafts. However, through close analysis of their use of teacher written feedback and associated perceptions of this feedback, we have illustrated various ways in which students coordinate their responses to feedback. It shows something of how they shift the direction of their engagement to reorganize their cognitive, emotional or social resources and gain learning opportunities. Though the summative feedback we observed had a primarily evaluative focus, it became a form of mediated knowledge offering the learners their teachers' understandings of the task. This feedback formatively shapes learners' engagement, leading them to coordinate meanings, actions and tasks (Hutchins 1995).

Conceptually, our study contributes to the literature by suggesting feedback as a socially situated activity and as *mediated knowledge* resulting from participants' agentic negotiation of what is expected to achieve improvements. Such engagement requires actors' discursive coordination – both internal and external, reflexively and iteratively – which further regulates their mediated performance. We believe that by unpacking such a sense-making trajectory (Jansson 2006; Esterhazy & Damşa 2017), we can more clearly see the affordances and constraints of feedback on written assignments. We found such feedback functions as a powerful pedagogic tool to assist students in reconceptualizing the practices and discourses of their disciplines.

Our findings also suggest that students' engagement with feedback is constantly adjusted according to how they handle the complex interplay between emotional, intellectual, and intimate aspects of learning (Gleaves & Walker 2013). Our findings add to Aben et al.'s (2019) view of engagement by showing how learners can utilize and organize intrapersonal and interpersonal factors to maintain their agentic participation. We also found, however, that a deeper level of participation only occurs when students can negotiate tensions on an ongoing basis, integrating their evolving goals with their future self-improvement targets. These findings have pedagogical implications for how we might develop forms of feedback which students desire and use formatively and productively.

To end with, we would like to argue that teachers should provide more explicit explanations of specific concepts, terms and conventions and offer greater assistance with interpreting rubrics and exemplars. While we recognize that teachers carry heavy workloads and are not looking to provide even more feedback, without this scaffolding, students may feel uncertain of what is expected of them. This could be done by sharing concrete examples of critical analyses with marked up assessment criteria and discussions of key theories. Furthermore, many students seem to require more guidance to develop their awareness of how to use feedback and assessment materials, and to marshal their thoughts, intentions and roles (Molloy et al. 2019).

In terms of developing this work further, future research could attend to the use of feedback as *mediated engagement*, and different forms of mediated performance, from a longitudinal perspective. As we have highlighted in this paper, mediated performance reveals coordination at intrapersonal and interpersonal levels, and promotes students' discursive meaning-making and reproduction of knowledge, which is an essential step leading towards their improvement as writers.

Ethics statement: This study was conducted in ethically appropriate ways. It obtained the approval of the Graduate School of Education research ethics committee. All participants signed consent forms before each interview and during the collection of written materials.

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Declaration of Interest: none

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Figures 1-8