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Exploring the Pedagogy of Online Feedback in Supporting Distance Learners

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Abstract

While feedback is recognized as an important part of the pedagogical process in supporting student learning, it is a relatively a new area of online education research. The purpose of this mixed-methods study was to examine online feedback processes from the vantage points of the course instructor and a cohort of students. Based on data collected from the online forums and student interviews, the researcher/instructor sets out to determine what feedback was given and how it was perceived by students. Evidence suggests that the feedback given was largely aligned with research definitions of “best practice” in terms of being timely, accessible and substantial. In terms feedback type, it was informative, supportive, corrective, and, to a lesser extent, reflective. However, evidence suggests that the scope of students’ perceptions of effective feedback was broader than suggested in the research literature with feedback viewed in relation to specific pedagogical, contextual, and relational dimensions. It is suggested that analysis of feedback from these two vantage points is important for instructors wishing to enhance their online teaching. It is also suggested that a frame for understanding the effect of online feedback on student learning should be broadened to consider its wider pedagogical, contextual, and relational dimensions.

Keywords: feedback, online education, distance learning, pedagogy, perceptions

1. Introduction

Giving and receiving feedback represent a type of dialog between educators and learners that supports learners in modifying their academic performance going forward. As such, the value of this pedagogical practice is well recognized in the literature (for example, see [1–6]). As a formative process, feedback does not attempt to formally evaluate the standard of work, rather it is designed to point students in the right direction through commenting,

questioning, scaffolding, reminding, and offering models and examples. However, in contrast to the more summative process of formal assessment, it is claimed [7] that theory of feedback, in general, is lacking; moreover, research into online feedback is still in its infancy (for example, see [8–13]). However, it is more important than ever to research this area, as increasing numbers of students enroll in online courses [14] and, with this increase, faculty are required to spend more time responding to distance learners and adopting new skills and practices [15–18]. Indeed, the literature shows that for many faculty, the transition from providing immediate verbal feedback in a classroom to delayed written feedback in an online forum is not a seamless one [19]. This is compounded when institutional service goals specifying the roles and responsibilities of the instructor are not explicit [20]. Overcoming these challenges is critical, since it is shown that effective feedback is not only linked to higher university ratings [13], but more specifically, it is linked to student satisfaction with online learning [4, 9, 21–24]. Considering the attrition rate of online and distance learning students is considerably higher than on-site courses [12, 25], the need to improve the quality on online feedback cannot be underestimated. Thus, the aim of this paper is to explore the interrelational nature of online feedback by examining what and how feedback was given to distance learners by their instructor and how it was perceived by the students. This dual perspective attempts to redress traditional hierarchies by making the ‘evaluator’ the ‘evaluated’ and, in so doing, offer insights into established feedback practices and suggestions for how they might be improved.

2. Background

2.1. Terminology

At its most general level, feedback can be defined as the means by which learners are able to determine their progress towards an end goal [6]. However, there appears no widely accepted definition [5] with most definitions reflecting various cognitive, social, and affective perspectives. At a cognitive level, feedback has been defined as a means of controlling learning through the use of reinforcement, i.e. punishment or reward [26]. Such a behaviorist approach has been replaced by more constructivist thinking in which ‘knowledge of results’ (p. 310) emerges from an ongoing process of forming and testing hypotheses rather than a memorization of results [27]. Added to this is the recognition of social interaction in the formation of feedback as instructors respond to learners and check if the information is appropriate to a given task [28, 29]. The affective features of feedback are also recognized with feedback defined as any message which praises, encourages, and supports learners in reaching a specific learning goal [30]. It is also noteworthy that the term “feedback” has often been used synonymously with “formative assessment” and “formative feedback” to imply information about a student’s progress as distinct from formal results-based summative assessment [4]. Within the present study, online feedback is used to denote any messages intended to support students so that they can monitor their own performance in terms of learning goals and strategies. It also refers to any collective, personalized, detailed, written, and/or oral messages provided to distance learners in order to guide and support their learning.

2.2. Feedback types

The two most rudimentary types of feedback are “verification,” an evaluation of the learner’s work, and “elaboration,” the guided instructional cues given to direct the learner [31]. Additionally, feedback can be “norm-referenced” comparing the learner’s answers to others, as in comments such as “this is below average,” or it may be “criterion-referenced,” indicating what has been done and how the answer might be improved [32]. Other feedback typologies include “corrective,” “informative,” and “Socratic,” of which the latter involves asking questions to direct the learner [33]. Yet, other models identify feedback along a continuum ranging from “no feedback,” “error-flagging,” involving highlighting errors without correction and “informative tutoring,” involving providing elaborate feedback with strategies for revision [34].

2.3. Delivering online feedback

Apart from being online, there are several other considerations to take into account when delivering online feedback. In one study [35], weekly podcasts delivered to a whole class were rated positively by learners who also used the additional examples and advice as a supplementary resource for revision. This method was also perceived positively by instructors as a time-efficient way to provide feedback to all students at one time. However, this one-way method of communication fails to address individual learning needs, and other research [9] indicates that students who receive personalized feedback have higher levels of course satisfaction and perform academically better than those students who receive only collective feedback.

In addition, another issue regarding delivery of online feedback focuses on who initiates the feedback. One study [36] suggests that in most cases, learners are unwilling to participate in giving feedback to their peers, and that the reason most students give for logging-on is to read the contributions of other students and any accompanying feedback from the instructor. Even when learners do offer feedback, it tends to be in the form of “verification”, as in “*I agree*” rather than the more elaborative feedback offered by lectures regarding learning content, task, and social participation [37]. There is also evidence about online learning preferences that suggests that some students do not rate social interaction with peers as important or contributing to their learning [38].

This is not to say that learner engagement in the feedback process cannot be increased. One study [8] showed how teaching explicit metacognitive strategies such as offering support, eliciting information, asking questions, establishing a situation, offering a possible solution, etc., as well as monitoring and evaluating student participation, all have a positive impact on the feedback process. It is also shown that student interaction and feedback are also enhanced when participating in online discussion forums becomes mandatory [36, 39].

2.4. Characteristics of effective online feedback

What makes online feedback effective is determined by both educators and learners. According to educators, effective online feedback is time-consuming requiring detailed and

“substantive” comments rather than “basic” ones such as “*good answer*” [40, 41]. It should promote higher order thinking skills and ask learners to reflect on their learning by asking questions which require learners to clarify, summarize, hypothesize, and link ideas to other areas of course content [42]. Ongoing analysis of online dialog suggests that effective online feedback requires instructor and students to play equal roles in the “assessment of process” [39]. Moreover, educators recognize that in the design of Web-based learning tools, specific principles are more effective, e.g., feedback should summarize learners’ performance, motivate, be relevant to assessment criteria, and be manageable and timely [11]. Added to this, it is recognized that effective online feedback should be clear and comprehensible, leaving no room for confusion or doubt [43].

Such characteristics of best practice are hardly contentious; however, research suggests that these criteria can be perceived differently by learners than by instructors. For instance, in one study [44] on feedback in general, instructors consider their feedback to be more useful than their students; they also believe their students are less interested in feedback than final grades; they also perceive their grading to be fairer in contrast to students who perceive bias toward more active class members. However, both students and instructors acknowledge difficulties for students in decoding feedback, and both groups acknowledge the emotional impact of feedback on student motivation. Similarly, in another study of feedback [13], feedback is linked to students’ individual learning styles with students identified as “deep” learners preferring feedback that encourages reflection, and students identified as “surface” learners preferring positive feedback that verifies an answer and does not require further participation [13]. Another study [23], comparing student satisfaction with distance learning and on-site learning, shows that distance learning students are less satisfied with feedback in relation to comprehensibility, emotional impact, and fairness. It is also been shown that similar to educators [39], online graduate students perceive effective feedback as mutually constructed with their instructors, and that it should also allow space for students to negotiate learning goals and mutually agreeable deadlines [10].

2.5. Challenges and concerns

The literature also highlights several areas of concern and challenge. Conceptually, feedback is considered an under-theorized area that focuses on informal and dialogic processes that are difficult to measure [7]. Moreover, it is claimed that the turn to constructivist pedagogy remains a challenge for online education, in general, and feedback, in particular [45]. On a practical level, multiple taxonomies and models of feedback indicate that it is generally not a well-understood area of online teaching, and, as such, it may possibly be delivered ineffectively, e.g., too little, too late, incomprehensible, demotivating, etc. [46]. This is supported by research which suggests that students cite feedback containing complaint or dissatisfaction as reasons for low participation [47]. This too is in line with research that indicates that instructors new to online teaching often underestimate the need for consistent support and presence in encouraging, motivating, and keeping students focused [20]. A final concern relates the contextual setting that either supports or discourages effective online teaching. Factors such as institutional recognition, promotion, compensation, technical support, and overall work-load are shown to directly

influence the quality and quantity of faculty participation [48]. Overall, the extant literature highlights the complexities of the topic and the related challenges involved in delivering feedback in an online setting.

3. Methodology

3.1. Purposes of study and research questions

The study was based on data collected over the course of one academic year (2015/2016). This descriptive study uses a mixed method approach to describe educational phenomenon, as it exists and compares it to what is desired [49]. Such research allows for description, explanation, and improvement of educational practices and does not attempt to draw conclusions based on cause and effect. Rather, the overall aim of this study is to uncover data that may not have previously been encountered using other research approaches. Thus, the research questions guiding this study are (1) what feedback was given to distance learning students?, and (2) how was it perceived by these students?

Emerging from these questions, the use of a mixed methods approach allowed for creative data collection, the collection of thick, rich data [50], and the possibility of uncovering contradictions [51]. Indeed, the use of content analysis in phase 1 of the study (see Section 3.2.1) allowed for a systematic and descriptive investigation of the types and frequency of feedback offered by the lecturer to her DL students. The coding of the textual features of this feedback provided inferences about the types of feedback provided, to whom and how often. Moreover, in phase 2 of the study (see Section 3.2.2), semistructured interviews provided opportunities for the researcher/instructor to uncover students' beliefs, attitudes, and perceptions about the feedback they received, as well as follow themes and issues that may not have been previously considered [52].

3.2. Context

This study took place at a higher education institution in Cyprus, where degree programs are offered in a variety of modes, face-to-face, online, and distance learning courses, for undergraduate and graduate students. While online courses are an option for face-to-face students, distance learning students are geographically distant from the institution with most of them resident in other European countries. Most instructors in this institution have recently added online and distance learning courses to their teaching loads and, as such, are responsible for the design, management, and delivery of these courses. Against this background, the researcher/instructor sets out to explore the feedback given to distance learning (DL) students studying for a postgraduate degree Teaching English to Speakers of Other Languages (TESOL). The degree offers a combination of nine courses, each of which is delivered to students over the period of a 12 week semester. Course content consists of weekly prerecorded video lectures, audio presentations, and recommended readings and students are required to reflect on and discuss this material, critique ideas, ask questions, express

opinions, and collaborate on individual and group tasks such as creating lessons and activities. Feedback is then provided in response to these tasks and any other specific academic, administrative, and technical issues that might arise.

3.3. Participants

At the time of the study, the researcher/instructor had more than 26 years teaching experience, of which only 2 years included teaching DL courses. Data were also collected from interviews with five DL students after completion of the course. The students, four female and one male, were all aged between 24 and 45 years. They were all English language teachers with teaching experience ranging from 5 and 22 years. They were based in different three European countries: Greece, Cyprus, and Germany. Before agreeing to participate in the study, all participants signed a consent form expressing their willingness to participate.

3.4. Procedures

3.4.1. Phase 1

After completion of the course, all messages written and posted to distance learning students over the duration of one semester (Fall 2015) were collected from course forums. The total data set comprises 93 messages posted by the course leader in response to students' questions, online tasks, and discussions. Content analysis was then conducted based on an established taxonomy of feedback: corrective, informative, and Socratic feedback [33]. The analytic tool was adapted to include corrective, affective, informative, and reflective feedback (**Table 1**).

Category	Indicator	Definition	Example
Affective	Salutations, phatics	Greetings & expressions purely for social purposes	<i>Dear students, good morning wishing you all a great week</i>
	Vocatives	Addressing participants by name	<i>Thanks [student name]</i>
	Complimenting, expressing appreciation	Complimenting contents of messages	<i>I really enjoy reading your thoughts and ideas about ...</i>
	Empathetic	Shows empathy	<i>As we draw towards Christmas, there are more and more things to do and I understand that it is difficult to find time</i>
	Supportive	Offers support	<i>Good luck and please get in touch with me immediately if you have any questions.</i>
	Self-disclosure	Reveals details of life outside the course	<i>I am from ...and I have been teaching for ...</i>
Corrective	Knowledge-of-response (with or without elaboration)	Positively or negatively evaluates the content of a student's answer	<i>You have encapsulated Borg's ideas very nicely</i> <i>Great answer</i>

Category	Indicator	Definition	Example
Informative	Content	Comments on the content of the course and may include references to theory	<i>Savignon defines this as communicative competence.</i> <i>Humanist theories give prominence to the affective (emotional) aspects of language learning</i>
	Procedural	Gives procedural details of the course (technical, dates, assignments) and directs the learners to do something specific	<i>Please use this forum to ask questions, make comments and answer questions from your colleagues</i> <i>You can find the book at www.library...</i>
Reflective	Direct and indirect questions	Asks students to reflect on their understanding of various elements of the course and relates their learning to their professional experience	<i>Do any of these ideas resonate with your own experience of language teaching?</i> <i>Could it be used effectively in combination with other methods – what do you think?</i>

Table 1. Analytic model of online teacher feedback.

The software package, NVivo, was used to highlight coded segments of text and produce summaries of findings. Because of the elaborate nature of feedback, single messages may contain multiple codes, so to ensure reliability, an independent rater also coded 10% of the data. A Cohen's Kappa established interrater reliability as 0.6, which indicates a good possibility of agreement occurring other than by chance. In addition, the percentage of agreement between the two raters was shown to be 91.63%.

3.4.2. Phase 2

In the following semester (Spring 2016), semi-structured interviews lasting between 60 and 80 min were conducted with five students who had completed the course the previous semester. All interviews were recorded, and full orthographic and verbatim transcripts were produced. NVivo was used again to identify and code segments of text. Themes and subthemes were then identified and aggregated into hierarchies. This phase of analysis focused on identifying "thick rich descriptions" rather than descriptive statistics.

4. Findings

The following sections consider what feedback was given by the researcher/instructor and how it was perceived by the distance learning students.

4.1. Feedback given

Findings show that the researcher/instructor posted 93 messages in response to 108 messages posted by students, which equates to a response rate of 86.1%. Of these 93 messages posted by the course leader, 27 messages (29%) were addressed to the whole group as collective feedback, while 66 messages (71%) were addressed to individual students. The quantity of feedback given by the course leader amounted to 10.150 words, which is an average of 109 words per message. Moreover, the response time between students posting their messages and the course leader responding ranged from 0 to 15 days with a mean average response time of 1.7 days. So what type of feedback was given by the course leader (**Table 2**)? Content analysis shows that the most frequent type of feedback given was informative feedback that focused on content (23%), followed by procedural content addressing administrative and technical details related to the course (17%). Affective feedback dealing with the social, emotional, and motivational aspects of learning was the next most common type of feedback (11%) followed by corrective feedback (7%). The least common feedback was reflective feedback (asking questions that encourage students to reflect on their answers) (4%).

4.2. Feedback received

Findings show that distance learning students' perceptions of feedback revolve around three main themes: the pedagogical, contextual, and relational dimensions of their learning.

4.2.1. Pedagogical dimensions

In relation to the pedagogical dimensions of learning, students identified three subthemes. The first subtheme highlights the positive aspects of feedback as being accessible to all, focused, motivating, personalized, and timely (**Table 3**).

Conversely, DL students also identified the negative aspects of feedback on their learning as the following: being critical in tone, inconsistent, inconvenient, lacking, and vague and confusing (**Table 4**).

In the third subtheme, students identify and distinguish between the different functions of feedback in relation to their learning. These functions include affective, corrective, informative, and reflective feedback (**Table 5**).

Node	Density by % coverage	Density by word number
Informative-content	23.25	2347
Informative-procedural	16.62	1804
Affective	11.21	1248
Corrective	07.28	737
Reflective	04.01	425

Table 2. Content analysis of feedback.

Theme	Subtheme	Student comments: examples
Positive	Accessible	T: before the exams and during the study period I am trying to read all the messages because I want to see if I am on the right path or not
	Focused	M: I liked the fact that she always highlighted the part where she had to make comments and she explained very clearly what she expected of me in this particular part
	Motivating	A: to me, feedback is the motivation, I get really motivated even with bad feedback, you know what I mean by bad...it helps me understand what I did and what I was supposed to do, it's like a clear guidance... I can closely relate it to achievement, yes it also adds to confidence obviously
	Personalized	S: but for me you know, maybe this is because I don't have the face-to-face opportunity... but for me it's very important for you to know who I am... you know when I write (student's name) you know it's me (student's name) talking
	Timely	C: I think a couple of days is reasonable because when I ask something I need to have the answer to that in order to move on with my studying
	Useful	T: of course and since I have started this master's programme I now give my own students the same opportunity to contact me every Saturday at specific hours on the phone, in email or Viber messages to ask and talk about any thoughts they have...

Table 3. Pedagogical dimensions of feedback: positive features.

Theme	Subthemes	Student comments: examples
Negative	Critical	T: for instance, when I ask about references, how to cite something, I am asking because I really don't know, I have a slight idea but I am not sure if it's the correct way...so an answer like "you have to do it like masters students do" is not the kind of answer I have been waiting for...
	Inconsistent	A: the more the students, the less the feedback or the lateness of the feedback but no this has not proven so, like for example as I told you previously in the independent course there were 2 people and I didn't get any feedback, either in the forums or the assignments, just nothing, whereas in other courses I got feedback right away and quite detailed...
	Inconvenient	A: all WebEx sessions are at times that I have work so I have never been to a WebEx session, so this is my first one actually, so come on guys please talk to us
	Lack of	M: but well I kept posting on the forum and no reply, no nothing, even when I said "Hello, this is (student's name) at the beginning of the course, I didn't even receive an "ok, welcome" so it was a bit strange like you don't want me around, yes I got no feedback, I felt like I was in the dark...
	Vague & confusing	E: for this course I am trying to finish today, it's basically, try and answer this question give your own views and I am a bit confused ...like, what do you mean, give my own views? A couple of other students did ask the lecturer but to be honest I was still not sure so I'm just kind of giving support by what I find in the readings and giving a little bit about my own views

Table 4. Pedagogical dimensions of feedback: negative features.

Subthemes		Student comments: examples
Functions	Affective	A: ... and it was after midnight and I thought oh my god, she is not sleeping, honestly, so that was amazing really because when I asked for an extension I was really stressed, but it's nice to have somebody saying 'alright, calm down, I am there, let's see what we can do'.
	Corrective	T: and also as a student I need to know why you are giving me this specific feedback, to explain to me why that was wrong and where can I find the correct answer...
	Informative	M: The lecturer also referred us to other links for extra information.
	Reflective	T: I like the comments "well done" or "nice thoughts but I also like it when lecturers ask us questions like "how about this?"

Table 5. Pedagogical dimensions of feedback: different functions.

4.2.2. Contextual dimensions

In relation to the contextual dimensions of learning, students identified how the cultural context, teaching context, and their work and home life contexts played a role in their perception of feedback given (**Table 6**).

4.2.3. Relational dimensions

The third theme identified in the data, focuses on the relational dimensions of feedback. Within this theme, two subthemes emerge, showing the intrapersonal dimensions of feedback based on how students relate it to their personal experiences (**Table 7**).

Theme	Sub-themes	Student comments: examples
Context	Cultural	A: maybe it's a Greek thing but I wouldn't expect a student of mine to say alright I have 99% what went wrong? I would say what the hell are you talking about, this is magnificent but yes, I wanted more explanation and not just a grade but obviously it's not the lecturer's problem, its mine...
	Teaching	M: I don't know if we can expect quick feedback if there are like 50 students and one professor... E: the response was kind of vague and I guess because I had been a teacher at a university before I was kind of timid about following up on my confusion and not wanting to be annoying so I kind of just plodded on because I know how it is to get bugged by students when I am expecting them to understand and they're not understanding...
	Work/home life	C: I sent a message, and I got no reply, saying that because of a family situation, I need a big extension because I am many hours in the clinic, I'm outside the home and I have everything going on in my head E: I mean people have got their jobs and family obligations, whatever, and so forth, and professors will say they're giving them plenty of time but they don't understand what's going on.

Table 6. Contextual dimensions of feedback.

Subthemes	Student comments
Intrapersonal	<p>A: anyway when I was 24 I needed a lot of guidance not that I don't need it now but I feel more confident about stuff that I have worked on extensively.</p> <p>E: I guess because I had been a teacher at a university before I was kind of timid about following up on my confusion and not wanting to be annoying so I kind of just plodded on because I know how it is to get bugged by students when I am expecting them to understand and they're not understanding and you know, you know what I mean...its challenging but it's my fault in a way, maybe I should be interacting with the professor more and asking questions and even for extensions</p>

Table 7. Intrapersonal dimensions of feedback.

Subthemes	Student comments
Interpersonal	<p>Instructor</p> <p>M: To be honest my expectations were kind of different. I thought that I would not feel the presence of the lecturer and that she wouldn't comment on my work. However, I was wrong. ... during the course I had the feeling that the lecturer was not distant but someone who was eager to support the students</p> <p>E: I can see how too much involvement can create less motivation in students and less self-responsibility. So yeah, it would be good to have umm bit of involvement but then students should know... should be understanding that this is a matter of self-responsibility</p> <p>E: but I think for the first two or three weeks things are not very clear about the course and about how we ought to study, about the assignments and all the online activities which are our main worry, I think, so yes, I think we should have more interaction I think in the first couple of weeks</p> <p>Peers</p> <p>A: I really adore reading to work out what others have written because it opens a new door to things I haven't thought before or things I have thought differently which is the thing I like and then I can see the feedback and see if that was a good direction I should have taken, yes I do so, very often</p> <p>E: but I just sense that from the students they are just a bit uneasy about criticizing, there's more of a sense on the forum of trying to support each other instead of critiquing what they are writing.</p> <p>T: I have been in contact with only two people but we have really, really interesting conversations about the lectures and about our experiences ... other students do not answer the questions, even though the question is not addressed to the lecturer, it's not to "dear lecturer" its addressed to "dear everyone", well I think it was to do with showing respect to the lecturer and not commenting on what they are about to say</p>

Table 8. Interpersonal dimensions of feedback.

The other subtheme highlights the interpersonal dimension of feedback which shows how students construct knowledge through their interactions with their peers and the researcher/instructor (Table 8).

5. Discussion

This study sets out to explore two research questions on the inter-relational nature of online feedback by examining what feedback was given by a course leader during a DL course and how this feedback was perceived by students.

5.1. What feedback was given?

The first part of this study offers a descriptive insight into the online feedback practices in this specific distance learning course in terms of 'what happened'. The amount of feedback given was fairly extensive, with students receiving feedback to over 86% of all their online postings. Moreover, this feedback was mostly personalized (71%), and based on length of messages, it was substantive, with the average length of a message over 100 words. Findings also show that feedback was timely with most students receiving a response within 2 days. In relation to the types of feedback given, it was overwhelmingly informative, focused on providing information about course content and procedures (40%). Other types of feedback were also evident to a lesser extent including affective feedback that focused on motivating and supporting students (11%), corrective feedback (7%), and reflective feedback that asked questions (4%). Finally, it is also noteworthy that the flow of feedback was unidirectional originating from the researcher/instructor to the students. The data show little evidence of student participation in the feedback process other than superficial and infrequent instances of "I agree with ..." or "[name] makes a good point." Although students were encouraged to interact with each other and ask and answer questions addressed to each other, this did not occur in the public space of the course forum, although interview data suggest that students did message and support each other privately: *"through the whole Master's programme I have been in contact with two people but we have really, really interesting conversations about the lectures and about our experiences, I think it would be helpful if we had a way to connect to each other."* Many aspects of these findings are supported by the literature which advocates that effective online feedback is personalized [13], substantive [41], and timely [37, 40]. However, findings also show that the limited amount of reflective feedback—asking students questions about their learning—challenges the notion of best practice. Indeed, the importance of building reflection into a distance learning course is important in helping learners develop metacognitive skills that encourage self and peer evaluation [42]. Another finding that challenges best practice relates to the unidirectional flow of feedback from researcher/instructor to students and lack of mutually constructed feedback between students. This lack of participation may be due to numerous factors reported in the literature, such as course design not based on constructivist pedagogy [45] and lack of incentive and/or knowledge of feedback strategies [37]. In addition, DL students' perceptions of who should give feedback, discussed below, may also offer insights into their lack of participation.

5.2. How was feedback received?

The second part of this study offers insights into students' perceptions of online feedback practices and the extent to which it influenced their learning. Analysis of these findings shows how these students interpret feedback according to specific pedagogical, contextual, and relational dimensions of learning.

In relation to the pedagogical dimensions of feedback, students' positive perceptions of this feedback are very much in line with concepts of best practice described in the literature. In line with the literature [36], students perceived feedback as being accessible, in that they could read their own and other students' feedback at any point throughout the course: *"before the exams and during the study period I am trying to read all the messages because I want to see if I am on the right path or not."*

Similarly, as reported in the literature, students comment that feedback was focused [11], motivating [23, 43, 47], personalized [9], timely [37, 40], and useful [44] (see **Table 3**). Students' more negative perceptions (see **Table 4**) are also documented in the literature with students making particular references to some of the feedback they received as being critical in tone [23, 43, 47], inconsistent, inconvenient, lacking [37, 40], and vague and confusing [44]. In addition, these DL students were aware of the different pedagogical functions of feedback and identified the value of affective, corrective, informative, and reflective feedback on their learning (see **Table 5**). This is also supported by the literature of best practice in asynchronous learning environments [33].

Next, in relation to the contextual dimensions of feedback (see **Table 6**), students perceived online feedback through the lens of their own cultural expectations with one student commenting that despite achieving a top grade *"...maybe it's a Greek thing but [...] I wanted more explanation not just a grade."* The disappointment with the lack of feedback suggested by this comment is reinforced by findings in the literature which suggest that online learning can be a lonely place for learners whose cultural experiences and expectations may differ from the dominant educational culture [53]. Also, in relation to context, students perceived that the quality and quantity of feedback were dependent of class size and the perceived work load of their instructor with one student commenting *"I don't know if we can expect quick feedback if there are like 50 students and one professor."* While student numbers in this particular course may be low, one student perceived a demanding work load for instructors with another student commenting *"because I had been a teacher at a university before [...] I kind of just plodded on because I know how it is to get bugged by students."* The perception of overworked and unavailable faculty is echoed by research that reports that the massification of online education and the increasing workload means they are more likely to sacrifice formative feedback as part of their online teaching [48, 54]. Finally, some DL students perceive that the feedback they received lacked understanding of their particular work/home life situations with one student commenting *"I sent a message, and I got no reply, saying that because of a family situation, I need a big extension because I am many hours in the clinic, I'm outside the home and I have everything going on in my head,"* while another students said *"I mean people have got their jobs and family obligations, whatever, and so forth, and professors will say they're giving them plenty of time but they don't understand what's going on."* This lack of understanding for students' lives outside their studies is cited in the literature as reasons for high student attrition and low online course completion [25, 55].

Finally, the findings also highlight students' perceptions of feedback as constructed through their relationships with self and others. In the first instance, students comment on their intra-personal dimensions of knowledge construction and the awareness of autonomous learning (see **Table 7**). One student comments on her growing confidence and the need for less guidance, as she gets older: *"anyway when I was 24 I needed a lot of guidance, not that I don't need it now, but I feel more confident about stuff that I have worked on extensively,"* while another student turns to self-reliance rather than inconvenience the course leader: *"I kind of just plodded on because I know how it is to get bugged by students."* A greater understanding of how students perceive their own learning in relation to guidance and support is important, since such perceptions are strongly associated their learning outcomes [13].

In relation to students' perceptions of feedback as constructed interpersonally with their peers and course leader (see **Table 8**), findings suggest that feedback is an indication of

teaching presence *"To be honest my expectations were kind of different. I thought that I would not feel the presence of the lecturer and that she wouldn't comment on my work. However, I was wrong, during the course I had the feeling that the lecturer was not distant but someone who was eager to support the students."* The implications of this are highlighted in the literature, which indicates that teaching presence is strongly associated with course satisfaction and learning outcomes [56, 57]. However within the research [58, 59], there is also a caveat that too much teaching presence may deter autonomous leaning and self-reliance, and this is echoed in this study: *"I can see how too much involvement can create less motivation in students and less self-responsibility."*

The interpersonal dimension of feedback also includes students' engagement with their peers. Findings indicate that although students value reading work posted by their peers, *"I really adore... reading to work out what others have written because it opens a new door to things I haven't thought before or things I have thought differently which is the thing I like and then I can see the feedback and see if that was a good direction I should have taken,"* they did not participate in the feedback process. Indeed, this also borne out in research which suggests that most students enrolled in online or distance learning courses are lurking; with the main reason given for logging on is to look at questions and tasks, as well as read other students' posts and instructor feedback. The same research suggests that only one in four are willing to contribute to discussion [36]. These findings are contrary to other research which suggests that students identify effective feedback as a mutual process [10], and it indicates an inconsistency between students' perceptions and their actual practices. Indeed, findings suggest that these students perceive feedback as a top-down process with distinct roles assigned to students and educators. One student comments *"but I just sense that from the students they are just a bit uneasy about criticizing, there's more of a sense on the forum of trying to support each other instead of critiquing what they are writing."* While another student adds *"when we write a question to a lecturer, other students do not answer the question, they are waiting for the lecturer to answer that even though the question is not addressed to the lecturer ... its not to "dear lecturer" its addressed to "dear everyone", well I think it was to do with showing respect to the lecturer and not commenting on what they are about to say."* It might also be that lack of collaborative learning in the feedback process is part of students' preferred learning style, and there is evidence to suggest that successful online learners often exhibit a preference for an independent over a collaborative learning style [38].

6. Conclusions

This study set out to explore the practices and perceptions of feedback given during a DL course for postgraduate students with the aim of offering insights and making suggestions for improving teaching. There are several conclusions which can be drawn from this study.

First, from an evaluative perspective, findings show that in terms of the frequency, length, and types of feedback given, it is largely in line with notions of best practice as outlined in the literature. However, findings also reveal some shortcomings in the type of feedback given, namely that there was limited reflective feedback that asked students direct and indirect questions so as to reflect on their understandings of the course. It should be stressed, however, that the main purpose of this study was not to evaluate the performance of the researcher/instructor but rather to offer a professional development perspective. By making explicit the

nature of the feedback given, the course leader has the opportunity to reflect on her feedback practices, which are typically intuitive and spontaneous.

Second, this study also shows the extent to which students' perceptions of feedback align with notions of best practice. These perceptions offer a variety of experiences and understandings of feedback that express both positive and negative points. In themselves, these perceptions cannot offer a complete and unbiased picture of the quality of feedback; however, they offer valuable insights into how feedback is perceived by students and why it is perceived in such a way. This is especially important in DL Education courses, when some students may be practicing teachers with their own feedback practices and beliefs. In such cases, it is important for course leaders to be aware of how these practices and beliefs align or differ from their own.

Third, the use of an analytic frame to consider the pedagogical, contextual, and relational dimensions of feedback broadens the scope by which feedback is typically discussed. Findings show how these three dimensions act as a lens through which students are able to mediate and understand their feedback experience. Such a frame can also be used as a developmental tool to help educators consider how their online feedback practices may support or inhibit student learning. Questions such as the following can guide educators to examine their own online feedback practices:

1. Pedagogically: Is online feedback accessible to all, focused, motivating, personalized, timely, and useful? What type of feedback is offered and how does it support student learning? E.g., To what extent does it provide information about course content and/or procedures? To what extent does it emotionally support and motivate students? To what extent does it positively and/or negatively evaluate student work? To what extent does it ask questions and encourage students to reflect on their learning?
2. Contextually: To what extent does the online feedback reflect the values of a specific educational culture? Does feedback take into account the experiences and expectations of learners from other educational cultures? To what extent is the quality and quantity of feedback shaped by the specific demands of teaching context? To what extent does feedback consider the external work/home life pressures face DL students?
3. Relationally: How do students feel about the online feedback they receive? To what extent is your teaching presence established through feedback? What kind of presence is it? What is the role of other students in the feedback process? Is feedback mutually constructed by instructor and students and between students? Why/why not?

It is important to acknowledge some of the limitations of this study, so that they may encourage further research. First, the role of the instructor as researcher and instructor may raise concerns about objectivity of data. However, efforts made to minimize bias ensure a standard of rigor with the use of retrospective data collection and an independent rater. Interviews were also held with participants after course completion, when students would have no further contact with the particular instructor. Second, the focus on perceptions can only represent the views of a small sample of DL students. Similarly, findings can only represent the feedback practices of one particular instructor on one particular DL course. As such, the idiosyncratic nature of the data does not provide a basis for transferability and generalizability to other courses or other instructors teaching on the same or a similar program. In spite of these concerns, this choice of

research methods offered the researcher/instructor the opportunity to analyze her own online teaching and gain insights into the practices and processes of giving feedback and how these might be perceived by DL students to support or inhibit their learning.

In educational institutions around the world, the challenges of online teaching have become a reality for many instructors, and as such, it is hoped that by sharing these results, other instructors will take the opportunity to inquire into their online feedback practices. It is also hoped that the issues raised in this study will also pose questions for further research in this area to enhance online teaching.

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