The affect and effect of asynchronous written feedback comments on the peer feedback process: An ethnographic case-study approach within one L2 English doctorate writing group

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Abstract: This ethnographic case-study examines the impact of asynchronous written feedback comments on the peer feedback process within one doctorate writing group. The doctorate students were interviewed retrospectively about their perceptions of effective feedback comments. *Affective components* (e.g. hedging devices) and *effective components* (e.g. revision comments) within the reviewers' feedback comments, and *external components* (e.g. reviewer competency) that influence the peer feedback process were induced from the interview transcripts using a grounded theory approach. Further evidence that these *identified components* impact the feedback process appreciably was triangulated from the analysis of two other datasets; the participants' asynchronous written feedback comments and revision plans. The results show that the participants used much *affect* in their written feedback exchanges, and this *affect* had a strong impact on the *effect* of their feedback process. Thus, written affective language can play a significant role in how an author interprets and implements feedback comments. This suggests that *affect* can play a prominent role in helping to develop more effective feedback practices within writing groups. Helping writing communities develop a better understanding of *affect* within asynchronous written feedback comments can only help them to develop more useful feedback practices.

Keywords: peer review, academic writing groups, doctorate students, hedging devices, social presence

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Peer feedback is an effective pedagogical method employed within academic writing groups (Aitchison, 2009; Leijen, 2017; Paulus, 1999; Yallop, 2016) to improve both the author's text (Diab, 2011; Ertmer et al., 2007) and long-term writing behaviour (Cheng et al., 2015; Lundstrom & Baker, 2009; Rollinson, 2004). As one part of the process, students periodically give written feedback on their peers' texts (hereinafter *reviewers*), and similarly receive written feedback on their own texts (hereinafter *feedback recipients* or *authors*). Thus, within the peer feedback process, the student plays two important, but separate, roles: *student as feedback recipient*, and *student as reviewer.*

There are many studies that examine the effectiveness of the feedback process from the observable actions of the feedback recipients to their reviewers' asynchronous written comments (e.g. Cho & MacArthur, 2010; Liu & Sadler, 2003; Nelson & Schunn, 2009; Zhang et al., 2018), from the perspectives of the feedback recipients and/or the reviewers (e.g. F. Hyland & Hyland, 2001; Yallop, 2016), and there is one study that suggests students improve their writing processes more in the role of reviewers than as feedback recipients (Lundstrom & Baker, 2009). Some of these studies (e.g. F. Hyland & Hyland, 2001; Lundstrom & Baker, 2009) also triangulate quantitative data (e.g. participant drafts and feedback comments) with qualitative data (e.g. participant interviews) to obtain multiple perspectives of the feedback process. At university level, there is a plethora of feedback studies within the context of undergraduate students writing in their L1 or L2 (e.g. Cheng et al., 2015; Cho et al., 2006; Diab, 2011; Liu & Sadler, 2003; Nelson & Schunn, 2009; Patchan & Schunn; 2016, Patchan et al. 2009). There is also much research into the difficulties PhD students encounter in their studies (Baldwin & Chandler, 2002; Harbord, 2010; Ä. Leijen et al, 2016), with a lack of writing and emotional support being common factors (e.g. Baldwin & Chandler, 2002; Caffarella & Barnet, 2000). Establishing writing groups is an effective pedagogical means to provide PhD students with writing and emotional support (e.g. Aitchison, 2010; Murray & Moore, 2006; Rollinson, 2004). Affect within writing groups has also been shown to have a strong influence on the PhD students' feedback practices (e.g. Caffarella & Barnet, 2000; Carlino, 2012; Wang & Li, 2011).

Quantitative peer feedback studies tend to focus on how the feedback recipients react to their reviewers' comments by measuring their effect on the author's subsequent draft (e.g. Cho & MacArthur, 2010). These studies, though, tend to focus on *revision comments* that request the author to make specific and observable textual changes (e.g. Leijen & Leontjeva, 2012; Liu & Sadler, 2003), and downplay, or ignore, the impact of *non-revision comments*. Non-revision comments, however, do not ask the author to make a textual revision, and they contain much affective language (e.g. *praise*), and a significant proportion of the data (Yallop & Leijen, 2018). Qualitative feedback studies, on the other hand, often examine how *non-revision comments* can have an *affect* on the revision process by

encouraging author engagment in the feedback process (e.g. I. Lee, 2008; Lu & Law, 2012; Yallop, 2016; Yallop, 2017; Yu & Hu, 2017), and these studies often negate the influence of non-revision comments on the authors' implementation of revision comments. Some studies have partially bridged this gap by investigating the effect of a particular aspect of *affect* within revision comments (e.g. *mitigating devices* as in F. Hyland & Hyland, 2001), or as a non-revision comment (e.g. *praise* as in Gee, 1972; Nelson & Schunn, 2009). Although all these studies are valid, they do not fully account for the cumulative impact of both the affect and the effect of all asynchronous written feedback comments within the study group during the whole peer feedback process. Furthermore, studies that investigate affect within doctorate writing groups are rarer than at undergraduate level, and particularly for those who have to write in English as their second language.

Thus, this study aims to obtain a deeper understanding of how affect can influence the effect of asynchronous written feedback comments within L2 English doctorate writing groups. It does this through an ethnographic case-study that examines the written feedback practices of four L2 PhD students over a period of three months. The participants shared similar research areas (Estonian linguistics), and socio-cultural and educational backgrounds. However, the ethnographer (the lead researcher), also a PhD student, came from a different socio-cultural background (L1 British English), but within a similar discipline (applied linguistics).

Regarding the study design, a mixed-method approach was used to gather and analyse data that was obtained from the participants during and after the peer feedback process. The superordinate source of data was obtained through post-course interviews in which the participants were asked about their feedback experiences within the writing group as both a reviewer and as a feedback recipient. The resulting four transcripts were analysed within a grounded theory tradition to identify and categorise components that have *noticeable influences* on their feedback practices. Triangulation was used to seek further evidence to substantiate the participants' perceptions on two further datasets. Firstly, the group's written feedback comments were categorised into their type and scope and analysed quantitatively. Secondly, the participants own *revision plans*, a written record of how they use their given feedback, were examined for evidence of critical engagement with their peers' revision comments.

The results show that the participants used much affective language in their written artefacts, and that this affect had a profound influence on the effect of their asynchronous written feedback comments.

1. Theoretical framework

1.1 Writing groups as a means to support doctorate students

Studies have indicated that lack of support in writing is a major reason why students do not complete their doctoral studies within the allocated time, and students have indicated that writing remains challenging at doctoral level (Baldwin & Chandler, 2002; McGrail et al., 2006). Doctorate students' writing processes are often hampered through a lack of institutional (Farrell, 2018), instructional (Harbord, 2010), supervisory (Ä. Leijen et al., 2016), and emotional writing support (Baldwin & Chandler, 2002). However, writing is cognitively demanding (Flower & Hayes, 1981), and there is pressure on students to publish their research in L2 English (Aitchison & Lee, 2006). Thus, there is an urgency to develop cost-effective and principled pedagogical methods to support doctoral candidates' writing skills throughout their studies. One such method is for them to form small writing groups where they are trained to support each other's writing processes throughout their studies.

Writing groups are an effective pedagogical tool to improve writing skills (Aitchison, 2010; Aitchison, 2009; Murray & Moore, 2006; Rollinson, 2004). They can promote peer-reciprocation (Lee & Boud, 2003), writer identity (Aitchison & Lee, 2006), increase audience awareness (Lee & Boud, 2003), promote a feeling of well-being (Doody et al., 2017), provide "cognitive, affective, social and linguistic benefits" through giving and receiving feedback (Min, 2006, p.118), and they are "relatively cheap to organise" (McGrail et al., 2006, p.23). Furthermore, one particular strength of writing groups is that they can develop a sense of community through reflective practice (Lam et al., 2019; Maher et al., 2008) that is particularly effective in promoting higher order thinking skills in doctorate writing groups (Cahusac de Caux et al., 2017).

Transactional memory system (TMS) theory can also help us understand how groups build relationships and develop a *sense of community*. Within these groups, this theory posits that the members utilise dynamic cognitive processes to create new knowledge, and these processes are enhanced when the group develops an understanding of one another's shared and unique knowledges (see Lewis & Herndon, 2011 for concise treatment). Within doctorate writing groups, TMS theory would suggest that the group's feedback practices should improve over time as the members develop strategies to exploit one another's strengths and improve on their weaknesses.

From a social constructivist perspective, Garrison et al.'s (2010) *Community of Inquiry model* provides an alternative means to measure group dynamics. In a higher educational context, this model is used to promote higher order thinking in blended and online communities of inquiries. It proposes that learning occurs through the interaction of social presence, cognitive presence, and teaching presence. Social presence refers to "the ability of participants in a community of

inquiry to project themselves socially and emotionally, as "real" people (i.e. their full personality), through the medium of communication being used." (Garrison et al., 1999, p.94). Cognitive presence refers to learners constructing and confirming meaning for reflection and discourse in a community of inquiry (Lipman, 2003), and it is based on Dewey's (1933) critical thinking model where the learners engage through four stages of thinking within their private and/or shared world. Teaching presence relates to course design and direct instruction. Translating this model into the context of this study, doctorate writing groups that develop a strong *sense of community* (e.g. a high social presence), and are supported by a principled pedagogy (e.g. a high teaching presence), will critically engage much with their reviewers' written feedback comments (Yallop, 2016).

1.2 Affect in the peer feedback process

The term *affect* refers "essentially to the area of emotions, feelings, beliefs, moods and attitudes, which greatly influences our behaviour" (Arnold, 2009, p.145). Expanding on this definition, affective language in this study is defined as written language used to express the writer's emotions, feelings, beliefs, moods, and attitudes, and/or to evoke these feelings in the reader, and taxonomies have been devised to measure this in the form of social presence indicators within written text. Within this framework, Yallop (2016) has devised a coding scheme to measure the reviewers' social presence in their written feedback comments according to whether the emotive language is used to describe *feelings* (e.g. hedging devices), to build and sustain relationships (e.g. praise), or to develop group commitment (e.g. use of vocatives). Measuring and analysing the number of *social presence indicators* within asynchronous written feedback comments can give an indication of how well a writing group is developing into a fully functioning community of inquiry.

Collaborative constructivist learning theories (e.g., Vygotsky, 1980) can aid understanding of how authors interpret, and why reviewers use, affective language in their written peer feedback comments. There has been little research into how some types of social presence indicators (e.g. the use of vocatives) within written feedbacks can help develop communities of inquiry (Yallop & Leijen, 2018, p.250). However, there is extensive research on the use of praise, hedging devices, and mitigating devices.

Praise is valued and used widely by students (F. Hyland & Hyland, 2001), and can encourage longer author engagement in the writing process (Cho et al., 2006; Nelson & Schunn, 2009). *Hedging devices* are affective components that writers commonly use in academic writing to "make things fuzzier or less fuzzy" (Lakoff, 1975, p.235), "express tentativeness and possibility" (K. Hyland, 1994, p.443), and "present the true state of the writers' understanding" (Salager-Meyer, 1994, p.3), and there are many differing taxonomies to measure them (see Crompton, 1997 for

concise treatment). Regarding the feedback process, reviewers use hedging devices to signal the degree of veracity in their feedback comment, and to express politeness and coyness. This polyfunctional nature of hedging devices can increase the likelihood of the author misinterpreting the reviewers' feedback comments. However, hedged comments are more likely to be implemented than unhedged comments (Ferris, 1997; F. Hyland & Hyland, 2001). Hedging devices can also be used by reviewers to mitigate their lack of competency in giving feedback, or for the problems they encounter with the authors' drafts. Mitigation, in this sense, is a form of justification, as the reviewers are explaining why they wrote the feedback comments they did. Mitigated comments, however, are prone to author misinterpretation (F. Hyland & Hyland, 2001).

Regarding affect in the doctorate context, Lonka et al. (2014, p.250) assert that "practically all students go through some socio-emotional stress during their doctoral process." Thus, understanding and supporting affect within the PhD student's writing processes, including writing groups, is also extremely important (see Wellington, 2010 for concise treatment). Caffarella and Barnet (2000) found, in their study on 45 PhD students, that the feedback process evoked strong negative emotions in both reviewers (e.g. frustrated) and feedback recipients (e.g. anxious). The supervisory feedback process can also be a highly emotional process with PhD students reporting both positive emotions (e.g. confident and inspired), and negative emotions (e.g. confused and frustrated) (Wang & Li, 2011, p.116). Therefore, there is much affect in the feedback process (e.g. Caffarella & Barnet, 2000; Carlino, 2012; Wang & Li, 2011), and this affect can shape attitudes. Positive attitudes encourage greater engagement in the feedback process. This strongly implies that positive attitudes within writing groups can significantly improve the peer feedback process (e.g. Aitchison, 2010; Caffarella & Barnet, 2000; Ferguson, 2009; Maher et al., 2008), and there are pedagogical practices to improve attitudes within a writing community (e.g. Cahusac de Caux et al., 2017; Garrison et al., 2010).

1.3 Effect in the peer feedback process

Many feedback studies segment and categorise written feedback comments according to whether they request the author to make a specific textual change (hereinafter *visible revision comments*) or those that do not (hereinafter *non-revision comments*), and then examine the author's subsequent draft for evidence of their implementation (Leijen, 2017; Liu & Sadler, 2003; Nelson & Schunn, 2009). However, this method ignores non-revision comments that can comprise up to one-third of all segmented feedback comments (Yallop & Leijen, 2018, p. 263) as their effect on the author consciously *not* making a specific textual change (e.g. "Your introduction is great because…") cannot be measured. Similarly, the impact of feedback comments that trigger the authors to completely rewrite sections of their drafts cannot be determined using quantitative research methods. In these

cases, qualitative research methods can add value to these studies by allowing us to better understand the authors' emotional reactions to receiving feedback comments, and the effects on the authors' subsequent drafts, and the rationale for the reviewers' feedback comments.

Overall, researchers agree that useful visible revision comments should be understandable, specific, relevant, and pragmatically appropriate (Liu & Sadler, 2003; Min, 2006; Nelson & Schunn, 2009; Yallop & Leijen, 2018). Thus, doctorate students should appreciate feedback comments that are easy to locate (Ferris, 1997), promote higher order thinking (Cahusac de Caux et al., 2017) on global issues (Liu & Sadler, 2003), meet the author's expectations (Yallop & Leijen, 2018), are justified (Leijen, 2017), and written in an acceptable tone (F. Hyland & Hyland, 2001; Yallop & Leijen, 2018). In addition, multiple peer feedback on the same textual aspect accentuates their importance to the author (Cho & Schunn, 2007; Leijen, 2017; Leijen & Leontjeva, 2012).

Researchers have also found that revision comments offering a solution are more likely to be implemented than those identifying a problem (Liu & Sadler, 2003; Nelson & Schunn, 2009). However, comments that are implemented are not necessarily more useful than those that are not. There is much debate about whether corrective feedback benefits L2 writers (see Hartono, 2014 for concise treatment). However, non-corrective feedback is often more valued by L2 writing learners than corrective feedback (I. Lee, 2008), as it encourages the learner to devise a solution from thinking through the identified problem rather than being given a solution from the outset. Similarly, global feedback comments that identify problems may critically engage the authors for longer in their revision processes than those that offer a solution. This could also result in other unobservable writing outcomes such as author revision on textual aspects that are not related to the advice contained in the feedback comment. Thus, it is unclear which sub-classes of revision comments are perceived as *useful* from a doctorate student's perspective.

1.4 Affect and effect of external variables on the peer feedback process

Feedback studies are often very context specific and their findings can be strongly dependent on the chosen study *variables*. These study *variables* can be numerous and include, amongst others, socio-cultural factors, course design as well as level of study (e.g. undergraduate vs. PhD student), writing purpose (e.g. writing to learn vs. learning to write) and writing language (e.g. L1 vs. L2). The influences on this study caused by socio-cultural factors and the course design is discussed further in this sub-section.

Although socio-cultural factors are not the focus of this research, they can influence feedback studies. Participants from dissimilar cultures (e.g. Carson & Nelson, 1994; Yallop, 2017), or gender (e.g. Leung et al., 2010), often have differing expectations regarding affect. Regarding this study, the socio-cultural context is

Estonia. Grzega and Keevallik (2008, p. 214) found that L1 Estonian speakers "seem to focus more on content than relationships in communication." Pajusalu et al. (2017) also observed directness in communication by L1 Estonians. Thus, L1 Estonian speakers should use much less affect in their written artefacts than participants from more pragmatically driven societies as, for example, found in 'face-saving cultures' within Asian contexts (Carson & Nelson, 1994). Regarding gender, there may be differences in how the sexes use, and interpret, affect within the same gender, and between genders, and these differences could have alternative perceptions across dissimilar cultures. Leung et al. (2010, p.155) found at one Hong Kong university that male students "give more praise than female students", and female students were "more critical and analytical in providing peer e-feedback." Topping (2010, p.340), in his critique of Zundert et al.'s (2010) critique of feedback studies, stated that in general and within these many different socio-cultural feedback contexts examined, "male students appear more positive in attitudes toward peer assessment than females."

In this socio-cultural context, these studies suggest that (i) Estonians are *content-driven,* (ii) women are *more critical* than men in their feedback practices, and (iii) women have *a less positive attitude* than men towards the feedback process. Applying logical reasoning, this would suggest that the participants, and particularly the female participants, would favour the use of effective and critical feedback comments (e.g. unhedged revision comments) over affective and relationship-building feedback comments (e.g. hedged revision comments and non-revision comments). Whether the use, and interpretation, of affect within the participants' written artefacts could also be influenced by gender is interesting, but this would require a separate study. What this study can determine, however, is whether the study participants are content driven in their written dyadic feedback exchanges through the analysis of their written feedback comments.

Regarding the course design, students or instructors often base their feedback comments on instructor-devised assessment criteria (e.g. Lundstrom & Baker, 2009; Moxley, 2013; Paulus, 1999). However, instead of a writing assessment rubric, the students can devise their own assessment criteria as a written document (hereinafter *cover letter*), and cover letters can help authors communicate their personalised feedback expectations directly to their reviewers (e.g. Yallop & Leijen, 2018). Cover letters were chosen as the means of generating feedback comments in this study as they encourage self-reflection on the writing process, and self-reflection may be of particular benefit to PhD student writers (Cahusac de Caux et al., 2017; Yallop & Leijen, 2018; Yallop & Leijen, in press).

1.5 Key terminology

As feedback recipients, the participants in this study revise their drafts based on their reviewer's feedback comments. *As reviewers*, they write their *feedback*

comments based on the author's *draft* and *cover letters. Cover letters*, in this study, are student-devised written documents in which the authors specify how their submitted draft should be assessed, and "they often contain affective language, textual background information and requests for reviewer help." (Yallop & Leijen, in press). Thus, there are three written artefacts (drafts, cover letters, and feedback comments) that can have an *affect* and/or an *effect* on one another, and, ultimately, the author's revision process.

To avoid any ambiguities in this study, the terms *affect* and *effect* are used to refer to the impact caused by any *identified variable* (hereinafter *component*) within the participants' written artefacts that may alter the author's revision process. Consequently, an *effective component* (e.g. a revision comment) is defined as any identified variable that can modify author critical engagement with the content within a written feedback comment, and this content may cause a textual or a non-textual revision. Using a similar logic, an *affective component* (e.g. a hedging device or a non-revision comment) is an identified component that can modify the author's willingness to initially engage (i.e. a triggering event) with a feedback comment and/or engagement in the feedback process on a more holistic level, and contains at least one indicator of social presence.

There are also *external components* (e.g. reviewer competency) that can affect and/or effect the content of the participants' written artefacts, and written artefacts can affect and/or effect the author's revision process. As such, the term *influence* is used generically to denote that there can be an affect and/or an effect within the relationship. The result of the *influences* (i.e. affect and/or effect) of the external components on the written artefacts, and the *influences* between the written artefacts, is evidenced by changes in the author's revision processes. Thus, external components can have a *direct influence* on the peer feedback process, and an *indirect influence* on the author's revision process. The overarching purpose of the peer feedback process is to improve the participants' drafts. Thus, evidence of *positive influences* on the author's revision process, and what causes these positive influences, is what this study is investigating.

Applying these definitions means that *effective components* could also have a *positive affect* on the author's revision process; e.g. a very useful revision comment from one particular reviewer (positive effect) may alter the author's willingness to engage with the same reviewer's subsequent feedback comment (positive affect). Similarly, there could also be a *positive effect* on the author's revision process by an affective component; for example, a hedging device may have an impact on the author's willingness to engage with a feedback comment (affect), and it can modify the author's critical thinking process (effect). However, and for simplicity, identified variables are categorised as either an *affective component* or an *effective component* based on what their first perceived communicative purpose is likely to be.

2. Research questions

The purpose of this study is to obtain a deeper understanding of how asynchronous written feedback comments can influence the author's revision process within L2 English doctorate writing groups. Thus, the research questions that guide this study evolved as follows:

1. How can *effective components* (e.g. revision comments) effect the author's revision process?
2. How can *external components* (e.g. reviewing experience) influence the contents and interpretation of asynchronous written feedback comments?
3. How can *affective components* (e.g. hedging devices) affect and effect the author's revision process?
4. How can *affective components*, *effective components*, and *external components* interact and influence the author's revision process?

3. Method

3.1 Context of study

This sub-section explains the composition of the writing group and how this writing group conducted their feedback practices.

Composition of writing group

The writing group consisted of four first year L1 Estonian doctorate students (i.e. *the participants*) and a third year L1 English doctorate student (i.e. *the ethnographer*). Informed consent was obtained from the participants prior to and after the study, and they have been given pseudonyms to protect their anonymity. The participants (two males, two females) all have similar backgrounds (see Table 1). They are writing scientific articles for publication in L2 English in their specialised area of Estonian linguistics. Alice and Dave have successfully published at least one article in a journal, whereas Ben and Claire have not.

The ethnographer is a third year L1 English doctorate student researching L2 English academic writing. He joined the writing group with the primary purpose of publishing an article related, but unconnected, to this study, and participated with the same writing purpose as the other participants. To minimise the ethnographer's influence, he avoided any social or teaching contact with the participants except as required by his participation in the writing group. Although the ethnographer tried to exert the same amount of influence regarding the group's practices as any other member, he was also morally bound, as an educator, to adopt only feedback practices that would be beneficial to the participants.

Table 1. Writing group backgrounds

	Participants				Author 1
	Alice	Ben	Claire	Dave	Researcher
Gender	Female	Male	Female	Male	Male
Publications	Yes[1]	No	No	Yes[2]	Yes[3]
Research area	Different areas of Estonian linguistics				Writing
L1	Estonian				English
Age	Under 30				Over 30
Study level	1st year PhD				3rd year PhD

Note. 1. in English and Estonian; 2. in Estonian; 3. in English

Thus, he attempted to exert only positive influences on the writing group through the content of his written artefacts (i.e. his drafts, cover letters, and feedback comments) by adopting what he considered to be his best feedback practices. This included using enriched affective language in the belief that this would help develop a sense of community within the writing group (e.g. Cahusac de Caux et al., 2017; Lam et al., 2019; Maher et al., 2008). The participants may have been further influenced in their feedback processes as they had been briefed about the objectives of this study when giving their informed consent before and after their participation. Despite the ethnographer's intended positive influence, the data was collected from within as natural a setting as possible and the participants were never *manipulated* for research purposes.

Regarding the study's objectives, however, the ethnographer's influence may have inadvertently helped to identify the influence of certain variables (e.g. affect in feedback comments) on the peer feedback process by exaggerating their impact. Nevertheless, with, or without, the ethnographer's participation, these relationships would still exist; the only difference being their *size* of influence.

Peer feedback process

The four participants and ethnographer (hereinafter *the group*) took part in an L2 English academic writing for scientific publication course at an Estonian university over a three-month period. The course consisted of two academic hours on a weekly basis where the format loosely rotated on a three-week cycle of face-to-face lectures and seminar groups followed by group meetings. In addition, the members submitted their drafts with cover letters online for five feedback rounds by the appointed deadlines for feedback within their writing group (see Figure 1).

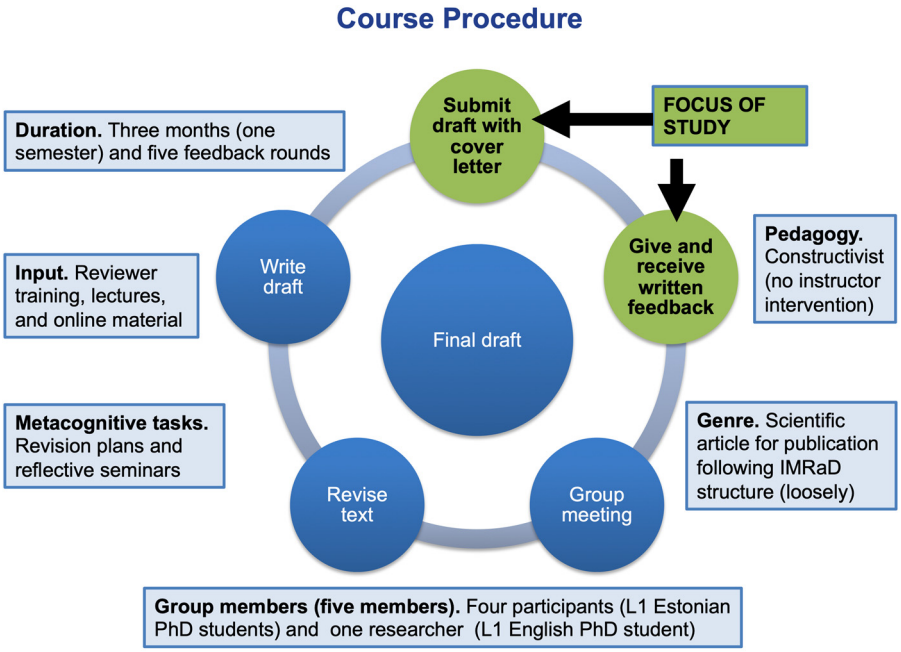

Figure 1. Process diagram of course design.

Once submitted, the group in their role as reviewers had approximately one week to give written feedback to one another. After the group had been given time to analyse their peers' feedback comments, they participated in a face-to-face guided group meeting. In this meeting, the group could justify and explain further their rationale for giving feedback comments and seek clarification on the feedback they received. Metacognitive seminars were conducted in which the writing groups were directed to reflect upon their writing process and the feedback process through given prompts. The face-to-face lectures consisted of writing input from a genre approach (Swales, 1995) following the IMRaD structure. In addition, the students submitted their drafts with cover letters online for five feedback rounds on different sections of their draft at the appointed deadlines throughout the course. The participants were instructed to give specific, critical, and objective feedback, and focus on the global aspects of writing. There was minimal instructor intervention within the writing groups throughout the course.

The aim of the course was to support the doctoral students' writing process whilst they drafted a scientific article in their discipline. The course was assessed on attendance, participation in the seminars, and timely submission of required documents only. There was no formal assessment of the students' drafts.

3.2 Datasets

This study utilises five different datasets to identify *variables* that exert a noticeable influence on the peer feedback process. Four of these datasets (*cover letters*, *drafts*, *feedback comments*, and *revision plans*) were written by both the participants and the ethnographer during the feedback process (hereinafter *written artefacts*). The fifth dataset consists of the transcripts of the participant interviews conducted after the course had finished.

Background

Analysis of written artefacts within dyadic feedback relationships can provide evidence on how they can influence one another, and ultimately the contents of the author's draft.

Four written artefacts, produced by both the participants and the ethnographer at different phases of the peer feedback process, were used in the analysis of this study (see Figure 2). Three of these artefacts were written in the role of feedback recipient: *cover letters*, *drafts*, and *revision plans*; and the other artefact, asynchronous written *feedback comments*, was written as reviewer. In this dyadic feedback relationship, Bob's *cover letter* and *submitted draft* influence the type and scope of Dave's *feedback comments*. At the next phase of the process, Dave's feedback comments may influence Bob's revision processes. Evidence of this influence can be provided through the analysis of Bob's *revision plans.* The examination of the participants' written artefacts, however, can only give the results of their peer feedback process.

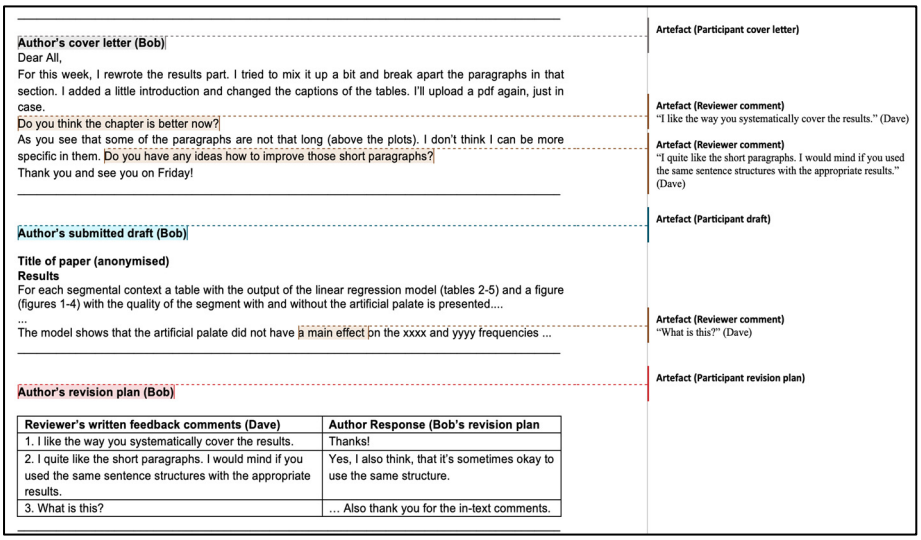

Figure 2. Dyadic feedback relationship between two participants (Bob and Dave).

Therefore, the participants were asked about their *feedback processes and experiences*, in their two roles as feedback recipient and as reviewer, in post-course interviews to gain understanding of how their internal feedback processes work. However, as the participants may have felt discomfort discussing one another's dyadic feedback practices (as in Figure 2), the interviewer focussed on their feedback exchanges with the ethnographer instead. The transcriptions of these participant interviews constitute the fifth, and last, dataset utilised in this study.

Completion of datasets

Written artefacts. To obtain representative samples of the data, the first and final feedback rounds were excluded from this analysis. Consequently, only the group's written artefacts from feedback stages two, three, and four were utilised in this study. There were complete datasets regarding the group's drafts, cover letters, and feedback comments, and the ethnographer's revision plans. The dataset regarding the participants' revision plans was mostly complete. This resulted in a total of 15 drafts and 15 cover letters, 60 reviews, and 12 revision plans available for analysis. Each participant wrote, on average, 184 words per cover letter (see Table 2).

Table 2. Completion of group's written artefacts

Reviewer or artefact	Feedback recipient (feedback stages denoted in digits)					Artefact completion (total)
	Alice 2, 3, 4	Ben 2, 3, 4	Claire 2, 3, 4	Dave 2, 3, 4	Researcher 2, 3, 4	
Alice		Y, Y, Y	Y, Y, Y	Y, Y, Y	Y, Y, Y	12 (12)
Ben	Y^1, Y, Y		Y, Y, Y	Y, Y, Y	Y, Y, Y	12 (12)
Claire	Y, Y, Y	Y, Y, Y		Y, Y, Y	Y, Y, Y	12 (12)
Dave	Y, Y, Y	Y, Y, Y	Y, Y, Y		Y, Y, Y	12 (12)
Researcher	Y, Y, Y	Y, Y, Y	Y, Y, Y	Y, Y, Y		12 (12)
Revision plan	N^1, Y, N	Y, N, Y	Y, Y, Y	Y, Y, Y	Y, Y, Y	12 (15)

Note Y. Draft and cover letter, or revision plan was completed; N. Revision plan was not completed. ***Example*** Y^1. Ben as reviewer gave feedback to Alice as feedback recipient; N^1. Alice did not complete her revision plan.

Participant post-course interviews. There were four complete transcripts, one for each of the participants, regarding the post-course interviews.

3.3 Methodologies

This study uses three separate research methodologies to analyse the participant interview transcripts and their four written artefacts.

The first methodology, and the starting point of this investigation is the grounded theory analysis of the participant interviews. The results of this analysis inform the study's research questions. Further evidence of these findings is sought by the examination of the participants' categorised feedback comments and/or the participants' revision plans. The same unit of analysis (*one segmented feedback comment*) is used for both the analysis of the participants' feedback comments and revision plans to ensure comparable datasets. Where possible, conclusions are drawn through the triangulation of results from two or three of these research methodologies.

The analysis of the ethnographer's feedback comments was used to further inform the participants' reviewing processes. Introspective analysis was performed on the ethnographer's own revision plans to help inform the coding book and to analyse the participants' revision plans. To minimise ethnographer influence, all the ethnographer's written artefacts were excluded in the analysis of the participant dyadic feedback exchanges.

This sub-section describes how these three methodologies were utilised to analyse the participants' interview transcriptions, and the writing group's written feedback comments and revision plans.

Methodology one: analysis of retrospective participant interviews

Prior to the interview, the participants were provided with all their written interactions with the ethnographer (cover letters, feedback comments, and revision plans) at the fourth cycle of the feedback process. This was done to refresh their memories of their perceptions of the feedback process and provide a focal point for discussion. This later feedback stage was chosen as the reference point, as the participants by then had become familiar with the feedback process. They were also only given a brief explanation of the interview purpose so as not to unduly influence their responses.

Another researcher interviewed the participants retroactively using the pre-given written artefacts as a springboard for discussion on all aspects of their experiences as a reviewer and as a feedback recipient within the feedback process. Each of the four interviews took approximately 45 minutes. In addition, the interviewer used prompts (see Appendix A) to guide the participants' responses and to inform more fully their perceptions about the *usefulness* of certain aspects of the feedback process. The contents of the interviews were transcribed verbatim using ellipsis to signal pauses according to the protocol described by McLellan, MacQueen, & Neidig (2003, p.77-80). However, and in deviation from the protocol, nonverbal sounds (e.g. laughter) were also included in the transcripts. The

transcripts were analysed using a grounded theory approach through a combination of open, axial, and selective coding (Strauss & Corbin, 1990). It was felt that researchers should not necessarily stick rigorously to the coding method employed (Flick, 1998; Richards, 2003), but allow some flexibility. Thus, a digression from a pure Strauss & Corbin's (1990) approach was employed, as there were some preconceptions in the framing of the interviewer's prompts. From this approach, affective, effective, and external components that the participants perceived to influence the peer feedback process in their dual roles as reviewer and as feedback recipient were induced.

For the coding itself, one analytical unit was deemed to be the interviewer's initial question and the interviewee's response, and all related follow-up questions and responses. (see Table 3).

Table 3. Example of coding within one analytical unit

Interviewer. "So, in general, when we look at this text what are some of the aspects of peer review that you find the most useful?"
Bob. "Well it is always useful when you get an answer (laugh) because sometimes the one ... that gives feedback really doesn't know how to help you and he [the ethnographer] succeeded ... a very good job always."
Induced category. How do cover letters influence the peer feedback process?
Induced sub-categories. The effect of the cover letter on the generated feedback comment *AND* actor competency
Actors. The participant *AND* the ethnographer *AND* the group
Participant's feedback role. As feedback recipient

Within this analytic unit, the interviewee's response was coded for four dimensions: *category*, *sub-category*, *actors* involved, and respondent's *role*. The interviewer's question was only used to contextualise the response. Multiple sub-categories joined by the *logic operator AND* could also be coded within one category. These partially induced results are explained in this methodology section to illustrate how the coding procedure was conducted. An abridged version of the induced coding book from the participant transcripts is presented in the results and discussion section (see Appendix D for full induced coding book).

Coding reliability. To ensure data robustness, an impartial second coder independently applied these induced codes on segments containing 20% of the data using a system of consensual assessment (see Göpferich & Neumann, 2016, p.119 for concise treatment). Any discrepancies between the coders were discussed, and the coding book was revised accordingly until all the data had been coded.

Methodology two: categorisation of asynchronous written feedback comments

The group's written feedback comments were segmented into units of analysis called *segments* and sorted into class and sub-class of comment, and inspected for various dimensional traits and hedging devices according to Yallop and Leijen's (2018) coding scheme for written feedback comments (see Figure 3).

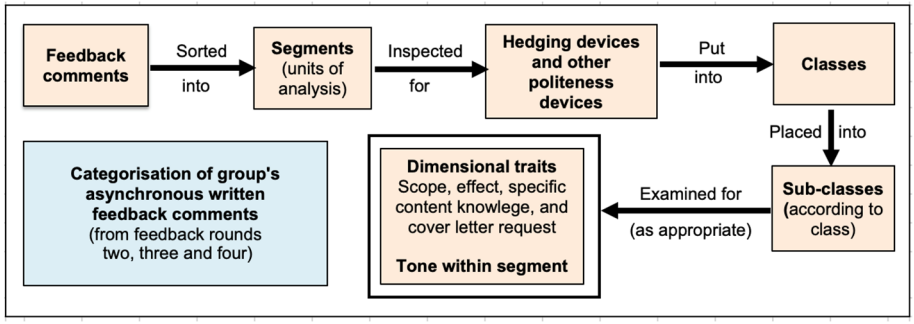

Figure 3. Coding scheme overview (abridged version of Yallop & Leijen's (2018) scheme).

Feedback comments are sorted into segments based upon their main idea unit (Nelson & Schunn, 2009) and placed into four classes. *Visible revision comments* suggest the authors make a specific observable change to one aspect of their draft (Liu & Sadler, 2003). *Non-visible revision comments* request the author not to make a specific textual change or refer the author to the location of other feedback comments. In other words, non-visible revision comments can have an unobservable effect on the author's subsequent draft. Conversely, *non-revision comments* cannot effect the substance of the author's draft. They are typically affective in nature and only contain indicators of social presence. The class of *ambiguous* denotes comments that could be categorised either as a revision comment or a non-revision comment dependent on the author's interpretation (see Table 4).

Visible revision comments are further *sub-classified* according to whether they identify a problem, offer a general solution, offer a specific solution, question the appropriateness of one aspect of the author's text or any combination of these, and tagged for whether they are *justified* or *unjustified*. They are further examined for their *effect* (global or local), *scope* (text-specific or generic), *specific content knowledge* (yes or no), *request to the author's cover letter* (yes or no), and reviewer *tone.* Reviewer tone is measured by "how much doubt [i.e. use of shields], coyness [e.g. use of approximators with the absence of shields] or certainty [e.g. use of emotionally-charged intensifiers] the reviewer expresses in the veracity of their feedback comment" (Yallop & Leijen, 2018, p.256) using a modification of Salager-Meyer's (1994) taxonomy of hedges. Non-revision comments are further sub-classified into the social presence categories of affective, open communication, and

group cohesion according to an adaptation of Yallop's (2016) coding scheme for social presence (see Appendices B and C for detailed coding scheme).

Table 4. Abridged categorisation system

Comment class	Definition (see Appendix B for full coding scheme)	Example[1]
Visible revision comment	A segmented feedback comment (segment) that explicitly states or clearly implies that the author may need to make a specific change to one aspect or *idea unit* of their text (Liu & Sadler, 2003; Nelson & Schunn, 2009).	"This is repetition." "Is this important?"
Non-visible revision comment	A segment that explicitly states or clearly implies that the author should not make a specific change to one aspect or *idea unit* of their text; or one that refers the author to a connecting feedback comment.	"In response to your cover letter, I would leave this as it is."; "I marked the place in the text and added a comment as well."
Non-revision comment	A segment that *cannot cause* a direct impact on the author's revision process. These are typically affective in nature and only contain indicators of social presence (Yallop & Leijen, 2018).	"All the best, Ann." "Sorry for the late feedback."
Ambiguous	A segment that could be interpreted as either a revision comment or a non-revision comment. These typically contain comments of hedged praise and impartial reviewer summarisations.	"I think it was good, ..." "The sorting task is to see how the language users perceive the polysemy and the clustering ..."

Note 1. These are full or abridged examples of the participants' segmented asynchronous written feedback comments.

Coding reliability. A Cohen's Kappa inter-coder reliability test using Fleiss, Levin, and Paik's (2013) benchmark scale was used on 20% of the data to ensure the robustness of the coding process. This resulted in the following Cohen Kappa coefficients: class (0.842; *very good* "agreement"), sub-class (0.856; *very good*), justification (0.690; *good*), effect (0.949; *very good*), scope (almost 1; *very good*), cover letter request (0.920; v*ery good*), content knowledge (almost 1; *very good*). After discussion between the coders to clarify the term *shield*, the Cohen Kappa coefficient for

reviewer tone was 0.796 (*good*). Discrepancies between the coders were resolved through discussion.

Methodology three: analysis of participants' revision plans

To inform how to develop a coding book to analyse the participants' revision plans, introspective analysis was performed on the ethnographer's revision plans. The ethnographer recorded his emotional responses and subsequent actions to all his received feedback comments over the whole course duration in his revision plans. These observations were analysed by thematic analysis (Braun & Clarke, 2006) using the same unit of analysis as in the categorisation of feedback comments (i.e. *a segment*). In the analysis, the ethnographer applied Dewey's (1933) critical thinking model on his own thinking process to identify the features of feedback comments that were likely to trigger their critical engagement, and how these triggered feedback comments affected and/or effected the ethnographer's revision process.

The ethnographer's inferences were used to draw up a coding book to analyse how segmented feedback comments can have a positive effect on the author's subsequent draft based upon the written evidence contained within the participant's revision plans. Affect was not coded for, as there was insufficient evidence to do this reliably.

Coding reliability. To ensure data robustness, a system of consensual assessment (see Göpferich & Neumann, 2016, p.119 for concise treatment), using the same two coders as was conducted in the analysis of the participant interviews, was also applied on this dataset to ensure coder reliability.

In this example, the participant (Claire) gives written feedback (point (E) in Figure 4) on the ethnographer's draft (B) that answers the author's cover letter (A). Regarding the analysis, Claire explains aspects of her feedback comment during her retrospective interview which is used as the starting point of research (D). The ethnographer also records his actions and metacognitive analysis to the same feedback comment (F) that may influence his subsequent draft (C). Finally, Claire's feedback comment is categorised using the relevant coding scheme (G).

3.4 Triangulation

The data analyses from the different research artefacts were collated and compared to give further credence to the findings using the participants' interviews as the first point of analysis (see Figure 4).

A similar analytical procedure was applied to how the participants as feedback recipients reacted to the group's feedback comments with two exceptions. Firstly, there was no metacognitive analysis of the participants' revision plans, because this could only be reliably done by the participants themselves.

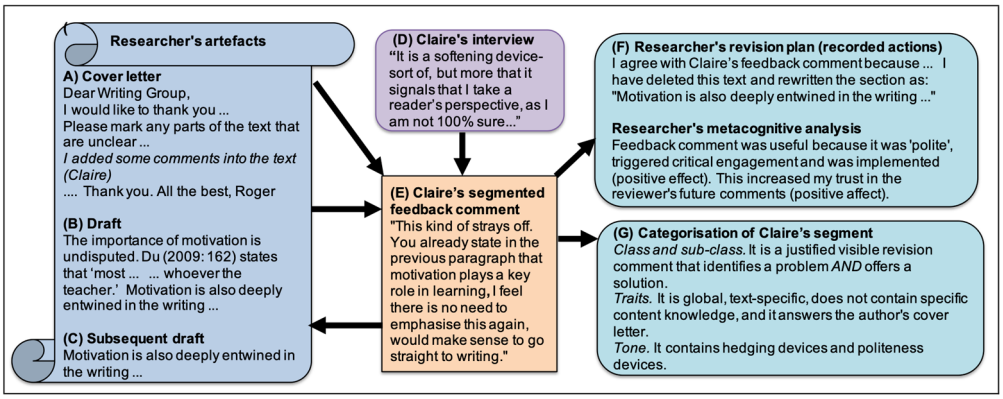

Figure 4. Study artefacts in a triangulated approach with participant as reviewer and ethnographer as feedback recipient.

Secondly, the participants' subsequent drafts were not inspected for implementation of visible revision comments due to difficulties in accurately coding the effect of global revision comments that also often led to substantial revisions.

As such, this study utilises up to five different datasets to obtain both qualitative and quantitative perspectives of dyadic feedback exchanges within the peer feedback process.

4. Primary results

This section presents the primary results of the three methodologies utilised to analyse the participants' interview transcripts, and the writing group's written feedback comments and revision plans.

4.1 Methodology one: analysis of retrospective participant interviews

A coding book evolved from the grounded theory analysis on the four participants' interview transcripts (see Appendix D for induced coding scheme). Two analytical units were discarded. This resulted in a total of 150 analytical units (45, 33, 36, and 36 units from Ann, Bob, Claire, and Dave respectively) of which 11 130 words were uttered by the participants and 6 929 by the interviewer. Only relevant findings from the application of this coding book are presented in this study hereinafter.

4.2 Methodology two: categorisation of asynchronous written feedback comments

The application of the categorisation system resulted in a total of 580 segmented feedback comments over the three feedback rounds for all the group's dyadic

feedback exchanges. Most segments were visible revision comments (57.1%), followed by non-visible revision comments (22.2%), non-revision comments (12.2%) with ambiguous comments being used the least (8.4%).

When discounting all data concerning the ethnographer, there were 214 segmented feedback comments between participant to participant feedback exchanges available for analysis (for full distribution, see Yallop, Taremaa, &. Leijen, 2020; available at https://datadoi.ee/handle/33/206). Only relevant findings from the application of this coding book are presented in this study hereinafter.

4.3 Methodology three: analysis of participants' revision plans

Ethnographer's introspective analysis

In the analysis, the ethnographer applied Dewey's (1933) critical thinking model on his own thinking process to identify the features of feedback comments that were likely to trigger their critical engagement, and how these triggered feedback comments affected and/or effected the ethnographer's revision process (see Table 5).

From the introspection of his revision plans, the ethnographer made four key observations about what constituted particularly *useful feedback comments* in the role as feedback recipient. Firstly, feedback comments can trigger revision on textual aspects unrelated, or loosely related, to the reviewers' suggested advice. Secondly, logical feedback comments demonstrate that the reviewers have critically engaged with the author's draft and this increases trust in the reviewers' future feedback comments. Thirdly, multiple feedback comments on the same textual aspects by either the same reviewer or different reviewers increase the feedback comments' importance. Fourthly, the cumulative impact of receiving regular useful feedback comments usually led to the ethnographer being more receptive to engaging with the same reviewer's future feedback comments.

Analysis of the participants' revision plans.

The ethnographer's inferences were used to draw up a coding book to analyse how segmented feedback comments can have an effect on the author's subsequent draft based upon the written evidence contained within the participant's revision plans (see Table 6). Affect was not coded for, as there was insufficient evidence to do this reliably.

The segments were categorised into the themes of *very useful*, *useful*, and *not useful* dependent on evidence of how effective the feedback recipients perceived their usefulness. The ethnographer's feedback comments were discarded so that only feedback exchanges between the participants to one another were considered in the analysis. Non-revision comments were also disregarded as, by definition, they can only have an affect on the author's revision process.

Table 5. Ethnographer's analysis of received feedback comments

Theme	Is the segmented feedback comment ... ?	Desirable features
Trigger	coherent, comprehensible, and locatable?	Text-specific. This includes general comments within the researcher's cover letter that refer the researcher to more specific comments located elsewhere in the draft (e.g. "Yes, perhaps it's better ... However, see my in-text comments for detailed answer.").
	polite and respectful?	Appropriate and polite. This is often signalled by the use of hedging devices and other politeness devices, and other indicators of social presence.
	relevant, logical and thoughtful?	Response to the researcher's cover-letter and justified comments show evidence of reviewer critical thinking.
	one that the researcher will critically engage with?	If the answer is yes to all of the above questions, then critical engagement with the feedback comment is more likely.
Observations	Non-revision comments that could not have a direct impact on the researcher's draft (e.g. "Dear Researcher, ...") usually led to an increase of *reviewer trust* and a higher *degree of engagement* with feedback comments (positive affect).	
Theme	Does the researcher agree with the reviewer?	Outcomes
Critical thinking	Yes. The feedback comment is implemented.	This includes implementation of justified non-visible revision comments (e.g. "Your introduction is good because of ...") that cannot be measured by inspection of the researcher's subsequent drafts.
	Partially. The feedback comment may be implemented at a later stage.	This may lead to closer inspection of the other reviewers' feedback comments, and *self-questioning* to assess the feedback comment's appropriacy.
	No. The feedback comment is not implemented	The feedback comment is rejected, but in a *positive* way.

Observations	Non-revision comments that could not have a direct impact on the researcher's draft (e.g. "Dear Researcher,") usually led to an increase of *reviewer trust* and a higher *degree of engagement* with feedback comments (positive affect).	
Theme	Is the feedback comment particularly useful?	Example[1]
Very useful	Yes, because the comment is extremely logical and thoughtful.	"I didn't feel that the figure was intuitive. Maybe you should turn it upside down? To make sense of it, I started from the micro-level." (Bob)
	Yes, because the comment identifies an *important* textual problem or gives a solution that was overlooked by the researcher.	"This kind of strays off. You already state in the previous paragraph that motivation plays a key role in learning, I feel there is no need to emphasise this again, would make sense to go straight to writing." (Claire)
	Yes, because there are recurring comments related to the same textual aspect by the same reviewer.	"The microlevel and macrolevel are not clear to me ... (later) ... I generally do, but the micro- and macrolevel are confusing (two separate cover letter responses)." (Ann)
	Yes, because there are recurring comments related to the same textual aspect by different reviewers.	"However, the microlevel and macrolevel are not clear to me" (Ann); "I think the definitions of micro- and macro-level need more explaining here?" (Dave)
Observations	*Very useful* feedback comments always led to an increase of researcher *trust* with the participant's future feedback comment.	

Note 1. These are full or abridged examples of the participants' segmented asynchronous written feedback comments.

Table 6. Coding book for participants' revision plans

Theme	Does the author agree with the segmented feedback comment?	Example[1] (segmented feedback comment)	Example[2] (participant's written response)	Impact	Author critical engagement
Very useful comment	Strong author agreement due to multiple comments by different reviewers on the same textual aspect. (7)[3]	"Yes, but I would talk about what the senses are and then say what it is in the context of polysemy."	"As this was a re-occurring comment, I definitely need to revise how I'm describing my methods."	Very positive effect.	Yes
	Strong author agreement often signalled by emotionally-charged intensifiers, author certainty, and strong approximators. (15)	"Maybe comment shortly on why you do this."	"Good point, I definitely will!"	Comment was implemented	
Useful comment	Author agreement. (9)	"Maybe say this later in the subchapter. This way it would be structurally similar to the previous one."	"I will re-organize the paragraphs."	Positive effect. Comment was implemented.	Yes
	Possible author agreement often signalled by hedging devices and author thinking aloud. (62)	"I'm not sure if it's wise to split the chapter into materials & method vs procedure because … So maybe join these two?"	"Yes, I have not thought about a suitable introduction for this chapter. I will look into it!"	Positive effect. Comment may be implemented.	
Not useful comment	Author disagreement or comment lacks comprehensibility. (6)	"It did not feel like an introduction, more like limitations and overview of the method."	"I didn't describe any methods, so this is a bit confusing."	No effect. Comment not implemented.	Unsure

Note 1. These are full or abridged examples of the participants' segmented asynchronous written feedback comments.

2. These are full examples of the participants' reactions to the segmented feedback comment given in example 1 as stated in their revision plans.

3. Numbers in brackets signify the number of segmented feedback comments coded within each theme.

In total, the participants gave their written reactions to 99 segmented feedback comments of which 22 were coded as *very useful*, 71 *useful*, and six as *not useful*. This provided evidence that the participants had critically engaged with at least 93 segmented feedback comments of which 31 segments were implemented and 62 were being considered for implementation. Due to a lack of evidence, the six *not useful comments* were coded as *unsure* with regards to their critical engagement.

Ethnographer influence through best feedback practices

Regarding his roles as reviewer and as feedback recipient, the ethnographer as an educator adopted his *best* feedback practices. Accordingly, his written artefacts were informed both by established norms as reported in the literature review and through his own research practices.

As reviewer, the ethnographer based the general principles of his feedback comments on "striking a balance between critique and praise." (I. Anson & Anson, 2017, p.13). Thus, approximately half of his 214 segmented feedback comments consisted of visible revision comments (52%), and the remainder were fairly evenly divided between non-visible revision comments (24%) and non-revision comments (21%). There were few ambiguous comments (3%). The ethnographer's visible revision comments were based upon Yallop and Leijen's (2018) findings of perceived effectiveness of written feedback comments within postgraduate writing groups of a similar context. Thus, the ethnographer's visible revision comments tended to offer a solution (contained within 72.1% of the ethnographer's segmented visible revision comments) that was justified (67.6%), text-specific (100%), global (83.8%), requested by the author (94.6%), and presented as author doubt or author coyness (81.1%). Non-visible revision comments that specifically requested the author not to make textual revisions were also mostly justified (72.7%), and a high number of non-revision comments were used in the pedagogical belief that this would help develop the writing group (e.g. Cahusac de Caux et al., 2017; Garrison et al., 2000).

Clear, concise, and friendly cover letters can help reviewers write useful and critical feedback (Yallop, 2017; Yallop & Leijen, in press). Applying these guiding principles, the ethnographer wrote cover letters that included background information about the draft's purpose, explicit requests for help from the participants, and social presence indicators such as the use of vocatives (e.g. "Dear Bob,"). These cover letters were written as text only with no in-text comments and presented directly before the ethnographer's draft within the same document (for full distribution of ethnographer's feedback comments, see Yallop, Taremaa, &. Leijen, 2020; available at https://datadoi.ee/handle/33/206).

5. Results and discussion

The purpose of this study is to identify and obtain a deeper understanding of how *affective components* and *external components* can interact with *effective components* and influence the author's revision process within one L2 English doctorate writing group. Thus, the following sub-sections address the study's four research questions. Quantitative data gathered from the ethnographer's dyadic feedback exchanges, unless otherwise specified, are excluded in the analysis within this section.

5.1 How can effective components effect the author's revision process?

In response to the first research question, this section identifies three effective components within the reviewer's feedback comments that can effect the author's revision process: (i) visible revision comments (e.g. questions), (ii) non-visible revision comments (e.g. recommendations for non-revision), and (iii) ambiguous comments (e.g. summaries of understanding). Non-revision comments (e.g. use of names) are excluded in the analysis within this sub-section as they can only affect the author's revision processes.

The relative distribution of the effective components within the participants' actual written feedback comments is compared to the relative distribution of these same components reported as being *useful* within their revision plans (see Table 7).

Table 7. Relative distribution of effective components in participants' feedback comments and their '*usefulness*' in revision plans

Effective component	Definition	% in feedback comments[1]	% in revision plans (useful)
Visible revision comments	A segment that requests the author to make a specific textual change (Liu & Sadler, 2003).	65.3	80.6
Non-visible revision comments	A segment that requests the author not to make a specific textual change.	19.9	7.5
Ambiguous feedback comments	A segment that could be categorised either as a revision comment or a non-revision comment dependent on the author's interpretation.	14.7	11.8

Note. 1. Distribution (%) calculated with respect to all segments of the effective components.

The participants used segmented visible revision comments the most (65.3%), followed by non-visible revision comments (19.9%), and they wrote ambiguous comments the least (14.7%). Based solely on evidence in their revision plans, the participants were most likely to engage with visible revision comments, then with ambiguous comments, and lastly with non-visible revision comments. Thus, these identified effective components can all effect the author's revision process. What is unclear is how *strong* their effect might be. This is because the participants may have found it easier to report on the implementation of visible revision comments that have *observable effects* on the author's subsequent draft as compared to feedback comments that would have *non-observable effects* through their implementation (e.g. non-visible revision comments), or non-implementation (e.g. visible revision comments).

Observable effects

Only visible revision comments (e.g. "Is this correct?") can have observable effects based on inspection of the author's subsequent draft. Visible revision comments were segmented into desirable features (e.g. class and trait), and evidence of their *desirability* was examined through participant interviews (Table 8), and the relative distribution of the categorisation of the participants' feedback comment as compared to the relative distribution of their useful revision plan comments (Table 9).

Triangulation of the results from the two tables (see Table 8 and 9) suggests that *useful* visible revision comments depend upon obtaining a thoughtful and appropriate balance of specific desirable features. Regarding their sub-classes, approximately half the participants' actual segments *offer a solution* (54%), followed by *identifying a problem* (29%), and then by segments that both *offer a solution and identify a problem* (17%). Thus, the distribution of the participants' actual segments by class with respect to their reported useful distribution in their revision plan comments is similar.

With respect to traits, almost all the participants' actual visible revision comments were *text-specific*, *global*, and a *response to the author's cover* letter. Analysis of the participants revision plans further revealed that these same three traits are also considered to be desirable features within this class of feedback comment. Justified comments exhibited a different trend. There was a much higher relative distribution of useful *justified comments* (56%) than there was in the participants' actual feedback comments (36%).

Class of visible-revision comment. In concordance with Nelson and Schunn (2009), and where the reviewer was competent to do so, the participants tended to perceive that offering solutions were the *ideal* visible revision comments. If the reviewer was unable to provide solutions, then identifying problems using statements or questions could help the author identify "something that [they] missed when writing the text [as well as] making [them] reconsider things" (Ann).

Table 8. Reported positive effect of visible revision comments (participant interviews)

Desirable features (class)	Condition/function	Reported by	Participant interviews (representative example)[1]
All visible-revision comments	A segment that requests the author to make a specific textual change (Liu & Sadler, 2003).	All	See quotes below.
Offer a solution (specific or general)	Provided the reviewer is competent to do so, this tends to be perceived as the most *useful* sub-class of revision comments.	All	"I know this is like the ideal (giving solutions) … This is something that I would strive for." (Bob)
Problem identification and/or question	Identification of a readability issue that has been overlooked by the author and it may also promote author critical engagement.	All	"Something that I myself missed when writing the text. For example, because it is so obvious for me but it is not obvious for another person and also comments that make me reconsider things well … " (Ann)
Offer a solution and problem identification	A segment that offers all the affordances of offering a solution and problem identification.	All	"I really like the suggestions here. He [the ethnographer] points something out and he tries to suggest something … I think it's a very good comment." (Bob)
Appropriate balance	All segments should contain an appropriate balance of classes.	All implicitly	See quotes above.
Desirable features (class)	Condition/function	Reported by	Participant interviews (representative example)[1]
Justification	Evidence of reviewer critical engagement demonstrates thoughtfulness and may increase the author's trust in reviewer competency.	All	"This dimension of "thoughtfulness" [shows] he [the ethnographer] has really thought about it so that kind of validates his opinion as well so he has really thought how can I improve it … " (Claire)
Global effect	A global segment is much more valued than a local segment.	Ann	"You can point out the typos for something in the comments and I will change those typos but still this isn't very useful feedback." (Ann)
Text-specific	All the participants wrote only text-specific comments, as opposed to generic comments.	All	All the examples given in this table are text-specific
Response to cover letter	All participants use the cover letter to guide them in giving useful and critical feedback.	All	"The cover letters gave a structure to follow so I knew what the author was expecting. It guided me when reviewing the text." (Dave)

Note. 1. Full or abridged quotes; may include reference to ethnographer.

Table 9. Relative distribution of class and traits of visible revision comments as compared to their reported '*usefulness*' in the participants' revision plans

Desirable features (class)	% in feedback comments[1]	% in revision plans deemed useful[1]
All visible revision comments	100	100
Offer a general or specific solution	54.3	57.3
Problem identification and/or question	29.1	22.7
Offer a solution and problem identification	16.6	20.0
Desirable features (traits)	**% in feedback comments[1]**	**% in revision plans deemed useful[1]**
Justification	35.8	56.0
Global effect	94.7	100
Text-specific	100	100
Response to cover letter	92.0	90.7
Appropriate balance	See the relative distributions above	

Note 1. Percentage distribution with respect to all segments of visible revision comments.

This suggests that authors may have to critically engage more with feedback comments that only identify a problem as opposed to those offering a solution. Students often value and feel they benefit more from non-corrective as opposed to corrective feedback (I. Lee, 2008). Similarly, authors may also benefit from being *forced* to critically work out a solution on their own even if this results in the non-implementation of the reviewer's comment. Feedback studies have consistently shown that a solution (Nelson & Schunn, 2009), and especially a solution with "an alteration" (Liu & Sadler, 2003) is much more likely to be implemented than a problem identification. These findings are valid, but feedback comments that are not implemented can also have a beneficial impact on the author's writing process and should also be accounted for in feedback effectiveness studies.

Traits of visible revision comments. There is dispute in the literature about whether justified visible revision comments are more likely (Leijen, 2017), or less likely (Nelson & Schunn, 2009), to be implemented in the author's subsequent draft. Any feature that increases the author's understanding of a feedback comment is highly desirable (Nelson & Schunn, 2009), and features aiding understanding are particularly important at higher levels of study where most revision comments are global. Thus, contiguous comments of justification can help the reviewer to

understand the intended meaning of the reviewer's comment more fully, and this will enable a more informed decision regarding its implementation to be reached. This claim is further supported by the higher relative distribution of justified visible revision comments reported as *being useful* in the participant's revision plans (56.0%) as compared to their distribution in practice (35.8%). The participants seldom used, and none reported that they critically engaged with, local visible revision comments. This concurs with Liu and Sadler's (2003) assertion that global comments are more useful than local comments for higher levels of study. In addition, there were no generic comments, and this also conforms to *good* feedback practices that revision comments should be as specific as possible (e.g. Ferris, 1997). Regarding cover letters, all the participants stated that cover letters had a very strong influence on their reviewing process. As the vast majority (92%) of the participants' visible revision comments are a response to the author's cover letter, cover letters have a strong effect on the content of visible revision comments.

Summary. From a qualitative perspective, the participants implied that no single sub-type of comment (e.g. offering a solution) is automatically more useful than another sub-type of comment (e.g. identification of a problem), and this inference is substantiated from the analysis of their feedback comments and revision plans. The triangulation of the results also gives strong evidence that justified, global, and text-specific visible revision comments that answer the authors' cover letters will have a much more positive effect on the author's revision process than those that are unjustified, local, generic, and do not answer the cover letter. This suggests that quality written feedback comments do not only depend on "striking a balance between critique and praise" (I. Anson & Anson's, 2017, p.13); they also depend on striking a balance between using appropriate types of visible revision comment along with their respective desirable traits (e.g. justified, global, text-specific, and an answer to the cover letter).

Non-observable, ambiguous and cumulative effects

The participants in their interviews and revision plans provided evidence that the non-observable effects of revision comments on the author's subsequent draft, summaries of understanding, and multiple reviewer comments on the same textual aspects can all lead to a positive effect (see Table 10).

Table 10. Non-observable effects of revision and ambiguous comments

Desirable feature	Function	Reported by	Participant interviews[1]	Revision plan (*useful* comment)[2]	Applicability
Unobservable effects	Segment can promote critical thinking on all textual aspects.	Ann Bob	"And sometimes the comments that don't make me change anything [are useful as they] make me reflect on things more." (Ann)	"Yes, I also think, that it's sometimes okay to use the same structure." (Bob)	Implementation of non-visible revision comments, and non-implementation of visible revision comments.
Summary of understanding	Segment can provide verification on whether the author's intended meaning matches the reviewer's interpretation.	Ann Claire	"When people explain how they understood some sentence ... He [the ethnographer] wrote what he understood from my text and when it wasn't what I meant it was really useful." (Ann)	"Almost – clustering is the method I used to analyse both the sorting task and the behavioural profile. I will look at BP analysis again to avoid any ambiguity in the text." (Claire)	Implementation as a visible revision comment, or as a non-visible revision comment (implied).
Multiple reviewer comments on same textual aspect	Segment can carry more weight as they accumulate.	Claire Dave	"I remember a few cases where it is completely something I didn't anticipate and then all of the reviewers said that you know there is some kind of mess here so look at this again. So this was really useful." (Dave)	"As this was a re-occurring comment, I definitely need to revise how I'm describing my methods." (Claire)	Cumulative impact on implementation of multiple revision comments.

Note. 1. These are full or abridged quotes uttered by the participants during interview.

2. These are full examples of the participants' reactions to one segmented feedback comment (not related to example 1) as stated in their revision plans.

Two participants reported that the non-implementation of visible revision comments, or the implementation of non-visible revision comments (e.g. "I would leave it as it is because, ... "), can promote critical thinking on a specific (Bob) or on any textual aspect (Ann). As also found by Nelson & Schunn (2009), Ann and Claire both considered that summaries of understanding were *useful*, as these provided clarification on whether the author's intended meaning matched the reviewer's interpretation of this intended meaning. Claire and David reported in both their interviews and revision plans that multiple reviewer perspectives on the same textual aspect can be *very useful*, as it accentuates the feedback comments' importance. This agrees with Cho and Schunn's (2007) suggested findings that multiple peer feedback on the same textual aspect accentuates their importance.

Summary. Author agreement with non-visible revision comments or interpreting an ambiguous comment as a non-visible revision comment would result in the author implementing these comments by not revising their draft. Thus, ambiguous comments and non-visible revision comments should also be treated as visible revision comments, as they can effect the author's revision process. This suggests that these *non-observable effects* need to be accounted for in quantitative feedback studies that, for example, determine the *effectiveness* of visible revision comments by calculation of their implementation rates (e.g. Leijen, 2017; Liu & Sadler, 2003; Nelson & Schunn, 2009).

Discussion

This sub-section shows that the implementation, or non-implementation, of all classes and sub-classes of revision comments, including ambiguous comments, can exert a positive influence on the author's revision process. What seems important to obtain is an appropriate balance of such comments with visible revision comments being used much more often than non-visible revision comments. Within visible revision comments, solutions were considered more effective than identifying a problem when the reviewer was competent to do so. However, identifying a problem was also considered to be an effective strategy to bring readability issues to the author's attention. There was a much clearer trend regarding the traits of revision comment. There was firm evidence that justified, global, and text-specific revision comments that answer the author's cover letter were much more effective than unjustified, local, and generic revision comments that did not answer the author's cover letter.

5.2 How can *external components* influence the contents and interpretation of asynchronous written feedback comments?

In response to the second research question, this study found that four external components influenced the content and interpretation of asynchronous written

feedback comments from the participants' two roles as *feedback recipient* and *reviewer* as follows: (i) participant attitudes, (ii) reviewer competency, (iii) cover letters, and (iv) individual differences in feedback practices.

Influence of participants' attitudes

The participants discussed their attitudes and experiences towards their feedback and writing practices during the interviews (see Table 11).

Table 11. Participant attitudes towards the feedback process

Participant	Example[1] (attitudes towards feedback process)	Example[1] (post-course status)
Alice	"Not so useful as I had nothing to write due to experiment failure ... but eventually I found the group and feedback style very nice."	"I finished the first article that I started to write and that I dropped during the course and it was accepted."
Bob	"Very useful, helps me to write and be more productive, motivating ... but peers lack competence in my field."	"I will actually try to publish it by August."
Claire	"Incredibly useful to have this constant feedback when you are in the writing process."	"Not yet published but accepted with revision."
Dave	"Very useful as prepared me for supervisor's meeting. I could test, elaborate and change my ideas."	"We had the idea that maybe we could continue on with the same group, but we seem to have gone our separate ways. It is a possibility."
Supporting evidence	All participants submitted their drafts and review comments by the appointed times (see Table 2).	

Note. 1. These are full or abridged quotes uttered by the participants during interview.

All the participants displayed a positive attitude towards the feedback process by the end of the course. This is evidenced by the complete and timely submission of the participants' drafts and written feedback throughout the course. These positive attitudes demonstrate strongly that the writing group collectively shared a common belief that participation within the feedback process had a beneficial impact on their writing process. This is further supported by Anne and Claire's articles being

accepted for publication at their time of interview. Positive attitudes are known to increase motivation (e.g. Dörnyei & Ushioda, 2013; Ellis, 2003; Masgoret & Gardner, 2003). Increased motivation can encourage the author to engage for longer in the writing process as evidenced by them making more textual revisions (Gee, 1972; F. Hyland & Hyland, 2001; Topping, 1998, p.256).

As observed by the ethnographer for his own practice, these positive attitudes can also benefit the other group members, and particularly those who consistently give *useful* feedback comments, by encouraging feedback recipients to reciprocate these *favours* in their review comments. These sentiments were also implied by the other participants, such as Bob who stated in his interview that "His [the ethnographer] comments were always very good … I try to be on that level and be better in my comments." Thus, it can be concluded that the writing group members had a positive attitude towards the feedback process throughout the course. Positive attitudes in doctorate writing groups should benefit the peer feedback process (e.g. Aitchison, 2010; Caffarella & Barnet, 2000; Ferguson, 2009; Maher et al., 2008) by helping the groups develop a *high sense of writing community* (e.g. Cahusac de Caux et al., 2017; Garrison et al., 2010).

All the participants, as both reviewers and feedback recipients, reported that the group was competent to comment on global readability issues but not on specific content knowledge, because of their differing linguistic research areas. This perception is supported, as almost 95% of the group's feedback comments were global, and these global comments focused solely on readability issues rather than on specific content knowledge. The participants reported that the most authoritative persons to give them specific content knowledge were their supervisors, and this is supported by them not commenting on specifics in the analysis of their feedback comments. The participants also stated that they trusted comments on language and grammar by the ethnographer, as the ethnographer is a native L1 English writer. This is evidenced by the ethnographer writing approximately three times more local visible revision comments to the participants per review (16.2%) than the participants did to one another (6.4%). The participants further reported that the level of reviewer competency increases with reviewing experience, and this concurs with Caffarella and Barnet's (2000) findings with other PhD students.

These results suggest that reviewers should be honest when giving feedback, and only comment within their own particular areas of competency. In other words, supervisors are very suited to advising on specifics within the discipline, competent L1 writers can comment authoritatively on local concerns, and doctorate students in discipline-specific writing groups are very competent to identify global readability issues. If the reviewer is proficient in commenting on textual aspects within differing areas of competencies (e.g. on specifics and global readability issues), then these distinct skill sets will only add value to the feedback process.

Influence of reviewer competency

Four areas of reviewer competency were identified during the participant interviews (see Table 12).

Table 12. Reviewing competencies reported by all participants

Competency	Effect	Group	Analysis of feedback comments
Structure, organisation, argumentation	Global	Doctoral students	Almost 95% of the participant to participant visible revision comments were global and focus on the structure, organisation, and argumentation contained within the draft.
Representative example[1]	"Because as the topics in our writing group were quite diverse, one thing I was looking for were [feedback comments] as a reader who doesn't have that much background knowledge." (Dave)		
Specific content knowledge	Global	Supervisors	There were no visible revision comments that challenged the author's academic sources.
Representative example[1]	"If my supervisor comments on something [e.g. specific content], I take that as an authority figure." (Claire)		
Language, grammar	Local	L1 proficient writers	16.2% of the ethnographer's compared to 5.3% of the participant to participant's visible revision comments were local.
Representative example[1]	"And of course when it comes to language, I trust him [the Ethnographer] more, because he [the researcher] is a native English speaker." (Ann)		
Reviewing experience	Local Global	Experienced reviewers	Not applicable.
Representative example[1]	"Good reviewing depends on the experience that they have had with texts." (Bob)		

Note 1. Full or abridged quotes; may include reference to ethnographer.

Influence of cover letters

As feedback recipients, the participants all expect a reply to the questions posed in their cover letters. Similarly, and as reviewers, they all use the authors' cover letters to guide them in giving useful and critical feedback (see Table 13).

Table 13. Influence of the author's cover letter on the feedback process

Desirable action	Participant's perspective		Reported by	Analysis of feedback comments
	As author	As reviewer		
Follow instructions in the author's cover letter	Feedback recipients expect answers to the questions in their cover letters.	Reviewers use the assessment provider's cover letter to guide them in giving useful and critical feedback.	All	Over 90% of the participant's visible and non-visible revision comments to each other are a response to the author's cover letter.
Representative example[1]	"An effective feedback comment is tied to the cover letter." (Claire)	"The cover letter gave a structure to follow so I knew what the author was expecting." (Dave)		
Process of writing a cover letter	Writing a cover letter helps the author to revise their draft.	Not applicable.	Bob Dave	Not applicable.
Representative example[1]	"Well I thought the cover letter was a nice addition to my arsenal … It helped me think through all those topics I wrote about in the paper. So even after I had written it, it was like a good recap for me and also sometimes while writing a cover letter, it got me thinking about some things I didn't before so I went back to the paper and maybe changed something there." (Dave).			

Note 1. Abridged quote from participant during their post-course interview.

This is supported by the analysis of the participants' feedback comments in which the vast majority of *visible revision comments* are a response to the author's cover letter (over 90%). This finding concurs with Yallop and Leijen's (2018) study that visible revision comments which answer the author's cover letter are usually more *useful* than those that do not. At postgraduate level, and in the absence of ready-made assessment criteria (e.g. instructor prompts), the students as feedback recipients should formulate their own reviewer assessment criteria. Without such criteria, the reviewers would have to base their feedback comments solely on what they perceive would be useful from the author's perspective. Thus, the quality of generated feedback comments can be improved if the authors within the writing

group clearly communicate to their reviewers how their drafts should be assessed. Although the participants reported their perceptions about the content and structure of *useful* cover letters, this was not analysed further as it warrants a separate study.

Bob and Dave stated that the process of writing a cover letter helped them to identify and remedy problematic issues with their own drafts. The resulting amended draft and cover letter would also have impacted the feedback process by eliciting different feedback comments than would have been generated from the original draft and cover letter. Lundstrom and Baker (2009) argue that giving feedback comments can be more beneficial to the author's writing process than receiving them. Similarly, and outside the scope of this study, writing a cover letter can also have cognitive benefits on the author's writing processes. This is because authors can use their own cover letters to reflect upon their drafts from the perspective of their reviewers. Thus, cover letters can play an important role in influencing both the author's writing process, and the type and nature of generated feedback comments.

Individual differences in affect and effect

Affective devices contain at least one indicator of social presence, and they can be contained within revision and ambiguous comments (e.g. as hedging devices) or as a non-revision comment (see Table 14).

Table 14. Individual reviewing differences (affect and effect)

Affective component	Effective component	Distribution of participant feedback comments (%)			
		Ann	Bob	Claire	Dave
Contains at least one indicator of social presence (e.g. hedging devices and/or other politeness strategies)	Visible revision comments	44.2	68.4	59.6	68.8
	Non-visible revision comments	22.1	12.3	15.8	29.3
	Ambiguous comments	11.7	15.8	15.8	10.9
Non-revision comment	Not applicable	22.1	3.5	8.8	0

Effect and affect. Bob and Dave wrote the most visible revision comments, and Ann and Dave wrote the most non-visible revision comments. Bob and Claire wrote the most ambiguous comments, and Ann wrote, by far, the most non-revision comments (22.1%). Conversely, Dave did not write any non-revision comments (0%). What this shows is that there are clear differences in how the participants use different classes of feedback comments in their dyadic feedback exchanges to one

another. The causes of these differences were not investigated further, but they may have been due to individual reviewing styles, and the influence of the author's drafts and cover letters.

Affect and effect. There are individual differences in how the participants perceived and used affective language in non-revision comments and within revision comments (excluding ambiguous comments) within their dyadic feedback exchanges (see Table 15).

Participants with a lower affective filter (Krashen & Terrell, 1983, p.37-38) are less prone to being upset by receiving unhedged feedback comments than those with a higher affective filter. Similarly, sensitivity to author refers to how *politely* the participants as reviewers word their review comments so as not to cause author offence. Supporting evidence for the participants' affective perceptions are found from how they use names and praise in their feedback comments to one another, and affective language (e.g. *hedging devices*) within their revision comments to signal their *tone*.

Ann and Claire used more affective language in their review comments as compared to what they self-reported they could tolerate as feedback recipients. Lu and Law (2012, p.272) found that "teachers need to be sensitive to the fact that peer assessment works differently for assessors and assessees." Similarly, doctorate students exhibit individual affective differences in their use of positive affective language in their dual roles as feedback recipient and reviewer.

Ann was the only group member to use vocatives (e.g. "Dear Bob, ... ") to her colleagues in her feedback comments, and this could be due to ethnographer influence. She reported that the use of names was "a different way to communicate than with my (Estonian) colleagues." Claire stated that names "may make the text more socially acceptable," but she did not use them herself. Socio-culturally, the use of names for Estonians may not be considered important as Estonians tend to focus more on communication than on relationships (Grzega & Keevalik, 2008, p.214). Furthermore, studies have shown that the social presence category of group cohesion can decrease over time in online learning communities (Swan & Shih, 2005), as the group develops "camaraderie" and the focus shifts to academic purposes (Garrison & Arbaugh, 2007, p.160). As this category includes the *use of vocatives*, the group may already have developed a *sense of community* and, thus, they felt that the use of each other's names contributed little to developing group cohesion.

Table 15. Individual differences as both feedback recipient and reviewer (affect)

Participant	Affective filter as author	Sensitivity to author as reviewer	Participant interviews (self-reported perceptions on affect)	Analysis of affective devices in, and within, participant feedback comments				
				Segments (instances)		Distribution in revision comments (%)		
				Vocatives	Praise or hedged[1]	Doubt[2]	Coyness[3]	Certainty[4]
Ann	Low	Increased to high	"Well I am usually very critical to both myself and others but I saw the others' feedback and it was much more friendly and positive and then I thought that maybe I should write feedback a little less critically." (As author and reviewer)	16	11	32.4%	47.1%	20.6%
Bob	Not explicitly mentioned	Medium	"I have all these wordings like *maybe* or *maybe try to be* or *I feel like*, but my comments are short." (As reviewer)	0	8	33.3%	56.4%	10.3%
Claire	Low	High	"I am more strict with myself when I'm giving comments definitely than when I'm receiving comments ... I think that others might not have as thick of a skin as I do so I can kind of try to soften everything for others." (As author and reviewer)	0	11	50.0%	29.4%	20.6%
Dave	Moderately high	Moderately high	"I tried not to take too seriously if there are some negative comments, but it does affect me (as author)"; "I just tried to be polite and there were no major difficulties." (As reviewer)	0	12	56.8%	27.3%	15.9%

Note 1. This includes all non-revision comments of praise, and ambiguous comments of hedged responses (e.g. "In response to your question, perhaps ..."); 2.The segment contains shields; 3. The segment does not contain shields, but it does contain other coyness devices (e.g. approximators); 4. The segment neither contains shields nor coyness devices.

Praise used to recommend author non-revision on a specific textual aspect, or as a motivational comment, was used sparingly by all the participants. Claire used justified praise the most (in over 80% of her segments containing praise) as compared to the other participants (in about 50% of their segments). Justified praise is often perceived as a more *useful* comment than unjustified praise (Yallop & Leijen, 2018). Thus, Claire was the most *thorough* reviewer with regards to using comments containing justified praise.

There are differences in how the participants used affective language within their own segmented visible revision comments. Claire and Dave could be construed to be the most prudent reviewers within the group as they used the highest proportion of shields (50% and 57% respectively) within their visible revision comments. Similarly, Ann and Bob could be considered as the coyest reviewers since they wrote the highest proportion of coyness devices without shields (47% and 56% respectively). However, it could also be argued that Ann and Claire were the most confident reviewers as their segmented comments contained the highest proportion of expressions signalling reviewer certainty through the use of author involvement and certainty (e.g. "I am sure, that …"), or through an absence of both shields and coyness devices (20% and 21% respectively).

Summary. Regarding gender differences, the female participants reported that they were less sensitive to critical and unhedged feedback as compared to their male counterparts, but the male participants used a comparatively higher proportion of visible revision comments (approximately 68% of all segments), as compared to Ann (44.2%) and Claire (59.6%). There were, however, no clear differences between the sexes with their use of affective language within their feedback comments. Thus, the results are inconclusive in this small sample regarding gender differences in feedback practices within the Estonian context. However, and contrary to L1 Estonians being perceived as a content-driven society (Grzega & Keevallik, 2008, p.214), these participants expected, and used, much affect in their dyadic feedback exchanges. There were also clear individual differences in how the participants as reviewers used both affect and effect, and how the participants as feedback recipients interpreted affect. Regarding effect, however, there was consensus on what constituted an effective revision comment. There is also evidence that the participants were sensitive to differences in one another's affect and softened their feedback comments accordingly. Applying transactional memory system theory, these affective changes also demonstrate an improvement in the group's understanding of shared and unique knowledges, and this would improve their collective performance (Lewis & Herndon, 2011).

Discussion

The results in this sub-section show that (i) the participant attitudes towards the feedback process, (ii) perceived reviewer competency from the two perspectives *as feedback recipient* and *reviewer*, and (iii) the author's cover letter, can all influence the content of the reviewers' feedback comments and/or the feedback recipients' interpretation of the same feedback comments. More specifically, the author's cover letter can have two main influences on the author's revision process. Firstly, the process of writing a cover letter can lead to the author making textual revisions, and this process may also change the content of the cover letter. Secondly, cover letters can have a strong effect on the type and scope of the reviewers' generated revision comments. Analysis of the interview transcripts revealed that the participants seemed to become more aware of one another's reviewing competencies as the course proceeded. This suggests that the authors would have also altered the content of their cover letters to meet their perceived reviewers' competencies. Thus, the author's perceived reviewer competency influences the content of the cover letter. Individual differences in affective and effective feedback practices, and awareness by the participants of these differences, can influence all aspects of the peer feedback process. These variables probably helped the participants develop, or maintain, their positive attitudes towards the feedback process. These positive attitudes give support to the supposition that this one writing group had developed a *sense of writing community.*

5.3 How can *affective components* affect and effect the author's revision process?

In response to the third research question, this section identifies how the affective components: *non-revision comments* and *hedging devices within feedback comments* can affect asynchronous written feedback comments. It further identifies how *hedging devices* can effect the author's revision process.

Affect

From the analysis of the transcripts, the affective components of *shields*, *praise*, *implicit praise*, and *group norms* (e.g. vocatives) within the feedback comments evoked emotional responses from the participants as feedback recipients (see Table 16).

All the participants reported that shields, including the use of questions and smileys, can express politeness, respect, and friendship towards the author. Praise, as an affective component, is used as a motivator. Ann reported that a lack of feedback comments can also be interpreted as *implicit praise* in that textual aspects with no comments whatsoever can signal text that is "okay and need no further revision." In these cases, implicit praise could be categorised as a non-visible revision comment. Using the author's name was reported as being polite, but was

only used appreciably by Ann. The participants further reported that these affective components are polyfunctional in that they can have an effect on the author's subsequent draft and an affect on the author's mood. Furthermore, Claire explained that she tried "to accommodate or anticipate other people's reactions so as to avoid any misunderstandings and everything." This gives evidence that the participants were sensitive to each other's affective individual differences as feedback recipients and revised their reviewing styles accordingly.

Table 16. Participants use of and emotional responses to affective components

Affective component	Reported affective device	Participant's feedback comment	Participant explanation (Reported by)
Shields	Shields, approximators, author doubt and personal involvement (Salager-Mayer, 1994)	Perhaps it's me, but I do not understand this.	"It expresses politeness ..." (All)
	Questions	What do you mean by this exactly?	"It shows respect to the author ..." (All)
	Smileys	Your revised methodology section is clear :-)	"It signifies friendship ..." (All)
Praise	Praise in all its various forms	Your definitions are clear, but your argument is confusing ...	"It encourages me ..." (Ann, Dave)
Implicit praise	No feedback comments on textual aspects	There are no feedback comments on certain textual aspects.	"This must be okay ... (no need to revise)" (Ann)
Group norms	Use of vocatives within openings	Dear Bob, ...	"It's polite ..." (Ann, Claire)

Affective components can also have a positive affect on the feedback process by encouraging authors to engage with current and/or other feedback comments (see Table 17).

Table 17. Polyfunctional affects of affective devices

Affect	Reported functions of affective devices	Derived definition	Conceptual device
Promotes engagement with other feedback comments	*Praise* can express congratulations, encouragement, and increase author self-efficacy. *Questions* can express politeness, respect, and impartiality. *Shields* can express politeness and respect. *Smileys* can express friendship, politeness, familiarity, and humour.	A polyfunctional affective device that encourages the author to engage more in the feedback process.	Encouragement device
Promotes engagement with current revision comment	*Praise, questions, shields*, and *smileys* can soften revision comments.	A polyfunctional affective device that softens the critical nature of revision comments.	Softening device
Develops group dynamics	*Non-revision comments* (including praise as a motivator only) can help develop group dynamics.	Non-revision comments contain at least one indicator of social presence.	Social presence

Affective components that encourage the author to engage more in the feedback process (encouragement devices) elicited positive emotional responses ranging from expressing politeness (questions, shields, and smileys), showing respect (questions, shields, and group norms) and increasing author self-efficacy (praise). These same encouragement devices can also act as softening devices in that they can promote engagement with the current revision comment. Dave reported that affective components can "make it easier to take in critical feedback comments."

This suggests that the polyfunctional nature of these affective components can help increase the author's degree of willingness to critically engage with current and other unconnected revision comments. In other words, and applying Dewey's (1933) critical thinking model, they can help *trigger* the first stage of the critical thinking process. This claim is supported in the literature as both praise (Gee, 1972; Min, 2006) and hedged feedback comments (Ferris, 1997; Yallop & Leijen, 2018) have been shown to be beneficial to the author's revision processes. However, overuse of affective language can diminish its positive affects as "maybe it would raise another question of being overly polite" (Dave). Explicit praise is used in approximately 8% of the participant to participant's segmented feedback comments. Thus, praise as an encouragement device is used sparingly by all the participants, and this suggests it should also be used *carefully* within writing groups.

Effect

Affective devices can also effect the author's revision process by modifying the author degree of credibility of their interpretation of feedback comments (hereinafter *credibility devices*) as well as functioning as a visible revision comment or a non-visible revision comment (see Table 18).

Table 18. Polyfunctional effects of affective components

Effect	Reported functions of affective devices	Derived definition	Conceptual device
Modify credibility of feedback comment	*Questions and shields* can signal the degree of reviewer content knowledge and express an individual viewpoint.	An affective component that modifies the author credibility of the feedback	Credibility device
	Questions can act as an apology for not giving a more concrete feedback comment.		
	Smileys can signal a high degree of reviewer uncertainty that reduces the importance of the feedback comment.		
As revision comment (visible or non-visible)	*Questions* act as a revision comment that identify a problem.	Visible revision comment	
	Praise can act as a non-visible revision comment that request the author not to change one aspect of their draft.	Non-visible revision comment	
	Lack of praise and revision comments on textual aspects can signal generic non-visible revision comments.		

The participants reported that both questions and shields can signal the degree of reviewer content knowledge, express a reader's perspective, and signal an individual viewpoint. Questions can also act as an apology for not being able to give a more concrete feedback comment as well as functioning as a visible revision comment that identifies a problem. Praise, or lack of praise, can also function as a non-visible revision comment when the author interprets it to mean that no textual revision is necessary. However, the use of smileys may indicate a high degree of reviewer uncertainty that could also be construed as "not a good sign- maybe" (Bob). In other words, smileys could have a negative effect on the author's revision processes.

Credibility devices in tandem with softening devices may also influence the degree of author receptiveness to engaging with the current feedback comment. For example, Ann reported that "this (credibility device) shows he [the ethnographer] knows little about this area and so I didn't take it seriously." However, if the trigger to critically engage with the feedback comment is activated sufficiently, credibility devices could also be one factor to effect the author's critical thinking process. It may modify the author's perceptions about the degree of reviewer credibility of the present feedback comment when deciding in the *integration phase* of critical thinking about whether to implement, or not to implement, the feedback comment.

Discussion

The results show that the polyfunctional nature of affective language can have a strong influence on the peer feedback process. It can affect the author's willingness to engage in the feedback process, or with one specific feedback comment. It can also effect the author's interpretation of revision comments.

5.4 How can affective components, effective components, and external components interact and influence the author's revision process?

This study has identified affective components, effective components, and external components that can influence the peer feedback processes of four participants within one writing group in their two roles as a feedback recipient (or author), and as a reviewer. In response to the fourth research question, this sub-section explains how these identified components can interact, and ultimately influence the author's revision processes.

Proven affective and effective relationships have been modelled to show the effect (shown by blue arrows), or affect and effect (shown by black arrows), between the written artefacts, and between one artefact (reviewers' feedback comments) and external components. The cumulative impact of all these influences on the author's revision processes is denoted by the orange arrow in the centre of the figure (see Figure 5).

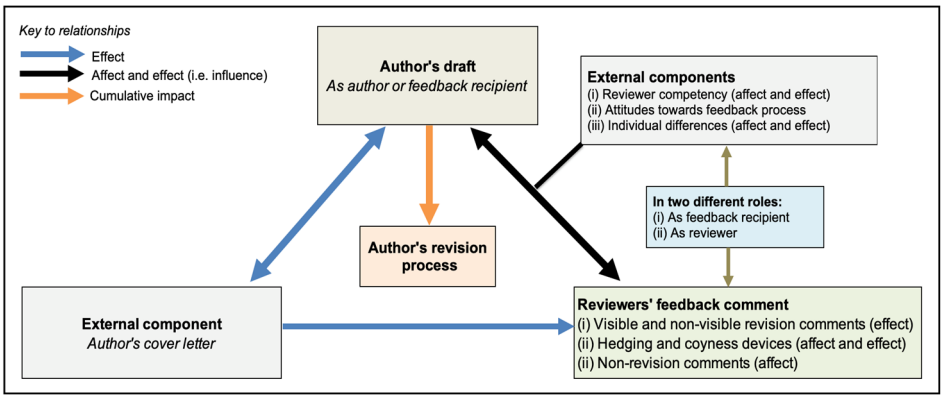

Figure 5. Proven influences of artefacts and external components on the revision process.

This study has identified three *external components* (reviewer competency, attitudes, and individual differences) that can influence the content and interpretation of written asynchronous feedback comments. Another external component (cover letters) has been found to have a strong effect on the content of the reviewers' feedback comments. The study also showed that this external component, through the process of writing cover letters, can also effect, and be effected by, the content within the author's draft. Four identified *effective components* (visible revision comments, non-visible revision comments, hedging devices, and coyness devices) were determined to influence how reviewers wrote their feedback comments, and how feedback recipients interpreted these same feedback comments. Similarly, three identified *affective components* (non-revision comments, hedging devices, and coyness devices) were ascertained to affect the feedback recipient's interpretation of feedback comments. Over time, as the participants developed a better awareness of each other's individual affective differences, the reviewers adapted their use of affect in their feedback comments accordingly. Thus, the participant's reactions as feedback recipients to affect also affected how the reviewers used affect in their feedback comments. Further evidence of this affect is best explained by Ann during her interview when she stated "when I saw that the other's feedback was much more friendly and positive … I thought I should write feedback a little less critically." This also implies that the participants feedback practices most likely improved over time as the participants developed a better *sense of writing community.* Thus, the model depicted here is dynamic.

6. Summary and conclusion

This ethnographic case-study has identified and modelled how *external components, affective components*, and *effective components* can influence one another, and ultimately the revision processes of four participants within one L2 English doctoral writing group. The findings correlate with I. Anson & Anson's (2017, p.13) assertion that quality written feedback comments depend on "striking a balance between critique and praise", as aptly surmised by one participant during his post-course interview:

> "It is always a *struggle* between being *credible* and *not being too authoritarian*, but still trying to be *polite* and *not to criticise too much* because I feel it is not my part to be *overly critical*. It is my part *to help the writing process* and as long as the feedback is given in a *polite* and *respectful way*, it is okay. This is *more productive* than criticising something like this is not the level of writing we are looking for." (Dave)

Within this one writing group, quality effective revision comments tended to exhibit four specific traits: (i) global, (ii) text-specific, (iii) justified, and (iv) a response to the author's cover letter. Although visible revision comments that offered a solution were considered extremely useful, those that identified a problem were also deemed useful. There was also evidence that non-observable effects of feedback comments (e.g. non-visible revision comments) also had a positive effect on the author's revision process. This suggests that all classes of revision comments can exert a positive effect provided they exhibit these four desirable traits and, especially, if they meet the author's feedback expectations as communicated in their cover letters.

From a feedback recipient's perspective, the quality of received feedback comments is strongly effected by whether their reviewers follow the instructions in the cover letter. This also implies that the quality of the reviewers' feedback comments also depends on the quality of the author's cover letter. The content within the participants' cover letters was not examined in this study, but it is an area that warrants further research. Nevertheless, the participants, as reviewers, carefully adhered to the instructions in the cover letters. Reviewer competency was another identified external component. The results suggest that reviewers should only give feedback within their own areas of competencies, which, in this group, was mainly on global readability issues. There were also affective and effective individual differences in how the feedback recipients interpret, and the reviewers' write their feedback comments. The participants modified the affect in their feedback comments to account for one another's sensitivities, and this should exert a positive affect by, for example, improving their attitudes towards the peer feedback process. Positive attitudes, as exhibited by all the participants, are known to increase motivation (e.g. Dörnyei & Ushioda, 2013), and this positive affect can

only be beneficial in developing a sense of writing community (e.g. Cahusac de Caux et al., 2017).

Affective components are more challenging to understand as they have polyfunctional affective and effective communicative purposes. The participants reported that affective components could have an affect on their writing processes by promoting engagement with other feedback comments (e.g. praise and shields), or with the current feedback comment (e.g. questions and shields) as well as helping to develop group dynamics (e.g. praise and non-revision comments). They further explained that affective devices can also effect their revision processes by modifying the credibility of feedback comments (e.g. questions and shields), and they can also act as a revision comment in themselves (e.g. praise and questions). This fuzzy nature of affective language in written feedback comments can lead to feedback recipients misunderstanding their reviewers' intended meaning (e.g. mitigation devices in F. Hyland & Hyland, 2001). Thus, participants developing a better understanding of one another's affective feedback practices can only benefit the process in many different ways. As reviewers, the participants used much affective language. As feedback recipients, they reported many different affects and effects on their writing processes.

Thus, this study has shown that *affect* has played a prominent role in the peer feedback process within this one L2 English doctorate writing group. It has also found credible reasons for how *affect* can influence their feedback processes. Helping writing communities develop a better understanding of *affect* within asynchronous written feedback comments can only help them to develop more useful feedback practices, and this finding concurs with other studies that examine affect within doctorate writing communities (e.g. Caffarella & Barnet, 2000; Carlino, 2012; Wang & Li, 2011).

To conclude, this study identified variables that influenced the feedback practices of L1 Estonian doctorate students writing in L2 English within one discipline-specific writing group. We acknowledge that the ethnographer would have exerted influence on the participants feedback processes. To exclude this influence, future studies could replicate this research design in doctorate writing groups without an ethnographer. These findings, however, are still valid for this closed group at this level of study and within this particular socio-cultural context. As this is a predominantly qualitative ethnographic case-study, the authors make no claim that these findings will be reproducible in other writing groups. However, educators may find pedagogical implications within this article that may help them develop a more principled approach to teaching academic writing skills.

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Appendix A. Interviewer's prompts for participant retrospective interviews

Main areas to probe:
(1) The perceived usefulness of feedback comments
(2) The perceived usefulness of cover letters
(3) The affect and effect of affective language on the peer feedback process

Interview procedure

Part 1: Introduction, ethics, and experience
Obtain informed consent and establish the perceived writing and feedback experience of the participant.

Part 2. Participant as feedback recipient
(i) Give the participant his/her written artefacts that he/she gave to the group for review at round four of the feedback process (the participant's draft, cover letter and revision plan) and the participant's received comments from the ethnographer.
(ii) Allow time for the participant to absorb this information.
(iii) Use these written artefacts as a springboard for discussion to elicit the participant's perceptions on 'useful' feedback comments and good cover letters **as a feedback recipient** within the framework of an unstructured interview.
Encourage the participant to explain in detail the process of how they reacted to written affective language and different types of feedback comments without being 'leading.' In addition, elicit the participant's perceptions on 'useful' feedback comments and cover letters within the role of feedback recipient.

Part 3. Participant as reviewer
(i) Give the participant the written artefacts that he/she received from the ethnographer at round four of the feedback process (the ethnographer's draft and cover letter) and the feedback comments the participant gave to the ethnographer.
(ii) Allow time for the participant to absorb this information.
(iii) Use these written artefacts as a springboard for discussion to elicit the participant's perceptions on 'useful' feedback comments and good cover letters **as a reviewer** within the framework of an unstructured interview.
Encourage the participant to explain in detail the process of why they wrote written affective language and different types of feedback comments without being 'leading.' In addition, elicit the participant's perceptions on 'useful' feedback comments and cover letters within the role of reviewer

Part 4. External influences and miscellaneous questions
Encourage the participant to discuss his/her perceptions about the functioning of the writing group and the 'usefulness' of his/her participation in the writing group on his/her writing process. Elicit the status of the participant's draft and any other relevant information.

Part 5. Wrap-up the interview and ensure the interviewee leaves 'in a good mood.'
Ask the participant if they have any further comments and then wrap up the interview.

Appendix B. Categorisation of asynchronous written feedback comments

Class and sub-class	Definition	Examples (abridged; verbatim)
1. Visible revision comment	A segmented feedback comment (segment) that explicitly states or clearly implies that the author may need to make a specific change to one aspect or 'idea unit' of their text (Liu & Sadler, 2003; Nelson and Schunn, 2009).	"This is repetition."
1.1 Problem identification	The identification of a negative feature of the text.	"This is repetition."
1.2 General solution	The identification of an aspect of the text that can be improved upon.	"I think you can go into more technical detail."
1.3 Specific solution	The offering of a solution with an alteration (Liu & Sadler, 2003, p.202) that may include the identification of one or more possible solutions.	"I would leave it out or rewrite it."
1.4 Question	The use of interrogatives or if clauses to seek justification, clarification, expansion, or questioning the appropriateness of one aspect of the text.	"How do you define this?"
1.5 Problem identification and question	A combination of problem identification and question.	"I didn't feel that the figure was intuitive. Maybe you should turn it upside down?"
1.6 Problem and solution	Any combination of problem identification, solution offered and clarification that relates to the same aspect of the text.	"I think it would be better to use the same tense here: follows/includes or followed/included."
Class and sub-class	Definition	Examples (abridged; verbatim)
2. Non-visible revision comment	A segment that explicitly states or clearly implies that the author should not make a specific change to one aspect or 'idea unit' of their text; or one that refers the author to a connecting feedback comment.	"In response to your cover letter, I would leave this as it is."; "I marked the place in the text and added a comment as well."
2.1 Reference	Reference to location or mode of explanation of feedback comment.	"Please see my comments below."
2.2 Praise as recommendation for non-revision	Using unambiguous praise as a response to the author's cover letter to recommend non-revision to one aspect of the text. This includes justified praise that contains hedging devices.	"The chapter is very easy to read."; "I think it's good! You describe simply step by step how the data was ..."

2.3 Explicit recommendation for non-revision	Expressing full or partial agreement (or disagreement) with the author's request in a cover letter that recommends non-revision of one aspect of the text that cannot be classified elsewhere (e.g. not praise).	"I agree with you that your introduction is fine as it is."
Class and sub-class	Definition	Examples (abridged; verbatim)
3. Ambiguous	A segment that could be interpreted as either a revision comment or a non-revision comment.	"Your spelling is quite good- maybe."
3.1 Neutral summarisations	(1) A list of the topics discussed in the paper; (2) A description of the claims the author was trying to make; (3) Statements of an action taken by the writer. (Nelson & Schunn 2009, p.386).	"The focus of your opening paragraph is about gender inequality."
3.2 Hedged response	The reviewer expresses partial agreement or 'a hedged response' to a question or opinion stated in the author's cover letter praise that has been modified by a hedging device.	"It depends on whether you will describe machine learning in more depth."; "This is quite a well-researched paper."
Affective only	Definition	Examples (abridged; verbatim)
4. Non-revision comment	A segment that cannot cause a direct impact on the author's revision process. These are typically affective in nature and only contain indicators of social presence (Yallop & Leijen, 2018).	"Greetings, Ann." (closure to feedback letter).
4.1 Affective (building rapport)	Presents personal details about oneself (as well as expressing personal values, beliefs and attitudes within non-revision comments = contiguous comments).	"I am also researching semiotics of culture."
	Use of expressions that could be construed as humorous.	"Me and my spell-checker."
	Use of mitigation, conventional expressions of emotion, emoticons, repetitious punctuation, conspicuous capitalization, and informal or idiomatic language.	"I hope this helps; cheers!"
4.2 Open communication (motivational comments)	Use of expressions of encouragement, 'personal praise' (i.e. not on the text) and empathy.	"Good luck with your paper!"
	Praise that is unrequested, unjustified and unhedged. There is an absence of hedging devices.	"Your introduction is excellent."
	The use of salutations and closures with or without vocatives.	"Dear Anna"; "Hello"; "Hi"; "Best wishes Dave"; "All the best"; "Dave"

4.3 Group cohesion (expressions related to societal norms)	Communication that refers to future contact.	"Looking forward to our next meeting"; "I look forward to seeing your results."
	Apologising for the lateness of the feedback comments with or without excuses.	"I am sorry for submitting this feedback so late. This is because …"
	Expressing gratitude.	"Thank you for your last feedback."
	Communication that serves a purely social function that is not categorised elsewhere.	"Happy Birthday!" "Greetings from Sweden!"

Appendix C. Coding scheme for features of feedback comments

Contiguous comment	Definition	Examples (abridged; verbatim); contiguous comments in italics
Segment with contiguous comment(s)	A segmented revision or non-revision comment that contains one or more contiguous comments of explicit mitigation or other indicators of social presence, explicit justification, and/or summarisation.	"There is a lack of coherence between your paragraphs, *but the overall development is logical.*"
Explicit mitigation	A contiguous comment that softens the critical nature of the segment's main idea unit by providing a comment of praise, an excuse for the reviewer's and/or the author's incompetence, or any other contiguous comments that contain indicators of social presence.	"There is a lack of coherence between your paragraphs, *but the overall development is logical.*"
Explicit justification	The reviewer provides an explicit reason or explanation that is not a comment of mitigation to justify their reasoning for the segment's main idea unit.	"This short paragraph is easy to read, because it has been written concisely and logically."
Summarisation	"A list of the topics discussed in the paper, a description of the claims the author was trying to make, or statements of an action taken by the author" (Nelson & Schunn, 2009, p.386).	"You write about senses and …"; "The author explains why he chose the indicators and leaves out …"; "The author gives several references to support …"
Scope	Definition (adapted from Ferris, 1997)	Examples (abridged; verbatim)
Text-specific	The segment applies specifically to the author's paper. This includes all responses given as comment boxes, any reference that could locate the comment albeit implicitly (i.e. through context) to the author's text, and references to the complete absence of something.	"Is this a new section (i.e. 2. Literature Review) or is it an extension of your introduction?"

Generic	The feedback comment could apply to any paper. There is no interpretation, contextual or otherwise, that could locate the comment to the author's text.	"The structure of some sentences are confusing."
Effect	Definition (Faigley & Witte, 1984)	Examples (abridged; verbatim)
Local	If the revision comment is implemented, there will be no change of meaning to the text.	"Do you want to write your definitions in the singular (natural obstacle) or in the plural (natural obstacles)?"
Global	If the revision comment is implemented, there will be a change of meaning to the text.	"This seems more like a method section. I would leave it out."
Content knowledge	Definition (adapted from Ferris, 1997)	Examples (abridged; verbatim)
Specific and global	The global revision comment challenges, suggests, or evaluates the author's sources on specific content knowledge.	"Is this the right source to use?"
General and global	The global revision comment does not challenge, suggest, or evaluate the author's sources on specific content knowledge.	"This seems more like a method section. I would leave it out."
Cover letter request	Definition (adapted from Yallop & Leijen, 2018)	Examples (abridged; verbatim); cover letter response in italics
Requested	The feedback comment is a response to the author's cover letter.	"Should precision and recall be explained (in cover letter)?"; "As you mention this in a lot of paragraphs, maybe a few words about it would be good."
Indirect request	The feedback comment is construed to be a response to the author's cover letter albeit indirectly.	"Please comment on anything else that seems odd (in cover letter)?"; "*Is this a typo; spread instead of speed?*"
Unrequested	The feedback comment is not a response to the author's cover letter.	"Add an 's', repeat*s* (not repeat) (unasked for revision comment)."
Reviewer's tone	Definition (adapted from Salager-Meyer, 1994)	Examples (abridged; verbatim); key indicators in italics
Doubt and coyness	*The underlying meaning is reviewer doubt and/or coyness.* This is signalled by the use of shields with or without weak approximators and/or 'other' politeness strategies.	"Maybe 'in particular' instead of 'Thus'."; "I *think* you *could* elaborate *a bit* more on the motivation of the paper."

Coyness	*The underlying meaning is reviewer coyness.* This is signalled by the use of 'other' politeness strategies and/or weak and medium approximators *and the absence of shields.*	"I *would* add *some* more conjunctive adverbs in the first paragraph."
Certainty	*The underlying meaning is reviewer certainty*. This is signalled by the use of emotionally-charged intensifiers, strong approximators and/or the reviewer's conviction or there complete absence, *and the absence of shields.*	"The introduction is *much harder* to read now."; "Don't split text into several rows."

Appendix D. Induced coding book for retroactive participant interviews

Definition	Examples (abridged; verbatim)	Segments (number)
The participant discusses the topic from the perspective of a feedback recipient or author.	"Yes. If I phrase it like a question, I do hope that the reviewer answers to it."	95 out of 150
The participant discusses the topic from the perspective of a reviewer.	"Yes, for shorter texts I can concentrate more on everything and I don't need those very specific questions too for my opinion."	59 out of 150
The participant discusses the topic from a perspective not included above.	"Yes well I already attended two or three writing groups and actually I tried to do the same and gather some of my associates and try do writing group thing by our own."	15 out of 150
Definition	Examples (abridged; verbatim)	Segments (number)
The participant discusses their own feedback or writing practice only.	"Yes to guide the thinking process and for me if I write the cover letter I can think about my own text and see maybe see the weak points ... try to write them out."	48 out of 150
The participant compares their feedback or writing practice to the writing group's.	"Yes I realised at first I was really critical of others and then after a few meetings I realised I should be more friendly and at least try to find something positive to say."	51 out of 150
The participant compares their feedback or writing practice with the researcher's.	"I tried to kind of draw the researcher's attention to the fact that this was a place where I had to read it twice or three times."	38 out of 150
The participant discusses another actor (e.g. a supervisor) not categorised elsewhere.	"And what my supervisor doesn't say is bad, I think it is ok."	13 out of 150

Role	Definition	Examples (abridged; verbatim)	Segments (number)
As feedback recipient *OR* as author	The participant discusses the topic from the perspective of a feedback recipient or author.	"Yes. If I phrase it like a question, I do hope that the reviewer answers to it."	95 out of 150
As reviewer	The participant discusses the topic from the perspective of a reviewer.	"Yes, for shorter texts I can concentrate more on everything and I don't need those very specific questions too for my opinion."	59 out of 150
General	The participant discusses the topic from a perspective not included above.	"Yes well I already attended two or three writing groups and actually I tried to do the same and gather some of my associates and try do writing group thing by our own."	15 out of 150
Actors discussed	Definition	Examples (abridged; verbatim)	Segments (number)
Self-reflective	The participant discusses their own feedback or writing practice only.	"Yes to guide the thinking process and for me if I write the cover letter I can think about my own text and see maybe see the weak points ... try to write them out."	48 out of 150
Self *AND* Group	The participant compares their feedback or writing practice to the writing group's.	"Yes I realised at first I was really critical of others and then after a few meetings I realised I should be more friendly and at least try to find something positive to say."	51 out of 150
Self *AND* Researcher	The participant compares their feedback or writing practice with the researcher's.	"I tried to kind of draw the researcher's attention to the fact that this was a place where I had to read it twice or three times."	38 out of 150
Other	The participant discusses another actor (e.g. a supervisor) not categorised elsewhere.	"And what my supervisor doesn't say is bad, I think it is ok."	13 out of 150

Induced category	Definition	Examples (abridged; verbatim)	Segments (number)
1. What are the participants' attitudes towards the peer feedback process?	The segment does not contain any information about feedback comments and cover letters.	"I enjoyed the feedback process very much."	16 out of 150
2. How do cover letters influence the peer feedback process?	The segment contains information about cover letters.	"Yes. If I phrase it like a question, I do hope that the reviewer answers it."	33 out of 150
3. How do feedback comments in themselves influence the peer feedback process?	The segment contains information about feedback comments only.	"I pointed out something that felt off for me and I tried to give a solution."	101 out of 150
Induced sub-category	**Definition**	**Examples (abridged; verbatim)**	**Segments (number)**
3.1 How does the group's reviewer competency influence the content of feedback comments?	The segment contains information about the participants' reviewer competency.	"I always try to be quite careful in what I'm saying because I am not a specialist in their area."	32 out of 101
3.2 What influence does the researcher exert on the participants' feedback practices?	The segment contains information about the researcher's competency.	"Well what I did like about the researcher's reviewing style was that it was very thorough."	48 out of 101
3.3 How do individual and cultural differences influence the production and interpretation of feedback comments?	The segment contains information about group's differences in feedback or writing practices.	"It is a cultural thing. English people always try to be more polite. They like to save their face and Estonians are more straightforward maybe."	22 out of 101
3.4. What type and nature of feedback comments are perceived as 'useful'?	The segment contains information about the perceived 'usefulness' or implementation of feedback comments.	"I think asking questions is important."	59 out of 101
3.5 How does affective language influence the peer feedback process?	The segment contains information about the participants' emotional responses to any component of the feedback comment.	"Well the feedback comment is very direct and it's very subjective."	80 out of 101

Induced sub-subcategory	Definition	Examples (abridged; verbatim)	Segments (number)
3.5.1 How do hedging devices influence the feedback process?	The segment contains information about hedging devices.	"Well what I did like about the researcher's reviewing style was that it was very thorough."	28 out of 80
3.5.2 How do positive comments influence the feedback process?	The segment contains information about praise and encouragement.	"I think asking questions is important."	21 out of 80
3.5.3 How does author-reviewer and group feedback relationships influence the feedback process?	The segment contains information about how the author, the reviewer, and/or the group build rapport.	"Well the feedback comment is very direct and it's very subjective."	9 out of 80
3.5.4 How does the tone within feedback comments influence the feedback process?	The segment contains information about the participant's emotional response to any component of a feedback comment.	"I always try to be quite careful in what I'm saying because I am not a specialist in their area."	22 out of 80