

**The influence of expertise and feedback tolerance on perceiving and processing
the feedback**

Name: Smaragda Piperoudi

Student number: S4865383

First supervisor: Prof. Dr. Jan-Willem Strijbos

Second supervisor: Dr. Elisa Kupers

Word count: 8013

University of Groningen

Faculty of Behavioral and Social Sciences

Master Educational Sciences

Track: Learning in Interaction

Date: 01 June 2022

Abstract

Despite the growing interest in the different feedback constellations, intrapersonal and interpersonal characteristics have received limited attention. The present study examined the influence of the expertise of the feedback sender, and of the feedback tolerance of feedback receiver on perceived adequacy of feedback, willingness to improve, and affect. To manipulate the variables, higher education students (N = 54) received two vignettes containing feedback by a fictional peer or fictional lecturer. There were two variations of peer feedback, with half of the participants receiving the vignette with feedback from a fictional peer with high expertise, and the other half the vignette with feedback from a fictional peer with low expertise. All of them also received a vignette with lecturer feedback. The instruments of the research were the Feedback Tolerance Questionnaire (FTQ), the Feedback Perceptions Questionnaire (FPQ), and one open-ended question. Main findings showed that both expertise and feedback tolerance accounted to some extent for differences in perceived adequacy of feedback, willingness to improve, and affect.

Keywords: expertise, feedback tolerance, perceived adequacy of feedback, willingness to improve, affect

Introduction

Problem statement and theoretical framework

Feedback is a part of the teaching and learning process and one of the most used and researched methods in the educational field (Strijbos & Müller, 2014) which aims to decrease or, if possible, completely close the gap between the current performance and the desired one (Hattie & Timperley, 2007). According to Molloy et al. (2013) feedback is a process of seeking, receiving and interpreting (making sense of internal and external generated information) in order to change one's performance. Since feedback is directly connected with learning and demands the engagement of at least two people, the person giving the feedback and the person receiving it, feedback can also be considered an interactive process (Gamlem & Smith, 2013; Strijbos & Müller, 2014). Furthermore, Hattie and Timperley (2007) distinguished four feedback levels: feedback on the task, on the process of the task, on the self-regulation, and on the self as a person. Depending on the level to which feedback is addressed, its effectiveness can differ. For example, feedback addressed at the process of the task is more effective than feedback addressed at the self as a person (Hattie & Timperley, 2007). The effectiveness of feedback is also combined with the goal setting. According to Leung et al. (2020), the coexistence of specific goal and feedback increases the motivation of students and helps them to organize their learning better. Schartel (2012) highlighted that the performance of the feedback receiver can deteriorate if the given feedback does not focus on the task but instead emphasizes the self as a person. Feedback can have either a positive or negative impact and this depends on whether the feedback message is directed to a specific task or process, who is the feedback sender etc. (Schartel, 2012; Molloy et al., 2019). Hattie and

Timperley (2007) also pointed out that a teacher can contribute to effective feedback by connecting feedback to previous knowledge and the specific learning context.

From daily experience, it is known that both students and teachers deal with feedback in various feedback constellations: teacher-student feedback, student-student feedback and student-teacher feedback (Aben et al., 2019). Consequently, the teacher and student may be both feedback sender and feedback receiver within the feedback process. In research, comparatively, more emphasis has been given to teacher-student feedback (vertical constellation) compared to student-student feedback which is also referred to as peer feedback (horizontal constellation) (Strijbos & Müller, 2014). These different types of constellations are associated with the formal status of the feedback sender and feedback receiver since there is a clear formal difference regarding status in the teacher-student constellation, whereas this is not the case for peer feedback (Strijbos & Müller, 2014). In the case of peer feedback, there is an informal status difference reflected by a relative distinction in, for example, students' expertise. The difference in the status of the feedback sender and the feedback receiver, as well as the feedback receiver's perception about the feedback sender's expertise may affect the processing of the feedback (Strijbos & Müller, 2014).

The feedback sender is an essential part of feedback process, and depending on the feedback sender's expertise the feedback receiver might evaluate the feedback differently. Apart from the feedback sender's expertise, there are other dimensions that influence the credibility of the feedback sender, and as a result, the way the feedback receiver perceives the feedback, such as the feedback sender's reliability, intentions toward the receiver, dynamism and personal attraction (Raemdonck & Strijbos, 2013). In interpersonal relationships, the attitude we have toward the other, one's behavior, and one's cognitive level can affect the degree of trust in the other and

the resulting interaction. This happens also with the process of feedback. The personal characteristics of the feedback sender may influence the feedback receiver's perceptions, emotions, and feedback processing intent. This has been argued by many feedback researchers in the specific field, and regarding the expertise of the feedback sender, it seems that it can influence the processing of feedback (Strijbos & Müller, 2014). In another study, Strijbos et al. (2021) pointed out that the feedback sender might affect the perception or processing of feedback substantially. The expertise of the feedback sender might play a crucial role in influencing intrinsic motivation (Strijbos, et al., 2021). Furthermore, the way the feedback receiver perceives the expertise of the feedback sender influences the context of peer feedback processing because students are more likely to dispute the expertise of a peer than the expertise of a teacher (Aben et al., 2021). Interpersonal characteristics, such as the confidence in a peer's domain knowledge, might influence the degree of effectiveness of the peer feedback. Several studies have shown that students prefer the feedback from an expert even though the peer feedback might be discerned as helpful (Berndt et al., 2018). Furthermore, Strijbos et. al. (2010) reported that several researchers have found that students perceive peer feedback less positively because they doubt if their fellow students have the skills to give feedback successfully. In a study by Berndt et al. (2018), students' perception of the adequacy of peer feedback was higher when the fictional feedback sender in a vignette was a peer with high domain knowledge, and as a result, students were more willing to improve their performance. Cho and MacArthur (2010) reported that although teacher feedback is more helpful than peer feedback because of the knowledge of a teacher, students often accept peer feedback more easily and consider it more understandable.

The receiver also has an important role in the effectiveness of feedback, and is designated by Winstone et al. (2017) as a 'proactive recipient', which concerns the degree to which the feedback receiver is engaged with the feedback. Each feedback receiver has different perspectives and beliefs about the feedback. On the one hand, some feedback receivers have the belief that the process of feedback cannot affect the learning process positively if (a) feedback is not addressed to the work but to the person (Hattie & Timperley, 2007), and (b) does not include suggestions for the improvement of the work (Winstone et al., 2017). There are different types of response to feedback paying no attention to it, rejecting it, considering the feedback as irrelevant, keeping the feedback separate from the belief so that the feedback cannot affect the belief etc. (Butler & Winne, 1995). On the other hand, other feedback receivers believe that feedback can contribute to more effective learning because it informs them about their mistakes and provides solutions to improve their performance.

Some researchers have examined the perceptions of students toward corrective feedback concluding that learners are more keen on getting explicit corrective feedback from their teachers (Kim & Mostafa, 2021), whereas others have focused on feedback receivers' beliefs concluding that learners' interpersonal beliefs influence the way the teacher or a fellow student gives or receives the feedback (Ching & Hsu, 2016). Huisman et. al. (2019) stressed the different beliefs about the process of feedback, and especially about peer feedback, and that these affect the degree of the engagement with the feedback and students' view about the importance of peer feedback.

Furthermore, recent perspectives on feedback conceptualize it as an interactive process in which two or more people participate. The participants each have their

personal characteristics, more specifically intrapersonal characteristics such as expertise (e.g., domain knowledge) and interpersonal characteristics such relative (in)formal status. During the feedback process, the interpersonal and intrapersonal characteristics of the actors have a crucial role and can potentially affect how a person provides or perceives the feedback; in other words, how feedback receivers interpret the feedback in terms of cognitive, metacognitive, and emotional responses (Strijbos et al. 2021), and also how the feedback sender tailors the feedback message (Aben et al., 2019).

According to Aben et al. (2019), intrapersonal (e.g., tolerance, willingness to improve, emotional response, perception of feedback) and interpersonal (e.g., expertise, status) characteristics influence the provision and processing of feedback. Especially error tolerance (i.e. the significance of one's resilience toward a performance that is considered as a deviation from the norm), and feedback tolerance (i.e. the learners' ability to accept performance-relevant information offered to promote the learning), of the feedback receiver appear to be crucial factors for whether the receiver accepts the errors and decides how to process the feedback (Aben et al., 2021). Both error tolerance and feedback tolerance consist of three components: the emotional, cognitive and meta-cognitive components. Regarding feedback tolerance, one's emotional feedback tolerance is connected with feelings that the feedback might rouse in the feedback receiver, one's cognitive feedback tolerance refers to the degree that the feedback receiver believes that the feedback contributes to learning, and finally one's meta-cognitive feedback tolerance is the extent to which the feedback receiver spends time thinking about the feedback (Aben et al., 2021). The interpersonal characteristics of the feedback receiver affect willingness and motivation to engage with feedback (Winston et al., 2017).

Research purpose and questions

To date, there is little research about the extent to which interpersonal characteristics can influence the way the feedback receiver reacts to the feedback, how the receiver feels about it, and how the receiver deals with it. Therefore, there is a need to further examine the influence of interpersonal factors in the processing of feedback to better understand the power of interpersonal factors in the way feedback is perceived and processed. The study aims to answer the following two questions:

1. To what extent are the feedback receiver's perceived adequacy of feedback, willingness to improve, and affect influenced by the expertise of the feedback sender?

Based on the study of Berndt et. al. (2018), there is evidence that students perceive feedback differently when it comes from a teacher than a peer, especially when the peer has higher domain knowledge. Students appear more willing to improve their performance when they receive feedback from a peer with high expertise than feedback from a peer with low expertise because the feedback from a highly expert peer is deemed more useful and helpful. As a result, the hypotheses for this research question are that H1(a) feedback recipients perceive the feedback from a fictional lecturer as more adequate than the feedback from a fictional peer with either high or low expertise, the affect is more positive when the feedback is given by a fictional lecturer than the feedback from a fictional peer with either a low or high expertise, and also the fictional feedback recipient is more willing to improve the performance in the case of the feedback from a fictional lecturer, H1(b) feedback recipients perceive feedback from a fictional peer who performs better than the fictional feedback recipient as more adequate than feedback from a fictional peer who performs less well compared to the fictional feedback recipient, the affect is more

positive when the feedback is given by a fictional peer with high expertise than the feedback from a fictional peer with low expertise, and the fictional feedback recipient is more willing to improve the performance in the case of the feedback from a fictional peer with high expertise.

2. To what extent does the feedback receiver's feedback tolerance influence the feedback receiver's perceived adequacy of feedback, willingness to improve, and affect?

Feedback tolerance is an intrapersonal characteristic (Aben et. al., 2021), and every person deals with feedback differently. Some people accept feedback because they believe in its educational value, but other have less resilience towards the feedback. Also, Smith and King (2004) using the term 'sensitivity' to describe the emotional reactions of feedback receiver for the feedback stated that feedback sensitivity influences how receivers deal with feedback and how they perceive it. Therefore, the hypothesis (H2) that derives from prior studies is that feedback tolerance influences feedback recipient's perceived adequacy of feedback, the willingness to improve, and the affect. Participants with higher feedback tolerance will perceive the feedback more positive, will be more willing to improve their performance, and their affect will be more positive than participants' with lower feedback tolerance.

Method

Design and Procedure

The study was approved by the ethics committee of Educational sciences, and used a questionnaire design, which was distributed online via Qualtrics. All participants were asked to read the description of the study (see Appendix A) and provide their active informed consent (see Appendix B). All participants received two

vignettes, describing a hypothetical feedback situation. Half of the participants received a vignette in which a fictional student received feedback from a fictional peer with low expertise and a vignette in which a fictional student received feedback from a fictional lecturer (see Appendix C). The other half received a vignette in which a fictional student received feedback from a fictional peer with high expertise and a vignette in which a fictional student received feedback from a fictional lecturer (see Appendix C). The vignettes were presented intentionally in this order to avoid potential influence by feedback from a fictional lecturer. The results of the research were treated confidentially and pseudonymized. IP addresses were removed from the database immediately after downloading the data from Qualtrics. The data is stored in a secure environment within the University of Groningen, in accordance with the guidelines of the General Data Protection Regulation (GDPR) and the GMW Data Management Protocol.

Participants

The sample consisted of 54 bachelor's and master's students from different Faculties from mainly the University of Groningen, but also from other Dutch higher education institutions. The participants were recruited through social media (Facebook, WhatsApp) and the online research platform SurveyCircle (SurveyCircle, 2022). There was no limitation in their study field, nationality, or age. There were 42 female and 12 male students, 49 from European countries and five from other continents, and their age ranged from 18 to 41 years. The participants were randomly selected to answer one of the two vignettes for peer feedback, and all of them answered the questions about the vignette for lecturer feedback. The participants received no financial compensation.

Materials

Tasks

The vignettes were embedded in a fictional task of writing an assignment about climate change, which was part of a fictional course on Sustainable Development of the Master's Programme of Energy and Environmental Sciences. Two feedback vignettes were designed in line with Aben's et al.' (submitted) study about feedback tolerance and Aben et al.' (2019) conceptual model about the interpersonal factors that may affect how the feedback receiver processes the feedback. The participants first answered several scales that measured their feedback tolerance followed by several scales that measured their feedback perceptions in response to two different vignettes. The vignettes described a fictional student who wrote an assignment about climate change and the actions of people for the improvement of the situation and received feedback from a fictional peer or a fictional lecturer.

Feedback vignettes

Vignettes are fictional stories that describe a situation, representing a systematic combination of characteristics (Atzmüller & Steiner, 2010). The designer can manipulate the variables in the vignettes and adjust the content to examine the relationship between variables. In social sciences, vignettes are used to study perceptions and beliefs (Wilks, 2004). The present study aimed to examine the perceptions, willingness to improve and affect of higher education students depending on the fictional expertise of the feedback sender. The respondents were asked to put themselves into the position of the fictional student in the vignettes and answer the questions as if they had received the fictional peer feedback or lecturer feedback themselves. To avoid the influence of gender on answers, the use of neutral name

‘Sacha’ for the fictional student was decided. Three vignettes were developed, describing different situations, but the participants received only two of them. There were two variations of the peer feedback vignette with participants receiving only one of them; the one included feedback from a fictional peer with low expertise and the other feedback from a fictional peer with high expertise. Firstly, the order in which the vignettes were presented was based on the idea that it would be better for the fictional student to read the feedback from the fictional peer firstly in order not to be influenced from the feedback by a fictional lecturer. Students often believe that teachers have more knowledge than their fellow students and prefer teacher feedback, assuming that it will be more useful (Berndt et al., 2018). In order to avoid this situation, all participants first received the vignette with peer feedback and then the vignette with feedback by a lecturer.

Secondly, the content of the lecturer and peer feedback in the vignette differed, which was intentional to reflect the difference in expertise. The lecturer feedback was longer, covered more aspects, and contained more details. The peer feedback was constructed in such a way that it contained ambiguities or incomplete suggestions to the fictional student. This was done because the incompleteness of the fictional peer feedback made the fictional feedback more realistic in its appearance. Regarding the content of the peer feedback, the feedback by a fictional peer with lower expertise compared to the fictional student and by a fictional peer with higher expertise compared to the fictional student was identical. This decision was made to facilitate the comparison between the two variations of peer feedback.

Measures

Feedback Tolerance Questionnaire

At the beginning of the questionnaire, the participants were asked how they perceive feedback in general. More specifically, they answered Aben et al.'s (submitted) feedback tolerance questionnaire (Appendix C), which is based on items from King et al.'s (2009) Instructional Feedback Orientation Scale. Specifically, King et al. used the subscale called 'sensitivity' and the subscale 'utility' that were revised. It is composed of three components: emotional, cognitive, and meta-cognitive feedback tolerance. The emotional feedback tolerance was measured with six items, the cognitive feedback tolerance with four items and the meta-cognitive feedback tolerance with three items. Emotional items measure how the feedback receiver feels receiving feedback, for example "Corrective feedback hurts my feelings", the cognition items measure the extent to which they believe that feedback is useful, for example "Feedback motivates me to improve my text", and meta-cognition items measure the extent to which they invest time to process it, for example "I pay careful attention to feedback on my text" (Aben et al, submitted). All questionnaire items were measured on a 100cm visual analogue scale that runs from 0 (*fully disagree*) to 100 (*fully agree*) (Cronbach's alpha = .87).

Feedback Perceptions Questionnaire

The Feedback Perceptions Questionnaire was used to examine how the respondents perceived the feedback. This questionnaire consists of 18-items that measure the perceived Fairness (FA), Usefulness (US), Acceptance (AC), Willingness to Improve (WI), and Affect (AF) (Strijbos et al, 2021). Fairness is measured with three items, such as "I would consider this feedback fair", Usefulness is measured with three items, such as "I would consider the feedback useful", Acceptance is

measured with three items, such as “I would dispute this feedback”, Willingness to Improve is measured with three items, such as “I would be willing to invest a lot of effort in my revision”, and Affect is measured with six items, such as “ I feel satisfied if I received this feedback on my assignment”. Two items for Acceptance and three items for Affect were negatively phrased and recoded. The variables of Fairness (FA), Usefulness (US) and Acceptance (AC) were grouped into the variable of Perceived Adequacy of the Feedback (PAF) according to Strijbos et al. (2010). Table 1 shows the Cronbach’s alpha for each subscale. The computation of Cronbach’s alpha showed that the items have relatively high internal consistency (Connelly, 2011).

Table 1

The Cronbach’s alpha for each subscale

Expertise	PAF	WI	AF
Peer with low expertise	.88	.88	.88
Peer with high expertise	.94	.96	.90
Lecturer	.93	.88	.90

Note. PAF = Perceived Adequacy of Feedback, WI = Willingness to Improve, AF = Affect

Open-ended question

After the two vignettes, the participants were asked to answer one open-ended question; “Would you be more inclined to process feedback from a teacher compared to feedback from a fellow student?”. This was asked after the vignettes to avoid priming the respondents. The open-ended question was asked to avoid the bias that may result from responses that are suggested to the participants, and also to get more insight into potentially different responses to the vignettes. The question was supplementary and it was not enough for the study to be considered mixed method.

Data-analysis

Data analysis was performed by SPSS. First, the mean scores of the variables were computed. Also, the distribution assumptions were checked. In the present study, the aim of the analysis was to compare the means of dependent variables (Perceived Adequacy of Feedback, Willingness to Improve and Affect) for each vignette with the dependent variables of other vignettes. The independent variable was the expertise of the feedback sender and the covariate was the respondents' feedback tolerance. To this end, one categorical variable was created with the name 'condition' and with values 0 and 1. The 'condition = 0' represented the 27 participants who answered the vignettes with feedback from a peer with low expertise and feedback from a lecturer, and 'condition = 1' represented the other 27 participants that received the vignettes with the feedback from a peer with high expertise and feedback from a lecturer.

To investigate the extent of the influence of the feedback sender's expertise (peer with low expertise vs. peer with high expertise vs. lecturer) on the respondents' perceived adequacy of feedback, affect, and willingness to improve, three repeated measures ANOVA's were conducted (separately for PAF, WI and AF) to compare feedback from a peer with low expertise, and feedback from a lecturer, three repeated measures ANOVA's were conducted (separately for PAF, WI and AF) to compare feedback from a peer with high expertise and feedback from a lecturer, and finally three ANOVA's were conducted (separately for PAF, WI and AF) to compare the two different variations of peer feedback.

Subsequently, for the second research question three repeated measures ANCOVA's were conducted separately for PAF, WI and AF for all respondents with the condition=0, three repeated measures ANCOVA's separately for PAF, WI and AF

for all the respondents with the condition=1 and finally three ANCOVA's separately for PAF, WI and AF for only the peer vignette to compare the low and high expertise. To obtain statistically significant results, variables with p-value < .05 will be considered significant. For ANOVA and ANCOVA, the effect size will be expressed by partial eta squared η_p^2 , where .01 is small effect size, .06 is medium effect size, and .14 is large effect size (Richardson, 2011).

Firstly, the values of the first six of the thirteen items of the questionnaire about feedback tolerance that were negatively phrased were reversed. Apart from these six items, two items of the scale 'Acceptance' for each vignette and the three negative items of the scale 'Affect' were also reversed. After the completion of the process of recoding the negative phrased items, the Cronbach's alpha of both the items of feedback tolerance and each scale of the three different vignettes were computed.

Results

Data inspection

The standardized assumption for the subscales was checked. The variables with index q9 symbolized the vignette in which the feedback sender was a peer with low expertise, the variables with q10 symbolized the vignette in which the feedback sender was a peer with high expertise and the variables with the index q11 symbolized lecturer feedback. As shown in Table 2, the standardized skewness and kurtosis were inside the -3 and 3 range (Tabachnick & Fidell, 2013) for feedback tolerance (-2,99 and 1,09 respectively), for PAF_q9 (-,879 and -,630), for WI_q9 (-2,86 and 1,72), for AF_q9 (-1,15 and -,461), for PAF_q10 (-1,6 and -,300), for WI_q10 (-,003 and 002), for AF_q10 (-,783 and -,821), for PAF_q11 (-2,62 and ,839), for WI_q11 (-,003 and ,002) and AF_q11 (-1,46 and 1,09). All participants answered all available questions, so there was no missing data.

Table 2

The Standardized Skewness and Kurtosis of PAF, WI and AF for each feedback sender

Expertise of feedback sender	PAF		WI		AF	
	Skewness	Kurtosis	Skewness	Kurtosis	Skewness	Kurtosis
Peer with low expertise	-,879	-,630	-2,86	1,72	-1,15	-,461
Peer with high expertise	-1,6	-,300	-,003	,002	-,783	-,821
Lecturer	-2,62	,839	-,003	,002	-1,46	1,09

Note. PAF = Perceived Adequacy of Feedback; WI = Willingness to Improve; AF = Affect.

Next correlations were computed between all scales. Table 3 shows that the pattern that stands out is that feedback tolerance (FT) shows no correlation with PAF, WI, and AF of 'q9' that symbolizes feedback from a peer with low expertise only with AF of 'q10' that symbolizes feedback from a peer with high expertise, and with PAF, WI and AF of 'q11' that symbolizes lecturer feedback. Also, there is a positive correlation between PAF of 'q9' with WI of 'q11', and AF of 'q9' with PAF and WI of 'q11', but no correlation with AF of 'q11'. Regarding the WI of 'q9', the pattern shows a positive correlation with AF of 'q9' and PAF, WI, and AF of 'q11'. AF of 'q9' shows also a positive correlation with PAF and AF of 'q11'. Regarding the variables of the feedback of 'q10', PAF, WI, and AF show no correlation with PAF, WI, and AF of 'q11', only with each other. Finally, PAF, WI, and AF of 'q11' also show a positive correlation with each other. A positive correlation means that when the score on one subscale increases, the same also happens with the score on another subscale (Schober & Schwarte, 2018).

Table 3*Correlations for Study Variables*

Variable	1	2	3	4	5	6	7	8	9	10
1. FT_q8	-									
2. PAF_q9	-,255	-								
3. WI_q9	-,079	,776**	-							
4. AF_q9	,139	,661**	,542**	-						
5. PAF_q10	,218	. ^c	. ^c	. ^c	-					
6. WI_q10	,228	. ^c	. ^c	. ^c	,855**	-				
7. AF_q10	,401*	. ^c	. ^c	. ^c	,802**	,809**	-			
8. PAF_q11	,503**	,491**	,554**	,522**	,029	-,160	,143	-		
9. WI_q11	,452**	,401*	,662**	,369	-,026	-,125	,140	,858**	-	
10. AF_q11	,458**	,365	,465*	,724**	-,305	-,266	,067	,686**	,580**	-

Note. * $p < .05$, two-tailed. ** $p < .01$, two-tailed.

^c Cannot be computed because at least one of the variables is constant.

The influence of expertise on perceived adequacy of feedback, willingness to improve, and affect

Comparison between the feedback from a fictional peer with low expertise and a fictional lecturer feedback

Three repeated measures ANOVA's were conducted separately for PAF, WI, AF for all respondents who answered to the vignettes with feedback from a fictional peer with low expertise and feedback from a fictional lecturer. There was a significant difference between these two vignettes for perceived adequacy of feedback, $F(1,26) = 9.14$ $p = .006$, $\eta_p^2 = .26$. More specifically, PAF was higher for feedback by a fictional lecturer ($M = 74.90$, $SD = 18.72$) than for feedback from a fictional peer with low expertise ($M = 64.73$, $SD = 15.46$). There was also a significant difference between vignettes with feedback from a fictional peer with low expertise and feedback from a fictional lecturer for willingness to improve, $F(1,26) = 5.25$, $p = .030$, $\eta_p^2 = .168$.

More specifically, WI was higher for feedback by a fictional lecturer ($M = 74.11$, $SD = 23.89$) than for feedback from a fictional peer with low expertise ($M = 65.73$, $SD = 22.22$). Regarding affect, there was no significant difference between the vignettes with feedback from a fictional peer with low expertise and feedback from a fictional lecturer, $F(1,26) = .188$, $p = .668$, $\eta_p^2 = .007$. More specifically, AF was slightly higher for feedback from a fictional peer with low expertise ($M = 61.55$, $SD = 19.41$) than for feedback from a fictional lecturer ($M = 60.25$, $SD = 22.22$).

Comparison between the feedback from a fictional peer with high expertise and a fictional lecturer feedback

Three repeated measures ANOVA's were conducted separately for PAF, WI and AF for all respondents who answered to the vignettes with feedback from a fictional peer with high expertise and feedback from a fictional lecturer. There was no significant difference between these two types of vignettes for perceived adequacy of feedback, $F(1,26) = 3.64$, $p = .68$, $\eta_p^2 = .123$. More specifically, PAF was higher for feedback by a fictional lecturer ($M = 77.71$, $SD = 19.05$) than for feedback from a fictional peer with high expertise ($M = 67.14$, $SD = 22.17$). Furthermore, there was no significant difference between vignettes with feedback from a fictional peer with high expertise and feedback from a fictional lecturer for willingness to improve, $F(1,26) = .808$, $p = .377$, $\eta_p^2 = .030$. WI was higher for feedback by a lecturer ($M = 72.93$, $SD = 21.51$) than for feedback from a peer with high expertise ($M = 66.96$, $SD = 24.36$). Finally, there was no significant difference between these two vignettes for affect, $F(1,26) = .043$, $p = .837$, $\eta_p^2 = .002$. More specifically, AF was slightly higher for feedback by a fictional peer with high expertise ($M = 63.83$, $SD = 22.04$) than for feedback by a fictional lecturer ($M = 62.51$, $SD = 26.23$).

Comparison between the feedback from a fictional peer with low expertise and the feedback from a fictional peer with high expertise

Finally, three ANOVA's were conducted separately for PAF, WI and AF for only the peer vignettes. There was no significant difference between these two vignettes for perceived adequacy of feedback, $F(1,52) = .214$, $p = .646$, $\eta_p^2 = .004$. More specifically, PAF was higher for feedback by a fictional peer with high expertise ($M = 67.14$, $SD = 22.17$) than for feedback from a fictional peer with low expertise ($M = 64.73$, $SD = 15.46$). Furthermore, there was no significant difference between vignettes with feedback from a peer with low expertise and feedback from a peer with high expertise for willingness to improve, $F(1,52) = .038$, $p = .847$, $\eta_p^2 = .001$. WI was higher for feedback by a peer with high expertise ($M = 66.96$, $SD = 24.36$) than for feedback from a peer with low expertise ($M = 65.73$, $SD = 22.22$). Finally, there was no significant difference between these two vignettes for affect, $F(1,52) = .162$, $p = .689$, $\eta_p^2 = .003$. More specifically, AF was higher for feedback by a peer with high expertise ($M = 63.83$, $SD = 22.04$) than for feedback by a peer with low expertise ($M = 61.56$, $SD = 19.41$).

The influence of the feedback tolerance on the perceived adequacy of feedback, willingness to improve, and affect

The second research question examined the influence of feedback tolerance on perceived adequacy of feedback, willingness to improve, and affect. Three repeated measures ANCOVA's were conducted separately for PAF, WI, and AF for all respondents who answered to the vignettes with feedback from a fictional peer with low expertise and feedback from a fictional lecturer. There was no significant effect of feedback on perceived adequacy of feedback, $F(1,25) = .429$, $p = .519$, $\eta_p^2 = .017$, on willingness to improve, $F(1,25) = .728$, $p = .402$, $\eta_p^2 = .028$, and on affect, $F(1,25)$

= 2.86, $p = .103$, $\eta_p^2 = .103$. Three repeated measures ANCOVA's were conducted separately for PAF, WI, and AF for all respondents who answered to the vignettes with feedback from a fictional peer with high expertise and feedback from a fictional lecturer. There was significant effect of feedback tolerance on perceived adequacy of feedback, $F(1,25) = 12.03$, $p = .002$, $\eta_p^2 = .325$, on willingness to improve, $F(1,25) = 15.40$, $p = .001$, $\eta_p^2 = .381$, and on affect, $F(1,25) = 16.58$, $p = .000$, $\eta_p^2 = .399$.

Finally, three ANCOVA's were conducted separately for PAF, WI, and AF for the peer vignettes. There was no significant effect of feedback tolerance on perceived adequacy of feedback, $F(1,50) = .204$, $p = .653$, $\eta_p^2 = .004$, and on willingness to improve, $F(1,50) = .596$, $p = .444$, $\eta_p^2 = .012$. However, there was significant effect of feedback tolerance on affect, $F(1,50) = 4.97$, $p = .030$, $\eta_p^2 = .090$.

The interaction effect of expertise and feedback tolerance

ANCOVA's were conducted to examine the interaction effect of expertise and feedback tolerance on PAF, WI, and AF for each vignette. Table 4 shows that for the vignettes with feedback from a fictional peer with low expertise and feedback from a fictional lecturer a difference in the rate of perceived adequacy of feedback between the two different vignettes reflecting a significant interaction with the feedback tolerance. In other words the PAF of students with differing feedback tolerance is different when the feedback sender is a peer with low expertise compared to feedback from a lecturer ($p = .000$, $\eta_p^2 = .451$). Also, a difference in the rate of willingness to improve between the vignettes with feedback from a fictional peer with low expertise and feedback from a fictional lecturer reflects a significant interaction with the feedback tolerance. In other words the WI of students with differing feedback tolerance is different when the feedback sender is a peer with low expertise compared to feedback from a lecturer ($p = .003$, $\eta_p^2 = .309$). Finally, there is a significant

interaction effect between expertise and feedback tolerance regarding a difference in the rate of affect between the vignettes with feedback from a fictional peer with low expertise and feedback from a fictional lecturer ($p = .020$, $\eta_p^2 = .190$). The other ANCOVA's did not reveal any significant interaction effects.

Table 4

Interaction effect between expertise and feedback tolerance

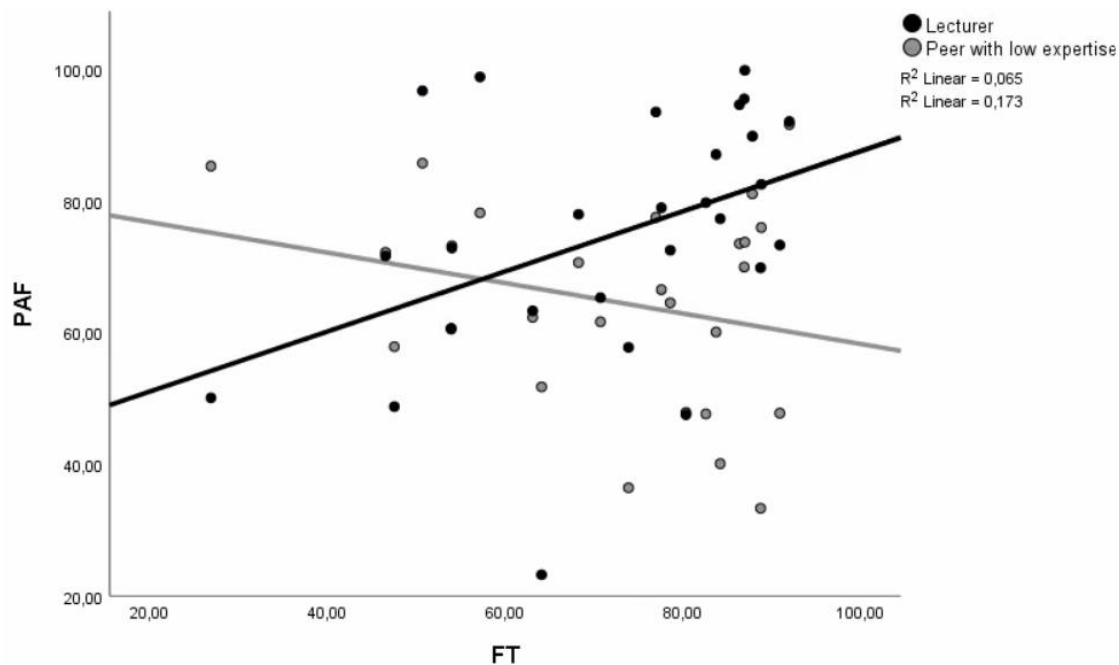
Expertise (I) V Expertise (J)	PAF		WI		AF	
	Sig.	Partial eta squared	Sig.	Partial eta squared	Sig.	Partial eta squared
Peer with low expertise V lecturer	.000	.451	.003	.309	.020	.190
Peer with high expertise V lecturer	.206	.063	.266	.049	.486	.020
Peer with low expertise V peer with high expertise	.101	.053	.231	.029	.156	.040

Note. PAF = Perceived Adequacy of Feedback; WI = Willingness to Improve; AF = Affect.

The following figures illustrate the interaction between expertise and feedback tolerance. Figure 1, 2 and 3 present how feedback tolerance of feedback receiver, and feedback from a fictional peer with low expertise and feedback from a fictional lecturer influence the likelihood of feedback receiver to perceive the adequacy of feedback, to be more willing to make use of it for improvement, and to have positive affect.

Figure 1

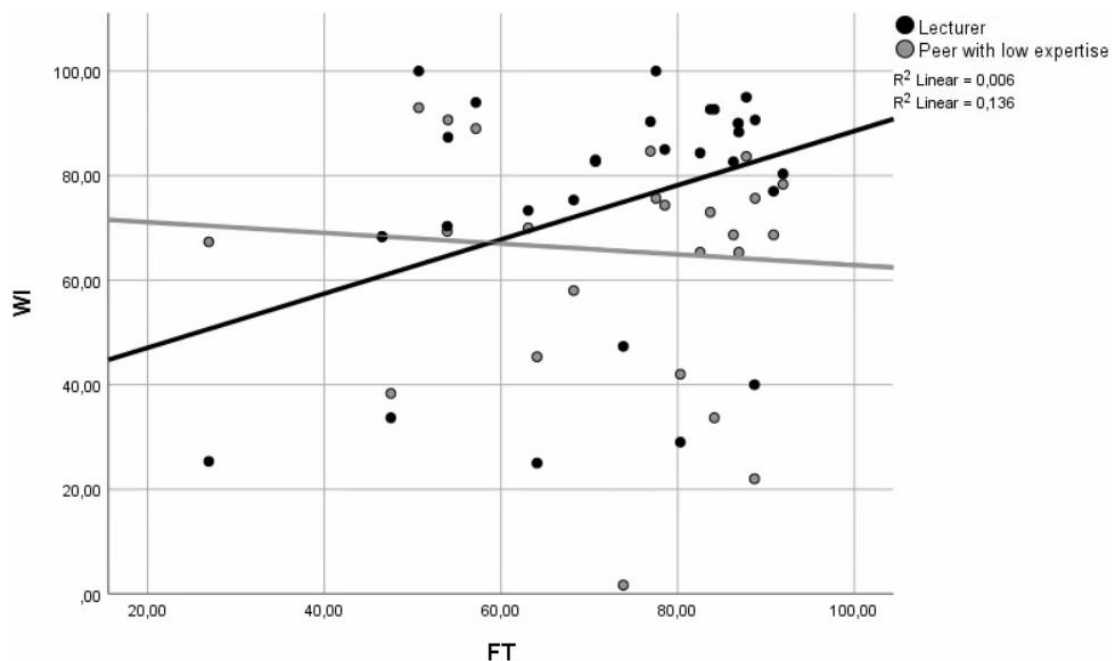
The interaction effect of expertise and feedback tolerance on perceived adequacy of feedback



Note: PAF = Perceived Adequacy of Feedback, FT = Feedback Tolerance. The lines have opposite direction. The grey line that represents feedback from a peer with low expertise has a downward trend and the black line that represents feedback from a lecturer has an upward trend. This means that a student with lower feedback tolerance is more likely to perceive the adequacy of feedback when the feedback sender is a peer with low expertise, but when a student has higher feedback tolerance then it is more likely to perceive the adequacy of feedback by a lecturer.

Figure 2

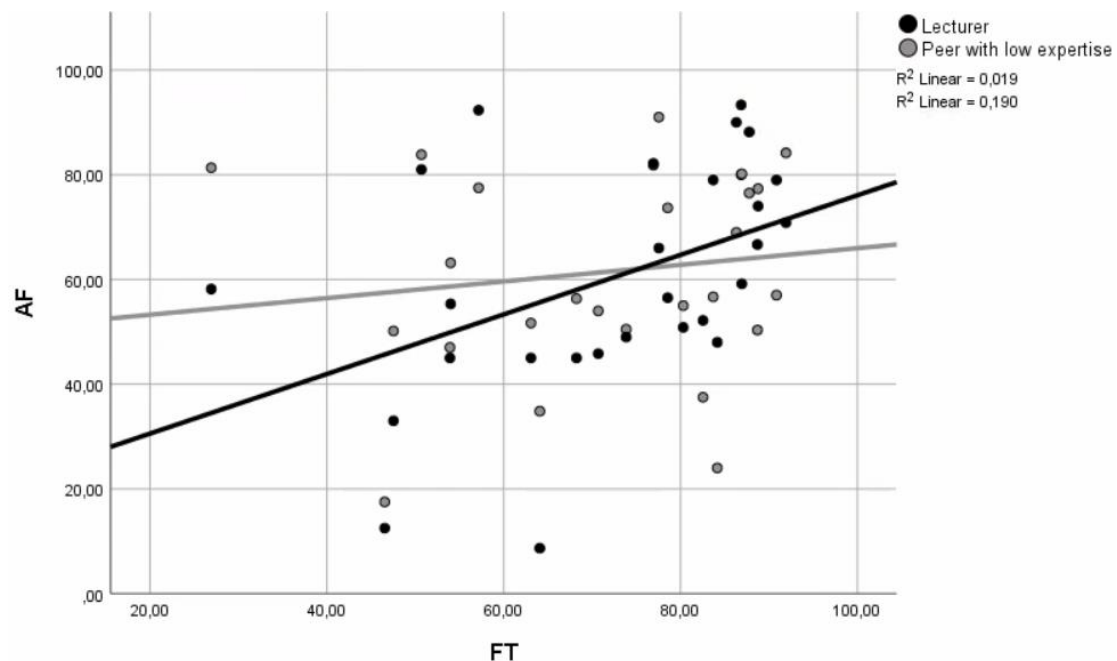
The interaction effect of expertise and feedback tolerance on willingness to improve



Note: WI = Willingness to Improve, FT = Feedback Tolerance. The lines have opposite direction. The grey line that represents feedback from a peer with low expertise has a downward trend and the black line that represents feedback from a lecturer has an upward trend. This means that a student with lower feedback tolerance is more likely to be willing to improve the performance when the feedback sender is a peer with low expertise, but when a student has higher feedback tolerance then it is more likely to be willing to improve the performance when the feedback sender is a lecturer.

Figure 3

The interaction effect of expertise and feedback tolerance on affect



Note: AF = Affect, FT = Feedback Tolerance. Although the grey line of a peer with low expertise is growing less than the black line that represents feedback from a lecturer, both lines have an upward trend. This means that as the feedback tolerance is growing, the likelihood of students being affected positively by feedback from a peer with low expertise and a lecturer increases.

The preference of respondents to teacher and peer feedback

The open-ended question provided additional information about participants' preference for teacher feedback and peer feedback. The recording of responses showed that 44 of the 54 respondents had a bias towards feedback from a teacher, while the remaining ten expressed the opinion that both peer and teacher feedback could be useful. Of these ten, six stated that both peer and teacher feedback have advantages, as a teacher “has more expertise and gives more elaborate feedback”, but a peer “gives a different perspective on the same topic, and can discern the

challenging points easier because a peer is on the same side with the feedback receiver”. The remaining four stated that they are inclined to “constructive, justified, and well documented feedback regardless of the feedback sender”. One respondent who express the preference on teacher feedback, stated that “I don’t take peer feedback seriously unless I know that the peer is better student than me”. Finally, ten of the 44 who claimed that they are more inclined to teacher feedback justified their preference by stating that “since the teacher grades the final assignment, teacher feedback matters”.

Discussion

In line with the increased interest for the influence of characteristics of the feedback sender on the way the receiver perceives the feedback, the present study investigated whether feedback sender’s expertise and feedback receiver’s feedback tolerance influence the feedback recipients’ perceived adequacy of feedback, willingness to improve, and affect among Dutch higher education students. Prior research has shown that the status, competencies and expertise of the person giving the feedback may affect the processing of feedback (Strijbos & Müller, 2014) and also that students are more likely to dispute the expertise of a peer than a teacher (Aben et al., 2021). Therefore, the study of perceptions of the provided feedback, affect and willingness to improve is of academic interest.

The effect of the expertise on perceived adequacy of feedback, affect and willingness to improve

The comparison between the three different variations of the expertise of the feedback sender and the responses to open-ended question confirmed to some extent the general perception that students deal with feedback differently when it comes from a peer than a lecturer. In the case of peer feedback, the expertise of a peer also

contributes to a different way of interacting with feedback; students are more inclined to feedback by a peer with high expertise than a peer with low expertise. The results are in line with prior research by Berndt et al. (2018) who pointed out that students prefer the feedback from a teacher rather than from a peer because they perceive it more useful and accurate. The main findings showed that there is a significant difference in how students perceived the adequacy of feedback and how much willing they are to make use of it in order to improve their performance when the feedback is provided by a fictional peer with low expertise and when the feedback is provided by a fictional lecturer. Specifically, students perceived the lecturer feedback as more adequate than low expertise peer feedback. These results are in line with prior research by Strijbos et al. (2010) and Aben et al. (submitted) who stated that students appraise peer feedback, but prefer teacher feedback because teachers are considered more knowledgeable. Also, these results are in line with the study of Ching and Hsu (2016) who pointed out that students do not take into account peer feedback because peer feedback is deemed less reliable than that from someone with higher expertise. However, the results are in contrast to Cho and MacArthur (2010) who stated that peer feedback in some cases is more acceptable than teacher feedback. Also, Värlander (2008) stated that because of the status imbalance between students and lecturers, the teacher feedback is less dialogical than the peer feedback, and as a result, some students accept easier the peer feedback. Regarding the affect, the comparison between feedback from a peer with low expertise and feedback from a lecturer did not show significant influence of the expertise on it. In line with this result, Molloy et al. (2019) claimed that the affect of feedback mainly relies on how the feedback message is addressed and on the context in which the feedback is

addressed rather than the expertise of the feedback sender. Therefore, H1(a) is partially confirmed.

The other two comparisons between feedback from a fictional peer with high expertise and feedback from a fictional lecturer, as well as feedback from a fictional peer with low expertise and feedback from a fictional peer with high expertise did not show any significant difference between them on perceived adequacy of feedback, on willingness to improve, and on affect. The H1(b) is rejected. This might be because on the one hand, respondents might acknowledge that a fictional peer with high expertise can provide an almost equal accurate feedback compared to a lecturer and because of that, they trust the provided feedback, but on the other hand, the peer with high expertise might remain a student who does not have the experience and knowledge to provide peer feedback with the credibility of teacher feedback. Future research could investigate this hypothesis further. The prior research by Berndt et al. (2018) is opposed to the findings as it pointed out that feedback from a peer with high performance motivates the recipient more than feedback from a peer with low performance, and the willingness to improve increases.

The effect of feedback tolerance and the interaction with the expertise of feedback sender

The goal of the second research question was to examine the influence of feedback tolerance on perceived adequacy of feedback, willingness to improve, and affect. The main findings showed that perceived adequacy of feedback, willingness to improve, and affect are influenced by the feedback tolerance when the fictional student received feedback from both a fictional peer with high expert and a fictional lecturer. Also, the analysis of the peer vignettes showed that feedback tolerance influenced the affect of the receiver. The results are in line with prior studies by Smith

and King (2004), and King et al. (2009). Smith and King (2004) reported the influence of feedback sensitivity in the perceptions of the feedback, and how the receiver deals with it. Kings et al. (2009) pointed out the role of feedback sensitivity on how a person reacts to the feedback underlying that because of the emotional component of feedback tolerance, the feedback receiver is possibly afraid of receiving feedback. Perceived adequacy of feedback and willingness to improve did not seem to be affected significantly. Similarly, the results showed no significance effect of feedback tolerance on perceived adequacy of feedback, willingness to improve, and affect when the feedback was provided by both a fictional peer with low expertise and a fictional lecturer. These results contradict the research of Aben et al. (submitted) who stated that feedback tolerance contributes to a different reaction to it. Thus, higher feedback tolerance leads to greater receptivity to feedback and recognition of the importance of feedback in improving performance, while with lower feedback tolerance it is less likely to be willing to make use of it to improve the performance (Aben et al., submitted). Therefore, H2 is partially confirmed.

Of great interest is the interaction of the expertise of the feedback sender with the feedback tolerance of the feedback receiver. The main findings showed that there is a significant difference in perceived adequacy of feedback, willingness to improve and affect when the feedback is provided by a fictional peer with low expertise and when feedback is provided by a fictional lecturer in combination with feedback tolerance. Specifically, low feedback tolerance leads to high perceived adequacy of feedback, high willingness to improve and high affect when the feedback is from a peer with low expertise, and high feedback tolerance leads to high perceived adequacy of feedback, high willingness to improve and high affect when the feedback is from a lecturer. The findings are in line with prior research by Aben et al. (2019)

who stated that the feedback tolerance may be low when the feedback sender is a person who is considered less credible. There were no interactions for the other comparisons.

Limitations of the research

Unfortunately, the number of the participants was quite small and cannot be considered a representative sample of Bachelor's and Master's students in Dutch higher education. Having an accurate sample size makes it easier to draw conclusions and the results more reliable as opposed to a small sample size which might lead to inadequate results (Cleave, 2022). Furthermore, the peer vignettes were identical in terms of the content of the feedback to facilitate comparison between them. A future study could focus exclusively on the two variations of peer feedback, and the vignettes could show the difference in how peers justify their feedback. Finally, this research was exclusively quantitative and included only one supplementary question. Mixed method research, i.e. combining qualitative and quantitative research, is a method used to obtain a more comprehensive and insightful picture of the topic of the research (Dingyloudi & Strijbos, 2018), which could also be used in the current research to get more insight into feedback perceptions, intentions, and emotions of the participants.

Practical Implications

The importance of the findings is laid on understanding better the interaction between the feedback sender and feedback receiver, and on being utilized by the educational professionals for the incorporation of the feedback in a more effective way in learning and teaching process engaging also the fellow students. Although the findings of the present study are limited to the expertise of the feedback sender, the present study could form the basis for further examination of the influence of other

interpersonal characteristics, such as the personal relationship of the feedback receiver with the feedback sender, on how students perceive the feedback message.

Conclusions

Feedback is not just part of the learning process but also a factor that promotes the interaction between both students and teachers but also between fellow students. Because of its importance, many researchers have focused on trying to understand feedback and find ways to make it more effective. The intrapersonal and interpersonal characteristics are an integral part of the feedback process and the examination of their utility and influence can contribute to enhancing the understanding of the role of feedback. The expertise of the feedback sender influences the process of the feedback and the examination of this influence can facilitate the advance of strategies for better feedback provision by feedback senders. Except for the expertise, the feedback tolerance also has an influence on the feedback process. Each person deals with the challenges, the errors, and the corrections differently, and this depends on the intrapersonal characteristics. In conclusion, a better understanding of the relationship between different factors of the feedback process can help education professionals to develop better strategies on how to provide feedback so that the feedback recipient can deal with it positively.

References

- Aben, J. E. J., Dingyloudi, F., Timmermans, A. C., & Strijbos, J. W. (2019). Embracing errors for learning: Intrapersonal and interpersonal factors in feedback provision and processing in dyadic interactions. In; M. Henderson, R. Ajjawi, D. Boud, & E. Molloy (Eds.), *The impact of feedback in higher education* (pp. 107-125). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-25112-3_7
- Aben, J. E. J., Timmermans, A. C., Mascareño Lara, M., Dingyloudi, F., & Strijbos, J. W. (2021, August). Effects of error tolerance, feedback tolerance, and perceived expertise on peer feedback processing. In A. Lipnevich & N. Winstone (Chairs), *Learner-centered processes in feedback across contexts: Theoretical and empirical findings*. Paper presented in an invited EFG symposium conducted at the 19th biennial EARLI conference, Gothenburg, Sweden.
- Atzmüller, C., & Steiner, P. M. (2010). Experimental Vignette Studies in Survey Research. *Methodology*, 6(3), 128–138. <https://doi.org/10.1027/1614-2241/a000014>
- Berndt, M., Strijbos, J-W., & Fischer, F. (2018). Effects of written peer-feedback content and sender's competence on perceptions, performance, and mindful cognitive processing. *European Journal of Psychology of Education*, 33(1), 31-49. <https://doi.org/10.1007/s10212-017-0343-z>
- Butler, D. L., & Winne, P. H. (1995). Feedback and Self-Regulated Learning: A Theoretical Synthesis. *Review of Educational Research*, 65(3), 245–281. <https://doi.org/10.3102/00346543065003245>

- Ching, Y. H., & Hsu, Y. C. (2016). Learners' Interpersonal Beliefs and Generated Feedback in an Online Role-Playing Peer- Feedback Activity: An Exploratory Study. *The International Review of Research in Open and Distributed Learning*, 17(2). <https://doi.org/10.19173/irrodl.v17i2.2221>
- Cho, K., & MacArthur, C. (2010). Student revision with peer and expert reviewing. *Learning and Instruction*, 20(4), 328–338.
<https://doi.org/10.1016/j.learninstruc.2009.08.006>
- Cleave, P. (2022, February 23). *The Importance of Sample Size*. SmartSurvey.
<https://www.smartsurvey.co.uk/blog/importance-of-sample-size>
- Connelly, L. M. (2011). Cronbach;s alpha. *Medsurg Nursing: Official Journal of the Academy of Medical-Surgical Nurses*, 20(1), 45-44.
- Dingyloudi, F., & Strijbos, J. W. (2018). Mixed methods research as a pragmatic toolkit: Understanding versus fixing complexity in the learning sciences. In F. Fischer, C. E. Hmelo-Silver, S. R. Goldman & P. Reimann (Eds.), *International handbook of the learning sciences* (pp.444-454). New York: Routledge.
- Gamlem, S. M., & Smith, K. (2013). Student perceptions of classroom feedback. *Assessment in Education: Principles, Policy & Practice*, 20(2), 150–169.
<https://doi.org/10.1080/0969594x.2012.749212>
- Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81-112. <https://doi.org/10.3102/003465430298487>
- Huisman, B., Saab, N., van Driel, J., & van den Broek, P. (2019). A questionnaire to assess students' beliefs about peer-feedback. *Innovations in Education and Teaching International*, 57(3), 328–338.
<https://doi.org/10.1080/14703297.2019.1630294>

- Kim, Y., & Mostafa, T. (2021). Teachers' and Students' Beliefs and Perspectives about Corrective Feedback. *The Cambridge Handbook of Corrective Feedback in Second Language Learning and Teaching*, 561–580.
<https://doi.org/10.1017/9781108589789.027>
- King, P. E., Schrodtt, P., & Weisel, J. J. (2009). The Instructional Feedback Orientation Scale: Conceptualizing and Validating a New Measure for Assessing Perceptions of Instructional Feedback. *Communication Education*, 58(2), 235–261. <https://doi.org/10.1080/03634520802515705>
- Leung, A., Fine, P., Blizard, R., Tonni, I., & Louca, C. (2020). Teacher feedback and student learning: A quantitative study. *European Journal of Dental Education*, 25(3), 600–606. <https://doi.org/10.1111/eje.12637>
- Molloy, E. Borrell-Carrió, F., & Epstein, R., (2013). The impact of emotions in feedback. In D. Boud & E. Molly (Eds.), *Feedback in Higher and Professional Education: Understanding It and Doing It Well* (pp. 50-71). Taylor & Francis
- Molloy, E., Noble, C., & Ajjawi, R. (2019). Attending to Emotion in Feedback. *The Impact of Feedback in Higher Education*, 83–105.
https://doi.org/10.1007/978-3-030-25112-3_6
- Raemdonck, I., & Strijbos, J. W. (2013). Feedback perceptions and attribution by secretarial employees. *European Journal of Training and Development*, 37(1), 24–48. <https://doi.org/10.1108/03090591311293275>
- Richardson, J. T. (2011). Eta squared and partial eta squared as measures of effect size in educational research. *Educational Research Review*, 6(2), 135–147.
<https://doi.org/10.1016/j.edurev.2010.12.001>

- Schartel, S. A. (2012). Giving feedback – An integral part of education. *Best Practice & Research Clinical Anaesthesiology*, 26(1), 77–87.
<https://doi.org/10.1016/j.bpa.2012.02.003>
- Schober, P., Boer, C., & Schwarte, L. A. (2018). Correlation Coefficients. *Anesthesia & Analgesia*, 126(5), 1763–1768.
<https://doi.org/10.1213/ane.0000000000002864>
- Smith, C. D., & King, P. E. (2004). Student feedback sensitivity and the efficacy of feedback interventions in public speaking performance improvement. *Communication Education*, 53(3), 203–216.
<https://doi.org/10.1080/0363452042000265152>
- Strijbos, J. W., & Müller, A. (2014). Personale Faktoren im Feedbackprozess. In H. Ditton & A. Müller (Eds.), *Feedback und Rückmeldungen: Theoretische Grundlagen, empirische Befunde, praktische Anwendungsfelder* [Feedback and evaluation: Theoretical foundations, empirical findings, practical implementation] (pp. 87-134). Waxmann.
- Strijbos, J. W., Narciss, S., & Dünnebier, K. (2010). Peer feedback content and sender's competence level in academic writing revision tasks: Are they critical for feedback perceptions and efficiency? *Learning and Instruction*, 20(4), 291–303. <https://doi.org/10.1016/j.learninstruc.2009.08.008>
- Strijbos, J. W., Pat-El, R. J., & Narciss, S. (2021). Structural validity and invariance of the Feedback Perceptions Questionnaire. *Studies in Educational Evaluation*, 68, Article e100980. <https://doi.org/10.1016/j.stueduc.2021.100980>
- SurveyCircle (2022). Research website SurveyCircle. Published 2016. Available at <https://www.surveycircle.com>. Access on 18 March 2022. Mannheim, Germany

- Tabachnick, B. G., & Fidell, L. S. (2013). Using multivariate statistics (6th ed.). Boston, MA: Allyn & Bacon.
- Värlander, S. (2008). The role of students' emotions in formal feedback situations. *Teaching in Higher Education, 13*(2), 145–156.
<https://doi.org/10.1080/13562510801923195>
- Wilks, T. (2004). The Use of Vignettes in Qualitative Research into Social Work Values. *Qualitative Social Work, 3*(1), 78–87.
<https://doi.org/10.1177/1473325004041133>
- Winstone, N. E., Nash, R. A., Parker, M., & Rowntree, J. (2017). Supporting learners' agentic engagement with feedback: A systematic review and a taxonomy of recipience processes. *Educational Psychologist, 52*(1), 17-37.
<https://doi.org/10.1080/00461520.2016.1207538>

Appendix A: Description of the Study

English version

Welcome to the research study!

Dear student,

During the study, so called "feedback" plays an important role. These are comments that a lecturer and a fellow student give on a student's work, such as a written text. The teacher says, for example, what has been done well and what could be improved. There are signs that the relationship between teacher and student influences the effect of feedback, but we do not yet know exactly how this works.

In order to find out more about how students process feedback from both lecturers and fellow students and whether the relationship between lecturer or fellow student and student plays a role, this study surveys students at the University of Groningen. This is a broad survey among students of different years and faculties.

What does participating in the study mean for you?

By means of a questionnaire, we examine how students from different faculties process feedback from a lecturer and fellow student. We use fictitious situation sketches and ask students to put themselves in that situation and indicate how they would experience the feedback. Completing the questionnaire takes about 15 minutes.

Consent

Prior to the study, we will ask you to indicate that you would like to participate in the study. Participation in the study is completely voluntary and you can stop at any time. So if you do not want to continue while filling in the questionnaire, you can stop. Of course, we hope that you will participate.

Use and storage of data

All answers given while filling in the questionnaire will be treated confidentially. This means that the questionnaires and answers are kept secure and that only the researchers can see the completed questionnaires.

The Qualtrics programme automatically collects the IP address of the person completing the questionnaire, but this information will be deleted immediately at the start of data processing. This means that the research results can never be traced back to you.

Your rights

If you no longer wish to participate in the study, you can indicate this to the researchers by contacting the project leader. Your data will then be removed from the data files. This is possible until the data are analyzed from 30 March 2022. If you have any questions about privacy, you can also contact the researchers. If the researchers cannot answer your question, you can submit it to the Data Protection Officer of the University of Groningen (via privacy@rug.nl).

In need of more information?

If you would like to know more about the study, please contact the undersigned.

With kind regards, on behalf of the research team,

Smaragda Piperoudi

Student Rijksuniversiteit Groningen

s.piperoudi@student.rug.nl
Prof. dr. Jan-Willem Strijbos

Rijksuniversiteit Groningen

j.w.strijbos@rug.nl

Dutch Version

Beste student,

Tijdens de studie speelt zogenaamde “feedback” een grote rol. Dit is commentaar dat een docent en een studiegenoot geeft op het werk van een student, zoals een geschreven tekst. De docent zegt bijvoorbeeld wat er goed is gedaan en wat nog verbeterd zou kunnen worden. Er zijn signalen dat de relatie tussen docent en student invloed heeft op het effect van feedback, maar we weten nog niet precies hoe dit werkt.

Om meer te weten te komen over hoe studenten feedback van zowel docenten als studiegenoot verwerken en of de relatie tussen een docent en een studiegenoot en student een rol speelt, worden in dit onderzoek studenten aan de Rijksuniversiteit Groningen bevraagd. Dit betreft een brede bevraging onder studenten van verschillende jaargangen en faculteiten.

Wat betekent deelname aan het onderzoek voor jou?

Via een vragenlijst wordt nagegaan hoe studenten van verschillende faculteiten feedback van een docent en een studiegenoot verwerken. We maken gebruik van fictieve situatieschetsen en vragen studenten om zich in die situatie te verplaatsen en aan te geven hoe zij de feedback zouden ervaren. Het invullen van de vragenlijst duurt ongeveer 15 minuten.

Toestemming

Voorafgaand aan het onderzoek vragen we je om aan te geven dat jij mee wil doen aan het onderzoek. Meedoen aan het onderzoek is helemaal vrijwillig en je kunt op ieder moment stoppen. Dus als je tijdens het invullen van de vragenlijst niet meer verder wilt, dan mag je stoppen. We hopen natuurlijk dat je mee wilt doen.

Gebruik en bewaren van gegevens

Alle antwoorden die je geeft tijdens het invullen van de vragenlijst, worden vertrouwelijk behandeld. Dit betekent dat de vragenlijsten en antwoorden beveiligd

worden bewaard en dat alleen de onderzoekers de ingevulde vragenlijsten kunnen zien.

Het programma Qualtrics verzameld automatisch het IP-adres van degene die vragenlijst invult, maar deze informatie zal bij aanvang van de dataverwerking meteen verwijderd worden. Dit betekent dat de onderzoeksresultaten nooit naar jou te herleiden zijn.

Jouw rechten

Als je niet langer wilt meedoen met het onderzoek, kun je dit aangeven bij de onderzoekers, door contact op te nemen met de projectleider. Jouw gegevens worden dan verwijderd uit de databestanden. Dit is mogelijk tot aan het moment dat de gegevens geanalyseerd worden vanaf 30 maart 2022. Als je vragen hebt over privacy, kun je ook contact opnemen met de onderzoekers. Mochten de onderzoekers je vraag niet kunnen beantwoorden dan kan je deze voorleggen aan de Functionaris Gegevensbescherming van de Rijksuniversiteit Groningen (via privacy@rug.nl).

Behoeftte aan meer informatie?

Mocht je meer willen weten over het onderzoek, dan kun je contact opnemen met ondergetekende. Met vriendelijke groet, namens het onderzoeksteam,

Smaragda Piperoudi

Student Rijksuniversiteit Groningen

s.piperoudi@student.rug.nl

Prof. dr. Jan-Willem Strijbos

Rijksuniversiteit Groningen

j.w.strijbos@rug.nl

Appendix B: Consent form

Via this form you can indicate whether you want to participate in the questionnaire on the processing of feedback by both a lecturer and a fellow student.

- I have read the information letter and explanation of the questionnaire carefully. I understand what participation in the study entails.

- I understand that participation in the questionnaire is voluntary. I choose to participate. I can stop participating at any time. If I decide to stop participating, I do not have to give a reason.

I indicate below whether I want to participate in the questionnaire or not.

I,,

student at the Rijksuniversiteit Groningen,

consent to the participation in the questionnaire on the processing of feedback by both a lecturer and a fellow student].

Yes, I **consent** to participate in the study; this permission runs until December 2022.

No, i do **not consent** to participate in this study.

Signature

Place

Date

Note. As a research participant, you are entitled to receive a copy of this informed consent.

Toestemmingsformulier

Beste student,

Via dit formulier kun je aangeven of je deel wilt nemen aan de vragenlijst over de verwerking van feedback van een zowel docenten als studiegenoot.

- Ik heb de informatiebrief en uitleg over de vragenlijst goed doorgelezen. Ik begrijp wat deelname aan het onderzoek inhoudt.
- Ik begrijp dat deelname aan de vragenlijst vrijwillig is. Ik kies er zelf voor om deel te nemen. Ik kan op elk moment stoppen met deelname. Als ik besluit om te stoppen met deelname, hoef ik hiervoor geen reden op te geven.

Ik geef hieronder aan of ik wel of niet wil deelnemen aan de vragenlijst.

Ik,,

student aan de Rijksuniversiteit Groningen,

geef toestemming voor de deelname aan de vragenlijst over de verwerking van feedback van een zowel docenten als studiegenoot.

Ja, ik geef **wel toestemming** om deel te nemen aan het onderzoek; deze toestemming loopt tot december 2022.

Nee, ik geef **geen toestemming** om deel te nemen aan het onderzoek.

Handtekening

Plaats

Datum

N.B. Als deelnemer aan het onderzoek heb je recht op een kopie van deze geïnformeerde toestemming

Appendix C: Questionnaire

Demographics

1. **What is your age?**
2. **What is your gender?**
 - a) Male
 - b) Female
 - c) Transgender
 - d) Non-binary / third gender
 - e) Prefer not to say
3. **What is your nationality?**
4. **What is your level of current education?**
 - a. Bachelor
 - b. Master
5. **What is the name of your university?**
6. **What is your faculty?**

Feedback Tolerance Questionnaire

For the close-ended questions a visual analogue scale will be used, where 0 = strongly disagree to 100 = strongly agree

1. My feelings can be easily hurt by corrective feedback.
2. It is difficult to “get over” corrective feedback.
3. I feel threatened by corrective feedback.
4. Corrective feedback is embarrassing.
5. Corrective feedback hurts my feelings.
6. Corrective feedback is intimidating.
7. I think feedback is vitally important in improving my text.
8. I think that feedback provides clear direction on how to improve my text.
9. Feedback can be a valuable form of praise.
10. Feedback motivates me to improve my text.
11. I will usually reflect on others’ feedback.
12. I read the feedback carefully when my teacher or my fellow students provide it.
13. I pay careful attention to feedback on my text.

First vignette: Feedback from a peer with low expertise

As part of a course about sustainable development on the Master Programme of Energy and Environmental Sciences, Sacha is asked to complete the following assignment: “Explain in 200 or less words why people need to change their daily habits to diminish the impact of climate change and provide at least three suggestions to improve the current situation.”

Sacha submits the following answer:

“Nowadays, the discussion about climate change is high on the political agenda. More and more governments express their apprehension about the exploitation of natural resources and its impact on the economy. The environmental changes affect the quality of life. The air is polluted, forests are burning, icebergs are melting, and in some developing countries, there is a shortage of water. I am really worried about this situation.

I think that we should take steps to improve the situation so that future generations do not have to deal with the current problems. First of all, schools need to incorporate sustainable development into their curriculum to help students to understand the importance of the preservation of natural resources, and from an early age to adopt environmentally-friendly habits. Moreover, everyone should participate in recycling. It is important that companies use recyclable materials and that people are aware of the recycling process. Finally, car use should be reduced due to the high emission of harmful gases into the atmosphere. For this reason, the use of bicycles and other environmentally-friendly means of transport are welcomed.”

Afterwards, the lecturer creates pairs randomly and students are asked to provide feedback to a fellow student. Sacha is paired with a fellow student who generally performs less well compared to Sacha.

The fellow student gives Sacha the following feedback:

“I like your text. I think your arguments are well expressed, even though you need an explanation of how the examples you cite affect the environment and the quality of living. Although, I like your suggestions for saving natural resources and to improve the current situation, I would prefer examples focused on the protection of the environment and natural resources.”

For the close-ended questions a visual analogue scale will be used, where 0 = strongly disagree to 100 = strongly agree

1. I would be satisfied with this feedback.
2. I would consider this feedback fair.
3. I would consider this feedback satisfied.
4. I would consider this feedback useful.
5. I would consider this feedback helpful.
6. This feedback would provide me a lot of support.
7. I would accept this feedback.
8. I would dispute this feedback.
9. I would reject this feedback.
10. I would be willing to improve my performance.
11. I would be willing to invest a lot of effort to my revision.
12. I would be willing to work on further assignment of this type.
13. I would feel satisfied if I received this feedback.
14. I would feel confident if I received this feedback.
15. I would feel successful if I received this feedback.
16. I would feel offended if I received this feedback.
17. I would feel angry if I received this feedback.
18. I would feel frustrated if I received this feedback.

Second vignette: Feedback from a lecturer

As part of a course about sustainable development on the Master Programme of Energy and Environmental Sciences, Sacha is asked to complete the following assignment: “Explain in 200 or less words why people need to change their daily habits to diminish the impact of climate change and provide at least three suggestions to improve the current situation.”

Sacha submits the following answer:

“Nowadays, the discussion about climate change is high on the political agenda. More and more governments express their apprehension about the exploitation of natural resources and its impact on the economy. The environmental changes affect the quality of life. The air is polluted, forests are burning, icebergs are melting, and in some developing countries, there is a shortage of water. I am really worried about this situation.

I think that we should take steps to improve the situation so that future generations do not have to deal with the current problems. First of all, schools need to incorporate sustainable development into their curriculum to help students to understand the importance of the preservation of natural resources, and from an early age to adopt environmentally-friendly habits. Moreover, everyone should participate in recycling. It is important that companies use recyclable materials and that people are aware of the recycling process. Finally, car use should be reduced due to the high emission of harmful gases into the atmosphere. For this reason, the use of bicycles and other environmentally-friendly means of transport are welcomed.”

Afterwards, the lecturer gives Sacha the following feedback:

“You need to adopt a formal writing style. Do not include personal reflection statements. Also be careful with your arguments and how you support them. I am glad that you mention environmental disasters but you do not explain how these affect quality of human life and other organisms which live in these ecosystems. You need to elaborate more on explanation for the reasons and results of climate change.

Your suggestions to improve the current situation are well-documented. You refer to three measures that are directly related to daily life and can be implemented by governments and the majority of citizens. However, you should also address measures for the reduction of fossil fuels for example in favor of electric cars or wind farms”.

For the close-ended questions a visual analogue scale will be used, where 0 = strongly disagree to 100 = strongly agree

1. I would be satisfied with this feedback.
2. I would consider this feedback fair.
3. I would consider this feedback satisfied.
4. I would consider this feedback useful.
5. I would consider this feedback helpful.
6. This feedback would provide me a lot of support.
7. I would accept this feedback.
8. I would dispute this feedback.
9. I would reject this feedback.
10. I would be willing to improve my performance.
11. I would be willing to invest a lot of effort to my revision.
12. I would be willing to work on further assignment of this type.
13. I would feel satisfied if I received this feedback.
14. I would feel confident if I received this feedback.
15. I would feel successful if I received this feedback.
16. I would feel offended if I received this feedback.

17. I would feel angry if I received this feedback.
18. I would feel frustrated if I received this feedback.

Third vignette: Feedback from a peer with high expertise

As part of a course about sustainable development on the Master Programme of Energy and Environmental Sciences, Sacha is asked to complete the following assignment: “Explain in 200 or less words why people need to change their daily habits to diminish the impact of climate change and provide at least three suggestions to improve the current situation.”

Sacha submits the following answer:

“Nowadays, the discussion about climate change is high on the political agenda. More and more governments express their apprehension about the exploitation of natural resources and its impact on the economy. The environmental changes affect the quality of life. The air is polluted, forests are burning, icebergs are melting, and in some developing countries, there is a shortage of water. I am really worried about this situation.

I think that we should take steps to improve the situation so that future generations do not have to deal with the current problems. First of all, schools need to incorporate sustainable development into their curriculum to help students to understand the importance of the preservation of natural resources, and from an early age to adopt environmentally-friendly habits. Moreover, everyone should participate in recycling. It is important that companies use recyclable materials and that people are aware of the recycling process. Finally, car use should be reduced due to the high emission of harmful gases into the atmosphere. For this reason, the use of bicycles and other environmentally-friendly means of transport are welcomed.”

Afterwards, the lecturer creates pairs randomly and students are asked to provide feedback to a fellow student. Sacha is paired with a fellow student who generally performs better compared to Sacha.

The fellow student gives Sacha the following feedback:

“I like your text. I think your arguments are well expressed, even though you need an explanation of how the examples you cite affect the environment and the quality of living. Although, I like your suggestions for saving natural resources and to improve the current situation, I would prefer examples focused on the protection of the environment and natural resources.”

For the close-ended questions a visual analogue scale will be used, where 0 = strongly disagree to 100 = strongly agree

1. I would be satisfied with this feedback.
2. I would consider this feedback fair.
3. I would consider this feedback satisfied.
4. I would consider this feedback useful.
5. I would consider this feedback helpful.
6. This feedback would provide me a lot of support.
7. I would accept this feedback.
8. I would dispute this feedback.

9. I would reject this feedback.
10. I would be willing to improve my performance.
11. I would be willing to invest a lot of effort to my revision.
12. I would be willing to work on further assignment of this type.
13. I would feel satisfied if I received this feedback.
14. I would feel confident if I received this feedback.
15. I would feel successful if I received this feedback.
16. I would feel offended if I received this feedback.
17. I would feel angry if I received this feedback.
18. I would feel frustrated if I received this feedback.

Open-ended question

Would you be more inclined to process feedback from a teacher compared to feedback from a fellow student? Please explain why or why not. (max. 150 words)

Dutch version

Demografie

1. Wat is uw leeftijd?

2. Wat is uw geslacht?

- a) Mannelijk
- b) Vrouw
- c) Transgender
- d) Niet-binair / derde geslacht
- e) Zeg ik liever niet

3. Wat is uw nationaliteit?

4. Wat is uw huidige opleidingsniveau?

- a. Bachelor
- b. Master

5. Wat is de naam van uw universiteit?

6. Wat is uw faculteit?

Feedback Tolerantie Questionnaire

Voor de gesloten vragen wordt een visueel analoge schaal gebruikt, waarbij 0 = zeer mee oneens tot 100 = zeer mee eens.

1. Ik voel me gekwetst door corrigerende feedback.
2. Het is moeilijk om me over corrigerende feedback heen te zetten.
3. Ik voel me bedreigd door corrigerende feedback.
4. Corrigerende feedback is beschamend.
5. Corrigerende feedback kwetst me.

6. Corrigerende feedback is intimiderend.
7. Feedback is cruciaal om mijn tekst te verbeteren.
8. Feedback geeft richting aan hoe ik mijn tekst moet verbeteren.
9. Feedback kan een waardevolle blijk van waardering zijn.
10. Feedback spoort me aan om mijn tekst te verbeteren.
11. Ik denk na over feedback van anderen.
12. Ik kijk aandachtig naar de feedback van een klasgenoot of een docent.
13. Ik besteed zorgvuldig aandacht aan feedback op mijn tekst.

Eerste vignet: Feedback van een medestudent met weinig expertise

In het kader van een cursus over duurzame ontwikkeling in de masteropleiding Energie- en milieuwetenschappen wordt Sacha gevraagd de volgende opdracht uit te voeren: "Leg in 200 of minder woorden uit waarom mensen hun dagelijkse gewoonten moeten veranderen om de gevolgen van klimaatverandering te verminderen en geef ten minste drie suggesties om de huidige situatie te verbeteren."

Sacha geeft het volgende antwoord:

"Tegenwoordig staat de discussie over klimaatverandering hoog op de politieke agenda. Steeds meer regeringen spreken hun bezorgdheid uit over de exploitatie van natuurlijke hulpbronnen en de gevolgen daarvan voor de economie. De veranderingen in het milieu hebben gevolgen voor de kwaliteit van het leven. De lucht is vervuild, bossen branden, ijsbergen smelten, en in sommige ontwikkelingslanden is er een tekort aan water. Ik maak me echt zorgen over deze situatie.

Ik vind dat we stappen moeten ondernemen om de situatie te verbeteren, zodat toekomstige generaties niet met de huidige problemen te maken krijgen. In de eerste plaats moeten scholen duurzame ontwikkeling in hun curriculum opnemen om leerlingen het belang van het behoud van natuurlijke hulpbronnen te doen inzien, en van jongs af aan milieuvriendelijke gewoonten aan te leren. Bovendien moet iedereen meedoen aan recycling. Het is belangrijk dat bedrijven recyclebare materialen gebruiken en dat mensen zich bewust zijn van het recycleproces. Ten slotte moet het autogebruik worden teruggedrongen vanwege de hoge uitstoot van schadelijke uitlaatgassen in de atmosfeer. Daarom wordt het gebruik van de fiets en andere milieuvriendelijke vervoermiddelen toegejuicht."

Daarna maakt de docent willekeurige paren en wordt de studenten gevraagd om feedback te geven aan een medestudent. Sacha wordt gekoppeld aan een medestudent die over het algemeen minder goed presteert dan Sacha.

De medestudent geeft Sacha de volgende feedback:

"Ik vind je tekst goed. Ik vind dat je argumenten goed zijn verwoord, hoewel je moet uitleggen hoe de voorbeelden die je aanhaalt van invloed zijn op het milieu en de kwaliteit van leven. Hoewel ik je suggesties om natuurlijke hulpbronnen te sparen en de huidige situatie te verbeteren goed vind, zou ik liever voorbeelden zien die gericht zijn op de bescherming van het milieu en de natuurlijke hulpbronnen."

Voor de gesloten vragen wordt een visueel analoge schaal gebruikt, waarbij 0 = zeer mee oneens tot 100 = zeer mee eens.

1. Ik zou met deze feedback tevreden zijn.

2. Ik zou deze feedback als eerlijk ervaren.
3. Ik zou deze feedback als rechtvaardig ervaren.
4. Ik zou deze feedback als bruikbaar beschouwen.
5. Ik zou deze feedback als behulpzaam beschouwen.
6. Deze feedback zou mij veel ondersteuning bieden.
7. Ik zou deze feedback accepteren.
8. Ik zou deze feedback in twijfel trekken.
9. Ik zou deze feedback naast me neerleggen.
10. Ik zou bereid zijn om mijn prestatie te verbeteren.
11. Ik zou bereid zijn om veel inspanning in een herziening te investeren.
12. Ik zou bereid zijn om aan vervolgoedragen voor tekstherziening te werken.
13. Ik zou mij tevreden voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
14. Ik zou mij zelfverzekerd voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
15. Ik zou mij succesvol voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
16. Ik zou mij gekwetst voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
17. Ik zou mij geïrriteerd voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
18. Ik zou mij gefrustreerd voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.

Tweede vignet: Feedback van een docent

In het kader van een cursus over duurzame ontwikkeling in de masteropleiding Energie- en milieuwetenschappen wordt Sacha gevraagd de volgende opdracht uit te voeren: "Leg in 200 of minder woorden uit waarom mensen hun dagelijkse gewoonten moeten veranderen om de gevolgen van klimaatverandering te verminderen en geef ten minste drie suggesties om de huidige situatie te verbeteren."

Sacha geeft het volgende antwoord:

"Tegenwoordig staat de discussie over klimaatverandering hoog op de politieke agenda. Steeds meer regeringen spreken hun bezorgdheid uit over de exploitatie van natuurlijke hulpbronnen en de gevolgen daarvan voor de economie. De veranderingen in het milieu hebben gevolgen voor de kwaliteit van het leven. De lucht is vervuild, bossen branden, ijsbergen smelten, en in sommige ontwikkelingslanden is er een tekort aan water. Ik maak me echt zorgen over deze situatie.

Ik vind dat we stappen moeten ondernemen om de situatie te verbeteren, zodat toekomstige generaties niet met de huidige problemen te maken krijgen. In de eerste plaats moeten scholen duurzame ontwikkeling in hun curriculum opnemen om leerlingen het belang van het behoud van natuurlijke hulpbronnen te doen inzien, en van jongs af aan milieuvriendelijke gewoonten aan te leren. Bovendien moet iedereen meedoen aan recycling. Het is belangrijk dat bedrijven recyclebare materialen gebruiken en dat mensen zich bewust zijn van het recycleproces. Ten slotte moet het autogebruik worden teruggedrongen vanwege de hoge uitstoot van schadelijke uitlaatgassen in de atmosfeer. Daarom wordt het gebruik van de fiets en andere milieuvriendelijke vervoermiddelen toegejuicht."

Na afloop geeft de docent Sacha de volgende feedback:

“Je moet een formele schrijfstijl aannemen. Voeg geen persoonlijke reflecties toe. Wees ook voorzichtig met je argumenten en hoe je ze onderbouwt. Ik ben blij dat je milieurampen noemt, maar je legt niet uit hoe deze de kwaliteit van het menselijk leven en andere organismen die in deze ecosystemen leven, beïnvloeden. Je moet meer uitleg geven over de oorzaken en gevolgen van klimaatverandering.

Je suggesties om de huidige situatie te verbeteren zijn goed gedocumenteerd. Je verwijst naar drie maatregelen die rechtstreeks verband houden met het dagelijks leven en die door regeringen en de meeste burgers kunnen worden uitgevoerd. Je zou echter ook moeten ingaan op maatregelen ter vermindering van het gebruik van fossiele brandstoffen, bijvoorbeeld ten gunste van elektrische auto's of windmolenparken”.

Voor de gesloten vragen wordt een visueel analoge schaal gebruikt, waarbij 0 = zeer mee oneens tot 100 = zeer mee eens.

1. Ik zou met deze feedback tevreden zijn.
2. Ik zou deze feedback als eerlijk ervaren.
3. Ik zou deze feedback als rechtvaardig ervaren.
4. Ik zou deze feedback als bruikbaar beschouwen.
5. Ik zou deze feedback als behulpzaam beschouwen.
6. Deze feedback zou mij veel ondersteuning bieden.
7. Ik zou deze feedback accepteren.
8. Ik zou deze feedback in twijfel trekken.
9. Ik zou deze feedback naast me neerleggen.
10. Ik zou bereid zijn om mijn prestatie te verbeteren.
11. Ik zou bereid zijn om veel inspanning in een herziening te investeren.
12. Ik zou bereid zijn om aan vervolgoopdrachten voor tekstherziening te werken.
13. Ik zou mij tevreden voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
14. Ik zou mij zelfverzekerd voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
15. Ik zou mij succesvol voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
16. Ik zou mij gekwetst voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
17. Ik zou mij geïrriteerd voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
18. Ik zou mij gefrustreerd voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.

Derde vignet: Feedback van een medestudent met grote expertise

In het kader van een cursus over duurzame ontwikkeling in de masteropleiding Energie- en milieuwetenschappen wordt Sacha gevraagd de volgende opdracht uit te voeren: "Leg in 200 of minder woorden uit waarom mensen hun dagelijkse gewoonten moeten veranderen om de gevolgen van klimaatverandering te verminderen en geef ten minste drie suggesties om de huidige situatie te verbeteren."

Sacha geeft het volgende antwoord:

"Tegenwoordig staat de discussie over klimaatverandering hoog op de politieke agenda. Steeds meer regeringen spreken hun bezorgdheid uit over de exploitatie van natuurlijke hulpbronnen en de gevolgen daarvan voor de economie. De veranderingen in het milieu hebben gevolgen voor de kwaliteit van het leven. De lucht is vervuild, bossen branden, ijsbergen smelten, en in sommige ontwikkelingslanden is er een tekort aan water. Ik maak me echt zorgen over deze situatie.

Ik vind dat we stappen moeten ondernemen om de situatie te verbeteren, zodat toekomstige generaties niet met de huidige problemen te maken krijgen. In de eerste plaats moeten scholen duurzame ontwikkeling in hun curriculum opnemen om leerlingen het belang van het behoud van natuurlijke hulpbronnen te doen inzien, en van jongs af aan milieuvriendelijke gewoonten aan te leren. Bovendien moet iedereen meedoen aan recycling. Het is belangrijk dat bedrijven recyclebare materialen gebruiken en dat mensen zich bewust zijn van het recycleproces. Ten slotte moet het autogebruik worden teruggedrongen vanwege de hoge uitstoot van schadelijke uitlaatgassen in de atmosfeer. Daarom wordt het gebruik van de fiets en andere milieuvriendelijke vervoermiddelen toegejuicht."

Daarna maakt de docent willekeurige paren en wordt de studenten gevraagd feedback te geven aan een medestudent. Sacha wordt gekoppeld aan een medestudent die over het algemeen beter presteert dan Sacha.

De medestudent geeft Sacha de volgende feedback:

"Ik vind je tekst goed. Ik vind dat je argumenten goed zijn verwoord, hoewel je moet uitleggen hoe de voorbeelden die je aanhaalt van invloed zijn op het milieu en de kwaliteit van leven. Hoewel ik je suggesties om natuurlijke hulpbronnen te sparen en de huidige situatie te verbeteren goed vind, zou ik liever voorbeelden zien die gericht zijn op de bescherming van het milieu en de natuurlijke hulpbronnen."

Voor de gesloten vragen wordt een visueel analoge schaal gebruikt, waarbij 0 = zeer mee oneens tot 100 = zeer mee eens.

1. Ik zou met deze feedback tevreden zijn.
2. Ik zou deze feedback als eerlijk ervaren.
3. Ik zou deze feedback als rechtvaardig ervaren.
4. Ik zou deze feedback als bruikbaar beschouwen.
5. Ik zou deze feedback als behulpzaam beschouwen.
6. Deze feedback zou mij veel ondersteuning bieden.
7. Ik zou deze feedback accepteren.
8. Ik zou deze feedback in twijfel trekken.
9. Ik zou deze feedback naast me neerleggen.
10. Ik zou bereid zijn om mijn prestatie te verbeteren.
11. Ik zou bereid zijn om veel inspanning in een herziening te investeren.
12. Ik zou bereid zijn om aan vervolgoopdrachten voor tekstherziening te werken.
13. Ik zou mij tevreden voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
14. Ik zou mij zelfverzekerd voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
15. Ik zou mij succesvol voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
16. Ik zou mij gekwetst voelen, wanneer ik deze feedback op mijn herziening zou

- hebben gekregen.
17. Ik zou mij geïrriteerd voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.
 18. Ik zou mij gefrustreerd voelen, wanneer ik deze feedback op mijn herziening zou hebben gekregen.

Vraag met open einde

Zou je meer geneigd zijn om feedback van een docent te verwerken dan van een medestudent? Leg uit waarom wel of waarom niet. (max. 150 woorden)