Students' and Teachers' Perceptions on Formative Assessment and Teacher Feedback

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Abstract

Formative assessment and teacher feedback are both considered important in higher education. The formative assessment cycle facilitates implementing formative assessment, but teachers struggle with the fifth step in which follow-up actions lead to adaption in education and learning (Gulikers & Baartman, 2017). Comparative studies to students' and teachers' perceptions seem rare. This study compared perceptions of both on formative assessment strategies (Black & Wiliam, 2009, 2018) and teachers' feedback. In total 748 students (*M*age = 21.52, *SD*age = 2.18, age range: 17-39) and 75 teachers (*M*age = 45.97, *SD*age = 10.16, range = 26-64) of the Dutch Associate degree faculty of Avans University of Applied Sciences participated. The study found no significant differences in perceptions on formative assessment strategies but found significant differences in teachers' feedback. Teachers' scored higher in their perceptions of teachers' feedback than students. Sharing learning goals and criteria for success, expectations and the division of roles between the student, peers, and teachers, and how to value and process feedback seemed the most important differences. To conclude, the gap in perceptions needs to reduce before teachers' struggle with the fifth step of the formative assessment cycle can be reduced.

Keywords: formative assessment cycle, formative assessment strategies, teachers' feedback, students' and teachers' perceptions, associate degree.

Nationwide the awareness and use of new assessment forms seem to increase (Dochy et al., 2015; Gulikers & Baartman, 2017; Sluijsmans & Segers, 2018). This increasement also applies to formative assessment because of the widely supported belief of its positive effect on learning (Gulikers & Baartman, 2017). In line with the continued development of assessment, the focus on skills and competence increased (Dochy et al., 2015), which is supported by educational scientists and by an increasing number of educational institutions (Sluijsmans & Segers, 2018).

Although raising awareness and implementation, good qualitative implementation seems to be rare. Sluijsmans and Segers (2018) argue that there appears to be a gap between educational scientists' aims and educational institutions' practices. Gulikers and Baartman (2017) introduced the formative assessment cycle to help teachers implement formative assessments in practice. A five-phase model focused on teachers' approach within the class concerning formative assessment. The ongoing process starts by (1) clarify expectations, (2) elicit and collect student responses, (3) analyze and interpret responses, (4) communicate with students about results, and (5) follow-up actions that lead to adaption in education and learning. An interesting finding is the struggle teachers seem to have with the fifth and final step of the cycle. A crucial step in which teachers guide students in applying received feedback. To do this, they should adapt their education, which they find hard to do (Gulikers & Baartman, 2017). Limited studies describe concrete examples of effective formative test environments upon which teachers base their follow-up actions by analyzing students' behavior from which weaknesses and misconceptions derive (Gulikers & Baartman, 2017).

A simultaneous development is the integration of feedback and better use of it (Dochy et al., 2015; Sluijsmans & Segers, 2018). Questions arise about how students should process feedback and how teachers should guide this process. Students experience feedback as insufficient, given at the wrong time, challenging to understand, and sometimes as

discouraging (Winstone et al., 2016). Teachers experience feedback as causing problems or additional work and complain about the workload (Winstone & Carless, 2019). There is a growing belief that teachers and students should share responsibility in processing feedback (Nash & Winstone, 2017).

This study will focus on the misconceptions concerning students and teachers. This to gain insights into differences between both and their perceptions and reveal focus areas. These focus areas could help better understand the struggle teachers seem to have with the fifth and final step of the formative assessment cycle of Gulikers and Baartman (2017). The study will contribute to the field of educational sciences by gaining broader insights into perceptions of students and teachers of formative assessments and feedback. In practice, these insights should help teachers guide students and help them adapt their educational practices. Simultaneously, it should help students during formative assessments in handling and processing teachers' feedback. This study aims to compare different perceptions of students and teachers of formative assessment strategies and teacher feedback.

Theoretical Framework

Formative Assessment

Assessment is a tool to guide and measure student performance, mainly done by formative and summative assessments. Summative assessment is testing with a qualifying position, typically assessed with a grade. Whereas formative assessment describes where the learners are going to, where they are now, and how they get there by following their progression, not necessarily rewarded with a grade (Hattie & Timperley, 2007; Wiliam, 2011). The increased focus of formative assessment and its importance originates from the widespread belief of feedback's usefulness (Sluijsmans & Segers, 2018). The use of formative assessment increased because of the expectation of its positive influence on students' learning (Gulikers & Baartman, 2017).

Formative assessment strategies. Black and Wiliam (2009, 2018) took a closer look at formative assessment and distinguished two dimensions as formative assessment aspects. The first dimension they describe is the one that provides a better theoretical grounding for formative assessment. They make three distinctions: (a) establishing where the learners are in their learning, (b) establishing where they are going, and (c) establishing what needs to be done to get them there. The second aspect describes the main actors. Again, three distinctions are made: (a) teachers, (b) students, and (c) peers. The teacher is responsible for designing and implementing an effective learning environment, whereas the learner is responsible for learning in the teacher's learning environment. Both carry equal responsibility for learning and, therefore, equal responsibility to mitigate the impact of each other's possible failures (Black & Wiliam, 2009).

By combining both dimensions, a framework of five key strategies of formative assessment arose: (1) clarifying and sharing learning intentions and criteria for success, (2) creating effective classroom discussions and other learning tasks that elicit evidence of student understanding, (3) providing feedback that moves learners forward, (4) activating students as instructional resources for one another, and (5) activating students as the owners of their learning process. Each strategy describes activities as means of enacting these five key strategies. Sharing success criteria with learners helps implement the first strategy, query and classroom discussion the second, comment-only making the third, and peer and self-assessment the fourth and fifth. Finally, the formative use of summative tests helps students and their peers with their learning. This means students learn through summative assessments as they serve as feedback that moves learning forward (Black & Wiliam, 2009).

Feedback

For this study, feedback is defined by the definition of Boud and Molloy (2013). They describe feedback as “a process whereby learners obtain information about their work to

appreciate similarities and differences between appropriate standards of any given work and qualities of the work itself, in order to generate improved work" (p. 6). The definition consists of two aspects, (a) feedback shows the possible gap between performance shown and performance expected, and (b) feedback is a process that should lead to better results.

Formative feedback. Like assessment types, feedback is also distinguished in formative and summative feedback (Jaspers & Van Zijl, 2014). Characteristics of summative feedback refer to learners' capabilities and if they master specific knowledge after the learning process. Is the learner capable of, yes or no? Formative feedback refers to the process and the direct, or periodic, communication of the learner's feedback. The feedback intends to modify thinking or behavior to improve learning. What does the student know, and what does he or she not know (Jaspers & van Zijl, 2014). Formative feedback is characterized by nonevaluative, supportive, timely, and specific (Shute, 2008). According to Shute (2008), formative feedback presents itself usually as information to the learner in response to some action on the learner's part, which comes in various types. For example, verification of response accuracy, explanation of the correct answer, hints, worked examples.

Teachers feedback. As a core element, learning builds on constructive feedback about the learning process (Ros et al., 2020). Different stakeholders and forms of feedback such as the teachers' feedback, and peer feedback or self-assessment, may contribute to this process. Hattie and Timperley (2007) developed a model of teacher feedback. According to them, teachers' feedback is information provided by a teacher regarding aspects of the learners' performance or understanding. The model of Hattie and Timperley helps to enhance learning by use of feed up, feed back and feed forward. Feed up contains information about the goals to be achieved and evaluation criteria. Feed back has information about the learner's position in his/her learning process and answers questions such as which progress did he/she made and which prior knowledge or abilities do they already master? Finally, feed forward,

which contains information and specific directions for the future learning process. The model aims to reduce the discrepancy between someone's understanding and the desired goal, influenced by the student him/herself or with some help from the teacher (Hattie & Timperley, 2007).

Feedback perceptions. Narcis (2008) described perception as a filtering and fragmenting process affected by our interests and needs. Feedback perception is the way learners and teachers experience feedback. To benefit from feedback, learners should perceive the importance of feedback's corrective nature, and they should not differ in their perception with their teacher (Amrhein & Nassaji, 2010). Earlier studies already reported considerable gaps in knowledge and expectations regarding effective feedback between academics and students. If there is a gap in expectations and practice, students' dissatisfaction and teachers' frustration seems to increase (O'Brien & Sparshatt 2008).

Few studies compared perceptions of feedback of students and teachers. Research by Mulliner and Tucker (2015) investigated the contrast between academics' and students' perspectives on several practical aspects of feedback. To identify divergence in both views and examine potential gaps that could help determine where to put emphasis to improve feedback practice. They found significant differences in perception between academics and students on students' engagement and interest in feedback ($p<.05$) and satisfaction on feedback practice ($p<.05$). Contrary to what researchers expected and teachers felt, they found that students' perception of only being interested in grades was false. To conclude, academics believed their feedback was more useful, fair, understandable, constructive, encouraging, and detailed than what students felt.

Mulliner and Tucker (2015) found similarities in perceptions of feedback quality. Both students and teachers had a consistent view concerning the quality of feedback and what this should entail. Most academics and students felt feedback should be timely, constructive,

encouraging, provide feed-forward, be linked to a marking scheme and be specific of the work's failings. A study by Doan (2013) found similar results. They found students' willingness to receive and process teachers' feedback. The teacher's quality of feedback and guidance significantly encourages them to act and enhance their learning in general.

Present study

By combining the information about formative assessment strategies and feedback perception, the question arises: To what extent do students and teachers differ in their perceptions of formative assessment strategies and feedback perceptions? The current study hypothesizes that:

1. Students' and teachers' perceptions of the use of formative assessment strategies align.
2. Students' and teachers' perceptions of teachers' feedback differ.

Method

Research Design

The study adopted a descriptive quantitative survey research approach. This because of the use of questionnaire surveys conducted with both students and teachers of Avans University of Applied Sciences. Additionally, this study conducts exploratory research to understand the differences between students' and teachers' perceptions of formative assessment strategies and teacher feedback.

Participants

All participants studied or worked at Avans Academie Associate degrees (AAAd), an academy consisting of 12 courses, +/-1400 students, and +/-100 teachers. According to The Dutch Qualifications Framework, associate degree education is a 2-year higher educational course classified as level 5 (Het Nederlands Kwalificatieraamwerk, n.d.). In total 748 students participated (M_{age} = 21.52, SD_{age} = 2.18, age range: 17-39, 384 males, 361 females and 3

neutral.) representing all 12 courses. All classes of academic year 1 participated (M_{age} = 21.14, SD_{age} = 2.04, age range: 17-39, 275 males, 209 females and 2 neutral) and almost all classes of academic year 2 (M_{age} = 22.21, SD_{age} = 2.27, age range: 18-38, 109 male, 152 female and 1 neutral). Only second-year students of the educational courses Ad-Business and Ad-Informatica did not participate. From the student groups approached, 6% participated physically, 83% online via Teams, and 11% via email. The number of participants over the total attendees differed notably from 94% physically, 83% online via Teams, and only 13% via email.

In total 75 teachers participated, of which 62 unique (M_{age} = 45.97, SD_{age} = 10.16, age range: 26-64, 36 males and 26 females). 13 teachers participated twice, once in academic year 1 and once in academic year 2. 27 teachers of academic year 1 (M_{age} = 44.30, SD_{age} = 10.64, age range: 29-64, 16 males and 11 females), and 48 teachers of academic year 2 (M_{age} = 46.52, SD_{age} = 9.57, age range: 26-63, 27 males and 21 females). All teachers approached participated, both physically, online via Teams, and via email.

Instruments

Data are collected through a survey composed of questionnaires used in earlier studies of Leenknecht et al. (2020) and parts of the Assessment Experience Questionnaire (AEQ) of Gibbs and Simpson (2003), see appendix A and B. The study of Leenknecht et al. used a Dutch student version of the Assessment for Learning - Data-Based Decision-Making questionnaire of Kippers et al. (2018). This questionnaire originally consists of 33 items divided over five constructs. Constructs two to five includes the five dimensions of the formative assessment strategies of Black and Wiliam (2009) and showed acceptable reliability (scale two, sharing learning intentions and success criteria, a = .76, scale three, asking questions and classroom discussion, a = .83, scale four, feedback, a = .81, and scale five, peer and self-assessment, a = .82) (Kippers et al., 2018). These four scales of formative assessment

strategies represent the first four measures of this study, and each measure consists of five or six operationalizations.

The AEQ questionnaire helps to diagnose how well the assessment supports the learning of students (Gibbs & Simpson, 2003). The original questionnaire consists of six constructs, with each five or six items as operationalizations. Scales three, four, and five are of interest for this study because they explicitly ask for students' perceptions about teacher feedback. All these scales showed acceptable reliability (scale three, quantity and timing of feedback, a = .87, scale four, quality of feedback, a = .77, and scale five, what you do with the feedback, a = .74) (Gibbs & Simpson, 2003). The third measure, feedback (interpretation), is complemented by these three extra measures to measure teachers' feedback. Each of these measures contains six operationalizations. To conclude, the student survey items are rephrased to the teachers' condition to be able to compare teachers and students.

The questionnaires are distributed using Qualtrics (Version February 2021). Storage of the data that resulted from the questionnaires is kept in an online environment on the faculty server to guarantee participants' privacy. The questionnaires were presented in Dutch, the native language of most students.

Procedure

Before data collection, the Ethics Review Board of the Faculty of Social & Behavioral Sciences (FERB) approved the research proposal. Prior to this, a pilot study was performed consisting of 33 students and two teachers. Feedback and analysis of items Fint4, Fquan6, Fqual1, and PASA1 led to a specification of these items and the removal of the answer option ‘I do not know’ for all items. The removal of this answer option should prevent data from not being interpretable because participants choose this answer option too often.

The study used convenience sampling to find participants, depending on the teachers' willingness to participate. This resulted in 49 conductions of the survey, eight physically (at

the educational institution) and 41 via Microsoft Teams. Each time the researcher took approximately 5 minutes to introduce himself, the purpose of the research, and explain conditions such as voluntary and anonymous participation. Within this explanation, the researcher explicitly mentioned filling the questionnaire from the perspective of the subject and teacher. Afterward, students were asked to fill in the questionnaire and received 10 to 15 minutes to do so. Students received the hyperlink from participating via their student email accounts in the physical setting, or they could participate by scanning a QR-code on the presentation screen. Students who participated via Teams received the hyperlink in the chat menu and could scan the QR-code from the presentation screen. Teachers received an email with a hyperlink and QR-code, which differed from the student questionnaire.

The questionnaire asked for informed consent and demographics, gender, age, and pre-education. Teachers were asked to fill in their names in order to be able to link students' and teachers' questionnaires, and names were immediately anonymized. The researcher in the background linked demographics about the course, subject, class, academic year, and teacher. The questionnaire consisted of 40 statements (see appendix A and B), participants had to indicate to what extent they agree based on a 5-point Likert scale ranging from 1 (almost) never to 5 (almost) always. Answers of students' and teachers' are compared on their perception about using formative assessment strategies and teachers' feedback.

Analytical Approach

Data were inspected before analysis. This resulted in the removal of 115 student surveys. Students disagreed on informed consent (n = 20), did not complete the survey (n = 73), or did not enter the right teacher (n = 23). Surveys of students and teachers were combined into one data file. During data analysis, the original questionnaire of Gibbs and Simpson (2003) seemed outdated. Gibbs and Dunbar-Goddet (2007) continued developing the AEQ, which resulted in removing 12 items. This development led to merging measures

feedback quantity and feedback quality into one measure, feedback quantity and quality consisting of 3 items, and the downsizing of the measure feedback use to 3 items (see appendix C). Eventually, scores of operationalizations added to create dependent variables which correspond to the four measures of formative assessment strategies: (1) sharing learning goals and criteria for success, (2) query and classroom discussion, (3) feedback interpretation, (6) peer and self-assessment, and two measures of teachers' feedback: (4) feedback quantity and quality, and (5) feedback use. Independent t-tests measured the hypotheses based on a 95% confidence interval of the difference and the individual measures of formative assessment strategies and teachers' feedback based on a 99% confidence interval (Bland & Altman, 1995). No assumptions were violated. To conclude, clustered bar graphs were composed to compare scores of educational courses with the overall findings.

Results

Two hypotheses guided this research: (1) students' and teachers' perceptions of the use of formative strategies align, and (2) students' and teachers' perceptions on teachers' feedback differ. Results concerning reliability are shown in table 1. The analysis focuses on the differences between students and teachers.

Table 1.

Cronbach's Alpha scores for each measure

Measure	**Name**	***α-original***	***α*-students**	***α*-teachers**
1	Sharing learning goals and criteria for success	.76	.78	.73
2	Query and classroom discussion	.83	.75	.63
3	Feedback (interpretation)	.81	.79	.69
4	Feedback Quantity and Quality	.61	.65	.69
5	Feedback use	.70	.64	.69
6	Peer- and self-assessment	.82	.77	.77

Hypothesis 1: Formative Assessment Strategies

The first hypothesis concerned the possible alignment between students' and teachers' perceptions of formative assessment strategies. It is shown that the average perception of formative assessment strategies of students (M = 59.52; SD = 12.64) and teachers (M = 59.05; SD = 10.23) did not significantly differ (t [98.13] = 0.37; p = .71). Therefore perceptions of students and teachers regarding formative assessment strategies hardly differ, and confirmation of hypothesis 1 is plausible. This indicates students and teachers most likely align in their perceptions of formative assessment strategies.

Figure 1 shows the perceptions of students and teachers on the four measures of formative assessment strategies (FAS), divided over the 12 different educational courses. A closer look at figure 1 tells us that the perceptions of students and teachers over the different types of educational courses match, except for Ad-Informatica. The limited number of students (n = 13) and teachers (n = 1) explains the exception. Therefore estimate means are

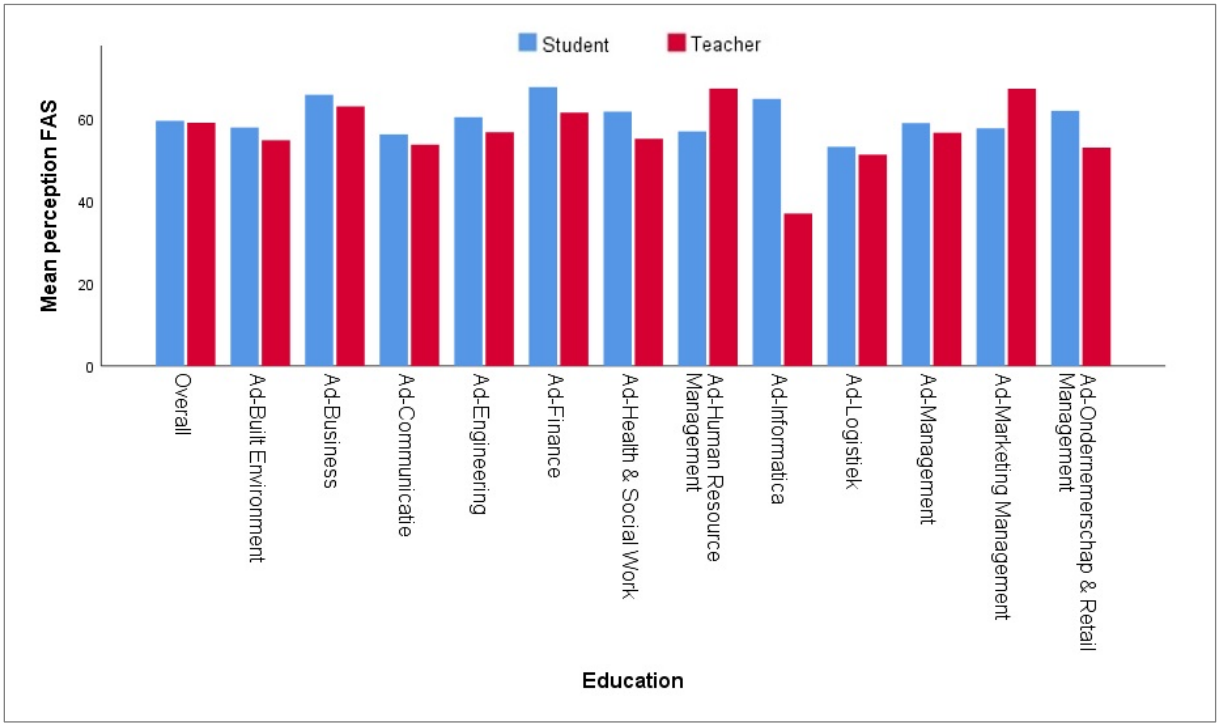

Figure 1. Mean perceptions of students and teachers of each educational course of all four measures of formative assessment strategies.

not accurate. In most cases, students score slightly higher than teachers, except for Ad-Human Resource Management and Ad-Marketing Management. This means that students are more positive in their perception of formative assessment strategies than teachers. To conclude, generally, the figure illustrates the overall finding in which students' and teachers' perceptions of formative assessment strategies are closely related.

Taking a closer look at the measures of formative assessment strategies gives a nuanced view. Table 2 shows the mean scores of students' and teachers' perceptions for each measure of formative assessment strategies. On the first measure, sharing learning goals and criteria for success, scores of students' and teachers' perceptions differed significantly with a small effect (t [821] = 2.63; $p < .01$, $d = .32$). Students are more positive in their perception of sharing learning goals and criteria for success than teachers. This means students and teachers differ in their perceptions of sharing learning goals and criteria for success. Students experience more than teachers think they give. On the second measure, query and classroom discussion, scores of perceptions of students and teachers did not significantly differ (t [101.74] = .55; $p = .58$). Meaning that students' and teachers' perceptions almost equal and therefore do not differ in their perceptions of query and classroom discussion.

Table 2.

Mean scores on four measures of formative assessment strategies

	Students (n = 748)		Teachers (n = 75)					
	M	*SD*	*M*	*SD*	*df*	*t*	*p*	Cohen's *d*
LGCS	11.28	3.05	10.32	2.82	821	2.63	.009	.32
QCD	14.70	4.11	14.48	3.12	101.74	0.55	.582	.05
Fint	14.00	4.14	13.27	3.23	100.04	1.83	.071	.18
PASA	19.54	4.80	20.99	4.43	821	-2.50	.013	.30

Also on the third measure, feedback interpretation, students' and teachers' perceptions did not significantly differ (t [100.04] = 1.83; $p = .07$). Meaning that students and teachers

almost equal and therefore do not differ in their perceptions of feedback interpretation. Finally, the fourth measure, peer and self-assessment, showed no significant difference (t [821] = -2.50; p = .01) in perceptions of students and teachers. This would mean that students and teachers do not differ in their perception of peer assessment and self-assessment. Despite the non-significant difference, the p-value almost showed significance. This indicates the plausibility of a difference in which teachers' perceptions are more positive than those of students. To conclude, measures query and classroom discussion, feedback interpretation, and peer and self-assessment contribute positively to the overall finding of hypothesis 1. Measure sharing learning goals and criteria for success does not support this finding.

Hypothesis 2: Teachers' Feedback

The second hypothesis hypothesized that students' and teachers' perceptions of teachers' feedback differ. It is shown that the average perception of students (M = 12.03; SD = 3.21) and teachers (M = 14.00; SD = 2.90) of teachers' feedback significantly differs with a medium effect (t [821] = -5.12; $p < .001$, d = .62). Teachers are more positive in their perception of teachers' feedback than students. This indicates overestimating by the teachers when it comes to feedback quality, quantity, and use. Because of this significant difference between both groups, the second hypothesis is confirmed. This means that students and teachers are not in agreement with their perceptions of teachers' feedback.

Figure 2 shows the perceptions of students and teachers of the two measures of teacher feedback (TFB), divided over the 12 different educational courses. A closer look at figure 2 tells us that the perception of students and teachers over the different types of educational courses is similar to one another, except for Ad-Informatica. The limited number of students (n = 13) and teachers (n = 1) explains the exception. Therefore estimate means are not accurate. In all cases, except for Ad-Informatica, teachers scored higher than students. This means that teachers are more positive in their perception of feedback quality, quantity, and

use than students. To conclude, generally, the figure illustrates the overall finding in which students' and teachers' perception of teacher feedback differs.

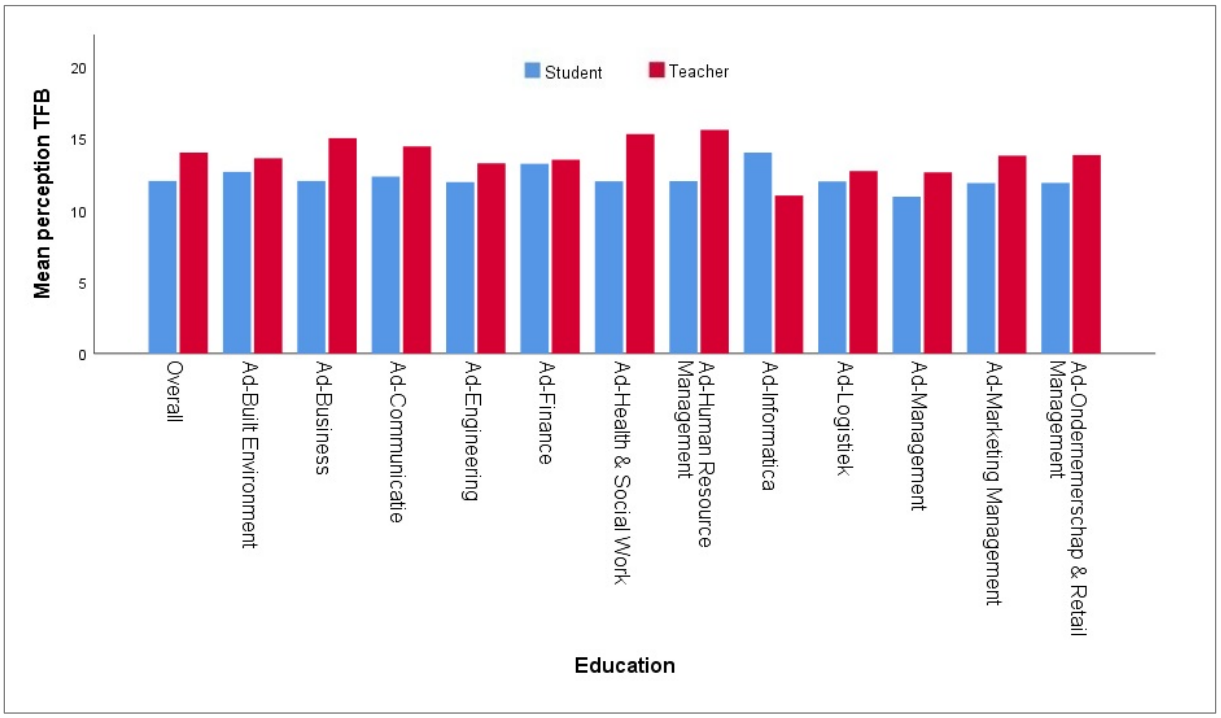

Figure 2. Mean perceptions of students and teachers of each educational course of the two measures of teachers' feedback.

The measures concerning this second hypothesis also give us a nuanced view. Table 3 shows the mean scores of students and teachers for each measure of teachers' feedback. Measure feedback quantity and quality showed no significant difference of students' and teachers' perceptions (t [821] = .51; p = .61). Meaning that students' and teachers' perceptions almost equal and therefore do not differ in their perceptions of feedback quantity and quality. Measure feedback use showed a significant difference of students' and teachers' perceptions with a large effect (t [821] = -8.25; p < .001, d = 1.00). Teachers are more positive in their perception of feedback use than students. This means students and teachers differ in their perceptions of feedback use. Teachers overestimate the useability of their feedback and the way students make use of it. To conclude, measure feedback use contributes positively to the

overall finding of hypothesis 2, whereas measure feedback quantity and quality does not support this finding.

Table 3.

Mean scores on two measures of teachers' feedback

	Students (n = 748)		Teachers (n = 75)					
	M	*SD*	*M*	*SD*	*df*	*t*	*p*	Cohen's *d*
FQaQ	5.63	2.27	5.49	2.06	821	.51	.614	.06
Fuse	6.39	2.11	8.51	2.11	821	-8.25	<.001	1.00

Discussion

The current study investigated students' and teachers' perceptions of formative assessment strategies and teachers' feedback. This to find answers on how to reduce the gap in the struggle teachers have with the fifth step of the formative assessment cycle of Gulikers and Baartman (2017). The following paragraphs discuss the findings, implications, limitations and make suggestions for future research.

Hypothesis 1: Formative Assessment Strategies

The first hypothesis studied students' and teachers' perceptions about using formative assessment strategies and presumed they would align. Results showed no significant difference between the perceptions of students and teachers, which implies that students and teachers most likely align in their perceptions of formative assessment strategies. However, taking a closer look at each measure of these formative assessment strategies results in some nuances. Measures query and classroom discussion, feedback interpretation, and peer and self-assessment match results found. In which it is essential to note that peer and self-assessment nearly showed a significant difference. Measure sharing learning goals and criteria for success does not show similarities with the overall finding. It shows significant differences

in students' and teachers' perceptions of sharing learning goals and criteria for success, in which students score higher than teachers.

To better understand these results, a closer look at figure 3 could help. A notable finding is that on four of the six measures of formative assessment strategies and teacher feedback, students scored higher on average. This applies to three out of four measures of formative assessment strategies, sharing learning goals and criteria for success (LGCS), query and classroom discussion (QCD), and feedback interpretation (Fint). Especially the findings on sharing learning goals and criteria for success stand out. These differed significantly, where students' perceptions exceed those of teachers. This implies that students are well informed about what they are learning, how this is connected to the bigger picture, and what the requirements are. Additionally, this implies that students recognize the use of sharing of learning goals and criteria for success more often than what teachers indicate they use. This could mean what students recognize as sharing of learning goals and criteria for success is wrong, or teachers are unaware of the amount they use.

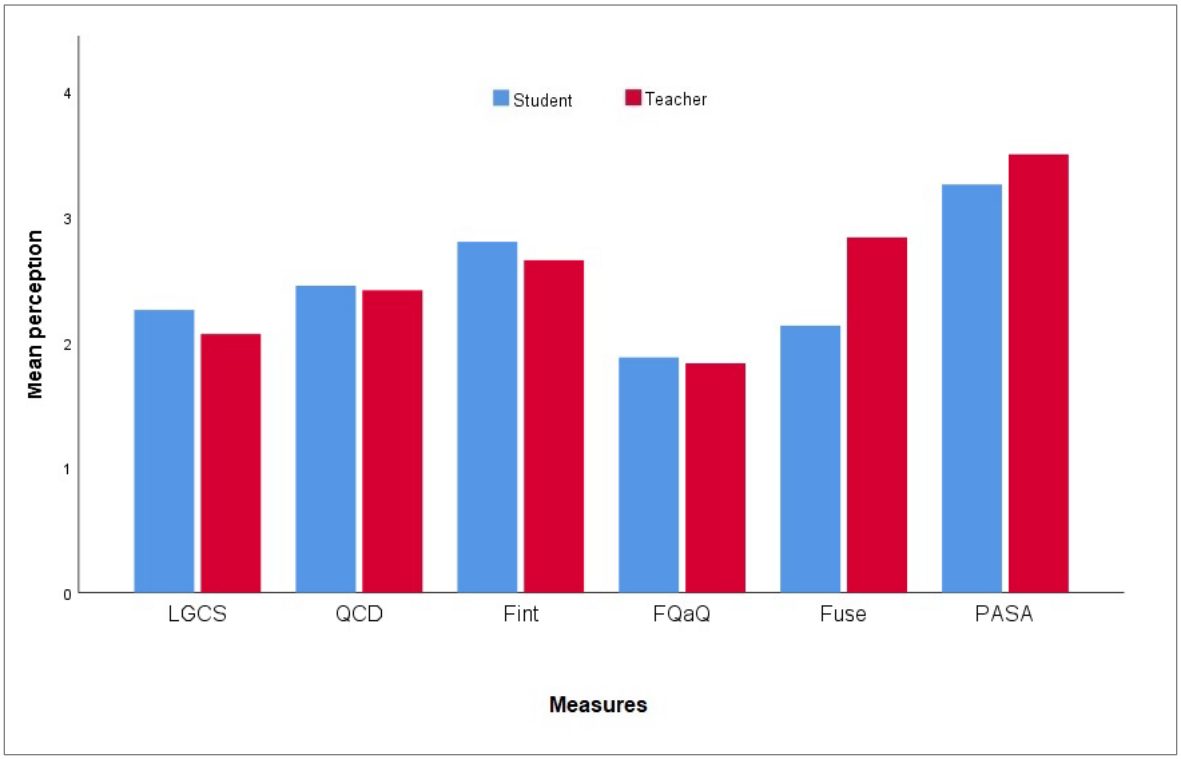

Figure 3. Mean scores for each measure.

To conclude, a difference in perception is there, but the consequences of this difference seem positive. Therefore the recommendation is not to change anything. Ideally, teachers' awareness of their activities should grow as it most likely improves their education. However, unaware teachers use activities connected to sharing learning goals and criteria more often, so they perform better than they think. This difference should remain as students are satisfied, and changes or less effort of teachers risks that the difference reduces.

The findings on query and classroom discussion align with the study of Mulliner and Tucker (2015), who also found equal perceptions of students and teachers about the effectiveness of group feedback and peer evaluation/discussion. However, these results do not support the notable but not significant difference in perceptions of students and teachers on peer and self-assessment. One possible explanation for this difference is the different focus within the questionnaire of the same subject. Mulliner and Tucker primarily focus on preferences and effectiveness in communication and the usefulness of group and peer feedback. In contrast, this study focuses on a broader perspective by adding the amount, resources, and application of peer and self-assessment. Differences in expectations and the division of roles between the student, peers, and teachers stood out. This indicates unequal expectations between students and teachers as it comes to peer and self-assessment.

Finally, the overall findings showed that formative assessment strategies hardly differ, which makes no differences in students' and teachers' perceptions of formative assessment strategies plausible. The study assumed that reducing the gap in perceptions leads to a better understanding of students and teachers. Eventually, this could reduce the struggle teachers have with the fifth and final step of the formative assessment cycle of Gulikers and Baartman (2017). However, with no gap found, answers to reduce a gap and eventually reduce the struggle should not be found here. A remark to be made is the difference in perception of the measure peer and self-assessment. Teachers' perceptions scored higher than those of students,

in which differences in expectations and division of roles between the student, peers, and teachers stood out. Although no significant difference, reduction seems evident for making progress.

Hypothesis 2: Teachers' Feedback

The second hypothesis studied students' and teachers' perceptions of teachers' feedback and presumed they would differ. Results showed a significant difference between the perceptions of students and teachers of teachers' feedback. Teachers' perceptions scored higher than those of students, which supports the second hypothesis. Taking a closer look at the measures concerning teachers' feedback leaves us with some nuances. It was found that the measure feedback quantity and quality did not significantly differ. This means students and teachers do not differ in their perception of feedback quantity and quality. Although it does not support the overall assumption of the second hypothesis, it corresponds with results found by Mulliner and Tucker (2015). They also found that students' and teachers' perceptions of feedback quality aligns.

The perceptions of the second measure, feedback use, significantly differed. Teachers' perceptions scored higher than those of students, which aligns with the second hypothesis. Previous research by Mulliner and Tucker (2015) found similar differences between both on feedback use, and a study by Sluijsmans and Segers (2018) referred to similar results showing students do not know what to do with feedback received from teachers.

As seen in figure 3, the results of feedback quantity and quality (FQaQ) do indeed correspond, and perceptions hardly differ to say something about it. No gap is found; students and teachers have similar perceptions. Figure 3 also shows differences in students' and teachers' perceptions of feedback use, in which teachers scored higher than students. Teachers believe their feedback is more useful in comparison to what students experience. What stands out is that teachers think students read their feedback more carefully, and they think students

use their feedback more often to find out what went wrong. A gap in perceptions is visible and hinders the needed cooperation between both (Gulikers & Baartman, 2017) from correctly applying the feedback. The difference found in feedback use is no surprise. Earlier studies such as those of Mulliner and Tucker (2015) also found these differences. Teachers seem to overestimate their amount and value of feedback.

To conclude, the overall finding supports the hypothesis, students' and teachers' perceptions of teachers' feedback differ. This does not benefit the process of collaboration between both. Amrhein and Nassaji (2010) and Nash and Winstone (2017) describe the importance of shared responsibility and the importance of no differences between students' and teachers' perceptions to benefit the most from feedback. The results found aligns with the study of Mulliner and Tucker (2015). They also found differences in students' and teachers' perceptions on engagement, interest, and usefulness of feedback.

Implications

This study gained insight into the understanding of similarities and differences in perceptions of students and teachers of formative assessment strategies and teachers' feedback. The most valuable contributions are the differences in sharing of learning goals and criteria for success, peer and self-assessment, and feedback use. The difference found in sharing learning goals and criteria for success is notable because of its direction. Students scored higher than teachers in their perceptions. Because of the direction and the positive effects, the advice is not to change anything.

Additionally, there is a difference in perceptions of students and teachers of peer and self-assessment. The lack of clarity in the division of roles between the student, peers, and teachers and what to expect from each other stood out. Therefore the advice is to establish roles and expectations in consultation with both students and teachers. This will help teachers guide students and students with processing feedback (Gulikers & Baartman, 2017;

Sluijsmans & Segers, 2018). Feedback dialogue could help as it fundamental to successful learning and teaching (Nicol, 2010). The advice is to stimulate the conversation and debate about feedback.

Finally, the differences in feedback use. In particular, how to value and process feedback. In order to maximize the potential of feedback and reduce the struggle of teachers with the fifth step of the formative assessment cycle (Gulikers & Baartman, 2017), the advice is to create a shared method on how to value and process feedback (Sluijsmans & Segers, 2018). Yet again, feedback dialogue and the stimulation of conversation and debate about feedback could help (Nicol, 2010).

Former studies found differences in which teachers scored higher than students. This study did not support these findings and showed higher scores of students at four out of six measurements. Although not all of these are significant, the findings contradict the general view and encourage the importance of the continuation of studying both groups and their perceptions on formative assessment strategies and teachers' feedback. To conclude, the study and its insights contribute to the professionals in the field of education and the social and societal domain. The size of the group and the specific focus on associate degree education help understand this particular group of students and the similarities and differences between them and the teachers in practice.

Limitations

Although this study contributed to insights into students' and teachers' perceptions of formative assessment strategies and teachers' feedback, the study is not without limitations. Some students and teachers said it was hard to answer statements about assignments and feedback because they did not have formal submissions yet. Therefore, they struggled to find the correct answer, and they had to answer something they had not experienced yet. This is a limitation because the value of an answer given is questionable. At the same time, this insight

is valuable because it contributes to the understanding of students' and teachers' interpretation of formative assessment and feedback. Both groups indicate they are only conscious of using feedback in a formal setting, such as a test or assignment. Future studies could prevent this from happening by explaining the definition of feedback in detail or by reconsidering adding the answer option ‘I do not know’ or ‘not applicable’.

Deliberately the answer option ‘I do not know’ was omitted because the pilot showed students and teachers did not understand the question or they chose this answer option too often. A multiplicity of these answers complicates data interpretation because of unambiguous answers. As a result, it is not possible to state with certainty what results mean. Despite this modification, the same problem occurs in the current data file. Some students and teachers gave feedback during data collection that they did not know how to answer a particular statement. Because they had to answer, they chose the middle option or one of the extremes. It is questionable to what extent this occurred and how this influences differences found.

The content of the questionnaire used and analyzed differed. The questionnaire consisted of 40 statements. Eventually, 28 were analyzed. A more thorough literature study could have prevented this reduction of 12 statements from happening. Although this does not limit the study directly, it could have increased the number of valid surveys. The measures feedback quantity, quality, and use were deliberately added in advance. Although this seemed like an enrichment of the measure of feedback, it disrupted the analysis. The measure of feedback and its specifications showed some similarities. This resulted in complex comparisons with previous studies and hampered drawing clear conclusions. As a final remark, it is essential to state that this study has been performed during the covid-19 pandemic. It remains to be seen whether education within normal circumstances leads to other findings. In this particular case, most education was remotely given and attended via Microsoft Teams or in a mix of online and offline education.

Future Research

In order to reduce the struggle of teachers performing the fifth and final step of the formative assessment cycle (Gulikers & Baartman, 2017), two recommendations for future research are made. Future research should focus on reducing the gap in perceptions of students and teachers of peer and self-assessment and feedback use. Additionally, the contrasting results in sharing learning goals and criteria for success need further examination.

As concluded, students and teachers should create a shared method on how to value and process feedback. The gap in perceptions of the use of feedback is notable as students outscore teachers when it comes to sharing learning goals and criteria for success. This suggests students know what they are doing, and they know when something is sufficient, but they do not experience teachers' feedback as useful. This is a strange difference as it shows the discrepancy between what they think they should learn and what they are actually learning. Further research should question why the gap in perception in feedback use occurs and if the difference in perception of sharing learning goals and criteria for success influences these findings. Additionally, further research should question what we can learn from the difference in sharing learning goals and criteria for success and if this can contribute to a better performance of the formative assessment cycle.

Also, the definition of feedback is of interest. Results show, and sometimes comments during data collection of students and teachers, indicate differences between students and teachers in their definition of feedback. Especially students seem to consciously experience feedback in a formal setting like projects, assignments, or tests, rather than the entire period in which formative assessment and its' strategies are applied. If both students and teachers differ in their definition of feedback, a difference in perception is easily declared. Future research should examine how both students and teachers define feedback, when they apply it and how they process it.

To conclude, results found show differences in perceptions of peer and self-assessment. Teachers' perceptions scored higher than those of students. The division of roles and expectations to one another seems unclear. Further examination should lead to a better understanding of this difference and its' influence on the performance of students and teachers. If successfully reducing the gap in perceptions, it is expected that teachers improve their guidance to students and adapt their educational practices. Improvements in both the use of peer and self-assessment and the use and usability of teachers' feedback will most likely contribute to the reduction of struggles teachers have with the fifth step of the formative assessment cycle.

Conclusion

This study gained insight into the similarities and differences in perceptions of students and teachers of formative assessment strategies and teachers' feedback. Both groups' perceptions seem to align with formative assessment strategies but differ on teachers' feedback. Teachers' perceptions of teachers' feedback are more positive than those of students. A closer look at each measure of formative assessment strategies and teachers' feedback resulted in some nuances. Insights gained help in the broader understanding of perceptions of students and teachers of formative assessment and feedback. The most important findings exposed differences in sharing learning goals and criteria for success, expectations and division of roles between the student, peers, and teachers, and how to value and process feedback. These findings call for in-depth research into how these differences arise and, more important, how to reduces the differences. This will enable teachers to improve their guidance to students and adapt their educational practices, it will help students better process teachers' feedback, and eventually, it is expected that this will help reduce the struggle teachers have with the fifth step of the formative assessment cycle.

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Appendix A

Students' Questionnaire

In deze brief word je geïnformeerd over een onderzoek dat ik als student aan de Universiteit Utrecht uitvoer in samenwerking met Avans Academie Associate degrees en Platform Leren van Toetsen.

Doel van het onderzoek.
Middels deze vragenlijst willen wij onderzoeken in welke mate docenten en studenten in het hoger onderwijs formatieve toetsing en feedback gebruiken en ervaren in de dagelijkse praktijk.

Wat is formatief toetsen?
Formatief toetsen heeft als doel informatie te geven aan docenten en studenten over de mate waarin de leerstof beheerst wordt. Docenten kunnen deze informatie gebruiken om het lesgeven beter af te stemmen op de leerbehoefte van studenten. De studenten kunnen deze informatie gebruiken om het leren te verbeteren. Wat moet de student doen om op zijn gewenste niveau te komen? Welke hulp heeft de student nodig om dat doel te bereiken? Onder "toetsen" verstaan we niet alleen de bekende pen-en-papier toetsen, maar alle manieren waarop bewijs wordt verzameld over de voortgang van het leren van studenten. Het kan bijvoorbeeld gaan om een presentatie, portfolio, observaties in de les, discussies en praktische opdrachten.

Toelichting.
Het lezen van deze informatie en het invullen van de vragenlijst duurt ongeveer 15 minuten, 7 deelvensters met ieder 5 of 6 stellingen. De stellingen gaan over het toepassen van formatief toetsen en het gebruik van feedback in de lespraktijk. Geef voor elke stelling aan in welke mate dit van toepassing is op jouw lessen/begeleiding. Doe dit door gebruik te maken van de volgende 5-punts schaal:

1. (Bijna) Altijd = dit gebeurt in meer dan 90 % van mijn lessen
2. Zeer vaak = dit gebeurt in ongeveer 75 % van mijn lessen
3. Regelmatig = dit gebeurt in ongeveer 50 % van mijn lessen
4. Soms = dit gebeurt in ongeveer 25 % van mijn lessen
5. (Bijna) Nooit = dit gebeurt in minder dan 10% van mijn lessen

Beantwoord de stellingen vanuit het vak of het begeleidingsmoment dat je op dit moment volgt, met daarbij de docent waar je deze les of begeleiding van krijgt voor ogen.

Privacy en vertrouwelijkheid.
Voor dit onderzoek vragen wij een aantal gegevens van je zoals de naam van de begeleidend docent en jouw geslacht, leeftijd en vooropleiding. Op de achtergrond en op groepsniveau koppelen wij dit met informatie zoals leerjaar, klas, opleiding en naam van het vak. Deze gegevens zullen ten minste 10 jaar worden opgeslagen volgens de daartoe bestemde richtlijnen van de Vereniging van Universiteiten. Meer informatie over privacy is te vinden op de website van Autoriteit Persoonsgegevens: https://autoriteitpersoonsgegevens.nl/nl/onderwerpen/avg-europese-privacywetgeving

Alle gegevens worden vertrouwelijk behandeld en anoniem verwerkt. De gegevens worden alleen voor onderzoeks- en opleidingsdoeleinden gebruikt. Als je vragen of opmerkingen over het onderzoek hebt, kun je contact opnemen met Peet Strik (P.Strik@avans.nl – 06-22080680).

Verklaring informed consent.
Ik heb uitleg gekregen over het onderzoek en mijn vragen over het onderzoek gesteld. Ik heb goed nagedacht over of ik aan het onderzoek wil deelnemen. Ik mag op ieder moment stoppen met het onderzoek als ik dat wil. Ik hoef niet uit te leggen waarom ik wil stoppen.

Handtekening.
Q1: Door onderstaand selectievak aan te vinken geef ik goedkeur op mijn deelname aan dit onderzoek.

O Ja, ik geef toestemming
O Nee, ik geef geen toestemming

Docent

Q2: Vul de naam van de docent in waarvan je les of begeleiding krijgt tijdens dit vak.
Is dit meer dan één persoon, vul dan de docent in waar jij het meeste les of begeleiding van krijgt.

…

Persoonskenmerken

Q3: Wat is jouw geslacht?
- Man
- Vrouw
- Anders

Q4: Wat is jouw leeftijd?

…

Indien klas onbekend
Q4.1: In welke klas zit je?
Vul hier de klascode of het cijfer is. Let op, we vragen je niet naar het leerjaar.

…

Q5: Wat is jouw laatste volledig afgeronde vooropleiding?
Let op, vul hier de opleiding in die je hebt afgerond voordat je startte met de associate degree opleiding.
- Vmbo
- Havo
- Vwo
- Mbo (3)
- Mbo (4)
- Hbo associate degree
- Hbo bachelor
- Hbo master
- Universitaire bachelor
- Universitaire master
- Doctorsgraad
- Anders

1. Delen van leerdoelen en succescriteria

Q6: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
LGCS1	In de lessen maakt mijn docent duidelijk wat ik aan het leren ben.	❍	❍	❍	❍	❍
LGCS2	De docent herinnert mij aan de verbinding tussen wat ik aan het leren ben en het grotere geheel waar ik voor leer.	❍	❍	❍	❍	❍
LGCS3	De eisen waaraan het werk moet voldoen (succescriteria) gekoppeld aan de leerdoelen zijn afgestemd op de studenten.	❍	❍	❍	❍	❍
LGCS4	De eisen waaraan het werk moet voldoen (succescriteria) gekoppeld aan de leerdoelen worden gedeeld met de studenten.	❍	❍	❍	❍	❍
LGCS5	Mijn docent maakt de leerdoelen in begrijpelijke taal duidelijk.	❍	❍	❍	❍	❍

2. Vragen stellen en klassikale discussie

Q7: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
QCD1	De docent gebruikt verschillende werkvormen om vraaggesprekken met studenten in de klas te voeren (bv. brainstormen, interview, klassengesprek, etc.).	❍	❍	❍	❍	❍
QCD2	De docent gebruikt vragen om informatie te krijgen over mijn voorkennis over een onderwerp.	❍	❍	❍	❍	❍
QCD3	Ik word tijdens de les aangemoedigd om vragen te stellen aan mijn medestudenten (bv. de docent nodigt mij uit om vragen te stellen aan de medestudenten voor een bijdrage aan discussies).	❍	❍	❍	❍	❍
QCD4	De docent gebruikt bij het vragen stellen open vragen die het dieper denken bevorderen i.p.v. de één-juist-antwoord-stijl (waarbij ik moet proberen te raden wat het antwoord is dat de docent in gedachten heeft).	❍	❍	❍	❍	❍
QCD5	Als ik een onjuist antwoord geef dan gaat de docent hier verder op in.	❍	❍	❍	❍	❍
QCD6	De docent vraagt mij om uit te leggen waarom ik werk aan bepaalde taken (bv. de docent kan vragen: "Waarom zijn jullie dit werkblad aan het invullen?", of "Wat zijn jullie aan het leren door dit te doen?").	❍	❍	❍	❍	❍

3. Feedback (1/4)

Q8: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
Fint1	Naast een cijfer (of resultaat) voor mijn opdracht, ontvang ik van de docent geschreven feedback die mij inzicht geeft in wat ik heb bereikt en wat ik nog aan moet passen.	❍	❍	❍	❍	❍
Fint2	De docent geeft mij inzicht in mijn sterke en zwakke punten.	❍	❍	❍	❍	❍
Fint3	De docent gebruikt de informatie over mijn voortgang om feedback aan mij te geven.	❍	❍	❍	❍	❍
Fint4	De docent houdt in zijn instructie rekening met mijn sterke en zwakke punten.	❍	❍	❍	❍	❍
Fint5	De docent vraagt aan mij/de klas wat sterke en zwakke punten van zijn/haar lesgeven zijn.	❍	❍	❍	❍	❍

4. Feedback (2/4)

Q9: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
Fquan1	De docent geeft mij veel feedback op hoe ik het doe.	❍	❍	❍	❍	❍
Fquan2	Als ik iets moet inleveren (bv. een opdracht, portfolio, beroepsproduct, etc.) dan geeft de docent mij binnen 15 werkdagen feedback.	❍	❍	❍	❍	❍
Fquan3	De docent geeft mij bijna geen feedback op mijn opdracht zodra ik het terug krijg.	❍	❍	❍	❍	❍
Fquan4	De docent geeft veel begeleiding zodra ik iets niet begrijp.	❍	❍	❍	❍	❍
Fquan5	Ik zou meer leren als ik meer feedback zou krijgen van de docent.	❍	❍	❍	❍	❍
Fquan6	Op het moment dat ik feedback ontvang, dan is deze niet meer relevant om te verwerken.	❍	❍	❍	❍	❍

5. Feedback (3/4)

Q10: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
Fqual1	De feedback van de docent vertelt mij hoe goed ik het doe in verhouding tot mijn medestudenten.	❍	❍	❍	❍	❍
Fqual2	De feedback van de docent helpt mij om dingen beter te begrijpen.	❍	❍	❍	❍	❍
Fqual3	De feedback van de docent laat mij zien hoe ik dingen beter kan doen de volgende keer.	❍	❍	❍	❍	❍
Fqual4	Zodra ik de feedback van de docent heb gelezen begrijp ik waarom ik het cijfer (of resultaat) heb gekregen dat de docent mij heeft gegeven.	❍	❍	❍	❍	❍
Fqual5	Ik begrijp feedback niet die ik van de docent heb gekregen.	❍	❍	❍	❍	❍
Fqual6	Ik zie niet wat ik moet verbeteren op basis van de feedback van de docent.	❍	❍	❍	❍	❍

6. Feedback (4/4)

Q11: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
Fuse1	De feedback die ik heb gekregen van de docent lees ik zorgvuldig door en ik probeer te begrijpen wat de docent bedoeld met zijn/haar feedback.	❍	❍	❍	❍	❍
Fuse2	Ik gebruik de feedback van de docent om terug na te gaan wat ik tijdens het uitvoeren van de opdracht heb gedaan.	❍	❍	❍	❍	❍
Fuse3	De feedback die ik heb gekregen van de docent helpt mij ook bij het maken van andere opdrachten.	❍	❍	❍	❍	❍
Fuse4	De feedback die ik heb ontvangen van de docent moedigt mij aan om eerder bestudeerd materiaal er nog eens bij te pakken.	❍	❍	❍	❍	❍
Fuse5	Ik gebruik de feedback die ik heb gekregen van de docent om mijn werk te corrigeren.	❍	❍	❍	❍	❍
Fuse6	Ik heb de neiging om alleen het cijfer (of resultaat) te lezen.	❍	❍	❍	❍	❍

7. Peer en self-assessment

Q12: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
PASA1	De docent geeft mij aan het begin van de les/begeleiding de kans om aan te geven in welke mate ik mij uitgedaagd voel door een leertaak.	❍	❍	❍	❍	❍
PASA2	De docent moedigt mij aan om mijn voortgang bij te houden (bv. door het gebruik van een logboek).	❍	❍	❍	❍	❍
PASA3	Ik beoordeel en geef feedback op het werk van mijn medestudenten (bv. de docent leert mij hoe ik de succescriteria van een leertaak moet gebruiken om het werk van een medestudent te kunnen beoordelen).	❍	❍	❍	❍	❍
PASA4	De docent moedigt mij aan om mijn eigen werk te beoordelen (bv. met behulp van een rubric om inzicht te geven in de succescriteria of het maken van een toetsanalyse zodat ik een positief aspect van mijn werk en een verbeterpunt kan benoemen).	❍	❍	❍	❍	❍
PASA5	De docent gebruikt een visuele weergave van mijn voortgang om mijn groei te vieren en te tonen op welke onderdelen ik mij nog kan ontwikkelen (bv. een grafiek met daarin een overzicht van de progressie over een periode).	❍	❍	❍	❍	❍
PASA6	Tijdens de les is tijd gereserveerd om het werk van medestudenten of mijn eigen werk te beoordelen.	❍	❍	❍	❍	❍

Appendix B

Teachers' Questionnaire

In deze brief word je geïnformeerd over een onderzoek dat ik als student aan de Universiteit Utrecht uitvoer in samenwerking met Avans Academie Associate degrees en Platform Leren van Toetsen.

Doel van het onderzoek.
Middels deze vragenlijst willen wij onderzoeken in welke mate docenten en studenten in het hoger onderwijs formatieve toetsing en feedback gebruiken en ervaren in de dagelijkse praktijk.

Wat is formatief toetsen?
Formatief toetsen heeft als doel informatie te geven aan docenten en studenten over de mate waarin de leerstof beheerst wordt. Docenten kunnen deze informatie gebruiken om het lesgeven beter af te stemmen op de leerbehoefte van studenten. De studenten kunnen deze informatie gebruiken om het leren te verbeteren. Wat moet de student doen om op zijn gewenste niveau te komen? Welke hulp heeft de student nodig om dat doel te bereiken? Onder "toetsen" verstaan we niet alleen de bekende pen-en-papier toetsen, maar alle manieren waarop bewijs wordt verzameld over de voortgang van het leren van studenten. Het kan bijvoorbeeld gaan om een presentatie, portfolio, observaties in de les, discussies en praktische opdrachten.

Wat houdt het onderzoek in?
Het lezen van deze informatie en het invullen van de vragenlijst duurt ongeveer 15 minuten, 7 deelvensters met 5 of 6 stellingen. De stellingen gaan over het toepassen van formatief toetsen en het gebruik van feedback in de lespraktijk. Geef voor elke stelling aan in welke mate dit van toepassing is op jouw lessen/begeleiding. Doe dit door gebruik te maken van de volgende 5-punts schaal:

1. (Bijna) Altijd = dit gebeurt in meer dan 90 % van mijn lessen
2. Zeer vaak = dit gebeurt in ongeveer 75 % van mijn lessen
3. Regelmatig = dit gebeurt in ongeveer 50 % van mijn lessen
4. Soms = dit gebeurt in ongeveer 25 % van mijn lessen
5. (Bijna) Nooit = dit gebeurt in minder dan 10% van mijn lessen

Beantwoord de stellingen vanuit het vak of het begeleidingsmoment dat je op dit moment verzorgt, met daarbij de klas of studentgroep waar je deze les of begeleiding aan geeft voor ogen.

Privacy en vertrouwelijkheid.
Voor dit onderzoek vragen wij een aantal gegevens van je zoals geslacht, leeftijd en opleidingsniveau. Ook wordt je gevraagd om je naam in te vullen, je naam wordt direct na de data verzameling geanonimiseerd m.b.v. een codering. Op de achtergrond en op groepsniveau koppelen wij dit met informatie zoals leerjaar, klas, opleiding en naam van het vak. De gegevens die je met ons deelt zullen ten minste 10 jaar worden opgeslagen volgens de daartoe bestemde richtlijnen van de Vereniging van Universiteiten. Meer informatie over privacy is te vinden op de website van Autoriteit Persoonsgegevens: https://autoriteitpersoonsgegevens.nl/nl/onderwerpen/avg-europese-privacywetgeving

Alle gegevens worden vertrouwelijk behandeld en anoniem verwerkt. De gegevens worden alleen voor onderzoeks- en opleidingsdoeleinden gebruikt. Als je vragen of opmerkingen over het onderzoek hebt, kun je contact opnemen met Peet Strik (P.Strik@avans.nl – 06-22080680).

Verklaring informed consent.
Ik heb uitleg gekregen over het onderzoek en mijn vragen over het onderzoek gesteld. Ik heb goed nagedacht over of ik aan het onderzoek wil deelnemen. Ik mag op ieder moment stoppen met het onderzoek als ik dat wil. Ik hoef niet uit te leggen waarom ik wil stoppen.

Handtekening.
Q1: Door onderstaand selectievak aan te vinken geef ik goedkeur op mijn deelname aan dit onderzoek.

O Ja, ik geef toestemming
O Nee, ik geef geen toestemming

Persoonskenmerken

Q2: Wat is je naam?
Voor data-analyse wordt je naam geanonimiseerd.

…

Q3: Wat is jouw geslacht?
- Man
- Vrouw
- Anders

Q4: Wat is jouw leeftijd?

…

Q5: Wat is jouw laatste volledig afgeronde vooropleiding?
Let op, vul hier de opleiding in die je hebt afgerond voordat je startte met de associate degree opleiding.
- Vmbo
- Havo
- Vwo
- Mbo (3)
- Mbo (4)
- Hbo associate degree
- Hbo bachelor
- Hbo master
- Universitaire bachelor
- Universitaire master
- Doctorsgraad
- Anders

1. Delen van leerdoelen en succescriteria

Q6: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
LGCS1	In de lessen maak ik de studenten duidelijk wat zij aan het leren zijn.	❍	❍	❍	❍	❍
LGCS2	Ik herinner studenten aan de verbinding tussen wat zij aan het leren zijn en het grotere geheel waar zij voor leren.	❍	❍	❍	❍	❍
LGCS3	De eisen waaraan het werk moet voldoen (succescriteria) gekoppeld aan de leerdoelen zijn afgestemd op de studenten.	❍	❍	❍	❍	❍
LGCS4	De eisen waaraan het werk moet voldoen (succescriteria) gekoppeld aan de leerdoelen worden gedeeld met de studenten.	❍	❍	❍	❍	❍
LGCS5	Ik maak de leerdoelen in begrijpelijke taal aan studenten duidelijk.	❍	❍	❍	❍	❍

2. Vragen stellen en klassikale discussie

Q7: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
QCD1	Ik gebruik verschillende werkvormen om vraaggesprekken met studenten in de klas te voeren (bv. brainstormen, interview, klassengesprek, etc.).	❍	❍	❍	❍	❍
QCD2	Ik gebruik vragen om informatie te krijgen over de voorkennis van studenten over een onderwerp.	❍	❍	❍	❍	❍
QCD3	Ik moedig studenten tijdens de les aan om vragen te stellen aan medestudenten (bv. ik nodig de studenten uit om vragen te stellen aan medestudenten voor een bijdrage aan een discussie).	❍	❍	❍	❍	❍
QCD4	Ik gebruik bij het vragen stellen open vragen die het dieper denken bevorderen i.p.v. de één-juist-antwoord-stijl (waarbij studenten moeten proberen te raden wat het antwoord is dat ik in gedachte heb).	❍	❍	❍	❍	❍
QCD5	Als studenten een onjuist antwoord geven dan ga ik hier verder op in.	❍	❍	❍	❍	❍
QCD6	Ik vraag studenten om uit te leggen waarom zij werken aan bepaalde taken (bv. ik vraag: "Waarom zijn jullie dit werkblad aan het invullen?", of "Wat zijn jullie aan het leren door dit te doen?").	❍	❍	❍	❍	❍

3. Feedback (1/4)

Q8: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
Fint1	Naast een cijfer (of resultaat) voor de opdracht, ontvangen de studenten geschreven feedback die hen inzicht geeft in wat zij hebben bereikt en wat zij nog aan moeten passen.	❍	❍	❍	❍	❍
Fint2	Ik geef studenten inzicht in zijn/haar sterke en zwakke punten.	❍	❍	❍	❍	❍
Fint3	Ik gebruik informatie over de voortgang van studenten om feedback aan hen te geven.	❍	❍	❍	❍	❍
Fint4	Ik houd in mijn instructie rekening met de sterke en zwakke punten van studenten.	❍	❍	❍	❍	❍
Fint5	Ik vraag aan studenten/de klas wat sterke en zwakke punten zijn van mijn lesgeven.	❍	❍	❍	❍	❍

4. Feedback (2/4)

Q9: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
Fquan1	Ik geef studenten veel feedback op hoe zij het doen.	❍	❍	❍	❍	❍
Fquan2	Als studenten iets inleveren (bv. een opdracht, portfolio of beroepsproduct) dan geef ik hen binnen 15 werkdagen feedback.	❍	❍	❍	❍	❍
Fquan3	Ik geef studenten bijna geen feedback op de opdracht die ik aan hen teruggeef.	❍	❍	❍	❍	❍
Fquan4	Ik geef studenten veel begeleiding zodra zij iets niet begrijpen.	❍	❍	❍	❍	❍
Fquan5	Studenten zouden meer leren als ik hen meer feedback zou geven.	❍	❍	❍	❍	❍
Fquan6	Op het moment dat ik feedback geef, dan is deze niet meer relevant om te verwerken.	❍	❍	❍	❍	❍

5. Feedback (3/4)

Q10: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
Fqual1	De feedback aan de studenten vertelt hen hoe goed zij het doen in verhouding tot de medestudenten.	❍	❍	❍	❍	❍
Fqual2	De feedback die ik geef aan studenten helpt hen om dingen beter te begrijpen.	❍	❍	❍	❍	❍
Fqual3	De feedback die ik geef aan studenten laat hen zien hoe zij de volgende keer dingen beter kunnen doen.	❍	❍	❍	❍	❍
Fqual4	Zodra studenten de feedback hebben gelezen die ik hen heb gegeven, begrijpen zij waarom ik hen het cijfer (of resultaat) heb gegeven.	❍	❍	❍	❍	❍
Fqual5	Studenten begrijpen niet de feedback die hen heb gegeven.	❍	❍	❍	❍	❍
Fqual6	De studenten zien niet wat zij moeten verbeteren op basis van mijn feedback.	❍	❍	❍	❍	❍

6. Feedback (4/4)

Q11: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
Fuse1	De studenten lezen de feedback die ik hen heb gegeven zorgvuldig door en proberen te begrijpen wat ik bedoel met de feedback die ik hen heb gegeven.	❍	❍	❍	❍	❍
Fuse2	De studenten gebruiken mijn feedback om terug na te gaan wat zij tijdens het uitvoeren van de opdracht hebben gedaan.	❍	❍	❍	❍	❍
Fuse3	De feedback die ik studenten geef helpt hen ook bij het maken van andere opdrachten.	❍	❍	❍	❍	❍
Fuse4	De feedback die ik geef aan studenten moedigt hen aan om eerder bestudeerd materiaal er nog eens bij te pakken.	❍	❍	❍	❍	❍
Fuse5	Studenten gebruiken de feedback die ik hen heb gegeven om het werk te corrigeren.	❍	❍	❍	❍	❍
Fuse6	Studenten hebben de neiging om alleen het cijfer (of resultaat) te lezen.	❍	❍	❍	❍	❍

7. Peer en self-assessment

Q12: Geef aan in welke mate de onderstaande stellingen volgens jou van toepassing zijn op de lessen/begeleiding.

Nr.	Vraag	(Bijna) Altijd >90%	Zeer vaak 75%	Regelmatig 50%	Soms 25%	(Bijna) Nooit <10%
PASA1	Ik geef studenten aan het begin van de les/begeleiding de kans om aan te geven in welke mate zij zich uitgedaagd voelen door een leertaak.	❍	❍	❍	❍	❍
PASA2	Studenten worden aangemoedigd om hun voortgang bij te houden (bv. door het gebruik van een logboek).	❍	❍	❍	❍	❍
PASA3	Studenten beoordelen en geven feedback op het werk van medestudenten (bv. ik leer hen hoe zij de succescriteria van een leertaak moeten gebruiken om het werk van een medestudent te kunnen beoordelen).	❍	❍	❍	❍	❍
PASA4	Ik moedig studenten aan om eigen werk te beoordelen (bv. met behulp van een rubric om inzicht te geven in de succescriteria of het maken van een toetsanalyse zodat zij een positief aspect van het werk en een verbeterpunt kunnen benoemen).	❍	❍	❍	❍	❍
PASA5	Ik gebruik visuele weergave van de voortgang van studenten om groei te vieren en te tonen op welke onderdelen zij zich nog kunnen ontwikkelen (bv. een grafiek met daarin een overzicht van de progressie over een periode).	❍	❍	❍	❍	❍
PASA6	Tijdens de les is tijd gereserveerd om het werk van medestudenten of het eigen werk te beoordelen.	❍	❍	❍	❍	❍

Appendix C

Table 4 shows the items used during data collection. Based on the article of Gibbs and Dunbar-Goddet (2007) 12 items needed to be erased, three reversed and three remained the same. Finally measures ‘feedback quantity’ and ‘feedback quality’ merged to one measure ‘feedback quantity and quality’.

Table 4.

Measures of teachers' feedback and action taken based on article of Gibbs and Dunbar-Goddet (2007)

Item nr.	Student/ Teacher	Item	Action
Fquan1	Student	De docent geeft mij veel feedback op hoe ik het doe.	Erased
	Teacher	Ik geef studenten veel feedback op hoe zij het doen.	
Fquan2	Student	Als ik iets moet inleveren (bv. een opdracht, portfolio, beroepsproduct, etc.) dan geeft de docent mij binnen 15 werkdagen feedback.	Erased
	Teacher	Als studenten iets inleveren (bv. een opdracht, portfolio of beroepsproduct) dan geef ik hen binnen 15 werkdagen feedback.	
Fquan3	Student	De docent geeft mij bijna geen feedback op mijn opdracht zodra ik het terug krijg.	Reversed + merged
	Teacher	Ik geef studenten bijna geen feedback op de opdracht die ik aan hen teruggeef.	
Fquan4	Student	De docent geeft veel begeleiding zodra ik iets niet begrijp.	Erased
	Teacher	Ik geef studenten veel begeleiding zodra zij iets niet begrijpen.	
Fquan5	Student	Ik zou meer leren als ik meer feedback zou krijgen van de docent.	Erased
	Teacher	Studenten zouden meer leren als ik hen meer feedback zou geven.	
Fquan6	Student	Op het moment dat ik feedback ontvang, dan is deze niet meer relevant om te verwerken.	Erased
	Teacher	Op het moment dat ik feedback geef, dan is deze niet meer relevant om te verwerken.	
Fqual1	Student	De feedback van de docent vertelt mij hoe goed ik het doe in verhouding tot mijn medestudenten.	Erased
	Teacher	De feedback aan de studenten vertelt hen hoe goed zij het doen in verhouding tot de medestudenten.	
Fqual2	Student	De feedback van de docent helpt mij om dingen beter te begrijpen.	Erased
	Teacher	De feedback die ik geef aan studenten helpt hen om dingen beter te begrijpen.	

Fqual3	Student	De feedback van de docent laat mij zien hoe ik dingen beter kan doen de volgende keer.	Erased
	Teacher	De feedback die ik geef aan studenten laat hen zien hoe zij de volgende keer dingen beter kunnen doen.	
Fqual4	Student	Zodra ik de feedback van de docent heb gelezen begrijp ik waarom ik het cijfer (of resultaat) heb gekregen dat de docent mij heeft gegeven.	Erased
	Teacher	Zodra studenten de feedback hebben gelezen die ik hen heb gegeven, begrijpen zij waarom ik hen het cijfer (of resultaat) heb gegeven.	
Fqual5	Student	Ik begrijp feedback niet die ik van de docent heb gekregen.	Reversed + merged
	Teacher	Studenten begrijpen niet de feedback die hen heb gegeven.	
Fqual6	Student	Ik zie niet wat ik moet verbeteren op basis van de feedback van de docent.	Reversed + merged
	Teacher	De studenten zien niet wat zij moeten verbeteren op basis van mijn feedback.	
Fuse1	Student	De feedback die ik heb gekregen van de docent lees ik zorgvuldig door en ik probeer te begrijpen wat de docent bedoeld met zijn/haar feedback.	Remained
	Teacher	De studenten lezen de feedback die ik hen heb gegeven zorgvuldig door en proberen te begrijpen wat ik bedoel met de feedback die ik hen heb gegeven.	
Fuse2	Student	Ik gebruik de feedback van de docent om terug na te gaan wat ik tijdens het uitvoeren van de opdracht heb gedaan.	Remained
	Teacher	De studenten gebruiken mijn feedback om terug na te gaan wat zij tijdens het uitvoeren van de opdracht hebben gedaan.	
Fuse3	Student	De feedback die ik heb gekregen van de docent helpt mij ook bij het maken van andere opdrachten.	Erased
	Teacher	De feedback die ik studenten geef helpt hen ook bij het maken van andere opdrachten.	
Fuse4	Student	De feedback die ik heb ontvangen van de docent moedigt mij aan om eerder bestudeerd materiaal er nog eens bij te pakken.	Remained
	Teacher	De feedback die ik geef aan studenten moedigt hen aan om eerder bestudeerd materiaal er nog eens bij te pakken.	
Fuse5	Student	Ik gebruik de feedback die ik heb gekregen van de docent om mijn werk te corrigeren.	Erased
	Teacher	Studenten gebruiken de feedback die ik hen heb gegeven om het werk te corrigeren.	
Fuse6	Student	Ik heb de neiging om alleen het cijfer (of resultaat) te lezen.	Erased
	Teacher	Studenten hebben de neiging om alleen het cijfer (of resultaat) te lezen.	