Community
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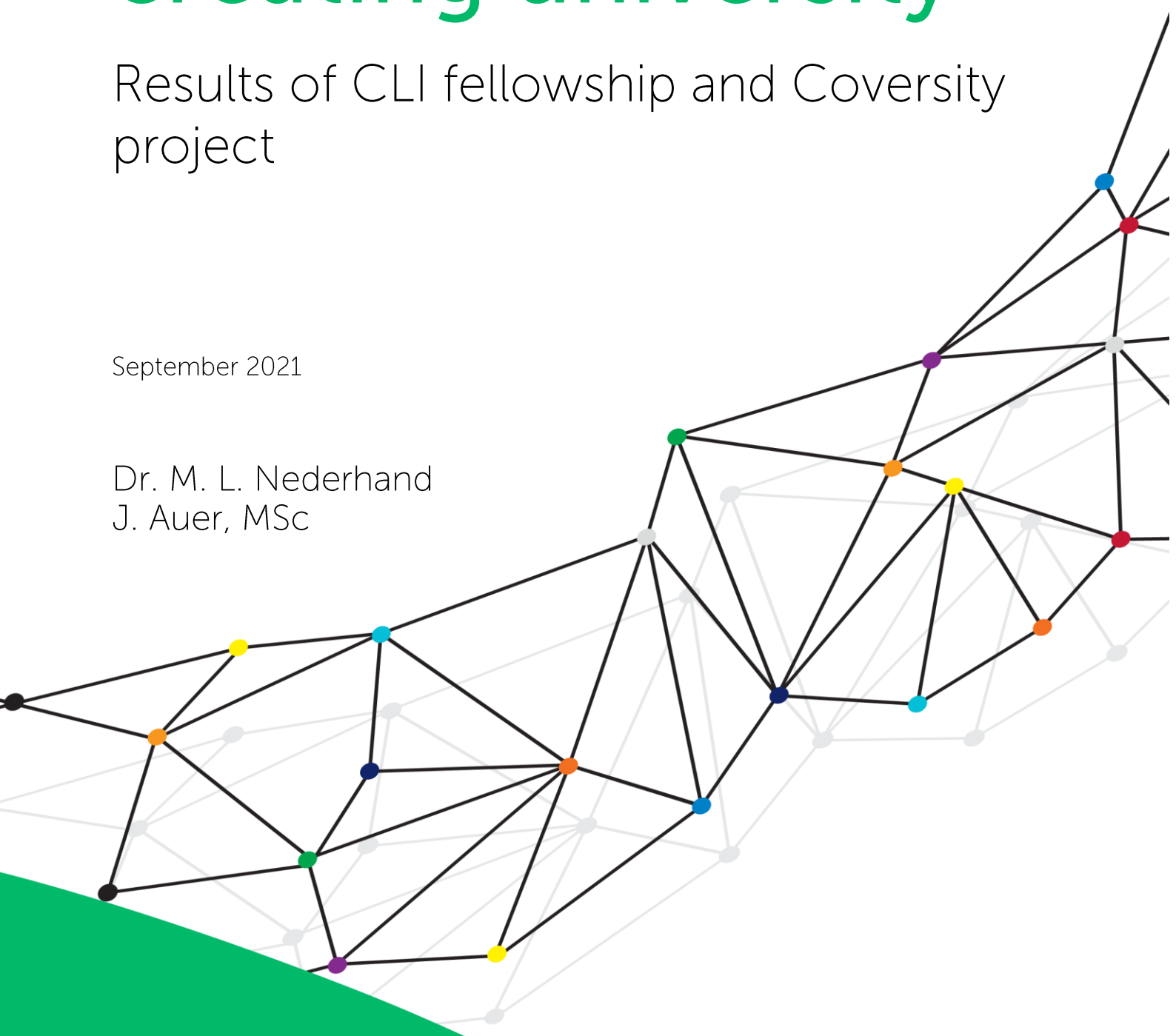
Towards a co-creating university

Results of CLI fellowship and Coversity project

September 2021

Dr. M. L. Nederhand
J. Auer, MSc



Erasmus University Rotterdam
Make it happen.

Colofon / Colophon

Towards a co-creating university
Joint project of 'Coversity' and CLI fellowship

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Contents

Acknowledgements

First and foremost, we are very grateful for all the support of CLI to make this project happen. We would like to thank the students of the Hackathon event for their ideas and specifically Corrina and Nathaniel for their insights when starting this project. We also wish to thank all the students who participated in our studies, and the teachers who enabled us to test the innovation in their courses. We are also grateful for the help of the WebTeam of the ESSB with retrieving the data and embedding the animation. Finally, we would like to thank Elise van der Gaag for her tremendous help coding the data.

1 Introduction current project on Student Evaluations of Teaching

The Erasmus University Rotterdam strives to collaborate with students to improve and co-create its education. To do so, students have many options of providing feedback and ideas how to improve education - most importantly, by filling in the course evaluation after each course. Hence, student feedback is an important source for course improvement. It is therefore problematic that many students do not use the possibility of providing feedback. When providing feedback is voluntary, response rates are very low. Furthermore, students often provide low quality feedback *meaning comments without explanations or link to the course ("I did not like the instructors' nose" or "I liked the course"), giving teachers little cues of how to improve the course"*. Increasing the effectivity of course evaluations is central to this project.

During the first Erasmus Hackathon (Future Education Hackathon 2019), students noticed that a major reason they do not like to give feedback is that they feel their feedback is not being heard. Instead, they perceive their feedback going into a black box which makes them unsure if it is used for educational improvements or simply put aside. Being unaware of how their feedback can make a difference for education decreases students' motivation to give (high-quality) feedback. This hampers the ambition of co-creation and the possibilities for teachers to effectively improve their courses. The students of the winning Hackathon team therefore aimed to enhance students' feeling of being involved in co-creating education together with faculty by sharing information about the process of how faculty is discussing student feedback, as well as how the feedback has been applied in practice. As the winners of the Future Education Hackathon were promised to realize their ideas as a CLI of Students-for-Students (S4S) project, Dr. Marloes Nederhand stayed with the group and joined the project as project leader. Furthermore, Judith Auer, MSc (RSM), joined the team as CLI project manager.

In collaboration with the students who won the Future Education Hackathon, it was decided to first test the underlying premise empirically: transparency of the SET process in general and the practical adjustments being made based on student feedback increases student involvement and student faith in SET. With the results from this project, we know better how to design co-creation in the university. Furthermore, it would give more insight in the efficiency of the initial plan stemming from the Hackathon: developing a platform in which students can see outcomes of SETs from their current, previous, and future cohort (a time- and cost sensitive project). Hence, after finalizing the official application form, the project team decided to add a CLI fellowship to the project to empirically test the hypothesized effect of transparency.

In this report, the results of the Coversity projects are summarized. We first highlight the scientific background of the topic: why are student evaluations of teaching so important? Furthermore, we discuss the methods we used and the empirical findings we found in our studies. We conclude with a conclusion and discussion for future practice and research on this topic. All results are also being processed in academic articles. After publication, we will add links to each of these on the CLI website.

If you have any questions while reading this report, always feel free to reach out!

1.1 Importance of Student Evaluations of Teaching

Student Evaluations of Teaching generally serve two main purposes. First, it is used to improve education, by providing insight in what students liked and disliked. Second, it is used for HR purposes, such as tenure track decisions and appraisal talks. Both purposes are discussed below.

1.1.1 SET as a tool to improve education

Many universities worldwide strive to collaborate with students aiming to improve and co-create their education. To reach this goal, students are asked to assess their education by filling out student evaluations of teaching (SET). *A field and literature study by Ad Scheepers (RSM)* which was published in 2019 and includes SET practices of 50 higher education institutions in the area of business and management, reports that students often either decide not to provide feedback when participation is voluntarily or provide low quality feedback. This is problematic when it comes to educational improvements in higher education. When talking to Learning and Innovation teams from different faculties at the Erasmus University (Erasmus School of Social and Behavioral Sciences, Erasmus School of Law; Erasmus School of Economics, Rotterdam School of Management, Rotterdam School of Management B.V.), low response rates and quality on SET is a shared challenge. For example, at RSM, where giving feedback for students is voluntarily, the response rates, generally, hoover around 7% with drops of even 2%. A different situation occurred at ESSB, Department of Psychology, Education and Child Studies. Here, giving feedback for students was mandatory, leading to response rates of 100% - providing an interesting contrast[1]. However, even when filling in SETs was still mandatory for ESSB students, most students only answered the Likert Scale questions but did not give more detailed feedback by answering the open questions. This gave teachers less cues of what was liked or disliked in their courses, and thus, hampered co-creation.

1.1.2 SET as a tool for HR purposes

Regardless of low quantity and quality in student responses, student feedback collected via SETs is often used to make crucial and influential decisions about improvements of education and/or about teacher effectiveness (Chen & Hoshower, 2003; Goos & Salomons, 2017; Hoel & Dahl, 2019; Kite, Subedi, & Bryant-Lees, 2015).This was also referred to in the publication by Scheepers which reports that not less than 87% of European universities use student evaluations as diagnostic feedback for the teachers. At RSM and ESSB, and many other faculties at Erasmus – outcomes of course evaluations are used for HR purpose, for example during appraisal talks or tenure track decisions.

Taking the high-stakes decisions into account that are based on SETs, results with low response rates, especially when stemming from smaller class sizes (Zumrawi, Bates, & Schroeder, 2014), and the low quality of comments, are problematic because they provide an inadequate source about teacher effectiveness due to diminished reliability and validity (Berk, 2012).

1.1.3 Motivation to participate in SET: a role for transparency

Due to the application of student feedback with the two-folded aim to improve teaching and education, as well as to support managerial decisions regarding tenure, promotions and paygrades, there is a need for institutional strategies focusing on how to improve the usage and effectivity of student evaluations by increasing response quantity and -quality (Darwin, 2021). Especially during the challenging times in which we deal with Covid-19, it is important to remain connected to our students and evaluations can be a way to do so. Hence, it is crucial to identify where students' decision to (not) participate in SETs – as well as *how* to participate – is rooted. Literature on the students' perspective and the reasons why feedback is often not provided or only with low quality, shows that a major reason lays in students' belief that their opinion is not being valued or used by faculties (Chen & Hoshower, 2003; Hoel & Dahl, 2019). This goes hand in hand with what students reported during the Future Education Hackathon, namely that they do not feel included when it comes to co-creating education together with faculty based on their

[1] During this project, after one year, providing feedback on course evaluations became voluntary at DPECS as well, leading to drops in response rates. Hence, we changed the scope of the project slightly.

feedback. The students further also indicated that they lack transparency, which makes them feel as if their feedback goes into a "black hole in outer space", without being considered by faculty. Students lack clarity about the process of how their feedback is being used, as well as transparency about how faculty practically applied the feedback. These feelings are supported by literature: the absence of information about the application of students' feedback to improve education and teachers' effectiveness can lead to a decrease of student motivation to give (high-quality) feedback (Chen & Hoshower, 2003; Hoel & Dahl, 2019; Linse, 2017; Macfadyen, Dawson, Prest, & Gašević, 2016; Spooren & Christiaens, 2017)). Negative impact on response rate and -quality also stems from students being unaware of the use of teaching evaluations, which makes them reluctant to give meaningful feedback (Hoel & Dahl, 2019; Spooren & Christiaens, 2017). Such processes in which feedback is collected without informing students about how their comments and opinions are being valued, processed and applied, are missing out on "closing the feedback-loop". This incomplete circle of information explains the students' feeling of entering their feedback in a "black hole".

To increase EUR students' motivation to give meaningful feedback after their course, the CLI project and CLI fellowship have therefore the aim to test if SET transparency could be increased in two ways, which both aim to close the feedback-loop.

1. By using teacher summaries showing the outcomes of SET and what will happen next.
2. By showing an animation that explains how faculty is processing student feedback.

1.2 First aim: Increasing SET transparency via teacher summaries

Transparency is mentioned as an important tool to improve students' motivation to fill in SET and their faith in the SET process. An important question following, is how to increase the transparency. Showing SET summaries and explaining how the comments will be used by teachers is a praised method in numerous studies discussing the benefits of transparency for SET (Chen & Hoshower, 2003; Hoel & Dahl, 2019; Leckey & Neill, 2001). In these summaries, the most important and common points of feedback should be mentioned, and teachers will explain how they will use this feedback to optimize the course. Interestingly, while many studies discuss the potential benefits of such summaries and recommend providing summaries (e.g., Bosnjak & Batinic, 2002; Hoel & Dahl, 2019), empirical research on the effects of such summaries are lacking, especially in the field of SET surveys. Hence, in this project, we will test whether SET summaries are effective in increasing student involvement in SET.

It is important to note that students' opinions vary, and the goal of our summaries is not to use every comment the students mentioned. Instead, the goal is to create more transparency and show students their comments are being read and taken seriously. And of course, when the comments are not being used, an explanation is provided why this is the case (Hoel & Dahl, 2019). This way, students may still increase their faith in evaluations and believe that they are being taken seriously.

1.3 Second aim: Increasing SET transparency via animation

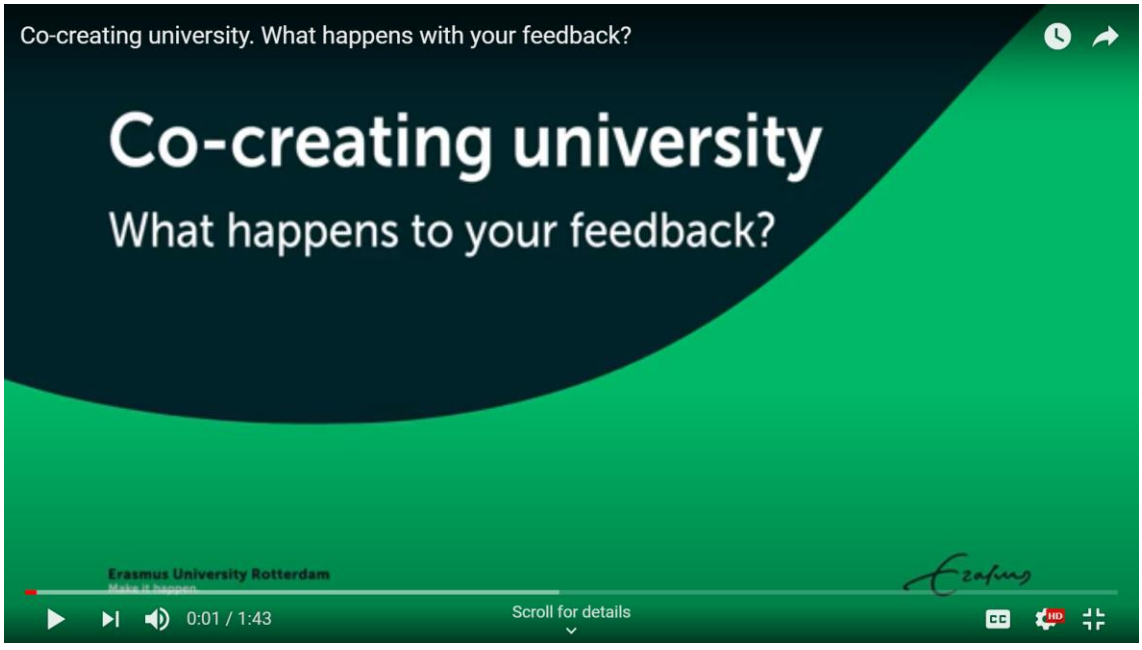
An animation was chosen as the medium to increase transparency for students about the process of how faculty is dealing with the outcomes of course evaluations as it is, firstly, usable in educational modes, such as face to face and online. This has the advantage of creating flexibility and independence in terms of the place of students and teachers. Especially during Covid-19, this flexibility in terms of location for teacher and students has an added benefit. Furthermore, the animation can be viewed by students whenever this is desired, given that it is provided online, and as many times as they need to view it in order to understand its message. Secondly, an animation can be shown in small scale courses, as well as in large scale courses as no workload for the instructor per individual student is related with the medium. Thirdly, the content of the animation can be used by any department or faculty, as no specific names, colours, or logos were used on purpose. Instead, the message was kept rather general and provided a carefully constructed standardized message.

Next to these practical considerations for using an animation, the decision for this medium was also based on educational research. Animations can clearly bring across messages due to their combination of audio and images. This combination of a narrative (audio) and metaphors (image) is so crucial as it connects to the concept of storytelling (Taylor, Marrone, Tayar, & Mueller, 2018). Through this "voice-over" an animation can increase students' engagement with the content and enhance various thinking skills, such as critical thinking(Barak, Ashkar, & Dori, 2011).

The animation had a duration of two minutes. The content of the script was developed by the project team (Marloes Nederhand, project leader, Judith Auer, project manager and Learning and Innovation team RSM, Elise van der Gaag, student assistant and representative, Janneke de Jong, Learning and Innovation team ESSB) based on literature on this topic (e.g., Hoel & Dahl, 2019). Miriam Fuselier (animator from the studio) created a first animated draft. This very first draft was shown during a CLI event in December 2019 to which educational experts and researchers from all faculties of the EUR were invited. Their feedback concerning the content of the animation, its transitions between scenes and general look and feel was collected. Eventually, it was processed by the project team and Miriam Fuselier and after adding the voice-over, the animation was finalized in January 2020.

In the animation in this research the beforementioned concept of combining metaphors and a narrative into storytelling was applied. During the animation, students' ideas were presented via lightbulbs. The animation had several key messages. First, it presented how students can give feedback and that they can do so anonymously. Then, it was discussed that students fear their feedback may not be heard by presenting their lightbulb in a garbage bin. Finally, it presents what happens with the feedback and that it is discussed for example in educational committees.

Please find the full animation by clicking the picture below.



2 Methods

2.1 Quasi-experimental intervention study on effect of course summaries

The effects of the course summaries were examined by conducted a quasi-experimental field study. Third year Psychology students from cohort 2018-2019 and 2019-2020 participated in this study. Ethical approval for this study was obtained from the Ethical Review Committee of the Department of Psychology, Education and Child Studies.

In Bachelor year 3, students specialize in a certain Psychology track, Brain and Cognition, Organizational Psychology, Clinical Psychology or Educational Psychology. For our study, two specializations were selected as a control group, and two specializations were selected as intervention group. While the courses students followed differed, the procedure of SET was identical for all students. Students got a message once the evaluation was open and filling in the evaluation subscribed students for the exam. After students filled in the evaluation, we showed students in the intervention group a summary of the outcomes of the evaluation and explained to them what would happen with it. We repeated this cycle for two times. On the final course, the Bachelor thesis track, we examined whether the groups differed in response rates, response quality, their faith in SET and sense of belonging.

The goals of the summaries were derived from prior research (Bennett & Nair, 2010; Chen & Hoshower, 2003; Hoel & Dahl, 2019). We composed the summaries in such a way that they (1) informed and showed students that their feedback is valued; (2) that their feedback is taken seriously; (3) what the main points of the SET were; and (4) how the coordinator will use the feedback accordingly to improve the course. As mentioned in paragraph 1.2, the goal of the summaries was not to implement every comment the students mentioned, but instead to create more transparency and show students their comments are read and taken seriously.

2.2 Quasi-experimental intervention studies on effect of animation

The effect of the animation on response rate and -quality was investigated in four studies. First, we tested the effects of the animation in a laboratory setting the Erasmus behavioural lab. Here, the animation was shown to 143 first-year bachelor students from ESSB through an online Qualtrics survey. The students were asked about their general opinion about course evaluations and about their sense of belonging to the Erasmus University before and after they have viewed the animation. Moreover, the students were asked how they perceived the animation after viewing it. This lab like situation helped to define the animations effectiveness in increasing students' faith in SET. However, it only enabled us to test students' *perceptions*, and not how they will subsequently *act* on SETs.

Hence, we conducted three field studies. First, we conducted a pilot in which we showed the animation to second year RSM bachelor students of the Dutch program Business administration (BA) in block 2 of cohort 2019 / 2020. The project team visited two lectures of two courses and in the first ten minutes of each lecture, the animation was shortly introduced and then shown to the present students. Afterwards, the animation was put online via an announcement in the corresponding canvas environments of the two courses. To see if the animation influenced how students acted on the SET, the response rate and -quality was compared to a baseline course in block 1 of the same cohort. Additionally, we conducted two quasi-experimental studies at ESSB in which half of the students were directed to the animation before filling in the SET. We examined both how students acted on the SET and their reported faith in it.

2.3 Measures

2.3.1 Response rate

We measured response rates by looking at how many students answered the course evaluation (RSM). As filling in SETs were mandatory at ESSB at the time of this study (as it subscribed them to the exam), we could not look at response rates here (this was around 100%). However, in the SET at ESSB, students filled in Likert scale questions (mandatory) and open questions (voluntary). To test whether students put in extra effort, we therefore looked at the response rates on the open questions.

2.3.2 Response quality

Response quality was measured by content analysis. A scoring grid for students' feedback was created based on, and inspired by, research of (Glover & Brown, 2006; Hoon, Oliver, Szpakowska, & Newton, 2015; Newton, Wallace, & McKimm, 2012; Tucker, 2014; Wallace, Lewis, & Allen, 2019) who investigated the content of SET comments. Comments were divided in the following categories: no answer, uninformative, general, combination of general and specific and specific (see Table 1). Furthermore, comments were categorised into level of appropriateness such as abusive or unprofessional comments by example of the research of Tucker, (2014). Comments that were considered abusive may contain offensive language (swear words); racist, sexist, or personally abusive terms. Furthermore, comments that were considered unprofessional may contain language or terms that would be inappropriate in a professional setting, and which do not contain any examples of the aforementioned. Lastly, the intended target was assessed, including teacher, course content, procedural, lecture and other.

Table 1 – SET response categories

Feedback category	Explanation	Examples
No answer	No answer	no'; 'idk'; 'nvt'
Uninformative	Gives direction of whether the student likes the course, tells nothing about why	stupid'; 'fun'; 'nice'
General	Gives direction of what was liked or disliked but misses info on specific elements that need to be changed	'boring lectures'; 'replace teacher'
Combination of general and specific	Feedback has several elements, of which at least one is general and at least one is specific	'professors/teachers have difficulty answering questions', 'they teach the course in a boring way'
Specific	Clear about what elements were liked or disliked and/or what should be improved. Can also include reasons why, but not necessary. Enables direct action to improve course	'sound quality of lectures should improve', 'content was uninteresting because it overlapped with prior course'

2.3.3 Students' perception towards course evaluations and sense of belonging

We examined whether transparency what happened with the SET's will increase students' faith their feedback will be used and is listened to, and their sense of belonging to the university. To do so, we asked students several questions based on recent prior research (Hoel & Dahl, 2019) : *'I believe that course evaluations are used by those who receive them'; 'Instructors take course evaluations seriously'; 'Instructors are open to improving their teaching'*. In addition, we asked students to indicate how important they felt filling in evaluations was. Furthermore, we asked students if their motivation to fill in SETs would increase when they would be presented with a summary of important changes that were made following their feedback. To do so, students could rate the following statements (Hoel & Dahl, 2019): *'My motivation to participate would be greater if I knew what changes had been made to the course since the last course evaluation'*; and *'My motivation to participate would be greater if I had a summary of the results from the previous course evaluation'*. Finally, we asked students how connected they felt to the university. We did this with a validated sense of belonging questionnaire by Bollen (1990).

3 Results

3.1 The effects of showing course summaries on student involvement in SET

In our first study, we examined whether providing students with an extended summary of what will happen to their student evaluation output could improve the way students give feedback and their faith in SET. We compared the faith in SET between a group who had seen such summaries after providing feedback in two courses with a control group who had never received a summary of what will happen to their SET input. Both groups of students scored slightly above average in their faith in SET (M = 3.67 on a 5-point scale). However, providing summaries did not increase students' faith in SET. There was no difference between the control group (M = 3.68, SD = 0.74) and the group who received summaries (M = 3.66, SD = 1.02). When looking at how the students *acted* on the SET after receiving summaries, we again saw no statistical differences between the control group and the group receiving the summaries. The response rates and quality of the feedback was equal in both groups.

Interestingly, however, students both in the control and intervention group indicated that they would be motivated to fill in the SET after they would have been provided with a summary of what happened to their SET outcomes (M = 4.30, SD = 0.71 and M = 4.26, SD = 1.09 respectively). Hence, both groups shared the perception that adding summaries would increase their motivation to fill in SETs.

To conclude, while students indicated that summaries would help them to become more motivated to fill in SETs, our results showed that doing so was not related to changes in their behavior on the SET nor their faith in SET. This is the first empirical study testing the premises of increased SET transparency. In contrast to our expectations, providing a summary did not affect student engagement and faith in SET.

3.2 Effects of transparency animation on student involvement in SET

3.2.1 Online questionnaire study + qualitative questionnaire at ESSB

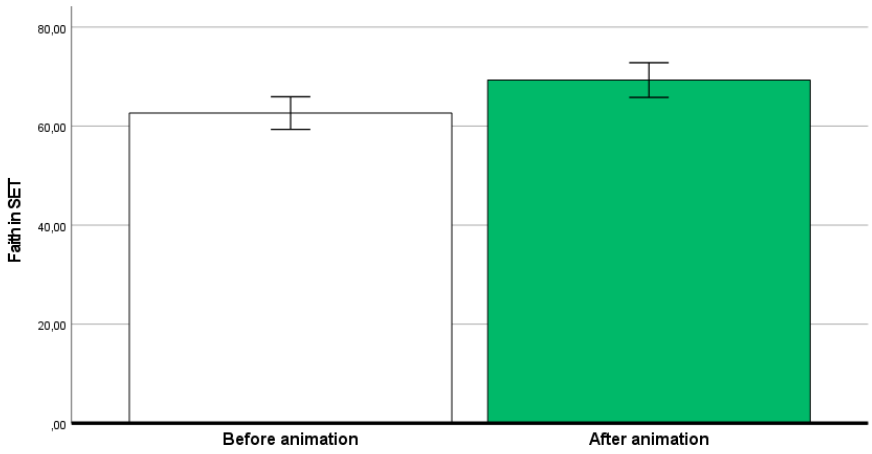
Besides testing the effects of course summaries showing what would happen to student SET input, we examined the effects of a short animation showing students what happens to their evaluations. Students answered questions regarding their faith in SET and then watched our animation showing how the SET process at Erasmus University works. After doing so, the students again answered questions regarding their SET perceptions.

Our findings show a large, positive effect of our animation on students' faith in SET. After watching the animation, students had more faith that instructors listen to their feedback and use it in their education, $F(1,142) = 44.51$, $p < .001$, $\eta_p^2 = .239$ (see also the Figure below). Furthermore, students reported to be positive about the animation. A quote of one of the students is presented below.

> *"I really liked the explanation of the concrete steps that are taken with the student feedback. It felt clear and empowering, in a way where I feel like I know better what the feedback is actually used for and how."*

The animation also helped to cover a crucial lack of knowledge concerning the anonymity of student feedback, as illustrated by the comments of one of the students below.

> *"I did not know that (filling out) course evaluations was anonymous"*



While students were neutral in whether the animation provided them with new information (*M* = 50.67, *SD* = 28.18 on a 100pt scale), they indicated to feel more motivated to fill in the evaluation after watching the animation (*M* = 69.08, *SD* = 25.58 on a 100pt scale), and that the animation effectively showed what happens with students' course evaluation (*M* = 77.59, *SD* = 22.29 on a 100pt scale). This is also reflected in the quote of another student below.

> *"I really appreciated the message of this video. As a student, I was not sure where my feedback goes. But now I am ensured that my feedback is been taken into account every time. I believe, every single student of the Erasmus University should watch this video, so that everyone is aware of the purpose of feedback."*

Results showed that students' sense of belonging was not affected by the animation. During the time of this study, all education was online due to Covid-19. This means that the first-year students in our study had rarely been to the university. Hence, we deem it likely that this severely impacted their sense of belonging to the university and showing our short animation online was not strong enough to change this.

3.2.2 Quantitative pilot study at RSM

We continued with a pilot in which we tested our animation in an actual educational setting. We started the pilot at RSM, as the response rates on the course can be extremely low there, as also can be seen in the table below. In our baseline course, the response rate was a striking 2%. Showing the animation doubled the response rate. Furthermore, when looking at the way students provided feedback, we saw that students provided more specific – and thus helpful – comments after seeing the animation than students in our baseline course.

Table 2. Student response rate of second year bachelor students, RSM

Course	Total students	Total responses	Response rate (%)
Course 0 baseline control group	1045	23	2.2
Course 1 experimental group	880	44	5.0
Course 2 experimental group	1400	56	4.0

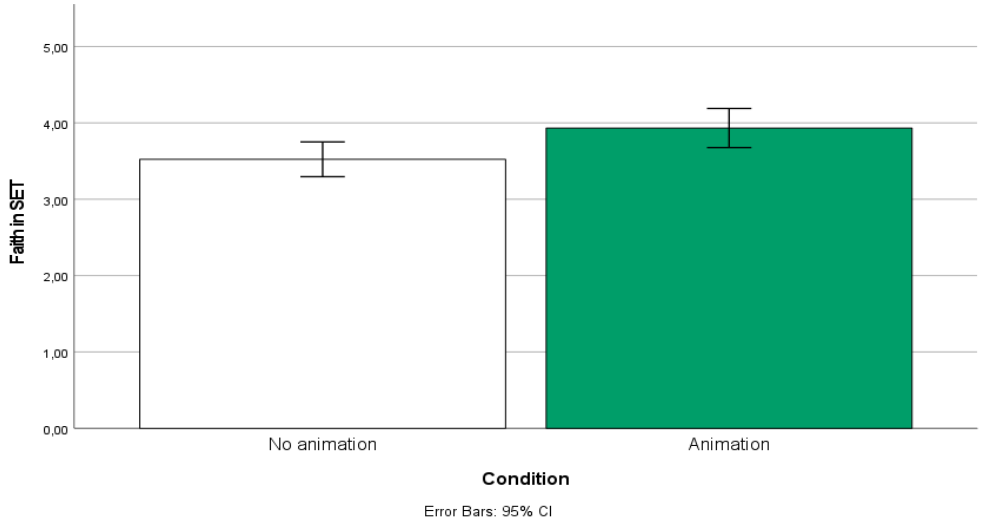
Although these results are in the right direction, the response rates remained very low. One of the reasons for this was that we showed the animation in class, which was not attended by all students. During the classroom intervention, we estimated that around 70 of the in total 880+ students were physically present, meaning we did not have a great outreach. Furthermore, the animation was presented by us as researchers. The effect may have been stronger when it was presented by the

teacher as this probably would have shown the students that the teacher is actually valuing their feedback.

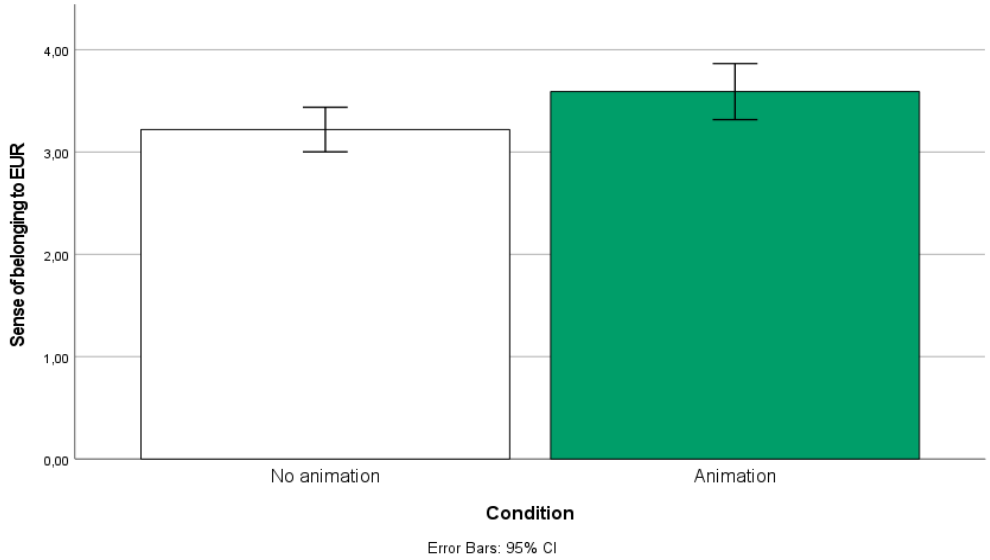
3.2.3 Quantitative studies ESSB

Study 1: Showing the animation in class

Building upon our learning of the RSM pilot, we continued with a pilot at ESSB, where we showed the animation after the tutorial meetings of the students. We randomly divided the tutorial groups into a control and intervention group and asked the tutors of the intervention group to show the animation at the end of the final tutorial meeting. Results showed a positive effect of the animation. Students who saw the animation in class before filling in the SET showed more faith in that their feedback would be used (M = 3.93, SD = 0.90) than students who did not see the animation (M = 3.52, SD = 1.13), t = -2.39, p = .018.



Interestingly, we also found a significant difference on sense of belonging. Students who had seen the animation before filling in their SET reported a higher sense of belonging (M = 3.59, SD = 0.99) than students in the control group (M = 3.22, SD = 1.15), t = -2.12, p = .036.



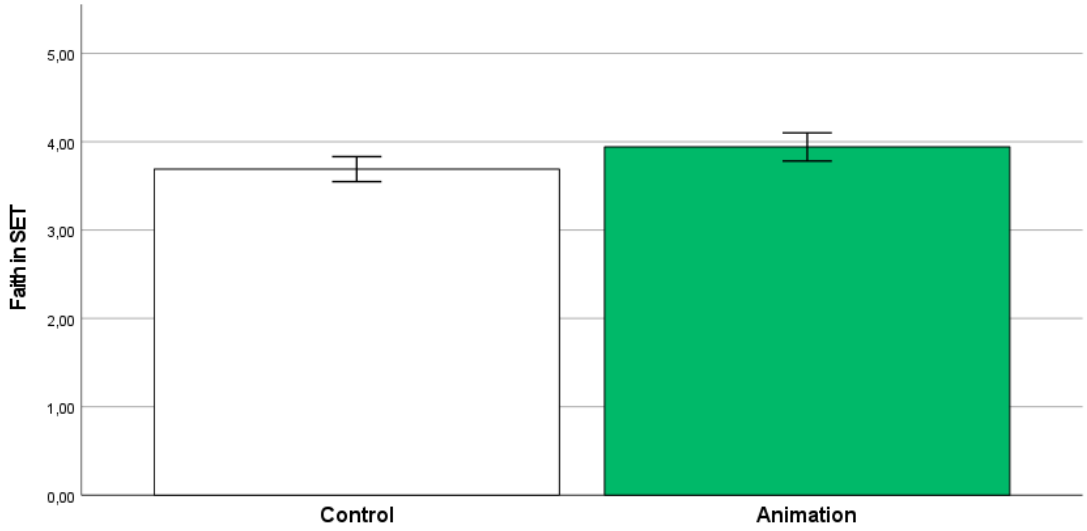
While students who had seen the animation reported more faith in SET and higher sense of belonging, this was not reflected in the way they gave feedback. There were no significant differences between the control group and the group who had seen the animation in how often they gave feedback, and how specific their feedback was, all p's < .05.

This in-class study enabled us to show the animation via the tutors. However, an important limitation of this second pilot study was that we noticed that 21.7% of the students in the experimental group had already filled in the evaluation before the final tutorial meeting. Hence, the animation could not influence the way they would fill in the evaluation anymore and we had to delete their data from our data set. In addition, the course in which the animation was shown was significantly changed in the year of the intervention, which lead to more written feedback of students as they had the urge to voice their opinion about the changes. In consultation with the WebTeam of ESSB, we therefore implemented the animation in canvas in another course in which students write their bachelor thesis. Students had to fill in the course evaluation before they could upload their thesis, resulting in a response rate of 100%.

Study 2: Showing the animation online before filling in the evaluation

In a follow-up to our in-class study, we imbedded the animation in canvas. Half of the students were directed to the animation just *before* filling in the evaluation, while the other half could continue as usual without seeing the animation. We again measured students' faith in SET, their sense of belonging and the way the filled in the evaluation (both response rate and quality).

Our preliminary results showed a significant effect of our animation on the faith students have in SET. The group seeing the animation before filling in the SET scored higher on their belief instructors listen to their feedback and their belief faculty use it to improve education (see also the Figure below).



We also compared the way students acted on the SET between the animation and control group. There was no significant difference on response rates ($p > .05$). Students who had seen the animation gave feedback equally often than students in the control condition, who had not seen the animation. Furthermore, both groups did not differ in the way they gave feedback and for example how specific their comments were ($p > .05$).

Finally, our preliminary findings showed that students' sense of belonging to the EUR was not enhanced. This could be as we asked about their sense of belonging to the EUR, and not to the faculty they are studying at (ESSB), which could have made a difference. It was remarkable that their sense of belonging to the EUR also was not very high already before they have viewed the animation. We expect that this is the case because of the Covid-19 virus, with students having to study mostly from home. Furthermore, we deem it likely that the effects of Covid-19 override the effects of our animation.

4 Conclusions and recommendations

4.1 First aim: Improving transparency by teacher summaries

The first aim of this project was to examine the effects of transparency by providing teacher summaries after the SET results were in. According to the literature (Bennett & Nair, 2010; Chen & Hoshower, 2003; Hoel & Dahl, 2019), such summaries should (1) inform and show students that their feedback is valued; (2) that their feedback is taken serious; (3) what the main points of the SET were; and (4) how the coordinator will use the feedback accordingly to improve the course. Following this advice, we constructed such summaries and we posted these on canvas for the students to see. Furthermore, we sent them an email with the summary.

In contrast to our expectations, the results of this study showed that adding such teacher summaries was not related to higher student motivation to fill in SETs and a higher faith in SET. This is not in line with prior research pointing to the benefits of such summaries and highlighting the importance of sharing as a teacher what you will do with the feedback.

4.1.1 Implications and learning for future research on course summaries

Our study shows that simply being transparent about what you will do as a teacher with the SET does not directly lead to an increase in student participation in SET (both in terms of response rate and response quality) nor a higher faith in SET. Importantly, to our knowledge, this is the first study that empirically tests the effects of transparency in a higher education setting. The results therefore have important theoretical and practical implications. While we still believe that transparency can be of high importance in education, the way it is effective needs to be further examined. Under which circumstances does transparency work? In our studies, we struggled to reach all students, for example by sending them an email and posting the summaries on their canvas course page. However, this could not guarantee us that we actually reached all students. At the same time, this is a realistic scenario and future research should examine how, under these circumstances, a transparency intervention can be designed to be effective at increasing student participation and their faith in SET.

For now, we conclude that providing an online summary of the feedback given and what will happen next at the end of the course is not the way forward when improving SET. It was time-consuming for teachers – who already juggle many educational tasks in very limited time – and considered stressful for some. More research is needed to define the boundaries within such summaries may be effective.

4.2 Second aim: Improving transparency by showing an animation

The second aim of our project was to examine the effects of a standardized and interdisciplinary useable animation on students' participation in SET and their faith in SET. To do so, we conducted several studies in which we showed the animation to students – ranging from a laboratory study, a classroom observational study to two quasi-experimental classroom studies. The outcomes of these studies indicate that showing the animation increased students' faith in SET. The animation showed mixed findings when examining whether it affected response rates and response quality on the SET. It appeared to be related to better student participation in our pilot at RSM, but neither study at ESSB could confirm this. This can partly be explained by the different research designs, the study as RSM had a within subject design, whereas

the two ESSB studies had a between subject design. The within subject effect, however, indicates that the animation had the strength to make students change their opinion about SETs and decide to give feedback after they have seen the clip. This change in perception was also supported by the qualitative and quantitative findings in the online ESSB study. Another explanation for the difference between the findings in the RSM and ESSB studies can be that the RSM study was conducted before Covid-19 and the ESSB studies during Covid-19 which can also have influenced the effect of the animation as students, generally, felt disconnected to the university during the pandemic.

4.2.1 Implications and learnings for future research on the transparency animation

The effects of our animation were tested in various studies in different settings and at different faculties. Each time, the animation was related to higher faith in SET. We therefore conclude that the animation is a useful way to increase student engagement in SET and our multidisciplinary studies show that the animation can be used across the university to do so. Furthermore, we carefully hypothesize that other universities could use this method as well, as it provides a feasible way to increase transparency of what happens with students' feedback they give in SET.

However, a limitation is that we could not find actual behavior change within our student pool. Even though they had more faith their input would be used, they did not give better or more feedback. Due to Covid-19, we changed our project plan from longitudinal studies (which was risky because the way students were taught differed from course to course) to four shorter studies within courses. It is likely that behaviour change needs more time and a direction for future research therefore would be to conduct more longitudinal studies on this topic.

While we found first positive results, more research is needed to strengthen the basis of our findings. Which parts of the animation were particularly helpful, and could the message be presented in other forms as well (such as an infographic)? While we found positive results in our study, it is just a first step in empirically examining the effects of transparency on student participation and faith in SET. Hopefully, our studies will inspire future research to also examine these effects.

Practical learnings

During our project, we learned some important insights when conducting the study that are crucial for the practical implication of the animation and for future research.

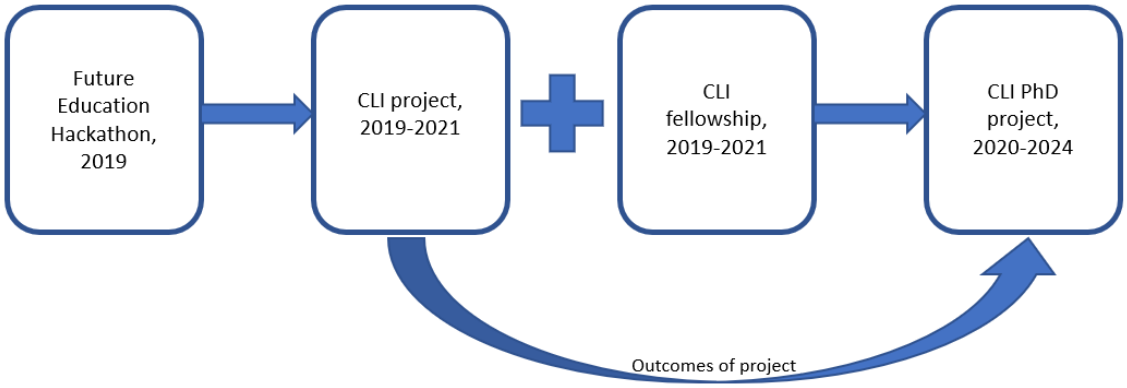
- The first important learning includes the importance of concrete information concerning how many students viewed the animation. Especially in large-scale bachelors where attendance during lectures is not mandatory, part of the population missed it. It is therefore advisable to show the animation either in smaller groups of students (in tutorials for example, as we did as follow-up at ESSB) or to embed the animation visibly and clearly in the LMS canvas before students fill in the SET.
- Second, while observing student behavior when the animation was introduced and shown in class at RSM, students did not fully pay attention to the researcher. The findings indicate that the animation can help creating a culture of feedback on campus, especially when it is used consistently over time. However, to emphasize that the animation is an integral part of the course, it is prudent to let the teacher or tutor introduce and show the animation instead of a person external to the course. The same counts for posting the animation online in the LMS canvas. In the RSM pilot study, this was done by the researchers themselves. In the future it is best if it would be done by the teacher of the corresponding course.
- Combining these two learnings, it is important to not see the animation as a stand-alone tool, that without giving context by the teacher will increase students' faith in SETs and hence response rate and -quality. Instead, faculty should clearly stand behind the message of the animation and give it a notable and easy to find place in the online LMS Canvas, especially in times of Covid-19 which makes online education the dominant education form.

4.3 Future research and involvement CLI

The research conducted in the fellowship and the CLI project Coversity has made clear that the research field about Student Evaluation of teaching is a theme worth exploring as it is so often used in education and can greatly impact HR and educational decisions. The current project has set the stage for interdisciplinary research on SET, involving multiple faculties.

4.3.1 PhD project on SET strategies

A PhD project with the theme **"SET strategies: making course evaluations an integrated part of educational design and teacher professionalization"** will therefore follow up on the CLI project described in this report. As this PhD project is partly funded by the CLI, the community will stay involved and will receive regular updates about the research from the PhD candidate Judith Auer. The PhD project builds up on the findings presented in this report and furthermore aims to set up a theoretical framework which can be applied in practice focusing on how to **construct** a valid and reliable SET, how to **apply** the SET in order to receive sufficient response rate and -quality, which level of **access** students should be granted in order to close the loop and how to **interpret and use** the SET outcomes with the aim to enhance teachers' professional development.



4.3.2 Interdisciplinary collaboration

During this project, we created strong ties with researchers and Learning and Innovation teams from other faculties. We will continue working with them and share our findings and animation across the university. During this project, we faced the challenges of Covid-19. Therefore, our initial plan to examine the effects of the animation *how* to give feedback had to be postponed (we only focused on the animation regarding transparency). We will, however, continue our work on this topic as well, for example together with the Erasmus School of Economics. This is especially important as students indicate that sometimes they want to give feedback, but are unsure how to, as also presented by the quote of one of our interviewees below.

> *"I really liked that it was an animation because anything visual will make us interested! Also made it very simple and short, what really helps us with our attention span. Maybe some more examples of good evaluations and also how to give good evaluations. I don't always know how to give a good evaluation without being too critical!"*

4.4 General conclusion

Student evaluations of teaching are a widely used and highly debated source of course information. While there are many pitfalls to SET, it is the best source we have until this day to ask students how they experienced their education. Given the wide-spread use of SETs in universities worldwide, and in faculties at Erasmus University, this project gives important insights in how to optimize the SET process. While scientific literature points to improving transparency by providing summaries, our results show this does not seems to be an effective way to increase student involvement in SET. Not only is it time-consuming

for teachers, but it also does not lead to more faith in SET and more feedback from students. Interestingly, presenting an animation with a short and simple uniform message was found more effective in increasing SET involvement and faith. At several faculties, results showed students had more faith their feedback is used after watching the animation. Hence, this project delivered a ready-to-use and effective product to help faculties create more students' involvement in SET.

At the same time, this project highlighted the many questions that remain unanswered. Why does the animation work better than the summaries? What factors underly the improvements we found? What are the longitudinal effects of showing an animation or summary? Such questions are central in our multidisciplinary RSM/ESSB collaboration on SET, also involving Judith Auer as PhD student. The CLI played a crucial role in bringing together relevant stakeholders of this new research line. Importantly, CLI also enabled to bridge between science and practice by bringing together Learning and Innovation teams and encouraging field studies at Erasmus University using our animation. We hope to continue our collaboration to further strengthen the empirical basis for how to use SETs effectively – thereby increasing our educational quality and our connection to the students at the EUR.

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