

Creating an inclusive classroom in higher education

A practical teacher's guide for creating safe, inclusive learning environments

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Key-words: Inclusion, safe learning environment, higher education, teacher behaviour

ABSTRACT

Creating a safe learning environment as a teacher is important not only for promoting a sense of inclusion among students, but also for fulfilling the learning outcomes. One important aspect to create a safe and inclusive learning environment is the teacher's behaviour. In addition, the physical room may contribute to the perception whether the learning environment is safe and inclusive, or not. This essay provides a literature review with a focus on inclusion and safe learning environments in higher education. On this basis, we present a selection of insights and practical suggestions, in the form of a teacher's guide, that can aid the creation of a safe, inclusive classroom environment. Finally, we suggest the use of a questionnaire that aims at assessing whether inclusive classroom practices influenced learning outcomes and the feeling of safety and inclusion.

BACKGROUND

Holley and Steiner describe a safe classroom as “a classroom climate that allows students to feel secure enough to take risks, honestly express their views, and share and explore their knowledge, attitudes, and behaviours. Safety in this sense does not refer to physical safety. Instead, classroom safe space refers to protection from psychological or emotional harm.” (Holley & Steiner, 2005). It can be difficult to create learning environments where all students feel safe and included. Unsafe, non-inclusive learning environments can result in a lower student participation in the classroom (e.g. answering less questions during a lecture), because of risking possible embarrassment or ridicule or that students fear that sharing controversial ideas or opinions might impact the course grade (Holley & Steiner, 2005). Fearing to precipitate during a class inhibit students' learning as they become less actively engaged (Chi & Wylie, 2014). To create more inclusive classrooms at higher education institutions, it is important to understand the concept of exclusion (Outhred, 2011). There are different factors that contribute to a feeling of belonging - or the absence of it - among students in higher education, and identifying these factors is key when trying to develop guidelines for inclusive teaching at the classroom level. The concepts “inclusive classroom” and “safe learning environment” go hand in hand (Sengupta, 2019), in which an inclusive, safe learning environment results in more students fulfilling the intended learning outcomes (Holley & Steiner, 2005).

The behaviour of the teacher

The teacher's behaviour is an important factor when trying to create safe, inclusive learning environments. Rawnsley (1997), for example, found that students in mathematics develop more positive attitudes in cohesive classrooms with limited competition and when the students receive equal treatment by the teacher. Especially when the teacher showed leadership, was willing to help, and showed friendly interpersonal behaviour while still being strict enough so that students felt a certain responsibility (Rawnsley, 1997). Brekelmans *et al.* (2002) visualised the model of Wubbels *et al.* (1985), which divided teaching behaviour in two dimensions: influence (Dominance-Submission) and proximity (Opposition-Cooperation) (figure 1). The teaching style that combines friendly interpersonal behaviour and strictness corresponds to a more cooperative, dominant teaching style in this model. However, there is a risk that a teacher becomes too dominant, which could lead to feelings of overwhelm and intimidation, on the students' part. Additionally, being overly friendly can be perceived as a lack of leadership from the teacher.

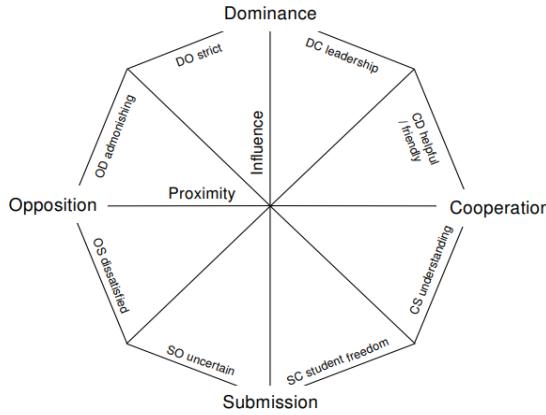


Figure 1: Different interpersonal teaching behaviour styles based on the model of Wubbels *et al.* (1985) (Brekelmans *et al.*, 2002). The two different dimensions represent different teaching styles (Dominance-Submission and Opposition-Cooperation). The terms inside the circle correspond to certain behavioural traits of the teacher.

These findings are similar to the results of Holley & Steiner. In this study, the effects of the teacher's behaviour on classroom safety and inclusion were assessed by evaluating surveys filled in by bachelor and master students. The study showed that the teacher is perceived to create a safer learning environment when they are open, respectful, comfortable with controversial ideas, which corresponds to a cooperative teaching style (Holley & Steiner, 2005; Brekelmans *et al.*, 2002). Additionally, the students responded in the questionnaire that a safer environment can be established when the teacher has set some ground rules which shows that a mixture of dominant and cooperative teaching styles might be most successful at creating a safe learning environment. These results were not found to be significantly affected by social-economic backgrounds and ethnicities.

Another way to create safer learning environments is through encouraging a feeling of social cohesion in a classroom (Rawnsley, 1997; Senior, 2001). Social cohesiveness can be described as “the way it “hangs together” as a tightly knit, self-contained entity characterised by uniformity of conduct and mutual support among members” (Vaughan & Hogg, 1995), which can result in that students feel more relaxed, comfortable, and safe and therefore dare to ask questions, state (unpopular) opinions, develop new ideas and improve their communication skills (Holley & Steiner, 2005; Senior, 2001). Cohesiveness in a classroom could be achieved by a teacher that is open, friendly, and accepting (a cooperative teaching style) while also using humour in teaching (Senior, 2001). However, humour should be carefully used and should not come at the despair of some students, as this might have severe counteractive effects on the classroom environment (Senior, 2001). For example, classroom banter that targets a specific student could be harmful for the student's learning experience. Furthermore, the perception of what falls within the broader context of humour has been evolving over time, and for example, jokes about minority groups are being used less over time (Kuipers & Van der Ent, 2016). Consequently, it is important for teachers to adapt their way of teaching over time.

Inclusive teaching in higher education with a focus on socioeconomic background

One of the key aspects that educators should account for when designing inclusive learning environments is the students' socioeconomic backgrounds. Individual student learning qualities and needs must be taken into account, even at the stage of course curriculum development (Dawson *et al.*, 2022). As the population of academic institutions becomes more and more diverse, creating safe learning environments that foster academic excellence across a wide range of socioeconomic identities is pivotal (Saunders & Kardia, 2004).

Although in western culture we tend to consider higher education as an egalitarian resource that is available to everyone, socioeconomic background is a central aspect when discussing inclusivity at academic institutions (Dewsbury, 2019; Outhred 2012), both at broader (e.g. campus level) and narrower (classroom level) contexts. Not only socioeconomic background largely determines what kind of higher education one will receive (if any) (Brown, 1990), it follows individuals along during the higher education journey, and has a major influence on the way classroom dynamics are formed. It goes beyond university culture dynamics and social groups, and it affects in-class learning. Therefore, educators ought to consider this aspect when designing inclusive teaching practices.

Saunders and Kardia (2011) describe an inclusive classroom as a space where all students “feel safe, supported and encouraged to express their views and concerns”. In this respect, everything that is going to take place over the course of a certain curriculum, from classroom discussions to group activities should be designed to accommodate people from different socioeconomic backgrounds. According to Saunders and Kardia, inclusiveness in the classroom largely depends on the student – teacher interactions, which are in turn influenced by the teacher’s own understanding of the diversity of the students’ socioeconomic backgrounds, as well as the teacher’s awareness of biases regarding those backgrounds.

Active learning is a powerful tool for enhancing learning outcomes in higher education. When applied in a way that promotes the creation of diverse groups, it can also be used to foster inclusivity and a sense of belonging among the students, which will in turn further reinforce learning goals. Besides group work on collective assignments, peer feedback groups can promote engagement through collaborative learning, and the creation of safe learning environments through the sharing of ideas, expression of diverse opinions and, ultimately, learning from each other.

The physical environment

There is a growing argument that the design of the physical learning space does have an impact on student learning. Imms and Byers (2016) could observe that a more dynamic and adaptive space improved performance in mathematics. They argue that the importance of the physical factors in the learning environments have been overseen, partly due to the lack of research methods capable of controlling complex variables inherent to space and education (Imms & Byers, 2016). The positive effect of the presence of daylight in classrooms and progression on maths and reading tests has been well documented (Heschong Mahone Group, 1999), however understanding the holistic impact of a space on its users has been more troublesome. Barrett *et al.* aimed to target this question, and in 2015 they could present a study highlighting seven key design parameters that together explained 16% of the variation in pupils' academic progress. These parameters were: light, temperature, air quality, ownership (how identifiable and personal the room is), flexibility (how well a room addresses the need of a particular pedagogy), complexity (how the different elements in the room combine to create a visually coherent and structured environment) and colour. This study involved 3766 students from primary schools in England and has identified a variety of issues of rather broad concepts and translated them into quite specific implementable factors that may change the student's learning outcome (Barrett *et al.*, 2015).

Although it is thought that a student's learning outcome improves by being part of a safe learning environment, the studies above do not take into consideration whether the student feels safe or unsafe. It is clear that the feeling of safety also plays a role in the student's ability to perform academically, as illustrated by a study performed in Tanzania by Kibrya and Jones

(2010) where it was shown that the presence of a security guard appears to improve the academic progress of the students, independently if the school was located in an urban or rural area. In this study it was shown that schools experienced as unsafe affected students' class attendance, engagement and motivation in a negative fashion (Kibrya & Jones, 2010). Although this study presents a rather dramatic sign of unsafety of the physical location of the learning environment, also internal factors from within the classroom have been reported as perceived as safe or unsafe. Holley and Steiner (2005) could show from a survey of 121 baccalaureate and master social work students that the arrangement of the seating had an impact on whether the students felt safe or unsafe. If the seating allowed the individual to see everyone, such as circle or U-seating, it was associated as a safe environment, whereas seating that did not conducive to discussion (such as row seating) was considered more unsafe (Holley & Steiner, 2005).

AIM AND GOALS

The aim of this study is to understand how one can strive to establish a safe learning environment where students feel included. This study focuses on the general inclusion of students with a certain focus on the inclusion of students coming from different socio-economic backgrounds. It does not consider individuals with health conditions or impairments, although it would be interesting to look at this in future work. Previously conducted studies were reviewed and with a focus on a higher-level education classroom scenario as the learning environment. Some references focusing on lower-level education have been included when information was lacking from higher educational levels, such as when reviewing the physical environment. To get a better grasp of the concept, the topic was broken down to three sub-questions:

- How can the teacher's behaviour stimulate a safe learning environment?
- How can teachers account for socioeconomic backgrounds to make the classroom environment more inclusive?
- How can the physical environment affect the learning environment?

The goal of the study is to provide teachers with a simplified guide (figure 2) that includes the most important aspects of creating an inclusive learning environment. The use of a questionnaire is suggested for evaluating how to assess the students and evaluate whether the student has perceived the learning environment as safe and inclusive. By comparing the overall number of students who pass written and oral exams the teacher may also assess whether the inclusive learning environment has contributed to improving the students' learning outcomes.

DESIGN

To make it more feasible for teachers to create a safe, inclusive learning environment, we designed a flow-chart based on the literature review summarised in the background information (figure 2; see section "Background"). This flow-chart shows which practical possibilities that teachers can implement when creating a class environment that is perceived as safe and inclusive.

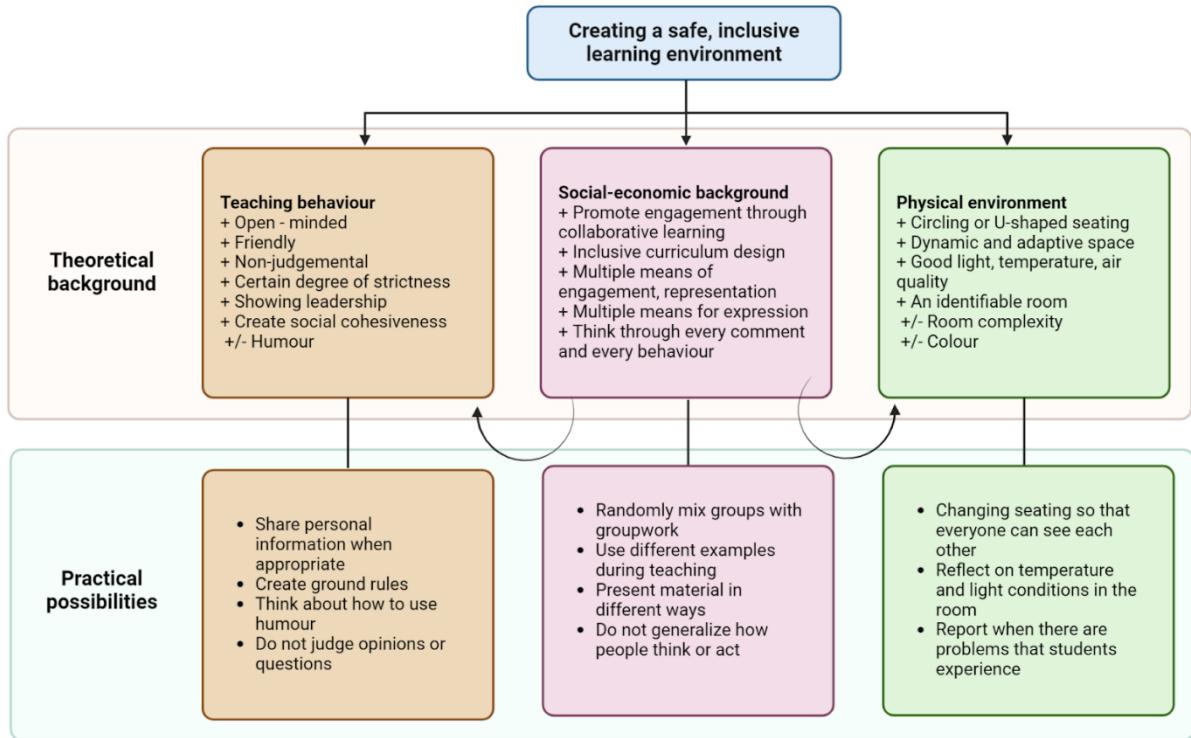


Figure 2: A flow-chart including background literature and recommended actions that were found in this study to create a safe, inclusive learning environment. The learning environment is thought to be a classroom in higher level education. The arrows represent how different actions are related to each other. In theoretical background + is considered as a factor that has a positive effect on the safe learning environment, and the - as negative.

ASSESSMENT & EVALUATION

The guide described above can be evaluated with a student survey after finishing a course. It is important that students can fill in the survey anonymously. This also means that the group of students should be large enough so that individuals cannot be identified based on the provided information. Possible questions for this survey can be found in appendix 2. To understand if the perception of a safe and including learning environment improved, questions should be asked to students before and after implementing the suggestions from figure 2.

In this survey, students that have completed the course fill in a questionnaire and an assessment will be achieved on the learning outcomes at the end of the course. To understand if the safe environment is affecting the learning of the students, the evaluation can be based on an assessment of the outcomes of the questionnaires against statistical data from students' performance evaluation (test results, assignment grades). After the suggested guide is implemented in the course, the assessment will run again. The results before and after implementation will be compared, a procedure that needs to be repeated multiple times, for different classes, for a concrete evaluation of the suggested approach.

The suggested questionnaire consists of three groups of questions for assessing if, how and to what extent the guide improved the perception of a safe, including learning environment (appendix 2). Questions of the questionnaire can be chosen based on the circumstances and goals of the teacher. Potentially a research ethics assessment might be required, and students need to be asked for consent before participating in the survey.

TEACHER'S GUIDE PROS AND CONS

We consider positive aspects, as well as challenges that a teacher might experience when using the suggested teacher's guide.

Opportunities

- Based on the hypothesis that the guide results in increasing the fulfilment of the learning outcomes, the main positive aspect would be the increased efficiency of the teacher's work. The idea is, that the time and effort invested would eventually pay back, in the long run.
- The suggested steps consist of simple and easy to grasp ideas that any teacher could implement regardless of background (e.g. teachers in natural sciences, as opposed to teachers in social sciences).
- Allows a lot of freedom for the teacher to experiment with different ways of implementing the suggested strategies.
- Suggested strategies are within the capacity of the teachers and not tied to or depended on the built university environment or other resources.

Challenges

- Difficult for the teacher to identify, understand and account for their own bias.
- Challenging for the first time or first few times that a teacher would try to implement this guide, due to the many different aspects that they would need to consider. That might pose a risk for the teacher having to invest an unsustainable amount of time, or falling behind with covering the material that was intended to be covered.
- From theory to practice - the risk of unexpected results. The effectiveness of the suggested strategies might be dependent on the students' individuality. Furthermore, as this is a rather progressive approach to teaching strategies, students that in the past have had more conservative or traditional education experiences might find it difficult to adapt.
- Several of the suggested steps in the guide are broad in meaning and allow a lot of space for interpretation. This could be both a positive and a negative. On the con side, it could be a source of confusion for the teacher.
- Some of the suggested strategies might not be entirely on the teacher's capacity. For example, an inclusive curriculum design might be something that needs to be discussed and decided with the director of studies, study administrator, or in the case that the teacher is in fact the teaching assistant, with the professor responsible for the course.

EVALUATION PROS AND CONS

On the one hand, the survey gives a possibility to assess the teaching style while also assessing the class in general. The suggested questions are very general so that they can be adapted to different scenarios. On the other hand, the assessment's results might be biased or partly untrue because students do not dare to fill in the survey honestly (even when it is done anonymously) or base their answers on if they have passed the course or not. In addition, it might be difficult to have the survey completely anonymously when, for example, there is only one or a few students that have parents with a migration background. Another con of the evaluation is that time needs to be invested in order to make sure that the survey will provide enough information to evaluate how safe and including the learning environment is, without risking to interfere with personal data or risking to reveal the identification of any student.

REFERENCES

1. Barrett, P., Davies, F., Zhang, Y., & Barrett, L. (2015). The impact of classroom design on pupils' learning: Final results of a holistic, multi-level analysis. *Building and Environment*, 89, 118-133.
2. Brekelmans, M., Wubbels, T., & Den Brok, P. (2002). Teacher experience and the teacher-student relationship in the classroom environment. *Studies in educational learning environments: An international perspective*, 73-99.

3. Brown, P. (1990). The 'third wave': Education and the ideology of parentocracy. *British journal of sociology of education*, 11(1), 65-86.
4. Chi, M. T., & Wylie, R. (2014). The ICAP framework: Linking cognitive engagement to active learning outcomes. *Educational psychologist*, 49(4), 219-243.
5. Dawson, B. A., Kilgore, W., & Rawcliffe, R. M. (2022). Strategies for creating inclusive learning environments through a social justice lens. *Journal of Educational Research and Practice*, 12, 2.
6. Dewsbury, B., & Brame, C. J. (2019). Inclusive teaching. *CBE—Life Sciences Education*, 18(fe2), 1-5.
7. Gibbs, J., Hartviksen, J., Lehtonen, A., & Spruce, E. (2021). Pedagogies of inclusion: a critical exploration of small-group teaching practice in higher education. *Teaching in Higher Education*, 26(5), 696-711.
8. Heschong Mahone Group. (1999). Daylighting in schools, an investigation into the relationship between daylighting and human performance. California Board For Energy Efficiency.
9. Holley, L. C., and Steiner, S. (2005). Safe space: Student perspectives on classroom environment. *Journal of social work education*, 41(1), 49-64.
10. Imms, W., & Byers, T. (2017). Impact of classroom design on teacher pedagogy and student engagement and performance in mathematics. *Learning Environments Research*, 20, 139-152.
11. Kibriya S., & Jones G. (2020). The impact of a safe learning environment in schools on students' learning outcomes: evidence from Tanzania. *Quality Assurance in Education*, 29(1), 15-28.
12. Kuipers, G., & Van der Ent, B. (2016). The seriousness of ethnic jokes: Ethnic humor and social change in the Netherlands, 1995–2012. *Humor*, 29(4), 605-633.
13. Lynch, K., Crean, M., & Moran, M. (2009). Equality and social justice: The university as a site of struggle. *The Routledge international handbook of the sociology of education* (pp. 296-305). Routledge.
14. Outhred, R. (2012). Reconceptualising inclusion in higher education. *International Journal of Inclusive Education*, 16(9), 881-884.
15. Pridham, B., Martin, D., Walker, K., Rosengren, R., & Wadley, D. (2015). Culturally inclusive curriculum in higher education. *The Australian Journal of Indigenous Education*, 44(1), 94-105.
16. Rawnsley, D. G. (1997). *Associations between classroom learning environments, teacher interpersonal behaviour and student outcomes in secondary mathematics classrooms* [Doctoral dissertation, Curtin University]. Curtin Library Catalogue.
https://catalogue.curtin.edu.au/discovery/search?vid=61CUR_INST:CUR_ALMA
17. Rose, D. (2000). Universal design for learning. *Journal of Special Education Technology*, 15(4), 47-51.
18. Saunders, S., & Kardia, D. (2004). Creating inclusive college classrooms. *A guidebook for University of Michigan graduate student instructors*, 46-56.
19. Sengupta, E., Blessinger, P., Hoffman, J. & Makhanya, M. (2019). Introduction to Strategies for Fostering Inclusive Classrooms in Higher Education. In Hoffman, J., Blessinger, P. and Makhanya, M. (Ed.), *Strategies for Fostering Inclusive Classrooms in Higher Education: International Perspectives on Equity and Inclusion* (pp. 3-16). Emerald Publishing Limited.
<https://doi.org/10.1108/S2055-364120190000016005>
20. Senior, R. M. (2001). Creating safe learning environments: Developing and maintaining class cohesion. *Intercultural Education*, 12(3), 247-259.
21. Swapp, D. (2017). Critical Thinking, Active Learning, and the Flipped Classroom: Strategies in Promoting Equity, Inclusion and Social Justice in the B. Ed. Classroom. *Teaching Innovation Projects*, 7(1).
22. Vaughan G., and Hogg M. (1995) *Introduction to Social Psychology*. Prentice-Hall.
23. Wubbels, T. (1985). Discipline problems of beginning teachers, interactional teacher behaviour mapped out.

Appendix 1: Process report

During this project, we had a difficult start due to misunderstandings and not having set ground rules about how to communicate with each other. After taking the time to discuss these difficulties, we managed to work well as a group, contributing a similar amount to the project. In addition to everyone's personal responsibilities (table 1), we had multiple meetings to make sure that our work would add to one another. We also helped each other with finishing the main responsibilities.

Table 1: The personal responsibilities within this project.

Name	Main responsibilities
Maria	Background information: Socio-economic background The questionnaire The abstract Adding ideas and comments Improvement after feedback
Lydwin	Background information: teaching behaviour The design section and figure 2 Adding ideas and comments Process report (approved by everyone) Improvement after feedback
Esther	Background information: Physical environment The aim and goals section The abstract Adding ideas and comments Improvement after feedback

Appendix 2: Suggested questions to include in the survey.

Group 1: Background information about the students:

- Gender
- Age
- Parent's education level
- Parents born in Sweden/ both parents or one parent (specify)
- If not born in Sweden, then specify
- Parents raised in Sweden
- If not raised in Sweden, then specify
- Family income during the last of high school: select from 4 categories of income.
- Were there books in the household where you grew up? 4 categories of approximate number of books in the household

Group 2: In class involvement and interaction

The questions are expected to be answered using levels of agreement/ disagreement (5 categories, i.e. strongly disagree, disagree, N/A, agree, strongly agree), or, alternatively, a range from 0-10 (0: to express strong disagreement, 5: neither agree nor disagree, 10: strongly agree)

- I feel comfortable asking questions at the end of the class

- When the teacher has allowed for interrupting with questions, I feel comfortable to raise my hand and ask a question
- I feel comfortable raising my hand to express an opinion, during a class discussion
- I feel comfortable raising my hand to answer a teacher's question
- The class discussion helped me to learn more about the topic
- The smaller group discussions helped me to learn more about the topic
- I could say everything I wanted during the group work
- I learn more from individual assignments
- I prefer group activities over individual assignments
- I have felt judged when I expressed an opinion that was different than the popular opinion in the classroom
- I felt included in group discussions
- I overall felt included in the in-class discussion and activities
- I feel that all students in the classroom are equally respected for their views and opinions
- I felt that the examples that were brought up by the teacher were understandable for me.
- The teacher helped us to achieve the course goals
- The teacher had a clear purpose for the classes

Group 3: Classroom physical environment related questions

- The arrangement of the classroom desks made me feel comfortable
- The arrangement of the classroom desks helped me to engage in conversations with my group
- The arrangement of the classroom desks helped me to be engaged throughout classroom discussion and activities
- The arrangement of the classroom desks in relation with the placement of boards and screens allowed me to comfortably watch the presented material
- The light and temperature were not disturbing my concentration

Appendix 3: Feedback report

Feedback received

Many comments from the feedback session were used to improve our project. Most of the feedback was about the clarification of some terms and goals. Some comments we received about clarification were: to clarify what we mean with equity, to clarify what we mean with increasing the learning outcomes, and to clarify the importance of anonymous surveys. Other feedback that we received was that it would be nice to write more about how teacher behaviour can also affect people with special needs, add a problem identification in the beginning of the background section, and add information about the positive and negative sides of the flow-chart and survey. Lastly, there were some suggestions about the phrasing of the survey questions.

Feedback responses and implementation

We implemented most of the feedback since it would improve our report. For example, we changed "increasing learning outcomes" to "fulfilling learning outcomes". Additionally, we added the importance of anonymous surveys, added that it is necessary to compare before and after results of the survey in multiple classes, and changed some of the phrasing in the survey. We also added a cons and pros section in our report and included the problem that was identified at the beginning of the background information. However, we did not provide a clarification about equity and instead removed this part from our introduction because we never mention it again in the report. Lastly, even though we think it is important to create an inclusive learning environment for people with special needs, we did not include this in our report because this was outside the scope of our aims.