

Towards a More Inclusive University – Supporting Teachers Through Universal Design for Learning

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Abstract. The diversity among Swedish university students is steadily increasing. The students have different backgrounds, experiences, interests, learning styles and abilities. Also, there are more students with disabilities at Swedish universities, especially invisible disabilities. Teachers need to adapt their teaching and curricula, and can no longer wait to do this until they spot a student with diverse learning preferences. Universal Design for Learning (UDL) is an approach to make a university more inclusive, by increasing the flexibility of how students can take in information, express their knowledge and be motivated in learning. Seven key persons at a Swedish university took part in focus group interviews about their views and experiences of diversity and inclusion. They represented key administrative and pedagogical functions, as well as a student organisation and learning support for students with disabilities. Qualitative content analysis of the interviews resulted in 10 themes: a) Attitudes and treatment b) Accessibility and participation c) Knowledge and competence d) Support and resources e) System and processes f) Organisation g) Teachers and education h) Students and student organisations i) Actions and solutions j) Future work. Conclusions: While the university has good support for students, more support for teachers is needed. Thus, the next step will be the development of a course module for teachers to be included in a regular pedagogical development course for teachers at the university. Furthermore, there is a need for more knowledge about inclusive student activities, taking place outside of lecture rooms.

Keywords. Universal Design for Learning, higher education, accessibility, inclusion, participation

1. Introduction

The diversity among Swedish university students has increased [1, 2]. Students have different backgrounds, experiences, previous knowledge, learning styles and abilities. In a recent survey, 17% of Swedish university students reported that they had a disability [3]. In this group, 2/3 found their disability to be an obstacle in their studies, but only 20% contacted the student educational support unit at their university. Consequently, universities underestimate the number of students with disabilities who experience obstacles.

The obstacles that face students with disabilities in higher education include physical access, tutoring and examination [4]. There are different ways to assist these students,

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and the support may be tailored to the needs of specific students or offered to all students in order to avoid stigmatization [5]. Teachers need to adapt their teaching and curricula, and they should no longer wait to do this until they spot a student with diverse learning preferences. Universal Design for Learning (UDL) is an approach to make a university more inclusive, by increasing the flexibility of how students can take in information, express their knowledge and be motivated in learning [6, 7, 8]. This is not the same as Universal Design (UD) [9, 10], although UD and UDL share many basic ideas, most importantly their focus on design for all people, instead of people in need of special solutions.

UDL is currently not the main approach to teaching and learning at Lund University. Although there are services for students with disabilities and diversity is promoted in official documents, there is a need to learn more about how this works in practice. Before introducing a new approach, like UDL, it is important to know the current situation. In order to gain the perspectives from both students and staff, at different levels in the organisation, focus group interviews with seven key persons at the university were conducted. These interviews focused on the participants' views and experiences of diversity and inclusion, particularly regarding students with disabilities, how students and teachers were coping, the support already available, and what in their view needed to be improved.

2. Method

Seven persons were purposefully selected to be interviewed, four women and three men. The participants represented key administrative and pedagogical functions, as well as a student organisation and learning support for students with disabilities. Most of the interviewed were connected to one of the departments at the university, while a few had roles that encompassed the university as a whole.

The interviews were semi-structured, and two of the interviews were group interviews (with two participants in one, and three in the second interview). Due to scheduling issues, two interviews were individual. The same interview guide with 16 questions was used in all four interviews, which all lasted a few minutes short of one hour. We used the interview guide to check that all questions had been covered, but the participants also brought up new themes and perspectives.

All the interviews were recorded with a digital sound recorder, imported into Transana 2.61 and transcribed. The transcriptions were then anonymized, imported into NVivo 11 for Mac, and analysed with content analysis [11]. The analysis included the following steps:

1. Coding of the transcriptions. The coding was first inductive, but as new codes were included, the coding became more deductive. The coding was performed by the first and third author, separately.
2. Combining both codings into one single file in NVivo.
3. The resulting 86 codes/nodes were aggregated into themes. This was done by the first and third author together, until consensus.

3. Results

Qualitative content analysis of the interviews resulted in 10 themes: a) Attitudes and treatment b) Accessibility and participation c) Knowledge and competence d) Support and resources e) System and processes f) Organisation g) Teachers and education h) Students and student organisations i) Actions and solutions j) Future work.

Table 1. Overarching themes from the interviews

Themes	Sources	References
a) Attitudes and treatment	4	140
b) Accessibility and participation	4	69
c) Knowledge and competence	4	100
d) Support and resources	4	159
e) System and processes	4	124
f) Organisation	4	117
g) Teachers and education	4	97
h) Students and student organisations	4	162
i) Actions and solutions	4	92
j) Future work	4	52

As can be seen in Table 1, all themes were present in all four interviews. Since the codes were aggregated from two different codings, it is possible that some of the same excerpts from the transcriptions have been counted more than once for the same theme. Also, the categories are not mutually exclusive, and the same text may have been given more than one code. Here short descriptions of the results regarding each theme is presented, summarizing what the participants have stated about what they know, think and perceive. The codes that the themes are created from are also listed.

3.1. Attitudes and treatment

Codes: Responsibilities, attitudes, treatment, discrimination, prejudice, violation, power, mindset, curiosity, priorities, rights, obligations.

Most teachers are willing to work in an inclusive way, but prejudice exists, and not all students are treated well. However, it has become better than before, maybe because it has become easier to talk about discrimination and inclusion. Attitudes are in part related to knowledge and awareness, as well as knowledge about what to do and what the resources are. It is also closely related to the culture that exists in different departments and groups. The students' attitudes are important, both the attitudes of the students who are in need of support, and the attitudes of the other students, who may be envious of other students, who are given longer time to perform an exam, without their peers understanding why. Also, not all students in need of support want to tell their teachers about this.

3.2. Accessibility and participation

Codes: participation, inclusion, special treatment, accessibility.

Students' participation in the activities arranged by the student associations is perceived to be much better than five years ago, for instance when it comes to exchange

students. It is however still difficult for the leaders of the student associations to know how to engage students who are introvert and/or have difficulties with social situations. When it comes to the physical environment, there is an awareness about the need for new meeting places and education facilities, where participation and inclusion have been taken into account from the start. A specific difficulty is that the faculty that we have studied does not have much visible diversity, which makes people who are a little different stand out. Special solutions will continue to be needed, but there is an awareness that the usual solutions need to be more inclusive.

3.3. Knowledge and competence

Codes: information, communication, competence, knowledge, degree of awareness, awareness.

Most people know about the educational support that is available, but it is there for the students not for the teachers. There is specific information for teachers about special needs and what the educational support system has to offer, but much more knowledge is needed about how teachers can make their education more inclusive. There is also a need for more than just information, something that the staff at the academic development unit that provides pedagogical courses are well aware of. They have found that teachers appreciate and get lasting impressions from meeting the student counsellors when they talk about their work and what they have learned from students in need of support. It is possible that students know more than teachers about this subject.

3.4. Support and resources

Codes: assessment, needs and interests, disability, variation in functioning, language and culture, support and resources, universal design, universal design for learning.

Educational support is a resource that works very well at Lund University, also when compared to other Swedish universities, but there is still much left to do. One of the resources is student counsellors who give special support to students who need it. It is the students who are responsible for telling their teachers about their need of support. No one else is allowed to tell teachers about a student's disability. An important device is the certificates that students can get from the educational support counsellors, stating their need for longer time at the exams and/or other adjustments. Many teachers are not willing to make any other adjustments than are stated in these certificates. Other resources that are available are assistance with note taking and mentors. Most students who receive special support have dyslexia. At the studied faculty, many functions are centrally placed, which may make it difficult to learn about these services.

3.5. System and processes

Codes: decision processes, activity plans, sustainability, equality, course plans, leadership, equal treatment, policy, proactivity, time aspects, follow-up, basic values.

According to a new Swedish anti-discrimination law, activity plans are no longer enough, you have to document active measures and follow-up. Questions regarding accessibility and countermeasures regarding discrimination against people with disabilities, are raised more and more. It has to do with discussing problems, finding them, analysing them, creating an action plan and then follow it up. There is a need for this to be included in the regular education for teachers. It is important to be there when

something new is built, so there won't be any need for features to be added afterwards, because you did not think about inclusion from the start. When it comes to perceived violations, it is important to act immediately, and to investigate the matter swiftly and systematically.

3.6. Organisation

Codes: work environment, faculties, physical environment, the faculty of engineering, Lund University, diversity, environmental aspects, psychosocial environment, roles.

There is a management team for equal treatment at the university, which has an advisory function towards the Dean. The board of education also has an advisory capacity, but they can also make some decisions on their own. There is also a management group at the faculty level, that can make their own decisions within budget. Since 2008 there is no longer any central task force regarding equal treatment at the university, but there is such a group at the faculty level. Many other universities have central task forces regarding these questions. The responsibility for the students' psychosocial work environment resides with those who are responsible for programs and program clusters at the faculty. There is a need for work groups who deal with different issues, but they also need to be included in the day-to-day work and that is difficult to achieve. The management has decided that all new students will get a lecture about basic values, and so will students who are going to write dissertations.

3.7. Teachers and education

Codes: adviser, teacher, teacher's perspective, achievement, programs versus stand-alone courses.

There have previously not been many resources for teachers who want to make their teaching more inclusive. There is also a need to know where to turn for help, and the possibility to discuss these matters. It may take a long time before a teacher learns that there are students who are in need of special support in a group of students, because the students themselves have to inform the teacher about their needs. If a student gives the teacher a certificate from the educational support team, for example about a need for more time during the examination, the student usually gets this, but it is difficult for teachers to take their own initiatives, sometimes out of fear of doing something wrong. Most teachers put in some extra effort when they have students who they know need extra support, but this only has to do with the teaching situation, not what happens outside of that. Many teachers are willing to make accommodations, but not all. Before a teacher has met a student with pronounced impairment, there is rarely a readiness to support students like that from the start.

3.8. Students and student organisations

Codes: students, students association, student life, student perspective.

Students meet different attitudes at different departments and from different teachers. Also, the way student life is depicted on webpages and in information pamphlets show limited diversity. This can be a problem for students with disabilities, as well as for students from other cultures or who are exchange students. There is a curiosity among students when it comes to diversity. The support students can get from counsellors and the educational support team is much appreciated. The student association works actively

with inclusion, but they don't always find their work easy. Most students who get engaged in the student association are active and extrovert, which may make it difficult for them to understand how to include students who are introvert and have difficulties with social situations. Students who are different in some way may feel stigmatized, for example in association with lecturers and examinations. Much responsibility is left with the students when it comes to informing teachers about their need of support. Not all students want to accept the resources they are offered, for example a mentor.

3.9. Actions and solutions

Codes: activity and situation, design, one-time activities versus systematic, role models, inspiration, solutions, goals, planning, strategies, development, tools, measures.

There is a need for much more than appointing a management group for equality or equal treatment, thinking that everything is solved through that. It is important to design the physical environment so that it invites participation and inclusion. Working with role models may have an impact on how students later act during student activities and the like. It is hard to know the best solution, when it comes to note taking. The use of notes when students haven't written them themselves is not self-evident. There is a hidden need for both knowledge and forums where these questions can be discussed.

3.10. Future work

Codes: The academic development unit, courses and course elements, about the project, survival of the project results.

This was mostly about the project and its continuation. The people who were interviewed told us about other people who might be interested in participating. Future courses, as well as teaching and discussions about inclusion and diversity in other courses, were often suggested. Working with role models was also put forth as a viable way forward.

4. Discussion

Lund University does not currently have Universal Design or Universal Design for Learning as its main framework for teaching and learning. This is not surprising, since not many universities do. What is more problematic, from a UDL point of view, is that the actual policy, as it is reflected in action, is still focused on special solutions for special people. This is not in line with current Swedish disability policy, and it shows that there is a need to follow up this study by initiating activities that have opportunities to make a real impact on the whole university.

4.1. Limitations

Some of the themes that make up the result of this study, were already present in the interview guide. We wanted to know about attitudes, support, inclusion, and what needs to be improved from both the teachers' and students' perspectives. But we did not know the answers to those questions, and we did not know what else would come up in the discussions. We are aware that our interview guide guided the conversations, as was

intended, but each interviewee came with their unique knowledge and perspective, which made each of the four interviews different, and they each informed the results in different ways. The two themes that are most unrelated to the interview guide are “System and processes” and “Organisation”, but each of the other themes also contain much more that was present in our interview guide to begin with.

4.2. What we also learned from the study

The importance of attitudes, from both teachers, students and the organisation as a whole, was confirmed by the interviews. This does not mean that it will be easy to change existing attitudes (those that need changing), something that might call for new approaches as well as patience and time. The lack of knowledge among teachers about how diverse student groups actually are, and how variations in abilities and preferences affect learning, needs to be addressed. Teachers enjoy meeting student counsellors and learning about students’ challenges from them, but the counsellors’ roles are rooted in a tradition of special solutions for special people rather than inclusion. Current solutions are thus better suited to promote accessibility than inclusion and lack of stigmatization. Engaging student counsellors in work toward universal design might provide an important path towards a more inclusive practice.

We found many positive attitudes and policies at the higher levels of the organisation, but there is still a lot left to do when it comes to implementation of an inclusive agenda at all levels of the university. Knowledge about what is needed to make the university truly inclusive is also probably lacking to a large extent, otherwise more buildings and lecture rooms would be physically accessible, there would be tools available for teachers, to make it easy to make lectures accessible for students with visual, hearing and/or reading difficulties, and there would be rooms for relaxation and study for students who find it difficult to concentrate in large groups. There would also be a policy about diversity and inclusion that explicitly included students with disabilities, with goals and strategies for implementation.

The results of the interviews also show the need for more knowledge about what happens outside the lecture rooms, both on the part of students and student organisations and staff. The attempts from the student organisations to create more inclusive activities are encouraging, as are their requests for more knowledge about how to actually achieve it.

4.3. Going forward

Having learned about all the perspectives and needs addressed in the interviews, the group that conducted this study is now faced with having to decide how to go forward. It was encouraging to find that all the interviewees were supportive of our efforts, something that is reflected in the helpful suggestions from the participants. The purposeful selection of participants gave us a good insight into the current situation, despite their limited number. We find it safe to conclude that, while the university has good support for students with a documented disability, more support for teachers is needed, as well as inclusive solutions for all students. Although well intended, the way students are expected to inform all their teachers about their specific needs, while producing a certificate to support their claims, is very stigmatizing. This strengthens our determination to promote UDL, and to start by reaching out to teachers at our faculty. We are considering our first step to be the development of a course module in Universal

Design for Learning for teachers, to be included in a regular pedagogical development course for teachers at the university. Such a course module has the possibility to reach more teachers than a separate course focusing on just Universal Design for Learning, although we believe that there is a need for different kinds of courses. Also, it is important to acknowledge the complexity of implementing UDL, as is thoroughly explained by Edyburn [12], who also stresses the need for technical design solutions, something that our department is well suited to develop and introduce.

Another way forward that we find promising, is co-operation between units at different parts and levels at the university and joining forces with each other in a more efficient way. Development of support web pages for teachers is another idea. The information currently provided is focusing on students with disabilities, instead of providing general pedagogical support for teachers, embracing the UDL perspective. Including short videos about how different students experience difficulties might help both teachers and fellow students to recognize the need for flexibility regarding both information provision, expression and motivation.

When managers and colleagues discuss the importance of UDL more frequently and UDL-related aspects are included in quality indicators for education, we hope that teachers will start being influenced and take inclusive education to heart.

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