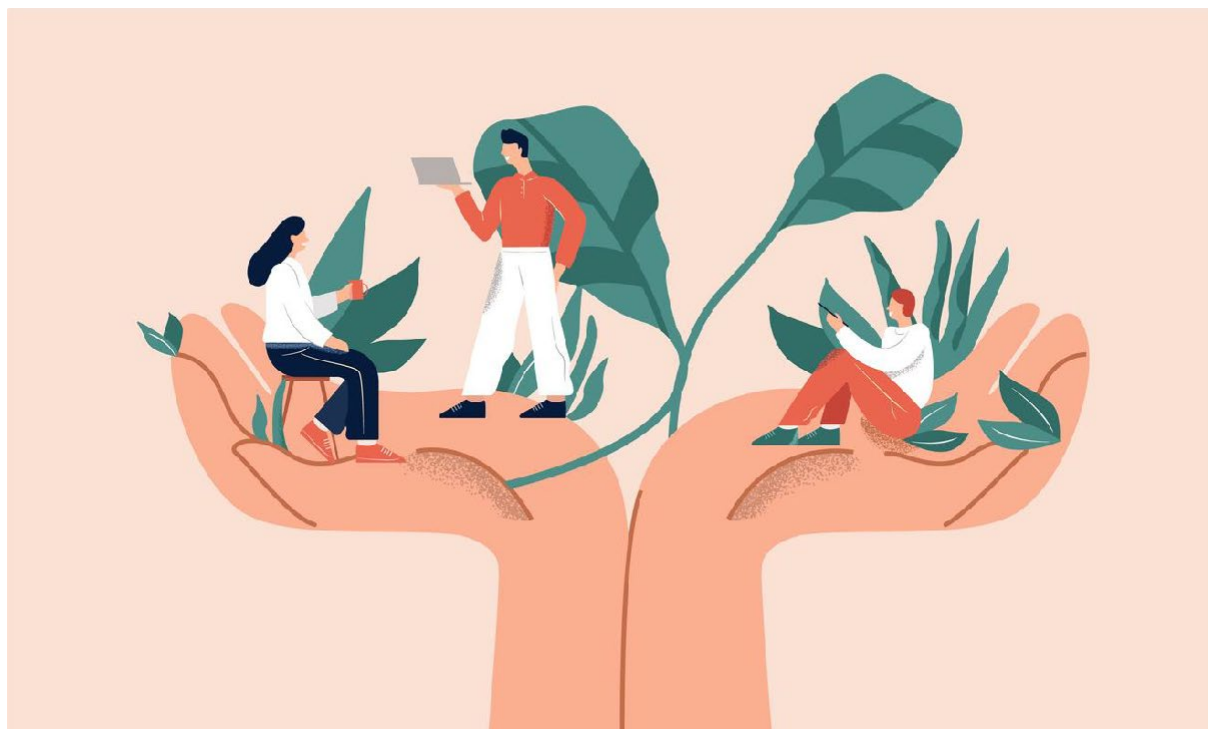




GÖTEBORGS
UNIVERSITET

FACULTY OF SOCIAL SCIENCES



FINAL REPORT

SUSTAINABLE AND ACCESSIBLE LEARNING ENVIRONMENTS (HTL) PROJECT

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1. Summary

During the period 2021-2023, the project Sustainable and Accessible Learning Environments (HTL) has been implemented at the Faculty of Social Sciences. The background to the project is the large number of young people reporting poor mental health in various surveys. In particular, students in higher education have reported feeling unwell, anxious, stressed and depressed. The purpose of the HTL has been to investigate whether, and if so how, the Faculty can work at a structural level to promote mental health among students with a focus on improving the conditions for student learning, understanding how the COVID-19 pandemic affected teaching and increasing access to higher education for students of various circumstances.

The project has consisted of five sub-projects:

1. A systematic literature review of interventions made in higher education at a structural/organisational level to promote student mental health and/or prevent student mental health issues.
2. Focus-group interviews with teachers to capture their experiences and management of the transition from campus-based teaching to online learning during the COVID-19 pandemic.
3. Development of a HyFlex course to allow students to choose their own forms of learning.
4. Student Life: A project based on following, documenting and drawing conclusions about how students experience their initial time as students and then, together with students, developing proposals for measures to improve learning environments and student life using diaries.
5. Tools for Sustainable Student Life: An open digital resource that can be used freely by staff and others working on students' mental health, sustainability and inclusion.

The results of the project show that systematic preventive and promotional work at the structural level seems to have a good effect on students' mental health and learning as well as contributing to creating a more accessible university. Teachers as well as students report that influence, participation, comprehensibility and inclusion are important in creating favourable conditions for sustainable student life that enables learning as well as health/well-being. The results of the project further highlight the possibility for the Faculty to involve students in more qualitative co-creation surveys in order to gain deeper insight into students' experiences and thus develop and implement appropriate measures.

The project has resulted in several proposed measures. Based on the needs and ideas of students and teachers' experiences in addition to a systematic review of the scientific literature in the field, the project group proposes the following development paths:

- Further development of the qualitative follow-up method on which the Student Life sub-project is based. This work can be advantageously integrated into the work on quality assurance and quality development of all education.
- Further development and implementation of pedagogical approaches within the Faculty based on students' sense of community, belonging and participation.
- Further development and opportunities to implement the experiences of the student-centred HyFlex course on a larger scale.
- Supervision of the physical learning environment based on the importance of its suitability not only for teaching but also for student encounters and socialising
- Establishing and maintaining various forms of continuous peer-to-peer exchange of experience on issues related to students' mental health and learning and what role the learning environment plays in this respect.

2. The HTL project: Sustainable and accessible learning environments

2.1 Background

Studies show that young people studying at university report high levels of stress, various forms of mental health problems and ill health (Public Health Agency of Sweden, 2018). According to Swedish researchers, depressive symptoms, anxiety and stress are more common among students than their non-student peers (Winzer, Lindberg, Guldbrandsson & Sidorchuck, 2018). It seems that the increase in mental health problems among students is highest during the early phase of the academic programme (i.e., the first semester, see Bewick, Koutsopoulou, Miles, Slaa & Barkham, 2010). Internationally, this has been described as a "student mental health crisis" (Vogt & Johnson, 2023). There is a clear link between mental health and academic achievement (Bas, 2021; Pascoe, Hetrick & Parker, 2020), making the high rate of mental health problems a concern for higher education institutions. Swedish higher education institutions see mental illness among students as a growing challenge that places new demands on teachers and supervisors (UKÄ, 2019).

In addition, the heterogeneity and diversity of the student population is increasing. It is a conscious strategy in Sweden, for example, to expand recruitment and participation in higher education. While this increases educational opportunities for more people, it also brings new challenges for higher education institutions. The underlying questions for the project have been: how can the Faculty reduce the risk that our learning environments contribute to mental health problems among students; how can we organise education that promotes learning as well as mental health during studies; and how can the Faculty increase accessibility to higher education for students of diverse circumstances?

During the COVID-19 pandemic, teaching conditions were impacted, and extensive pedagogical development work was carried out in the Faculty. When the pandemic broke out in 2020 and the University was forced to switch to online learning, the Faculty of Social Sciences, together with the Sahlgrenska Academy, conducted two student surveys focusing on students' health, student life and experiences of online learning. The first survey was conducted during the spring semester of 2020 and generated the report [Studenters upplevelse av distansundervisning med anledning av Covid-19](#). The second survey was conducted during the autumn semester of 2020 and formed the basis for the report [Studenters upplevelser av studietillvaron under hösten 2020](#). The surveys showed that many students experienced loneliness and isolation as well as a reduced sense of community with other students, and that this negatively affected their motivation and focus. At the same time, some students rated their study environment as better as a result of online learning. Among other things, it was felt that digital teaching was more accessible than on-site teaching and provided better learning conditions. One group drawing this conclusion was students over 40 years old.

Faculty leadership felt it was important to learn from all experiences, both negative and positive, to which online teaching may have contributed, and to seek to answer questions such as: What worked well? How can we continue to develop pedagogy and learning environments based on the lessons of the pandemic to offer education that promotes mental health as well as learning (Shoem, Modey & St. John, 2017) and increases accessibility to higher education for students of diverse circumstances?

The importance of the learning environment to students' well-being was made clear during the pandemic. Faculty leadership understood that the design of the learning environment, whether digital or on-site, is linked to student well-being in various ways. The question of how Faculty learning environments could be developed to promote student well-being and learning became the guiding principle in the work of developing the Faculty of Social Sciences' operational strategy for the period 2021-2024. In accordance with the Faculty's vision of an educational environment characterised by a scientific approach to teaching and pedagogical practice (Scholarship of teaching and learning, Boyer, 1990) two goals were formulated for the period 2021-2024:

- The faculty level shall create conditions for sustainable and accessible learning environments
- The faculty level shall work to make visible and develop scientific approaches to teaching and pedagogical practice.

These goals were later given concrete form with the instigation of the *Sustainable and Accessible Learning Environments (HTL)* project.

2.2 Aim and goals

Based on the above description of the problem, the Faculty of Social Sciences has worked in the three-year HTL project to investigate the conditions for systematically developing sustainable and accessible learning environments at the Faculty based on the basis described above. The focus has thus been on the structural level and the faculty-wide context in which the programme is implemented (the pedagogical, social and physical learning environment). The individual level has not been the focus of this project.

The aim of the HTL project has been:

- Developing learning environments that promote good mental health for all students.
- Increasing access to higher education for students of diverse circumstances.
- Learning from educational developments following the Coronavirus pandemic.
- Contributing to the development of knowledge in the field.

The goals of the project have been to start implementing the project's results in day-to-day operations no later than six months after the end of the project, and to ensure that the primary and secondary target groups (Faculty teaching staff, students and project partners, Faculty leadership and board and the study programmes board) are well apprised of the results and conclusions of the project.

This project defines 'sustainability' in relation to social sustainability and the 2030 Agenda in terms of good health and well-being (Sustainable Development Goal 3) as well as quality education for all (Sustainable Development Goal 4). The term 'accessible' refers to the fact that all students admitted to a programme are able to participate on an equal basis. The term 'accessible' is also rooted in Sustainable Development Goal 4.

3. Implementation

3.1 Project organisation

The project was led by Therése Skoog, Professor at the Department of Psychology and distinguished university teacher. The project group has consisted of Therése Skoog, Pro-Dean Sylva Frisk and quality control coordinators at the Faculty of Social Sciences (Agnes Nurbo/Lena Örnberg). Tina Olsson, Associate Professor and Senior Lecturer at the Department of Social Work, has been responsible for Sub-project 1. Gregg Bucken-Knapp, Professor at the School of Public Administration, was responsible for Sub-project 3.

During the project period, the project was reported twice per semester to a steering committee consisting of the then Dean Malin Broberg, Pro-Dean Sylva Frisk, Project Manager Therése Skoog, Quality Control Coordinator Agnes Nurbo, teacher representative Arne Wackenhut (School of Global Studies) and student representative Arvid Danielsson.

This work has been continuously documented via a Teams collaboration space.

Lars-Olof Karlsson, Communications Officer at the Faculty of Social Sciences, has assisted the project in developing a communications plan and disseminating information.

3.2 Budget and funding

In addition to funds contributed to the project by the Faculty of Social Sciences (which have corresponded to the project manager's time), other funding has been sought and received for the project. Four of the five sub-projects have received funding from other sources. Sub-project 1 was allocated funds from the Section of Student and Educational Support at the University of Gothenburg corresponding to 20% for five months for the sub-project's manager. Furthermore, project funds have been allocated from the EUTOPIA project to finance Sub-project 3 corresponding to 20% of the sub-project manager's working time for a period of eight months. In addition, funds have been allocated from Pedagogical and Interactive Learning (PIL) within the framework of the Sharing culture for education, widening participation and knowledge creation (DURK) project for Sub-project 4 corresponding to 20% of full-time for 4 months for the sub-project manager's working time and a further 10% for three months. Finally, funds have been allocated from the extra government funds provided to universities in 2021 to support students' mental health during the Coronavirus pandemic for Sub-project 4. Sub-project 4 was funded with SEK 200,000. Most of the funds used to implement the HTL project and its sub-projects have thus come from external sources and have not burdened the Faculty budget.

3.3 HTL sub-projects

Sub-project 1: Literature review

This sub-project aimed to conduct a systematic review of the scientific literature concerning interventions made in higher education at a structural/organisational level to promote student mental health and/or prevent student mental health issues. This sub-project has been led by Associate Professor Tina M. Olsson, Senior Lecturer at the Department of Social Work, and has been carried out in close co-operation with the Social Sciences Library. The sub-project manager was selected based on her superlative experience in conducting literature reviews in the field of interventions that focus on influencing social and/or psychological outcomes. A second-cycle student participated in the work of identifying studies from the search. The sub-project was commenced in 2021. The literature review was submitted for publication to the international scientific journal *Higher Education* in 2023 (Olsson, Frisk, Broberg, Wackenhut, Kjellin, Gullstrand, Rost, & Skoog, 2023). At present (October 2023), the review has been submitted for a second assessment (resubmitted to the journal).

Sub-project 2: Teacher Interviews Regarding Online Learning Experiences

One year after online learning became obligatory at higher education institutions in Sweden (March 2021), focus-group interviews with teachers were conducted. The main purpose of the interviews was to capture the lessons learnt and the progress made in relation to online learning. Students were also invited to participate in the focus-group interviews, but interviews with students were cancelled due to a poor show of interest.

Teachers who participated in the interviews worked in various departments of the Faculty of Social Sciences. They had expressed interest in participating in focus groups on the announced theme via an open invitation sent to all teachers at the Faculty of Social Sciences in February 2021. The two interviews conducted via Zoom in March 2021 involved four and five teachers (nine total) from five different schools. The interviews took about 90 minutes and were conducted by Sylva Frisk and Thérèse Skoog.

The interviews were guided by the following questions:

- How can digital forms improve education quality?
- How can online courses be designed so that students experience a greater sense of community and coherence?
- How might digital tools be developed to better support student learning?
- How can accessibility and participation among different groups of students be promoted in digital teaching/digital teaching elements?

Sub-project 3: Student-centred Flexibility

Student-centred Flexibility (cf. HyFlex blended learning, Beatty, 2014) was a development project that aimed to empower students to choose their own learning path using a course. The principle was that the course was designed in such a way that students could choose teaching activities based on their own circumstances and in relation to the learning objectives. The concept of HyFlex (*hybrid and flexible*) is closely related to ideas about accessibility. The aim of the project was to redesign an existing course and/or develop a new course according to the principle of student-centred flexibility. HyFlex usually means that a course component can be completed by students in one of the following three ways: face-to-face, synchronously online (e.g., live lectures via Zoom) or asynchronously online (e.g., recorded lectures and/or other study material).

In spring of 2021, all Faculty members received a call for applications for two teachers to receive 20% funding each to carry out the project during five months in 2021. One person submitted an application. Professor Gregg Bucken-Knapp at the School of Public Administration applied for and received time to redesign and test a first-cycle course (Working Life Communication, 7.5 credits) based on the concept in autumn of 2021. Bucken-Knapp received additional funding in 2022 to work on a course in the Summer School for Sustainability (Managing Migration, 7.5 credits) following the same HyFlex principles. Students had an active role in the development of the courses. The Sub-project was carried out in collaboration with EUTOPIA (WP5) at the University of Gothenburg.

Sub-project 4: Student Life

The *Student Life* project sought to use diaries to monitor, document and draw conclusions about how students at the Faculty of Social Sciences experience their initial time as students. The aim was to use the data generated in the project, together with students, to draw conclusions about how the learning environments at the Faculty and its departments can be developed to promote both student learning and mental health. The premise was that, by listening to students' experiences, faculties and schools could create a more supportive and rewarding study and learning environment for students. The method used is based on service design, i.e., the target group itself identifies problems and analyses and proposes solutions to address them.

Students from all schools were recruited to the sub-project with posters on campus, information via Canvas and oral presentations. About 25 students participated in the project.

The project consisted of three phases. In the first phase, which lasted for five weeks from the start of classes, students wrote individual free-form diaries about their experiences as students. The aim of the first phase was to obtain an inside perspective of students' experiences with the initial, crucial part of a course or programme. The focus was on academic as well as non-academic experiences and perceptions. During the second phase, students gathered in a workshop and analysed the diary entries collected. In the third phase, students met in another workshop to find solutions and make concrete proposals, based on the analysis of diary content, regarding how to develop the structure and organisation of the Faculty and its departments to prevent the development of mental symptoms, mental illness and unwellness while promoting learning.

A pilot review of *Student Life* was conducted during the autumn semester of 2021. During the spring and autumn semesters of 2022, the project was carried out twice, then as a research project following ethical approval (2021-04105; 2022-02890-02).

The issues that characterised the sub-project were the following:

1. How do students describe their initial time at the Faculty of Social Sciences?
2. How can students' descriptions of the beginning of student life contribute to an understanding of the importance of the learning environment for students' experiences?
3. What conclusions can be drawn regarding the development of the study and learning environment at departmental and faculty level from students' description of their initial time as students?

Sub-project 5: Tools for Sustainable Student Life

Sub-project 5 was about developing an open, freely accessible digital resource for staff and others working on student mental health and sustainable student life. The basis for the work was the concept of 'Open Educational Resources'. The sub-project was carried out within the framework of and financed by the Sharing culture for education, widening participation and knowledge creation (DURK) at the Pedagogical and Interactive Learning (PIL) of the University of Gothenburg. Quality Control Coordinator Agnes Nurbo led this work. Similar to what occurred in Sub-project 3, funding of 20% (divided between one or two teachers/study counsellors or equivalent) to carry out the project over four months in 2021 was announced via email in a call for applications sent to all employees at the faculty. However, no staff submitted any application.

The background to the sub-project consisted of student surveys conducted by the Faculty of Social Sciences during the spring and autumn semesters of 2021 (during the COVID-19 pandemic). In the surveys, students described their experiences of the transition to digital teaching. Many students experienced a diminished sense of community with other students and felt lonelier. This, in turn, seemed to make it more likely for students to lose focus and motivation in their studies. Creating a sense of belonging and inclusion seemed to be particularly important for students studying digitally when social interaction was limited. The Student Union served as a sounding board in the project. Inspiration was also drawn from the Faculty of Social Sciences' Equal Treatment Network, with a request for material regarding work on equal treatment and inclusion.

4. Results

The results of the HTL project are presented here based on the different sub-projects involved.

Sub-project 1: Literature review

A search of the scientific literature concerning interventions made in higher education at a structural/organisational level to promote student mental health and/or prevent student mental health issues identified 8,372 articles. After exclusion based on predefined inclusion/exclusion criteria, 27 studies were selected for the review. These studies investigated policies, practices and procedures as well as changes in the physical environment, i.e., measures at the structural level, to promote students' mental health.

Pedagogical methods with a holistic approach to the student ("whole-student approach", where academic as well as psycho-social aspects are taken into account), and a relational approach showed a positive impact on students' well-being and health. Adaptations of and changes to the physical environment (e.g., plants in classrooms) and the teaching of health-related skills had variable effects on well-being. Policy measures had a positive impact on perceptions of inclusion among minority groups. Students experienced these interventions as mainly positive.

More details on the results are presented in the review manuscript attached to this report (Annex 1).

Sub-project 2: Teacher Interviews Regarding Online Learning Experiences

In focus-group interviews, several teachers described how the "crisis" caused by the pandemic in relation to the design and practice of teaching led to pedagogical development as well as an increased focus on the importance of pedagogy and the possibilities for designing teaching. Some teachers described how digital education permitted greater flexibility in teaching. The initially steep learning curve had led to a (forced) desire to dare to try new things and to do so together with both students and teaching staff. The importance of teachers' teams was emphasised several times during the interviews. Working together on these issues was considered important: "It is more fun to do something difficult together than to be terrified and do it alone".

One challenge highlighted vis-a-vis online learning was that many students expressed a need to actually meet. At the same time, other students stated that, thanks to online learning, they felt visible in a way that they had not previously experienced.

The teachers described how the ability to create a community in the course was fundamental to the success of digital education, as it builds quality in teaching. At the same time, it could be difficult to engage students in the context of different group activities. The teachers therefore emphasised the importance of having a clear structure and idea behind the division and work of the groups. One of the approaches used to socialise students was various forms of small study groups and peer feedback.

The digital learning-management system played a central role in the transition to online learning. Teachers described the importance of a well-thought-out design of Canvas. According to the teachers, clear and simple structures enabled students to understand and access the content. Using recorded lectures to which students have access during the course was described as something students appreciated and which can save resources. However, it was emphasised that lectures must be of high quality to last over time.

At interviews, the importance of providing teachers and students with training and support for the use of digital tools was emphasised. There was a desire to develop digital skills to take a step further towards digital/flexible transition. Having well-functioning equipment at home was considered an important prerequisite for teachers to provide quality online learning.

The table below summarises some lessons and tips drawn from the interviews:

Lessons learnt from online learning		
Activity	Aim	Methodology
Recorded lectures combined with live lectures	Accessibility and flexibility (recorded), with the possibility to ask questions and discuss.	Teachers record a lecture, post the film on Canvas and then give a similar lecture in person.
Introductory week	Creating community	Lectures, discussions and group exercises
Collective writing	Creating community, getting work done	Open Zoom room for this purpose
Teachers have office hours or drop-in for students	Accessibility, possibility to talk undisturbed	Open Zoom room for this purpose
Music in Zoom while students join the room	Create a safe and welcoming atmosphere	Create own list on Spotify, use Advanced Share screen in Zoom/Computer Audio

Scheduled post-lecture reflection period	Opportunity to share lecture experiences and clarify concepts	Breakout rooms in Zoom following a lecture, with or without a teacher
Socially responsible course	Creating community	Assignments for doctoral students
Weekly modules linked to intended learning outcomes	Students can follow their own progress during the course	Clear structure in Canvas. Interaction with students.

Further details of the results are presented in Annex 2.

Sub-project 3: Student-centred Flexibility

Student-centred Flexibility was a development project aimed at developing and learning from HyFlex course design. Professor Gregg Bucken-Knapp of the School of Public Administration redesigned a first-cycle course (Working Life Communication, 7.5 credits) and then a Summer School course (Managing Migration, 7.5 credits) according to HyFlex principles (the latter not presented here).

Students in the course Working Life Communication (7.5 credits) could freely choose between traditional, online-synchronous or online-asynchronous teaching for each course section. Students could thus participate live on campus, could choose to participate in the same session via Zoom, or could work on learning material on the learning-management system at a time of their own choosing. For all students, not just those who chose online-asynchronous teaching, a discussion forum was actively moderated during each course week, allowing students to receive feedback on their work as well as answers to various types of questions daily. Assessment assignments were designed according to the same approach.

Students mainly chose online-synchronous teaching (Zoom) during the course introduction. After the first week, less than 10% were present on campus and few questions were asked in the discussion forum. Although no question was specifically asked in the course evaluation, several students pointed out that clear instructions in the course material reduced the need to attend the introduction.

Zoom was mostly chosen for assignment submissions and seminars. Around 70-80% participated in live seminars, which shows that the course was not perceived as a pure distance-learning course.

Ninety-four percent of course participants completed and passed the course on time, compared to 87% when the course was delivered entirely online the previous year and 77% when the course was delivered as an on-campus course in 2019.

In the course evaluations, a majority of students expressed a high level of satisfaction with the course. They valued the flexibility and control it gave them in relation to their own learning processes. Two students (out of 84 registered) expressed negative opinions about HyFlex.

The course coordinator/sub-project manager identified three main challenges for HyFlex teaching: technology resources, curriculum and compliance, and teacher work input.

More details on the results are presented in the sub-project report authored by Gregg Bucken-Knapp (Annex 3).

Sub-project 4: Student Life

The Student Life diary project resulted in several findings.

Students described their initial time at the Faculty of Social Sciences as one involving both excitement and uncertainty. They felt nervous about finding the right lecture hall and meeting new classmates. The first day was dedicated to introducing the course/programme and support staff, but students were not always receptive to all the information due to nervousness. Rather, they focused on social relationships and felt both exhilaration and fear. The desire to fit in, to 'be one of the gang' and avoid social exclusion was also prominent.

The students' descriptions in their diaries and during the workshops provide insights into how the learning environment impacts their experiences. A supportive and inclusive atmosphere is important to ease the transition to student life. Rapid inclusion in the student group is important, and icebreaker activities as well as name-recognition activities are suggested as ways to increase integration and sense of belonging as well as creating a more relaxed atmosphere. Co-operation with fellow students, both in academic and social contexts, is crucial for student satisfaction and engagement. There was an emphasis in the material on building strong student communities and addressing conflict within those communities. A sense of belonging was central to students' well-being, and strategies such as mentoring, orientation activities and simplifying campus navigation can promote this feeling, according to students.

Students' descriptions also provide guidance regarding what can be done to improve the study and learning environment. Improvements could include organising course materials in a consistent way in Canvas, offering clear instructions for assignments and training in study techniques, and providing resources to facilitate students' transition to university life more broadly. To manage conflicts and promote cooperation, it can be valuable to implement group contracts and rules and offer various teaching methods where students take an active role, such as workshops. Simple and clear communication, both spoken and digital, is essential to avoid confusion and frustration. In addition, the importance of the physical learning environment and premises for well-being and as an influence on study motivation was emphasised.

The findings from *Student Life* have been reported in an article submitted for publication to an international, peer-reviewed journal (Skoog & Frisk, 2023). The article is attached in Annex 4.

Sub-project 5: Tools for Sustainable Student Life

This project created a digital toolkit to support teachers and other staff in promoting inclusion and a sense of belonging in teaching and student groups. The material in the toolkit consisted of an introductory text about the knowledge field of student belonging in education, teachers sharing their experiences with creating a sense of belonging in digital education (text and film), exercises for students (both large and small groups) on creating belonging and psychological safety in the group, and a number of presentations on norms, the link between inclusion and mental health, discrimination, etc. The material in the toolkit was free to access, disseminate and use in any way that suited the user. Users were also invited to add new material or further develop existing material. Teachers from the Department of Journalism, Media and Communication contributed material to the toolkit (regarding how to implement an introduction to educational programmes).

The project was implemented and concluded in December 2022. Information about the toolkit has been disseminated both in writing and by word of mouth within the Faculty as well as at national and international seminars in which the project group participated. However, the Tools for Sustainable Student Life do not seem to have been used to any great extent. The project group recognises that it is necessary to bring the material to life and work with it in order for it to have an impact among the teachers at the Faculty.

Annex 5 shows the appearance of the digital Tools for Sustainable Student Life.

5. Conclusions

5.1 Achieving the four goals of the HTL project

Developing learning environments that promote good mental health for all

The first aim of the HTL was to develop learning environments that promote good health for all students. Sub-project 1 (Literature Review) and Sub-project 4 (Student Life) have had a particular focus on creating a better understanding of how this could be done, and which areas are important to work on. Sub-project 1 involved a review, analysis and presentation of the scientific literature using scoping review methodology on how universities can work at a structural level to promote student mental health. Sub-project 4 used a student-centred methodology and was based on students' diary entries about their experiences as students as well as their suggestions regarding how to address the perceived problems, mainly through structural measures.

The work has identified several key concepts that seem central to the promotion of good health in the learning environment. These can be categorised as psychosocial or structural concepts and factors.

Psycho-social factors refer to the psychological and social situation of individuals. Perhaps the most important result of the project was the great importance of students' sense of belonging and community. For students, feeling a sense of community with and belonging among fellow students, as well as with teachers and in programmes/departments, is an important factor in wanting to stay and work towards good study results. Building new relationships with fellow students and teachers can be a reason to apply for a programme or attend a lecture in the first place. Students' sense of belonging is linked to greater satisfaction with their education. A sense of belonging can make students stay in the programme rather than drop out. Students who have good and frequent contact with their teachers are more academically motivated and perform better. A student's sense of belonging is linked to various aspects of psychological well-being.

Another important finding concerns students' understanding or experience of comprehensibility. It is important for students to know what is expected in different contexts, not least during summative assessment, and to understand the information provided and how it should, must or can be used. Several of our findings suggest that unclear or contradictory information and perceived incomprehensibility increase student feelings of stress and anxiety during the programme, especially in its early stages.

In the literature, students' experience of autonomy predicts increased engagement, learning and mental health (Okada, 2023). With the ability to influence their own educational situation, students can increase their chances of "piecing together" various commitments and thus reducing their experience of stress. The results of Sub-project 3 (Student-centred Flexibility) support this conclusion.

Structural factors here concern the programme itself as well as the pedagogical, social and physical learning environment. Based on the findings of the sub-projects (not least Sub-project 1), students' mental health appears to be promoted through (1) amended and clarified policies (e.g., in relation to discrimination and minority groups), (2) changes in the physical environment (such as green plants, bright, open and quiet environments, and lockers for students), (3) support from the programme in managing and planning studies, completion of assignments and even lifestyle issues, as well as clarified expectations (via, e.g., grading criteria and clear assignment descriptions) to avoid uncertainty and stress; as well as (4) implementation of a teaching approach based on (a) relational aspects (teacher-student and student-student) and a "whole student" perspective where cohesion and belonging are actively promoted, (b) providing opportunities for physical movement and breaks for recovery, and (c) less focus on details in the summative assessment of assignments and examinations.

Sub-project 5 has used the digital toolkit to publish and provide concrete material for Faculty staff to use to create learning environments that promote good mental health for all. However, to our knowledge, these have not been widely used.

Increasing access to higher education for students of diverse circumstances

The second aim of the HTL was to increase access to higher education for students of diverse circumstances. The project team has worked to achieve this aim mainly through Sub-project 3 on Student-centred Flexibility and Sub-project 5, Tools for Sustainable Student Life.

Sub-project 3 has had a particular focus on improving our understanding of how greater accessibility could be made possible. One conclusion of the HyFlex project is that HyFlex courses are appreciated by students, and they are possible to implement in our organisation, but that some changes may need to be made in, e.g., course syllabi, that the right technical equipment is in place, but also that this type of course design requires a larger course-time budget, at least the first time the course is given. Thus, HyFlex courses can be a means to increase access to higher education for students of diverse circumstances.

The Tools for Sustainable Student Life (Sub-project 5), developed and published on the Faculty of Social Sciences' website, include several resources such as PowerPoint presentations that the Equal Treatment Network at the Faculty of Social Sciences requested and received positive feedback on and which are intended to be used by teachers, e.g., in connection with teaching, to increase accessibility and equal treatment. One conclusion is that, despite our assessment that the toolkit contains effective and user-friendly information and material, the material must be actively marketed to different stakeholders at the Faculty.

Learning from educational developments following the Coronavirus pandemic

HTL has fulfilled its third aim, that of learning from the educational developments following the Coronavirus pandemic, by studying and reporting teachers' experiences of the changes to teaching which took place under the social restrictions following the COVID-19 pandemic, via Sub-project 2. This work was a follow-up and deepening of the survey sent to all teachers at the Faculty in May of 2020. The interviews and conclusions in the focus groups conducted with teachers have been described in a report published on the HTL website. The findings directly informed the development of Sub-project 3 on developing and publishing a Tools for Sustainable Student Life, as this type of support was requested.

There are several lessons to be learnt from educational developments during the pandemic. First of all, it was difficult and frustrating for teachers to fundamentally change their teaching at very short notice and with very little resources. Teachers need good advance planning, a clear mission and sufficient resources to provide high quality education. Another important lesson relates to the importance of students' sense of belonging and cohesion in learning and education completion as well as the ways in which a sense of community among students can be created. Another lesson relates to the newly awakened enthusiasm and creativity of several teachers vis-a-vis teaching design. A third lesson concerns the importance of collaboration among teachers in challenging and difficult teaching situations. A fourth lesson relates to the importance of a clearly organised learning-management system (Canvas), teachers' need for continuing professional development with digital tools and the importance of having digital tools that work well. The conclusions of the research simultaneously conducted in the Faculty by Professors Wackenhut and Gillette (2022) are largely consistent with the lessons learnt here.

Contribute to the development of knowledge in the field

HTL has contributed to knowledge development in the field for various internal and external target groups and stakeholders in the higher education sector. This has been achieved by authoring several publications (Olsson et al., 2023; Skoog & Frisk, 2022, 2023) and with a series of oral presentations at internal meetings and conferences (departmental, faculty and central level) as well as at several national and international external meetings and conferences (Annex 6). In addition, a website has

been created for the HTL project where information about and from the project is published.

5.2 Challenges and areas for development

In all sub-projects, the work in HTL has identified several challenges and areas for development regarding the work conducted at the Faculty of Social Sciences and students' mental health as well as accessible and sustainable learning environments. The most important among these are listed below.

List of development areas identified by students and teachers in the project:

- Psychologically trying not to see fellow students and teachers during the pandemic.
- Above/poor study technique.
- Insecure learning environments contribute to student anxiety and stress.
- Unclear expectations regarding what students must achieve/expected performance triggers mental health problems.
- Difficulty in reaching teachers can lead students to feel they are alone with their questions/problems.
- Untidy Canvas surfaces/that everyone has a different layout on Canvas is repeatedly highlighted as a problem by students.
- Unwelcoming and unsuitable physical environment.
- Lack of support in creating a sense of community among students.

Proposed measures

Through the various sub-projects and an overall analysis of their results, proposals for measures that the Faculty or its departments could pursue are summarised below. However, it must be emphasised that the work in the departments and use of the HTL project's results at that level must be assessed by the departments themselves. In November of 2023, there will be a department-level workshop to support this work.

List of ideas, tips and suggested measures identified by HTL sub-projects

- Clarify policies against discrimination and for minority groups.
- Create an inviting physical environment.
- Provide resources and support to give students a smooth transition to university life.
- Provide students with support in being a university student, e.g., through trainings/courses and mentoring.
- Work with clear expectations and instructions for assignments and summative assessment.
- Take a whole-student approach and recognise the importance of relational aspects in learning and health.
- Include frequent breaks and physical activity.
- As a teacher, make yourself available to students, e.g., before and after teaching sessions
- Create green learning environments.
- Less focus on detail in the assessment of assignments and summative assessment.
- Raise awareness of the link between belonging/inclusion, mental health and learning.

- Use get-to-know-you exercises, group exercises and discuss group norms with students.
- Invest in a clear or uniform structure on Canvas.
- Experiment with flexible forms of teaching where students are given more choice in how they are taught.

Proposed priority areas for development

The project group's proposal for prioritised areas to pursue for implementation in the organisation

- Further development of the qualitative follow-up method on which the Student Life sub-project is based. This work can be advantageously integrated into the work on quality assurance and quality development of all education.
- Further development and implementation of pedagogical approaches within the Faculty/University based on students' experiences of belonging and participation, making use of the scientific literature, teachers' recommendations and students' ideas.
- Further development and opportunities to implement the experiences of the student-centred HyFlex course on a larger scale.
- Design of support/training for students in "how to be a student".
- Review of the physical learning environment based on the importance of its suitability for teaching as well as meetings and the creation of social contexts for students, and also that it is perceived as pleasant and inviting.
- Establishment and maintenance of various forms of continuous collegial exchange of experience on issues related to students' mental health and learning and what role the learning environment plays in this.

6. Dissemination and administration

The following target groups have been identified for the project's communication:

- Primary: all Faculty teaching staff, students and project partners
- Secondary: Faculty leadership and board, study programmes board
- Tertiary: colleagues in other higher education institutions

During 2021-2023, the project was communicated to all target groups. A website was created for the project, <https://www.gu.se/en/social-sciences/about-us/sustainable-and-accessible-learning-environments>. The project was actively presented to all target groups via targeted presentations, seminars, conferences, etc., at the Faculty and the University as well as at national and international meetings and conferences.

Three scientific articles have been authored in the project. Skoog and Frisk (2022) describes the entire HTL project, and the Student Life study is also reported on (2023). Olsson, Frisk, Broberg, Wackenhut, Kjellin, Gullstrand, Rost and Skoog (2023) presents the literature review.

In the autumn of 2023, the work on communicating HTL to Faculty staff was increased with various activities, including a Faculty-wide workshop (7 November) where representatives of the different departments participate and discuss whether and how to implement experiences from the HTL project in their respective organisations. The Advisory Committee on Undergraduate and Graduate Studies has received a special presentation of the project (31 October).

It should be noted that the project as a whole has not yet reached the implementation stage, i.e., the stage where the conclusions of the project are translated in practice. The project group has so far worked to create a strong foundation and positive conditions for implementing new policies and working methods in the organisation at a later stage. However, the Tools for Sustainable Student Life are an exception, consisting of a resource that has already been developed and published on the Faculty's website (<https://www.gu.se/en/social-sciences/documents-tools-for-sustainable-student-life>).

A preliminary version of this report and its conclusions has been reviewed by the steering committee as well as Christel Backman, distinguished university teacher at the Department of Sociology and Work Science.

7. Concluding remarks

The project Sustainable and accessible learning environments was initiated by faculty leadership following indications from various parts of the organisation as well as other public authorities that students increasingly suffer from mental health problems. The project was designed with the ambition of using a scientific approach to educational practice (Scholarship of teaching and learning) as well as the conviction that the problem requires a broad approach involving many different roles.

The strengths of the project included an opportunity to utilise scientific and educational expertise from core activities in combination with active support and commitment from faculty leadership and the faculty office. It has been possible to examine and analyse the problem from several different angles and using different methods. The extensive collaboration among different roles has also benefited communications, networking and co-financing within the University.

One challenge for the project has been the highly decentralised organisation of the Faculty of Social Sciences, in which the faculty level is often perceived as distant from the day-to-day lives of teachers and students. Several of the sub-projects encountered difficulties in recruiting teachers and students to the extent that would have been desirable. This has not had a negative impact on the quality or outcome of the sub-projects, but the knowledge and experience gained by project participants in the implementation might have been distributed more widely.

The decentralised organisation is also expected to pose a challenge in the post-project implementation phase. Many of the proposed measures and prioritised development areas must be implemented at departmental level, close to the programmes, in order to have the desired impact. This will require active anchoring with the commitment and support of Faculty and departmental leadership.

One final thought is that the Faculty's distinguished university teachers might be given important roles in the continued development of the Faculty's learning environments. When the HTL project began, the Faculty included four distinguished university teachers, two of whom were involved in the project from the start. As of October 2023, the Faculty has nine distinguished university teachers with accumulated pedagogical expertise relevant to the implementation of the HTL project results and who could usefully participate in future development projects at the faculty level.

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