STUDY ENVIRONMENT 2014
AARHUS UNIVERSITY

Report no. 1/Study Environment 2014
Results and figures

AARHUS UNIVERSITY

Study Environment 2014

Aarhus University

Report no. 1.

Main results and key figures

Reports in the series Study Environment 2014, Aarhus University:

Report no. 1: Study Environment 2014 – Main results and key figures
Report no. 2: Study Environment 2014 – Study environment figures for degree programmes at the Faculty of Arts
Report no. 3: Study Environment 2014 – Study environment figures for degree programmes at the School of Business and Social Sciences
Report no. 4: Study Environment 2014 – Study environment figures for degree programmes at the Faculty of Health
Report no. 5: Study Environment 2014 – Study environment figures for degree programmes at the Faculty of Science and Technology

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Finally, we are grateful to the 13,647 students who took the time to complete the electronic questionnaire.

Abbreviations
ST: Faculty of Science and Technology
HE: Faculty of Health
BSS: School of Business and Social Sciences
AR: Faculty of Arts

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1. Summary and presentation for discussion

Background and purpose

The purpose of Aarhus University's study environment survey is to obtain reliable knowledge about the well-being of students and their study and learning environment with a view to maintaining and supporting the good study environment at the university. One of Aarhus University's strategic objectives is to be one of the very best educational institutions offering research-based degree programmes, and the university's development contract includes, among other things, a target for student satisfaction with their studies. The survey therefore provides an important basis for the university's own monitoring of student well-being.

Pursuant to the Danish Act on the Educational Environment of Pupils and Students (*Lov om Undervisningsmiljøvurdering*), Aarhus University is obliged to carry out an assessment of the educational environment in its study programmes and to prepare reports and action plans every three years. In autumn 2007, Aarhus University developed a survey design for the psychological study environment and conducted an in-depth analysis, which resulted in extensive, detailed, reliable and relevant knowledge about the study environment and student well-being on the many degree programmes offered by the university. The survey has since been developed and implemented in 2011.

Both in 2007 and in 2011, the analyses informed the decision-making processes of the boards of studies and among directors of studies and department heads. In spring 2014, a more comprehensive survey was conducted based on questions about the study environment which had been quality-assured by focus groups, and many of which had been elaborated or developed further to ensure that they capture the students' feelings about their everyday lives.

The survey was initiated and approved by the University's Education Committee. In the course of January 2014, the questionnaire was sent to the directors of studies and to the Student Council at Aarhus University for consultation. All students enrolled on full-time degree programmes at Aarhus University – i.e. some 34,000 students – have been encouraged, via an electronic questionnaire, to answer a number of questions about their well-being, contact with fellow students and lecturers, course organisation, their social life on the programme, workload, work effort, stress, their perception of the physical and virtual surroundings for their programme etc. The survey was designed in such a way that the students' responses to the questionnaire could be correlated with data from the study administration system about the course of study of the relevant student. Finally, the data set includes approx. 600 pages of text from the students' responses to two open questions included as part of the questionnaire about the psychological and physical study environment, respectively. The data has produced a unique set of rich data material. A total of 13,647 students took the time to complete the questionnaire. This is thus the largest survey ever conducted among students at AU.

Study environment

Within the meaning of the law, the study environment is composed of the physical, the aesthetic and the psychological study environment. This survey concerns the psychological study environment and those aspects of the physical study environment which concern the students' assessment of the functionality of the physical and virtual environment from the point of view of supporting learning and social interaction.

Aarhus University broke new ground in 2007 by developing a survey design and conducting an in-depth, theory-based survey of the study environment in a Danish higher-education programme. The survey concept was based on theories and research findings pertaining

to psychological working environments, stress and coping, learning and university course organisation, well-being and drop-out analyses on higher-education programmes, satisfaction surveys on higher-education programmes as well as the legal basis for educational environment assessments (EEA). The concept also formed the basis of Study Environment 2011. In both these analyses, the psychological study environment is basically defined as well-being, i.e. a combination of the extent to which students generally feel comfortable and the extent to which they are generally satisfied with their studies. This definition of the psychological study environment can be described as being 'narrow'. In previous years, analyses showed that at Aarhus University, well-being is strongly correlated with feeling part of an academic community on one's degree programme. Therefore, the analyses of this survey have been carried out, among other things, for the purpose of further examining this correlation and finding out what underpins a sense of academic well-being in a broad sense in the academic environments.

Mapping the level of well-being is not the only aim of the survey design. The aim is also to map the factors which promote well-being on the individual degree programmes and to describe the underlying parameters. The objective is for the various degree programmes to be able to maintain and strengthen the positive elements in their study environments, change the negative factors and assess the impact of the measures introduced as part of the follow-up on the previous study environment survey.

Reading guide

At the end of the first chapter of this report, a summary is given of the main observations and the most important conclusions of the survey as well as a presentation for discussion. In the first chapter, the results for the main academic areas are shown next to each other in a so-called 'precipitation chart', where the figures are coloured to provide a quick overview of similarities and differences between the main academic areas. Chapter 2 focuses on the data basis and method. A brief description is given of the collection and processing of data, as well as the processing of the open comments. Chapter 3 is an analytical chapter reporting on the theoretical background for the concept of academic well-being, and presents the various dimensions and correlations revealed by the material. Chapter 4 shows the level of well-being at Aarhus University. In the following chapter, the figures are reported according to various themes, with the order reflecting the extent to which they have an impact on well-being. Chapter 5 describes the social environment, Chapter 6 the course organisation and Chapter 7 workload and time use, while Chapter 8 shows the figures for discrimination and harassment. The last chapter looks at the figures for the physical study environment.

Level of analysis

This report analyses the figures from the Study Environment Survey 2014 for the university as a whole and for the various main academic areas. It also describes the correlations between the questions asked at a general level. In addition, four reports have been prepared to show a breakdown of the figures on smaller units. These are called degree programme reports.

Option of additional analyses

As mentioned previously, additional analyses may also be ordered this time, as soon as the reports have been published. Most of the degree programme reports contain results for several degree programmes. In so far as this is possible from the point of view of protecting the identity of the respondents, the figures may be broken down further, for example by Bachelor or Master level or by fields of study and specialisations. To request further analyses, please send an email to studiemiljo@au.dk.

Comparison with Study Environment Survey 2011

Some of the questions have not only been asked in 2014, but were also part of the survey in 2011. It is therefore natural to compare the figures, and the 2011 figures are stated in those cases where the questions from the 2011 survey are directly comparable with those asked in 2014. However, the analysis group draws attention to a number of factors which may have impacted the figures, for example changes to the student population and changes to the organisation of the courses. Consequently, any differences between 2014 and 2011 should be interpreted with appropriate caution. For a detailed description of this issue, see Chapter 2.

Data basis and method

The questionnaire has been developed on the basis of earlier concepts and the experience gained in previous years. It was subsequently sent to the directors of studies and to the Student Council at Aarhus University for consultation. Finally, it was tested by four focus groups, one in each of the main academic areas. Data has been collected by means of an online questionnaire; in March all full-time students at Aarhus University received a link to the questionnaire by email. The collection of data took place up until mid-April. The data has subsequently been processed and analysed statistically.

Response rate and representativity

Many students chose to participate in the survey. The questionnaire was completed by 40% of the students, which is the highest response rate ever for a study environment survey conducted by a Danish university. The response rates for the various main academic areas are shown in Table 1.1.

Measured against a number of background parameters such as gender, age, type of degree programme and qualifying average marks, only minor deviations are seen between sample and population.

Table 1.1. Response rates

	N	n	%
AU	34,510	13,647	40%
AR	11,340	4,149	37%
BSS	12,735	4,633	36%
HE	4,012	1,906	48%
ST	6,421	2,957	46%

Overview of response rates. Full-time students (N), number of completed questionnaires (n).

Academic well-being

Students at Aarhus University are generally thriving. A total of 88% of the students state that they feel very comfortable as a student here, and this figure is higher than the 85% who answered the same question in the affirmative in 2007. Only 4% state that they strongly or mostly disagree with the statement that they are generally satisfied with their studies.

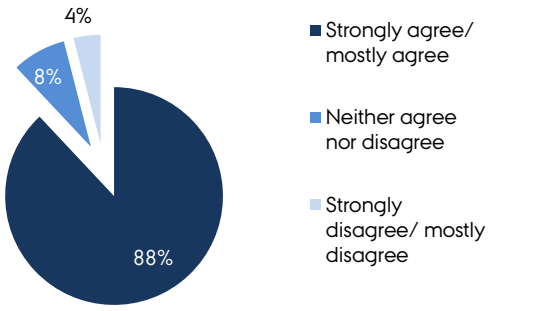
Finally, the students were asked to state whether or not they are generally satisfied with their studies. The question is asked after they have been through a large number of questions about their fellow students, academic activities and social events, the course organisation, bullying, time use and questions about the physical facilities. The question can therefore be regarded as providing a general summary based on the assessments made by the students as they completed the questionnaire. A very large majority of the students, 87%, are satisfied with their studies.

This year, the students have been asked for the first time whether they would recommend their programme of study at Aarhus University to others. By far the majority of students would. Thus, 85% of the students strongly or mostly agree with the statement: 'I would recommend my programme of study at Aarhus University to others.'

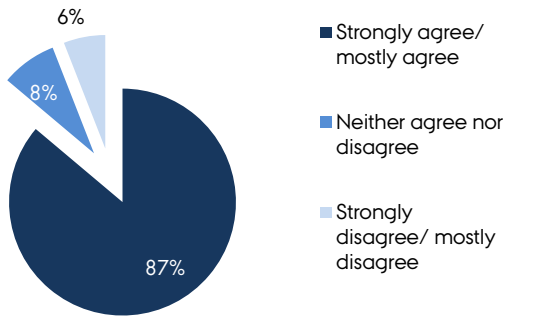
The students' comfortableness and satisfaction are also closely related to their experience of having an academic identity and being part of an academic community. A total of 76% believe that their degree programme has contributed to making them feel that they are part of an academic community. For 77%, their course is an important part of their identity.

Figure 1.1. Academic well-being

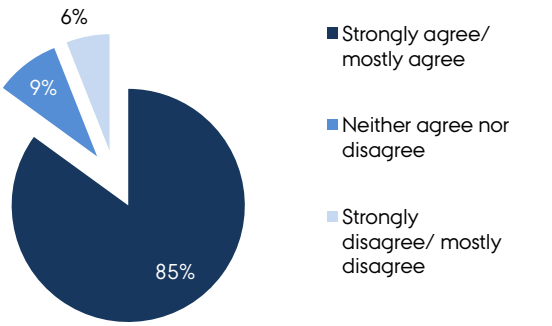
In general, I feel comfortable as a student here.



I am generally satisfied with my studies.



I would recommend my programme of study at Aarhus University to others.



Academic well-being – key factors

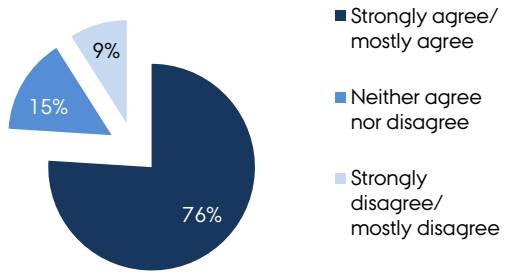
The students' academic well-being is affected by many different factors in the study environment, but not all factors are equally important or affect the academic well-being of students equally. The analyses of the data show that the three most important factors for the academic well-being of students are:

1. The possibilities for meeting fellow students, i.e. the physical, social and organisational preconditions for social interaction with other students, for example in the form of academic and social events, places and facilities conducive to meeting up with others.
2. Kind and cooperative fellow students, i.e. fellow students who are friendly, not feeling lonely and good cooperation with other students.
3. Course organisation, i.e. whether learning objectives are aligned with exam requirements, whether it is clear what the students are expected to learn, and how to tackle assignments.

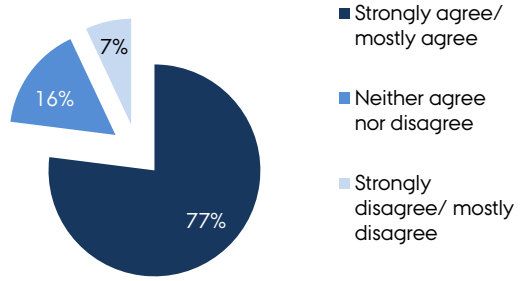
These factors affect the academic well-being of students regardless of programme level, field of study and personal characteristics such as gender and age. It is possible for the various degree programmes to influence these factors, and to address any related challenges in the study environment.

Figure 1.1 Academic well-being (continued)

My studies helped to make me feel part of an academic community.



My field of study is an important part of my identity.



Precipitation chart

Table 1.2., also called the precipitation chart, is shown on the following pages. The table lists a lot of – but not all – the questions asked of the students in the survey. First, the figures relating to the two questions concerning student well-being are reported. Then follow the remaining questions.

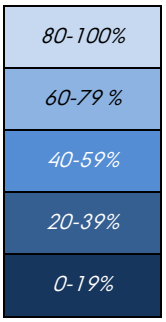
Below follows a brief reading guide as well as a description of the colours used in the table. The lighter the colours, the better the results. Dark colours indicate areas which should be given special attention.

Reading guide for

	AU	AR
Academic well-being		
In general, I feel comfortable as a student here	88%	86%
I am generally satisfied with my studies	87%	85%

The figures in the table show how large a proportion of the students on the various degree programmes have indicated that they disagree with the statement shown on the left-hand side of the table – here 'In general, I feel comfortable as a student here'. The figures show the percentage of students stating that they 'Strongly agree' or 'Mostly agree', or the percentage ticking 'Almost always' or 'Often' for the questions concerning loneliness, study group and severe stress symptoms.

Colours used in



The fields in the table are coloured using five different shades. The lightest shade shows that 80-100% of the students have indicated that they agree with the statement shown on the left-hand side of the table. The next shades cover the 60-79%, 40-59% and 20-39% intervals, while the darkest colour indicates that 0-19% of the respondents have stated that they agree with the statement.

The darker the colour, the more reason for the main academic areas to discuss whether they have a problem that needs addressing.

The scale works the other way round for negatively worded statements, e.g. 'Have you experienced strong stress-related symptoms in connection with your studies (during everyday life)?'. For questions such as this, the lightest category corresponds to 0-10% of respondents having stated that they disagree with the statement.

Table 1.2. Summary of key figures

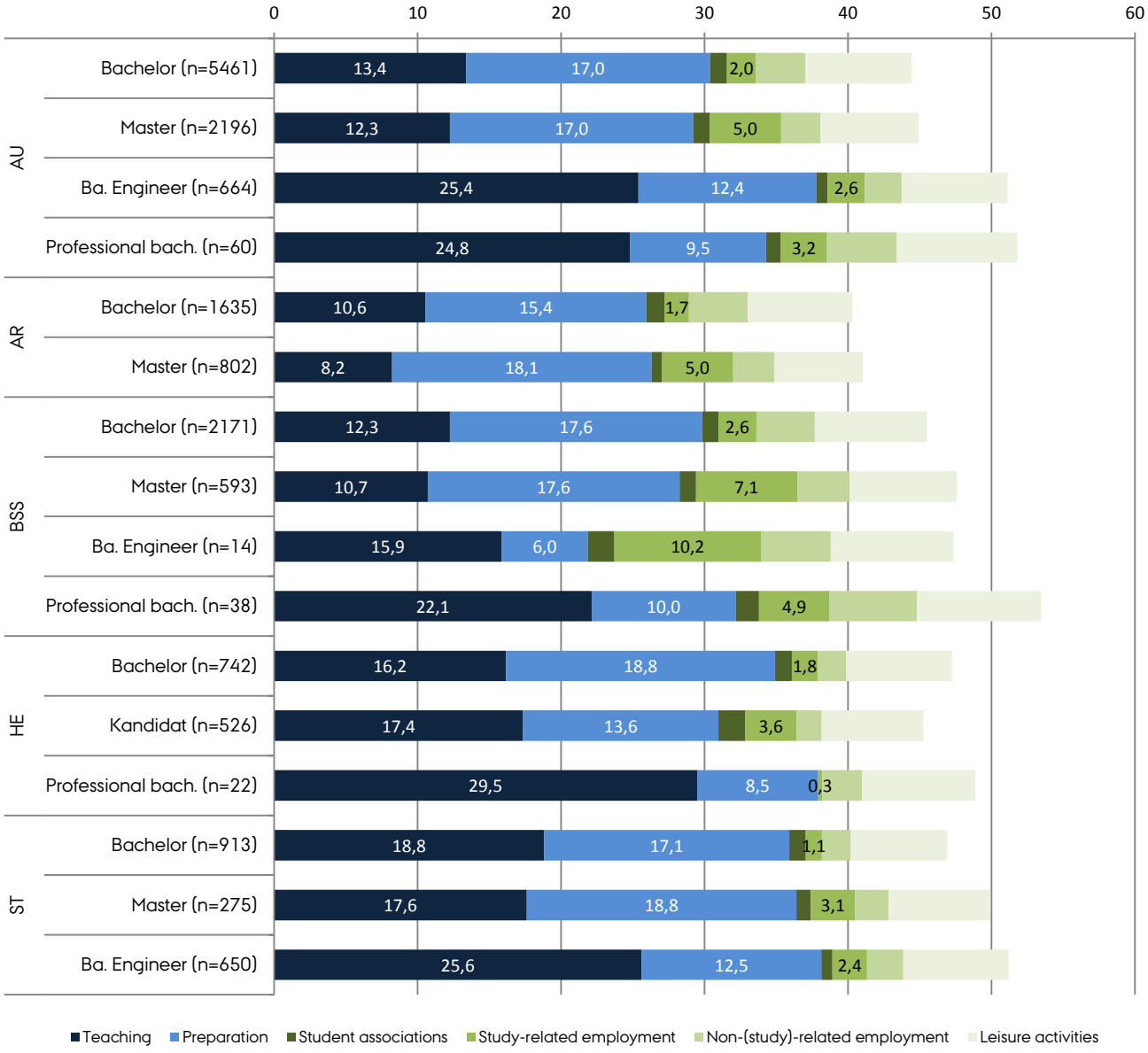
	AU 2011	AU 2014	AR	BSS	HE	ST
Academic well-being (Strongly agree/mostly agree)						
In general, I feel comfortable as a student here.	86%	88%	86%	87%	92%	90%
I am generally satisfied with my studies.*	85%	87%	85%	85%	92%	88%
I would recommend my programme of study at Aarhus University to others.	-	85%	84%	83%	91%	88%
My studies helped to make me feel part of an academic community.	75%	76%	73%	73%	85%	80%
My field of study is an important part of my identity.	-	77%	77%	73%	89%	78%
Contact with fellow students (Strongly agree/mostly agree)						
My fellow students are generally kind and cooperative.	86%	88%	89%	85%	91%	91%
I can receive help and support from my fellow students when I need it.	-	85%	84%	81%	87%	89%
Discussions with fellow students help me to better my understanding.	-	93%	93%	90%	94%	94%
Study group (Almost always/often)						
Are you part of a study group or do you have a study buddy outside of examination periods?		55%	53%	55%	64%	51%
Are you part of a study group or do you have a study buddy during examination periods?	-	62%	53%	62%	79%	63%
Loneliness (Almost always/often)						
How often do you feel lonely? (On a daily basis during your studies)	9%	12%	13%	15%	8%	11%
Academic and social events (Strongly agree/mostly agree)						
I am satisfied with the number and range of academic activities.	73%	74%	73%	74%	83%	71%
I give priority to participating in academic activities.	-	53%	56%	46%	65%	50%
I am satisfied with the number and range of social activities.	76%	70%	61%	72%	79%	73%
I give priority to participating in social activities.	-	56%	55%	52%	66%	55%
The possibilities for social contact with my fellow students are good.*	75%	76%	70%	74%	85%	82%
Learning objectives and alignment (Strongly agree/mostly agree)						
It is clear to me what I am expected to learn in courses.		75%	78%	73%	71%	77%
Learning objectives of the individual courses are clearly defined and communicated.	64%	62%	67%	59%	53%	65%

Table 1.2. Summary of key figures

	AU 2011	AU 2014	AR	BSS	HE	ST
It is clear to me what is expected in the assessed work.	-	54%	56%	49%	50%	63%
Feedback (Strongly agree/mostly agree)						
I receive a sufficient amount of feedback regarding my effort during the semester.	-	40%	45%	33%	25%	53%
The feedback I get regarding my work helps me to improve my ways of learning and studying.	-	58%	63%	56%	46%	61%
The feedback I get regarding my assignments/work clarifies things I had not fully comprehended.	-	60%	62%	58%	45%	69%
The possibilities for receiving feedback regarding my academic performance are good.*	38%	38%	45%	37%	18%	42%
Physical framework (Strongly agree/mostly agree)						
I am able to find a place to study when I need one.*	55%	62%	70%	57%	64%	56%
I am able to find a place to work with my study group or study buddy when I need one.*	53%	54%	69%	44%	48%	52%
There are enough seats in the classrooms so I can sit down during lessons.	-	86%	83%	89%	84%	88%
Stress (Almost always/often)						
Have you experienced strong stress-related symptoms in connection with your studies? (During everyday life)	13%	17%	17%	17%	16%	17%
Have you experienced severe stress symptoms in connection with your studies? (During examination periods)	35%	34%	34%	34%	36%	32%
Use of electronic platforms (Strongly agree + mostly agree)						
My teachers are generally good at applying e-learning platforms for distributing teaching material.	81%	75%	80%	72%	61%	82%
My teachers are generally good at applying e-learning platforms to activate students.	23%	25%	30%	19%	14%	33%

Note. * indicates that the wording of the question has been changed since the Study Environment 2011 survey. Therefore, any comparisons of the figures must be carried out with caution. See *Chapter 2* for a comparison over time.

Figure 1.2. Students' indication of time use per week by main academic area and type of degree programme



Note: The following conditions must be fulfilled in order for the students' answers to be included in the calculation of the average: i) The student must have planned doing 30 ECTS, corresponding to a full-time programme, ii) The student must not be writing his or her thesis, iii) The time use must be greater than 0 hours and less than or equal to 84 hours. *n* indicates the number of responses that meet these conditions.
The wording of the question: 'Think back on the past seven days. How many hours did you spend on the following activities? If your week has been very atypical, for example if you have been ill or travelling, then think instead of a typical week outside the exam period.'

Most important conclusions and presentation for discussion

#1 Discussions at relevant levels

The figures in this report cover Aarhus University as a whole as well as the four main academic areas AR, BSS, HE and ST. In addition, four degree programme reports have been prepared for each faculty (reports no. 2-5), in which the figures are reported for all degree programmes offered by the faculty. These figures show significant variation between programmes within the same faculties.

The analysis group recommends ...

- ... that the directors of studies and boards of studies analyse and discuss the figures for the individual degree programmes. These figures can be seen in reports no. 2-5.
- ... that so-called special runs be requested from the analysis group – where this is deemed necessary for a more detailed analysis of the figures.

#2 Academic well-being

The analyses show that well-being among the university's students can be characterised as 'academic well-being'. That is to say that student well-being has as much to do with having a sense of belonging to an academic community and having an academic identity as it has to do with feeling comfortable, satisfied and being happy to recommend your course to others.

The analysis group recommends ...

- ... that the academic environments discuss how to build up, support and maintain an academic identity among students.
- ... that some thought be given to how you can help new students become part of the academic communities which exist at the various degree programmes.

#3 Key factors

A number of statistical analyses have been carried out, not only to determine whether students are thriving, but why or why not (see Chapter 3 and Appendix C). The analyses point to the following three factors as having the greatest bearing on students' academic well-being: the possibilities of meeting with fellow students; kind, cooperative and helpful fellow students; and transparent and coherent organisation of the teaching activities (alignment).

The analysis group recommends ...

- ... that most attention be given to the factors which have the greatest bearing on the students' academic well-being, i.e. a) the possibilities for academic and social interaction; b) the sense of togetherness and culture among students; and c) the degree of alignment between learning objectives, forms of instruction and exam assessment criteria.

#4 Possibilities for social interaction

The analyses show a high level of academic well-being among the students at Aarhus University, especially because of the possibilities for spending time with their fellow students both in and outside the classroom. This happens in both academic and social contexts, which the academic environments and Aarhus University can help to support and aim to improve, where this is deemed necessary.

The analysis group recommends ...

- ... that the individual degree programmes discuss how to support the student associations' efforts to increase and maintain the range of academic and social events on offer.
- ... that – where possible within the existing financial and physical frameworks – room be provided for the students to be able to spend time at their place of study outside teaching hours.

#5 Sense of togetherness among students

Most students find their fellow students kind and cooperative, and are positive about spending time and working with them. Most students are comfortable about working with their fellow students. However, about one in ten students feel lonely on a daily basis in connection with their studies, and the figure has increased slightly since 2011. Only slightly more than half of the students are part of a study group or have a study buddy in connection with their studies. In the qualitative comments, several students point out that they feel that competition is fierce and elbows sharp among their fellow students, and this may have an impact on the possibilities for cooperation.

The analysis group recommends ...

- ... that it be discussed locally how the students can be helped to establish social study practices

by organising coursework in study groups and by giving a helping hand to any students who fall outside the study groups.

- ... that other ways of identifying and counteracting loneliness in the study environment be discussed.
- ... that all levels of the organisation work to promote a healthy culture among the students, allowing them to be ambitious without necessarily having to work against each other.

#6 Course organisation

The meaningful organisation of the teaching activities is important for the students' academic well-being and their sense of fitting in as a student on their degree programme. Three out of four students feel that they know what is expected of them. Less than two thirds feel that the learning objectives for their courses are clearly communicated. Slightly more than half of the students know what is expected of the work that is assessed at the exam.

Less than half the students feel that they receive sufficient feedback on their academic performance during the semester and at examinations, while just under 70% feel that the feedback they receive is helping to improve the way they learn.

The analysis group recommends ...

- ... that it be discussed whether you can ensure that the learning objectives and assessment criteria at the exam are not only clearly formulated in the academic regulations, but are also clearly communicated to the students as part of the teaching activities.
- ... that it be discussed whether – given the large groups of students in each year – it would be possible to provide more opportunities for feedback in the course of the semester and after final tests and exams.

#7 Study time and workload

An average week of study (instruction + preparation/study group work) for a student doing the prescribed number of ECTS credits is 30.7 hours. In addition to this, some students are involved in student associations, have a job and engage in leisure activities. Considerable variation is seen between the main academic areas and also among the students themselves.

The students have been asked to state how many ECTS credits they are planning to do during the semester. Most students (83%) aim to study full-time (30 ECTS credits), 4% plan to do more than 30 ECTS credits, and 13% are planning to do less than the prescribed number of ECTS credits.

One in three students find that they have severe stress symptoms during the examination periods. This is on par with the figures from 2011. However, there are signs that the experience of severe stress symptoms in everyday life is on the increase within all the main academic areas. In 2011, 13% of students stated that they often or almost always experienced severe stress symptoms in their everyday life, while in 2014 an average of 17% of students often or almost always experience this.

The analysis group recommends ...

- ... that the local academic environments discuss the causes of stress, and as part of this discussion consider any solutions which may help alleviate severe stress symptoms on a daily basis and also during the examination periods.
- ... that it be discussed whether it is possible to motivate students to work more between lectures/lessons, e.g. by a) encouraging students to work in study groups, b) helping students to organise their preparation time by providing working questions and weekly overviews, and c) offering teaching activities which require preparation and active participation by students.

#8 Digital learning environment

The rapid development of digital and social media is increasing the need for the study and learning environments to follow suit by making the most of the possibilities offered by these new media. In its policy on Educational IT, Aarhus University has committed itself to implementing a shared Learning Management System and supporting the development of the competencies of teaching staff at all levels, thereby enabling them to rethink their teaching practices in relation to blended learning. Table 1.2 shows that the students generally feel that the electronic learning platforms are working satisfactorily in so far as the distribution of teaching material and for teacher/student communication are concerned. On the other hand, few students see the e-learning platforms being used to their full potential to activate the students via e.g. learning paths, discussion forums, test and feedback applications etc.

The analysis group recommends ...

- ... that it be discussed whether it is possible to increase the students' participation in a digital learning environment as a supplement to their participation in the physical learning environment, e.g. by supporting the teaching staff in their use of the existing digital learning platforms for activating the students between lessons.

#9 Bullying, harassment and discrimination

Aarhus University's students are largely spared problems with bullying, discrimination and harassment. The number of students citing these problems is very low. There appears to be a drop in the number of foreign students who feel discriminated against, but these figures and this change must be interpreted with great caution (see Chapter 8). According to the open comments from foreign students, some foreign students still feel that they are treated differently and have problems finding their feet among the Danish students – several students mention the challenge posed by the language barrier.

The analysis group recommends ...

- ... that degree programmes with international students and English-language programmes discuss how to support the inclusion of students with a native language other than Danish, e.g. through the way in which the teaching is organised or through collaboration between students outside of the classroom.

#10 Physical study environment

The students are generally satisfied with the physical study environment, although students from all four main academic areas call for more places to study and more rooms for group work in their comments.

The analysis group recommends ...

- ... that the relationship between the physical study environment and the psychological study environment be considered as well as ways in which the physical framework can support the students' learning activities.
- ... that it be considered how room can be found for study group activities and other academic activities within the existing framework.

2. DATA BASIS AND METHOD

- The questionnaire was completed by 40% of the students, which is the highest response rate ever for a study environment survey conducted by a Danish university.
- The survey will be reported on at all relevant levels: For the university as a whole, for the four faculties and at degree programme level. In addition, it is possible to order special runs and get access to the students' comments.
- Measured against a number of background parameters such as gender, age, type of degree programme and qualifying average marks, only minor deviations are seen between sample and population.

Questionnaire

The questionnaire for the Study Environment Survey 2014 is based on previous years' questionnaires, but was further developed in autumn 2013 and spring 2014. Among other things, the questionnaire was supplemented with questions from the Finnish LEARN questionnaire (Parpala & Lindblom-Ylänne 2012), and for a more accurate indication of time use, the students were asked to state how many ECTS credits they were planning to do this semester. The questionnaire has been presented to and discussed by the Education Committee and the senior management team, and all heads of studies at the university have been invited to comment on the questionnaire. The Student Council at Aarhus University has also been involved in the consultation process, and the questionnaire has been tested on four focus groups, one for each main academic area.

Some students at Aarhus University are enrolled on several programmes; this applies, for example, to students doing a main subject and a subsidiary or supplementary subject. In order to be certain which study environment the students were assessing, their principal place of enrolment was stated at the start of the questionnaire, and the students were asked to bear this in mind when completing the questionnaire.

Data

Survey population

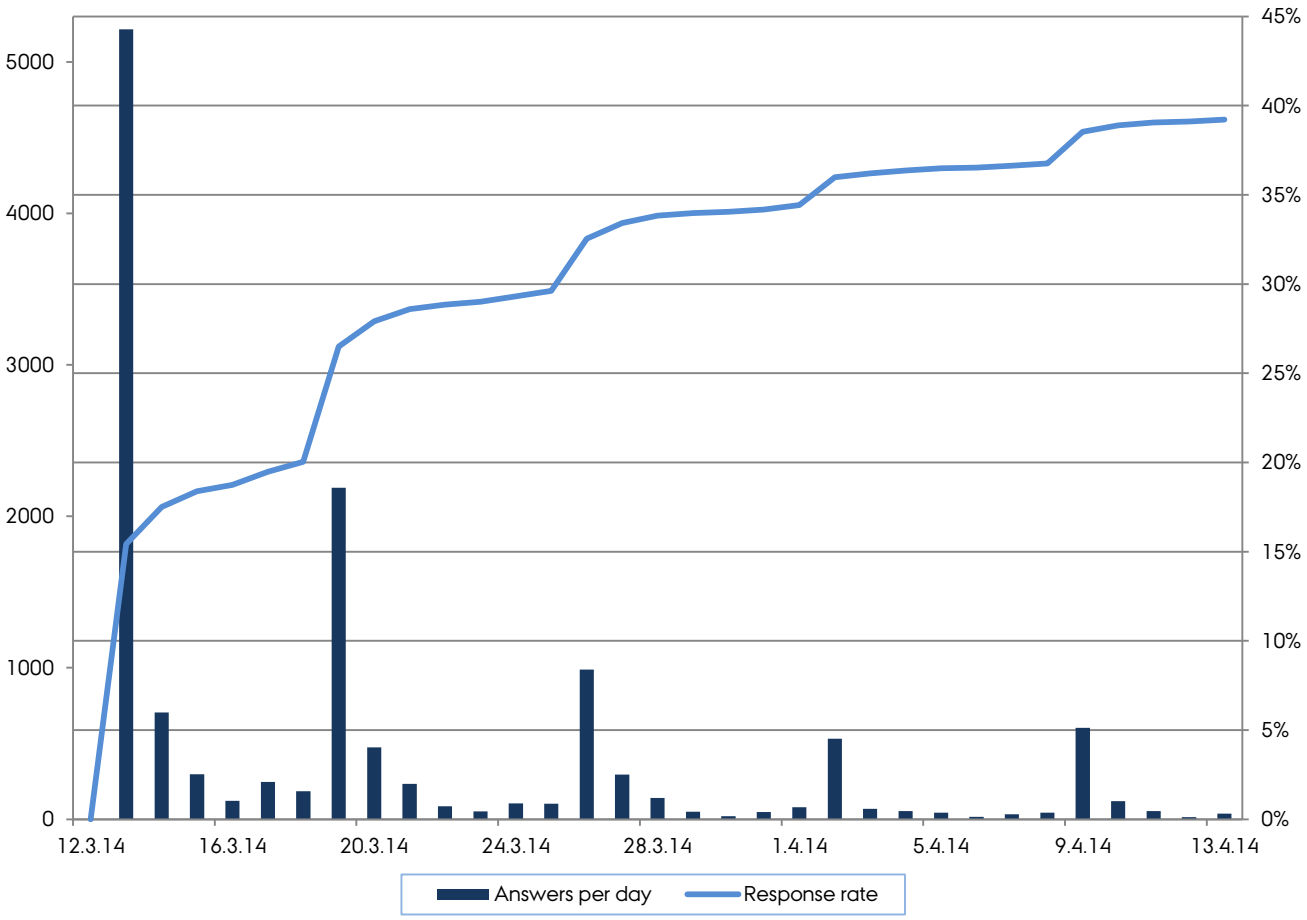
The survey covers all full-time students at Aarhus University. A list was extracted from the studies administration system containing information, among other things, about the students' email addresses, educational activities, average marks and similar studies administration information of relevance to the collection of data and subsequent analyses. These lists were processed to ensure, among other things, that the email addresses were completely consistent with the relevant domains.

Data collection

The data collection period was planned with a view to mapping a day in the lives of the students in the middle of the semester, in so far as possible avoiding holidays and exam periods. On 12 March, an invitation to participate in the online questionnaire was emailed to 34,523 students. The students received a total of four reminders, and data collection continued until 13 April 2014. Approximately 1,500 emails bounced in each round. Thirteen students dropped out during the survey period.

During the collection of data, the directors of studies were kept informed of developments in the response rate. To raise awareness of the survey, prizes were drawn, and printed and social media were also used. Figure 2.1 depicts developments in the data collection process.

Figure 2.1. Development in response rates during data collection period (March/April 2014)



Response rates and representativity

A total of 13,254 students completed the whole questionnaire, and a further 303 students had completed enough of the questionnaire to be included to avoid wasting data. This brings the total number of completed questionnaires to 13,647, corresponding to 40% of the 34,510 students who made up the survey population.

Although 40% is not a high response rate, it is higher than the response rate for Aarhus University's study environment surveys in 2011 (37%) and 2007 (29%). The response rate for the study environment survey at Aarhus University is also higher than for similar surveys at the University of Copenhagen in 2013 (28%), University of Southern Denmark in 2013 (22%) and Aalborg University in 2011 (20%).

Closer analysis showed that the response rate varied across the main academic areas: AR (37%), BSS (36%), HE (48%) and ST (46%). Furthermore, an analysis showed that the response rates varied considerably between the individual degree programmes (see degree programme reports).

Finally, an analysis was conducted of the extent to which the students who completed the questionnaire (sample) matched the whole group of full-time students at Aarhus University (population). Table 2.1 shows the most important results. As can be seen, undergraduate students are slightly over-represented, and Master's degree students are slightly under-represented in the sample, but not very much so. Similarly, women, younger students, and students with higher qualifying average marks are slightly over-represented in the sample.

Table 2.1. Comparison between sample and population

		Sample	Population
Main academic area	AR	30%	33%
	BSS	34%	37%
	HE	14%	12%
	ST	22%	19%
Type of programme	Bachelor's degree programme	52%	49%
	Master's degree programme	40%	44%
	Bachelor of Engineering programme	7%	6%
	Professional Bachelor's degree programme	1%	1%
Gender	Male	43%	46%
	Female	57%	54%
Nationality	Danish	94%	92%
	International	6%	9%
Qualifying average mark (7-point marking scale)		8.9	8.5
Age (yrs)		24.8	25.8
N		13,647	34,510

Methodology

Reporting

As part of the study environment survey, Aarhus University attaches importance to being able to offer analyses at the level that best enables action. Consequently, the figures are reported at several levels. This report looks at the university and the four main academic areas. In addition, four reports have been prepared for more than 100 individual degree programmes.

- One report at university level (this report)
- Four reports at degree programme level (http://www.au.dk/en/study-environment-survey-2014/reports-2014/)
- Special runs can be ordered by contacting the analysis group (provided that anonymity is not compromised)
- Distribution of open comments to the boards of studies (subject to permission being granted by the student)

In addition, as was the case with earlier study environment surveys, it will be possible to order special analyses, so-called special runs. These analyses are conditional on the anonymity of respondents not being compromised, which for example means that analyses are not carried out for groups of fewer than 10 students. For questions about harassment and discrimination, the minimum number of respondents is 25 students.

As something new, the students were asked to indicate whether their comments on the two open questions may be passed on to the boards of studies. It is therefore possible for the university's boards of studies to apply for access to the comments, provided that the students have consented to this.

Quantitative analyses

Most of the analyses in this report are descriptive frequency analyses. Even though most of the questions are answered using five-point Likert scales, it has been necessary for the sake of clarity – as is common practice when reporting survey data – to collate some of the response categories. For example, for many of the questions, the proportion of students who have ticked that they either 'Strongly agree' or 'Mostly agree' are reported. On the other hand, the remaining have stated that they 'Strongly disagree', 'Mostly disagree' or 'Neither agree nor disagree'. In the notes for each table, it can be seen what the percentages cover, and what the remaining percentages up to 100% cover.

A special challenge is posed by questions where no answer is given or where the respondents have ticked 'Don't know/not relevant'. As most of the analyses are purely descriptive, no attempt has been made to replace missing answers with the averages from the sample or any other estimates. As a general rule, the missing answers are therefore not included in the analyses. Thus, the missing answers are not included in the calculation of the percentage distributions for the other (valid) response categories. For example, if 47% have indicated that they agree with a statement, 47% have indicated that they disagree, and 6% have not provided a response or have stated that it is not possible for them to answer the question, then the final analysis will show that 50% of the students who have submitted a valid answer agree.

This analytical construct can be problematic in situations where the share of missing responses can be described as large. For this reason, a note will be inserted to explicitly make the reader aware of this for questions where the share of missing answers is more than 10%.

Comparing figures from 2011 and 2014

Many of the questions in Study Environment Survey 2014 are identical to those used in the surveys carried out in 2011 and 2007, constituting a unique chance to take a closer look at developments in the study environment. Comparisons over time for a number of key questions are shown in the tables in this report and are marked with (Study Environment Survey 2011).

It should be noted in this context, however, that (as is the case with all comparisons over time) there is a risk of over-interpreting developments due to the following error sources: First, any fluctuations may be random occurrences. However, this is less likely in a survey completed by thousands of respondents. Secondly, the composition of the student population may have changed, which it has. As a result of the academic development process, Sport Science has moved from Science and Technology to Health, and the Aarhus School of Engineering (IHA) has been merged with the university, changing the entire student population in the two main academic areas. For Science and Technology, this difference particularly significant, which is evident, for example, in the calculations of time spent on instruction.

In this context, it should also be noted that questions can only be compared for which the response categories and the phrasing of the questions are identical. In 2011, to ensure comparability the analysis group made very few revisions and only where deemed absolutely necessary. In 2014, priority has been given to quality-assuring the questionnaire, for example through the use of focus groups. This has resulted in the rephrasing of some questions. Even minor changes to the phrasing of questions can have a significant bearing on the way in which they are understood, and comparisons between years must therefore be carried out with extreme care.

In this year's survey, the analysis group has made changes to the section on student's time use. As something new, the students have been asked to indicate how many ECTS credits they are planning to take in the current semester. In the calculation of working hours, account can therefore be taken of whether the students have intended to follow courses corresponding to a full-time degree programme. This provides more valid figures, but it also means that the figures for 2014 cannot be directly compared with the figures for 2011, as the figures for active enrolment would be expected to increase following such a correction.

Processing of open comments

The students were able to write in-depth comments twice in the questionnaire. A total of 5,901 students seized this opportunity, and 620 pages of data were obtained. The comments were encoded in the Nvivo10 program using 12 predefined codes. On the whole, these codes follow the themes that form the basis of the structure of the chapters in this report. The comments have been included in the report to the extent that they shed light on the figures. The comments have been

used to highlight the variation in the comments, and the analysis group has selected quotes and themes which are representative of the comments as a whole. This means that a problem or a theme must have been mentioned several times and in more than one main academic area to be dealt with in the report.

The students were asked to indicate whether their comments may be passed on to the boards of studies. In total, 3,739 out of the 5,901 students who had written comments gave their consent. These comments can thus be made available to the boards of studies which would like to see them.

3. ACADEMIC WELL-BEING AND DETERMINANTS

- Research in higher education points to the fact that education is to a large extent about being part of an academic and social community.
- An analysis shows that well-being and academic integration at Aarhus University are very closely related and can be said to constitute a single factor which in this survey is referred to as academic well-being.
- The most important predictors for academic well-being are 1) a study environment that supports both academic and social interaction, 2) good contact with fellow students and 3) the organisation of the course (the degree of alignment).

The aim of the study environment surveys conducted in 2007 and 2011 was to examine student well-being and the factors that may explain variation in well-being. Both previous studies showed that academic integration had the greatest impact on student well-being, and that academic integration explained much of the variation seen for this predictor. This indicated that academic integration and well-being are closely linked when it comes to satisfaction with the study environment and well-being at university. In this survey, we have therefore set out to find out whether well-being at university can be said to be determined by satisfaction and comfortableness and the experience of belonging to an academic community and developing an academic identity. This question has been investigated both empirically and theoretically. Theoretically, it was investigated by studying literature on student integration and initiation into academic communities. Empirically, the material has been studied statistically to establish the distribution and grouping of student responses. In line with previous years, both a factor analysis and regression analyses of the data material have been carried out. The results of these analyses will also be presented in this chapter.

Education as initiation into an academic community

Completing a higher-education programme is not just about acquiring the necessary academic knowledge and the ability to handle the theories, empirical methods and methodologies of a particular field of study. Doing a Master's degree is also very much about socialisation, i.e. about understanding the ontological framework of a particular field of study, its self-image and related academic and scientific norms. Education is thus about initiation into an academic community, where you acquire a special way of understanding the world (Smeyers & Burbules 2006), and the study environment is an important framework for this. Academic communities (communities of practice) are communities in which particular types of conduct and particular types of knowledge are legitimate and useful (Lave & Wenger 1991). What matters in an academic community can be more or less obvious and transparent in the form of, for example, learning objectives, exam requirements and the organisation of the course.

A Finnish survey showed that the students' ability to learn academic as well as social norms within a particular field of study had a major impact on their well-being as students. Being able to read norms and rules for appropriate behaviour was vital to being accepted by fellow students and teaching staff in the academic community. Because the students spent relatively little time with their teachers compared with the amount of time which they spent together, the social relations between the students played an important role for their well-being as members of the academic communities (Ylijoki 2000). Seen in this light, the focus on academic

integration and initiation into academic communities is essential for well-being and a key element in a good study environment.

Central dimensions of Study Environment Survey 2014

We have performed a factor analysis with a view to identifying how the questions in the survey are grouped in order to find out what are the most important underlying dimensions of the study environment. See the entire factor analysis in Appendix B. The table shows the dimensions, a description of the content and examples of questions included in the dimension.

Table 3.1 Central dimensions of Study Environment Survey 2014

Dimension	Description	Examples of questions
Academic well-being	Covers the students' satisfaction, comfortableness and integration in the academic environment.	*'I am generally satisfied with my studies.'* *'My studies have made me feel part of an academic community.'*
Feedback	The dimension covers feedback which the students receive in the course of the semester and in connection with exams.	*'The feedback I get regarding my assignments/work clarifies things I had not fully comprehended.'* *'I receive a sufficient amount of feedback regarding my effort during the semester.'*
Academic self-efficacy	The dimension identifies the students' confidence in their own academic skills.	*'I am certain that I can acquire the skills required in my field of study.'* *'I expect to do well on my degree programme.'*
Room for studying	The dimension identifies the students' experience of whether there is room for studying alone or as part of a study group.	*'I am able to find a place to study when I need one.'*
Contact with teaching staff	The dimension identifies students' experience of their meeting with their teachers. It is about the teachers' interest and openness, and whether the teachers are physically present in the study environment.	*'At my educational institution, you often see teachers outside the classrooms.'* *'It is easy to get in contact with most teachers.'*
Working in study groups	The dimension covers the work done by students in study groups on a daily basis and during exam periods.	*'Are you part of a study group or do you have a study buddy outside of examination periods?'*
Alignment of teaching activities	Alignment is about learning objectives and forms of instruction and their alignment with types of examinations and exam requirements. In addition, the dimension covers the students' experience of the alignment of what they have to learn and what they are taught.	*'Learning objectives of the individual courses are clearly defined and communicated.'* *'It is clear to me what I am expected to learn in courses.'*
Possibilities for meeting fellow students	The dimension shows how the students view the possibilities for meeting fellow students in the study environment. The questionnaire addresses both the organisational and the physical conditions for interaction.	*'The possibilities for social contact with my fellow students are good.'* *'I am satisfied with the number and range of academic activities.'*
Kind and cooperative fellow students	The dimension identifies the students' perception of the kindness and cooperativeness of their fellow students, when working together and in connection with	*'I can generally work comfortably with other students.'* *'My fellow students are generally kind and cooperative.'*

social interaction.

In addition to these areas, questions are asked about a number of other issues, for example bullying, discrimination and harassment. Questions are also asked about the students' time use and whether they give priority to participating in social and academic events.

Regression analysis – what explains academic well-being?

As in previous years, the analysis design for the survey purports to not only map the well-being of the university's students, but also to identify the determinants of well-being. Based on the dimensions described above, a regression analysis was carried out to establish what determines academic well-being. The full regression analysis can be seen in Appendix C.

Figure 3.1 below illustrates the three most important determinants of academic well-being. The objective of the analysis is to enable the various academic environments and, more generally, the main academic areas and the university as a whole to focus on the elements which strengthen the study environment, and alleviate any problems that are hampering well-being.

The figure shows that academic well-being is determined by academic identity and the sense of being part of an academic community as well as the students' experience of being comfortable, satisfied and being able to recommend their degree programme to others.

Academic well-being is determined firstly by the *possibilities for meeting fellow students*, for example by …

- a suitable offering of academic and social events,
- good possibilities for social contact with fellow students, and
- room being provided for the students to be able to spend time at their place of study outside teaching hours.

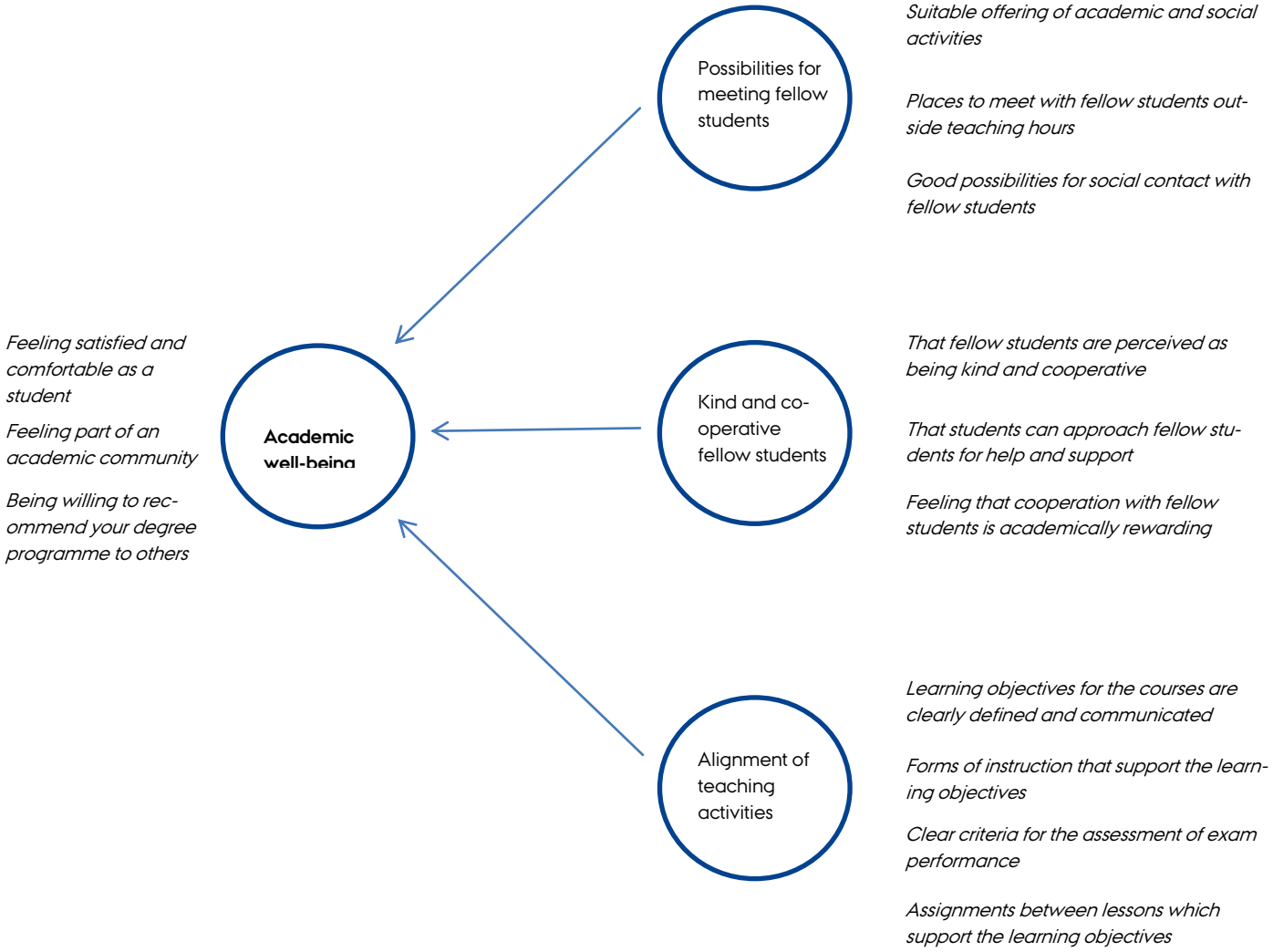
It is also important that there is a *healthy culture* among the students, i.e. …

- that the students feel that their fellow students are kind and cooperative,
- that the cooperation between students is seen as being rewarding,
- and that the students feel so comfortable with each other that they are confident about approaching their fellow students for help and support, if necessary.

Finally, the way in which the teaching is organised is also important for the students' academic well-being. Thus, *alignment* is important for the students, , which means among other things …

- that the learning objectives of the individual courses are clearly defined and communicated,
- that it is clear to the students what criteria will be used to assess their academic performance at exams,
- that the forms of instruction support the learning objectives, and
- that between lessons, students are given assignments which support their learning and prepare them for fulfilling the learning objectives.

Figure 3.1 Most important determinants of academic well-being



Note: Based on the statistical results in Appendices B and C

4. ACADEMIC WELL-BEING AT AARHUS UNIVERSITY

- Most of the students feel comfortable, are satisfied and would recommend their programme of study at Aarhus University to others.
- There is very little difference in the level of well-being among different groups of students.
- Three out of four students feel part of an academic community and feel that their education is an important part of their identity.

As described in the previous chapter, the academic well-being of students is determined by comfortableness and satisfaction with their degree programme. In addition, academic well-being is covered by questions on whether students feel part of an academic community and whether their degree programme has become an important part of their identity. This chapter reports on the figures for Aarhus University as a whole and across the main academic areas. The students were also asked whether they would recommend their programme of study to others. This is a new question, which is also reported on in this chapter.

Well-being within the individual main academic areas

Table 4.1 below shows the distribution of answers to three questions concerning well-being. Most students at Aarhus University, 88%, feel very comfortable as students here. The highest figure is seen for Health, where 92% strongly agree or mostly agree with the statement. At Science and Technology, this is true for 90% of the students, while the figures are slightly lower at Arts and at Business and Social Sciences, where 86% and 87%, respectively, agree.

Table 4.1. Feeling of comfortableness, satisfaction and willingness to recommend programme of study.

	AU	AR	BSS	HE	ST
In general, I feel comfortable as a student here.	88%	86%	87%	92%	90%
In general, I feel comfortable as a student here. (Study Environment Survey 2011)	(86%)	(84%)	(86%)	(90%)	(89%)
I am generally satisfied with my studies. [a]	87%	85%	85%	92%	88%
I would recommend my programme of study at Aarhus University to others.	85%	84%	83%	91%	88%

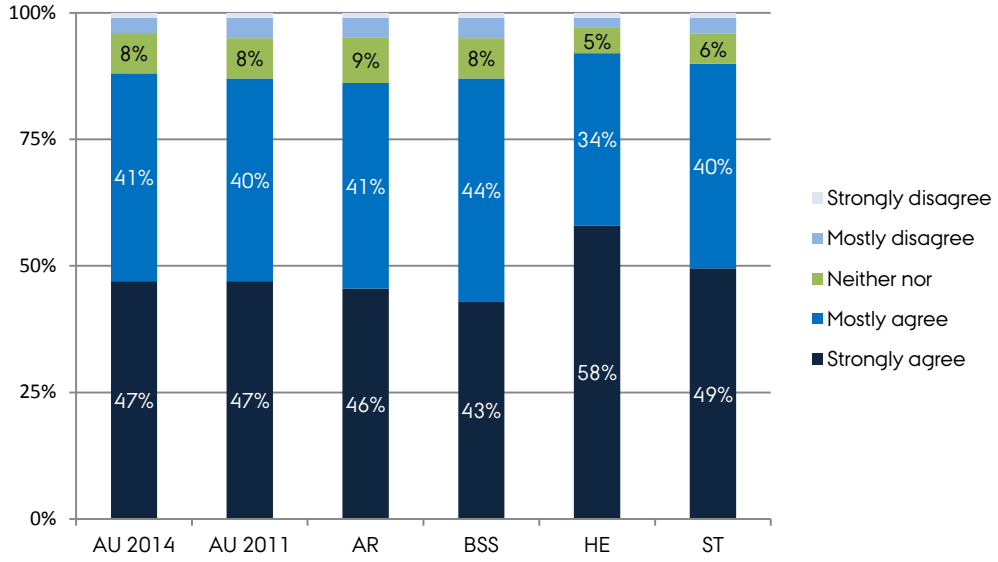
Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The rest of the students neither agree nor disagree, mostly disagree, or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.
a) The response categories for this question have been changed since 2011, and comparative figures for 2011 have therefore not been included as a comparison is not recommended.

Finally, the students have been asked to consider the statement 'I am generally satisfied with my studies.' This is true for 87% of the university's students. The figures are 92% for Health, 88% for Science and Technology, and 85% for both Business and Social Sciences and Arts.

In the same way that most students are comfortable and satisfied with their studies, most would recommend their programme of study at Aarhus University to others. As many as 91% of students at Health strongly agree or mostly agree that they would recommend their programme of study to others, while the figures are 88%, 84% and 83% at Science and Technology, Arts and Business and Social Sciences.

Figure 4.1 shows levels of comfortableness for the main academic areas as well as the distribution of responses on the various categories. More than 40% of students at all four main academic areas strongly agree with the statement. For Health, the figure is 58%.

Figure 4.1. 'In general, I feel comfortable as a student here.'



As shown in Table 4.1, Figure 4.2 indicates that most students are satisfied with their programme of study. In addition, the figure shows the distribution of responses on the various categories. Here, some variation is seen between the main academic areas. At Health, 49% of students strongly agree with the statement, while the figure is 32% at Business and Social Sciences. At Business and Social Sciences, 52% mostly agree with the statement.

Figure 4.2. 'I am generally satisfied with my studies.'

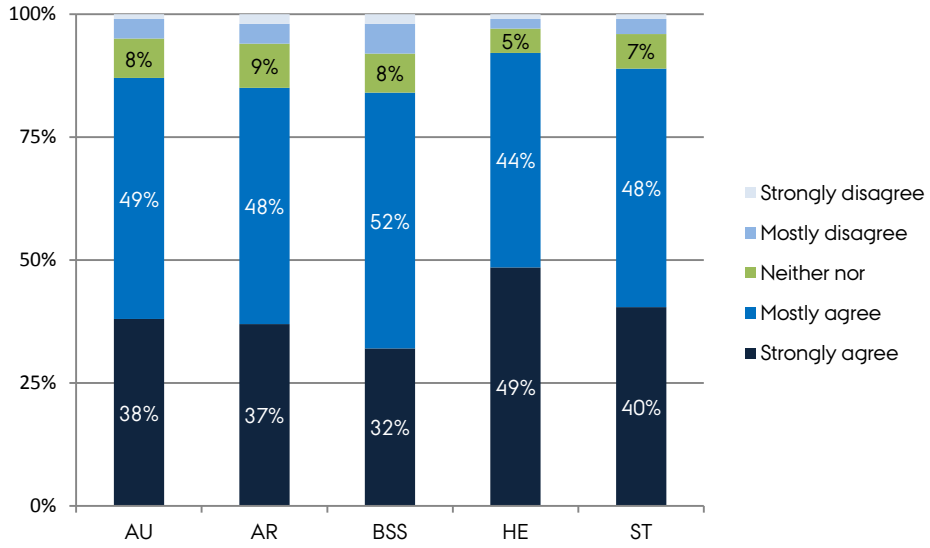
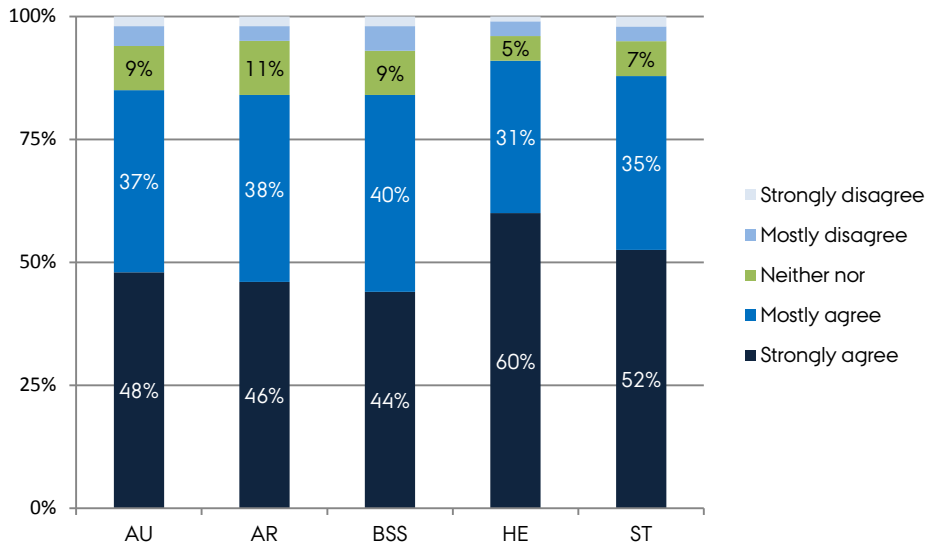


Figure 4.3 below shows the distribution of the students' responses to the question of whether they would recommend their programme of study at Aarhus University to others. Most of the students would recommend their programme of study to others, and at Health an impressive 60% of the students strongly agree with this statement. At ST the figure is 52%. At Arts the figure is 46%, while at BSS 44% strongly agree with the statement that they would recommend their programme of study to others.

Figure 4.3. 'I would recommend my programme of study at Aarhus University to others.'

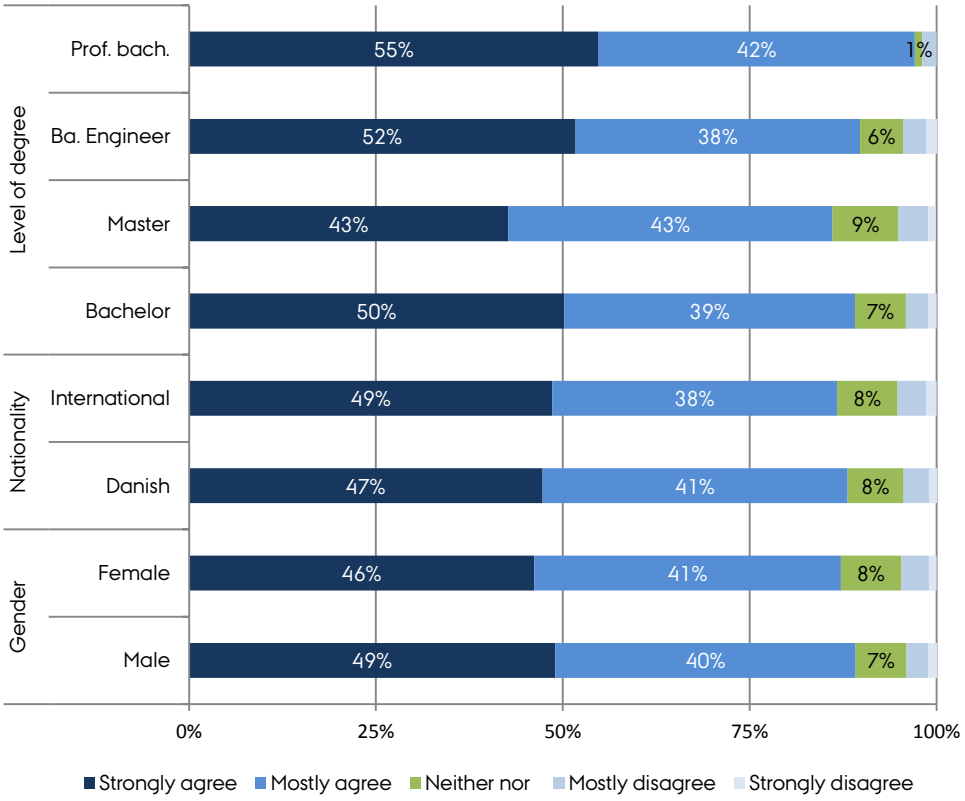


Well-being across groups of students

Figure 4.4 shows the figures for comfortableness distributed on response categories for a number of different groups of students. Generally speaking, there is very little variation between the various groups of students, and as shown in the chapter's first table, the level of well-being is generally high.

The figure shows that the students on the professional Bachelor's degree programmes are the ones feeling most comfortable as students. Here, 55% of students strongly agree that they are comfortable, and 42% mostly agree. Among Master's degree students, slightly fewer agree with the statement. Here, 43% strongly agree, while 43% mostly agree. However, the total figure is still high. These results compare with previous years, where it was also found that Master's degree students feel slightly less comfortable as students than undergraduate students.

Figure 4.4. 'In general, I feel comfortable as a student here' by student group.



Looking at the Danish and international students, little difference is seen between the groups. A slightly higher proportion of international students strongly agree with the statement that they feel comfortable as students here, while a slightly higher proportion of Danish students mostly agree.

Slightly more male than female students strongly agree that they feel comfortable as students. Almost 50% of the male students strongly agree, while 46% of the female students do. 40% of the male students mostly agree, as do 41% of the female students.

Table 4.2 shows the questions concerning academic integration by main academic area. The question about feeling part of an academic community was central in the 2007 and 2011 surveys. The figures for 2014 show that just over three quarters of the students agree that their studies contribute to them feeling part of an academic community. At Health, 85% agree that they feel part of an academic community. At ST the figure is 80%, and at Arts and BSS 73%. Compared with 2011, the figures are basically unchanged.

Tabel 4.2. Academic well-being in the form of inclusion in the academic community.

	AU	AR	BSS	HE	ST
My studies helped to make me feel part of an academic community.	76%	73%	73%	85%	80%
My studies helped to make me feel part of an academic community. (Study Environment Survey 2011)	(75%)	(73%)	(72%)	(90%)	(77%)
My field of study is an important part of my identity.	77%	77%	73%	89%	78%

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The rest of the students neither agree nor disagree, mostly disagree, or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.

As something new this year, the students in the survey were asked whether their field of study is an important part of their identity. In general, 77% find that their field of study is an important part of their identity. The figure covers some considerable differences, with 89% of the students at Health agreeing with this statement. The fewest agree at BSS, yet still 73% feel that their field of study is an important part of their identity.

When, as here, well-being is understood as academic self-image and well-being, the study environment to a large extent determines whether, as a student, you feel part of the university and experience a sense of belonging to it. In the qualitative comments, a student from Arts describes the experience of not feeling like a real student because he did not find that there were enough lessons to cover everything you have to learn.

"*I sometimes feel that there isn't enough time for in-depth study of all we have to learn according to the academic regulations, or for us to actually learn what we are expected to after a course. You don't exactly feel like real students when you only have six lessons a week!*" (Student, AR)

5. SOCIAL LIFE ON DEGREE PROGRAMMES

- The majority of students at Aarhus University are satisfied with the number and range of social activities. Approximately half give priority to participating in the activities.
- More than half of the students are part of a study group on a daily basis, and this figure increases during exam periods.
- More than 10% of students feel lonely on a daily basis during their studies.

The regression analysis (see Chapter 3 or Appendix C) showed that the possibility of making contact with fellow students and having kind and cooperative fellow students are the two factors that explain most of the variation in levels of academic well-being. Thus, a well-run study environment depends to a great extent on the relations between the students and the framework within which these relations unfold. This chapter describes the collaboration between students and their social interaction with their fellow students – both in study groups and in general. In addition, this year the survey does not just ask about the range of social and academic activities on offer, but also whether the students give priority to participating in them. This chapter also describes the extent to which students feel lonely on a day-to-day basis on their degree programme.

Table 5.1 shows how the students assess the range of academic and social activities on offer, and whether they give priority to participating in these activities. Almost three quarters of the students are satisfied with the number and range of academic activities. Most at Health and fewest at Science and Technology. When asked whether they give priority to participating in the academic activities, just over half of the students say that they do. At BSS, 46% of students make a priority of participating in the activities, while at ST the figure is 50%. At Arts, 56% give priority to participating in the activities, and at Health the figure is 65%.

Table 5.1. How students assess the number and range of academic and social activities on offer.

	AU	AR	BSS	HE	ST
I am satisfied with the number and range of academic activities.	74%	73%	74%	83%	71%
I give priority to participating in academic activities.	53%	56%	46%	65%	50%
I am satisfied with the number and range of social activities.	70%	61%	72%	79%	73%
I give priority to participating in social activities.	56%	55%	52%	66%	55%
The possibilities for social contact with my fellow students are good.	76%	70%	74%	85%	82%

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The rest of the students neither agree nor disagree, mostly disagree, or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.

Seven out of 10 students are satisfied with the number and range of social activities. The figure covers some variation between the main academic areas, with 61% being satisfied at AR, 72% at BSS, 73% at ST and 79% at HE. Overall, 56% of students give priority to participating in social activities. Slightly more at Health compared to the other main academic areas. Most students feel there are good possibilities for making social contact with their fellow students. At Aarhus University as a whole, 76% of students agree that this is the case. At AR and BSS, 70% and 74% respectively feel there are good possibilities for making social contact with fellow students, while at ST and HE the figures are 82% and 85%.

Thus, by far the majority of students are satisfied with the number and range of social activities on offer. Looking at the qualitative comments, a picture emerges that some students would like to see more social events which do not involve alcohol. The students write:

"*As I don't drink alcohol, I quite often feel that I would be out of place at the social events, and don't actually want to spend my time looking at inebriated people. I would very much like to see more academic/social events*" (Student, AR)

"At the social level, there are too few social activities which do not involve partying and drinking. Relaxed chatting and discussion organised in a way which would be conducive to this would be great – especially if such events also involved meeting students from a wide range of degree programmes." (Student, ST)

This trend is seen across the four main academic areas, with more students saying that it can be difficult to fit in socially if you do not resemble a typical university student. For example, students who are older or who have children. Some of these students would like to see different types of social activities.

Table 5.2 shows how students experience meeting fellow students by main academic area. A very large proportion of students (88%) feel that the other students are generally kind and cooperative. At AR, ST and HE, about 90% of students feel that this is true, while the figure is slightly lower at BSS, where 85% of students find the other students kind and cooperative.

Table 5.2. Meeting fellow students.

	AU	AR	BSS	HE	ST
My fellow students are generally kind and cooperative.	88%	89%	85%	91%	91%
My fellow students are generally kind and cooperative. (Study Environment Survey 2011)	(86%)	(88%)	(82%)	(90%)	(91%)
I can receive help and support from my fellow students when I need it.	85%	84%	81%	87%	89%
Discussions with fellow students help me to better my understanding.	93%	93%	90%	94%	94%
I can generally work comfortably with other students.	86%	85%	85%	89%	88%

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The rest of the students neither agree nor disagree, mostly disagree, or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.

Of the students at ST, 89% feel that they can obtain help and support from their fellow students, when they need it. This applies to 87% of students at HE, 84% at AR and 81% at BSS.

More than nine out of ten students find that talking to other students betters their understanding. The figure is 90 or more for all the main academic areas. By far the majority of students also feel comfortable about working with other students. On average, 86% agree with this statement.

Study group activities and loneliness

This section focuses on study groups as part of the students' academic and social interaction. Moreover, it is also in this section that the figures for loneliness are reported.

Table 5.3 shows the proportion of students who state that they are part of a study group either on a daily basis or during exam periods. More than half of students at Aarhus University work in study groups on a day-to-day basis. The figure is slightly higher at Health (64%), and slightly lower at Science and Technology (51%).

During the exam periods there are, generally speaking, more students working in study groups (62%). It is only at Arts that the number does not increase during the exam periods. At BSS, 62% of students often or almost always form study groups during exam periods, while at ST the figure is 63%, and as much as 79% at HE.

Table 5.3. Study group activity.

	AU	AR	BSS	HE	ST
Are you part of a study group or do you have a study buddy outside of examination periods?	55%	53%	55%	64%	51%
Are you part of a study group or do you have a study buddy during examination periods?	62%	53%	62%	79%	63%

Note: The figures show the proportion who have answered 'Almost always' or 'Often'. The remainder have answered 'Sometimes', 'Rarely' or 'Almost never'. The calculation does not include those who replied 'Don't know/not relevant'.

The opposite of flourishing and being sociable is feeling lonely. As has been the case in previous years, the regression analysis (see Appendix C) has shown that there is a negative correlation between loneliness and well-being. In other words, students who are lonely have a lower sense of well-being.

Table 5.4 shows the figures for loneliness across the main academic areas. Overall, 12% of students almost always or often feel lonely on a daily basis during their studies. This figure is highest at BSS, where it is 15%. At Arts, the figure is 13%, and at ST 11%. At Health, 8% of the students feel lonely on a daily basis.

Compared to the figures from Study Environment 2011, an increase can be observed in the number of students who feel lonely during their studies.

Table 5.4. Loneliness during studies.

	AU	AR	BSS	HE	ST
How often do you feel lonely? (On a daily basis during your studies)	12%	13%	15%	8%	11%
How often do you feel lonely? (On a daily basis during your studies) (Study Environment Survey 2011)	(9%)	(10%)	(9%)	(6%)	(7%)

Note: The figures show the proportion who have answered 'Almost always' or 'Often'. The remainder have answered 'Sometimes', 'Rarely' or 'Almost never'. The calculation does not include those who replied 'Don't know/not relevant'.

In the qualitative comments, the students point to various factors which make them feel lonely during their studies. These include, for example, a sense of being alone with the workload, a competitive environment where you don't feel confident saying that you find something difficult, and a lack of willingness among the students to help each other. One student writes:

"There can be a tendency for students to compete between themselves in a negative way. For example, students may be unwilling to help each other with notes if somebody has been unable to attend a lesson, and many are reluctant to pass on practical information about possible research positions (Master's thesis, PhD etc.) as they don't want to put themselves at a disadvantage." (Student, ST)

Several students describe positive experiences with study groups as a way of avoiding loneliness as a student.

" *The study group has been crucial for me – this semester I'm writing a major assignment and no longer have the option of participating in my study group, and for the first time I feel extremely lonely and on my own with my studies. It is very important that priority is given to helping students form groups so they can have just as good an experience as mine*." (Student, AR)

Similar comments come from the other main academic areas, where some students would also like help to join a study group or a new study group after failing an exam or taking a break from their studies. A study environment where students are encouraged and receive help to form study groups from the very start of the degree programme is one way of preventing loneliness among students, and something which the students themselves support.

6. THE EDUCATIONAL CONTEXT

- Almost seven out of 10 students find that it is easy to establish personal contact with the teachers. Eight out of 10 students find that the teachers who they are in contact with seem interested in the students.
- Slightly more than half of the students feel that it is clear what is expected of them in exercises and final examinations.
- On average, only 40% of the university's students feel that they receive sufficient feedback on their academic contributions during the semester.
- The students' experience of the digital learning environment seems to suggest that the potential and functionality of the existing electronic learning platforms could be put to better use.

This chapter describes the educational context in general. The chapter looks at the important determinant of academic well-being, namely the way in which courses are organised, but it also addresses feedback and the level of contact between students and teachers. Course organisation is about whether it is clear to students what they have to learn, and how they are assessed when they sit their exam. The questions about alignment are more specifically concerned with the level of coherence between the individual parts of the degree programme, for example types of examination, learning objectives and forms of instruction.

Finally, the chapter also describes the students' responses to the questions about the digital learning spaces. Here, the students are asked to what extent the teachers use the digital learning platforms such as Blackboard, AULA and FirstClass to distribute material and/or activate the students.

Contact to teachers

Two out of three students at Aarhus University feel that it is easy to make personal contact with most of the teachers. The figures seem to indicate that it is easiest for students at ST to make contact with teachers, while it is harder for students at HE and BSS.

Table 6.1. Contact with teachers.

	AU	AR	BSS	HE	ST
It is easy to get in contact with most teachers.	68%	74%	58%	61%	79%
It is easy to get in contact with most teachers. (Study Environment Survey 2011)	(72%)	(74%)	(69%)	(63%)	(80%)
The teachers that I have been in contact with generally seem interested in the students.	81%	85%	73%	80%	87%
The teachers that I have been in contact with generally seem interested in the students. (Study Environment Survey 2011)	(80%)	(84%)	(77%)	(79%)	(86%)

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The rest of the students neither agree nor disagree, mostly disagree, or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.

The majority of the students, 81%, find that the teachers who they have been in contact with generally seem interested in the students.

In the qualitative comments, there are also students who mention that it can be difficult to make contact with the teachers. This could be due to the fact that the physical study environment does not encourage a lot of contact with teachers on a daily basis, and that the students experience that the teachers are busy and do not take the time to talk to them.

"*As a student, you don't have any contact with the teachers on a daily basis. I don't even know what most of them look like.*" (Student, BSS)

Other students write that they find the teachers work under considerable pressure of time, and that contact with students is therefore time-consuming and difficult for them. A Science and Technology student writes:

"I think there is far too little opportunity for direct dialogue with instructors and lecturers. Many difficult subjects could be learned much faster and easier if there were better opportunities for asking questions and discussing the issues with instructors/lecturers. However, it often seems that they don't have that much time, and that you are being a bit of a millstone if you try to track them down."

Course organisation

The questions in Table 6.2 concern transparency of learning objectives and exam requirements. Is it clear to the students what they need to learn, and is it is clear to them how their academic performance will be assessed? Such transparency is the cornerstone of a good learning environment (Biggs & Tang 2011).

75% of the students state that they are aware of what they are expected to learn from the courses. Surprisingly, significantly fewer find that the learning objectives – which state what the students are expected to learn – are clearly defined and communicated. 62% of the students find that the learning objectives are clearly defined and clearly communicated.

With regard to the exams, only just over half of the students find that it is clear what is expected of the work which is submitted for assessment.

Table 6.2. Clear learning objectives and transparent assessment criteria.

	AU	AR	BSS	HE	ST
It is clear to me what I am expected to learn in courses.	75%	78%	73%	71%	77%
Learning objectives of the individual courses are clearly defined and communicated.	62%	67%	59%	53%	65%
Learning objectives of the individual courses are clearly defined and communicated. (Study Environment Survey 2011)	(64%)	(64%)	(64%)	(63%)	(62%)
It is clear to me what is expected in the assessed work (i.e. final exam, exercises).	54%	56%	49%	50%	63%

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The rest of the students neither agree nor disagree, mostly disagree, or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.

A good learning environment is not just characterised by clear objectives and assessment criteria. Alignment between the learning objectives and exam requirements is also necessary, and for the students' fulfilment of these requirements to be supported by the teaching – both in the classroom and outside classes (Biggs 2012). As was the case in 2007, the students were asked to assess the degree of alignment, and the results are shown in Table 6.3.

Table 6.3. Alignment (coherence between learning objectives, teaching and exams).

	AU	AR	BSS	HE	ST
What we are taught seems to match what we are supposed to learn.	78%	79%	75%	76%	82%
It is easy to see a connection between the assignments and what we are supposed to learn.	76%	77%	74%	75%	81%
The chosen teaching methods support my learning and prepare me for meeting the learning objectives and examination requirements.	68%	71%	62%	66%	74%
The chosen teaching methods support my learning and prepare me for meeting the learning objectives and examination requirements. (Study Environment Survey 2011)	(61%)	(63%)	(56%)	(66%)	(69%)

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The rest of the students neither agree nor disagree, mostly disagree, or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.

78% of students find there is a connection between what they are expected to learn and what they are taught, and, likewise, 76% find there is a correlation between what they are expected to learn and what they are asked to prepare between lessons.

As regards the forms of instruction, slightly fewer, 68%, deem that the chosen forms of instruction help them to live up to the learning objectives and exam requirements.

In the qualitative comments, the students call for clear guidelines for what is expected of them.

A BSS student writes:
"*Generally, I think there is far too little focus on the examination in the teaching. In many of the courses, I have been unsure about what we are expected to know exactly for the exam, and it is clear to me that people do not generally understand why they are given the marks they get.*"

Another BSS student writes:
"*Not all lecturers are able to rephrase the learning objectives so the students can understand them. They just read what is on the website out loud. Also, they seldom explain in any depth how this determines the way in which we should tackle our syllabus.*"

Feedback and response

The possibility of receiving feedback on their work is very important for the students' learning and thereby their study environment. Thus, as was the case in the 2007 and 2011 surveys, the students were asked to assess the possibility of receiving feedback on their academic performance. Feedback in connection with exams, but, just as importantly, ongoing feedback during the semester. The results are shown in Table 6.4.

The first question concerns the possibility of receiving feedback during the semester. 40% find that they receive sufficient feedback regarding their academic efforts during the semester. At ST, the figure is 53%, and

at AR 45%. At BSS, one in three students feel that they receive sufficient feedback during the semester, while at HE this is true for one in four students.

The next two questions relate to how the students experience the feedback which they receive. 58% of students at Aarhus University find that the feedback they receive improves the way in which they learn and study, while 60% find that the feedback on assignments helps to clarify what they need to understand.

Table 6.4. Feedback.

	AU	AR	BSS	HE	ST
I receive a sufficient amount of feedback regarding my effort during the semester.	40%	45%	33%	25%	53%
The feedback I get regarding my work helps me to improve my ways of learning and studying.	58%	63%	56%	46%	61%
The feedback I get regarding my assignments/work clarifies things I had not fully comprehended.[a]	60%	62%	58%	45%	69%
The possibilities for receiving feedback regarding my academic performance are good.[b]	38%	45%	37%	18%	42%
The possibilities of receiving feedback on my academic performance in connection with exams or major assignments are good. (Study Environment Survey 2011)[c]	(42%)	(48%)	(41%)	(30%)	(50%)

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The rest of the students neither agree nor disagree, mostly disagree, or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.
a) Note that the proportion of students who ticked 'Don't know/not relevant' to this question is 12%.
b) Note that the proportion of students who ticked 'Don't know/not relevant' to this question is 13%.
c) Please be aware of minor changes to the questions from 2011 to 2014.→→

The last question concerns feedback in connection with the exam. 38% of students feel that there are good possibilities for receiving feedback regarding their academic performance at exams. At AR, this is true for 45% of students, while the figure at ST is 42%. The figures for BSS and HE are 37% and 18%, respectively.

In the qualitative comments, the students suggest that a lack of feedback is demotivating and makes them question their own abilities. In general, students need help to improve and to learn from their mistakes:

"*It is double-hard to not do so well in an exam, and then not be able to get help/guidance on how to improve things.*" (Student, HE)

"*I think a lack of feedback, especially after an exam, is a big problem! It is automatically assumed that we are top-motivated students. And generally speaking we are, but a bad exam experience and/or a bad mark without further explanation is extremely demotivating.*" (Student, BSS)

"*I think it is very annoying that we never receive feedback on our written exams, only a meaningless mark. Consequently, you don't know what you need to do to do better next time. Also, it's a pity that it takes so long before you get your mark, because by the time that you do you are already immersed in a new subject and have forgotten all about the exam.*" (Student, ST)

"*The teachers should provide more feedback generally – in connection with exams and also on a daily basis. It is easy to feel unsure of yourself when you don't do as well as you expected, and you don't know exactly where it's going wrong.*" (Student, BSS)

"It would be good if there were many more possibilities for getting feedback on various assignments. The few occasions it has happened, we have learned a lot! In this way, errors and misunderstandings in academic material will be noticed early on in the process, reducing the risk of falling behind." (Student, AR)

The digital learning space

In 2011, Aarhus University adopted an Educational IT policy, with one of its objectives being to implement a shared Learning Management System (LMS). This implementation has started in one area (BSS), while the rest are expected to follow in the coming years. Therefore the figures this year can be used as baseline figures when assessing developments relating to the use of Educational IT in future.

As was the case in 2011, the survey includes two questions about how students experience the digital learning environment. One question relates to how the students assess the teachers' use of the electronic learning platforms for *distributing* teaching material, while the other question relates to how the students assess the teachers' use of the electronic learning platforms as *activating* learning spaces.

Table 6.5. The digital learning environment.

	AU	AR	BSS	HE	ST
My teachers are generally good at using the electronic learning platforms for distributing teaching material.	75%	80%	72%	61%	82%
My teachers are generally good at using the electronic learning platforms for distributing teaching material. (Study Environment Survey 2011)	(81%)	(81%)	(86%)	(55%)	(86%)
My teachers are generally good at applying e-learning platforms to activate students, for instance through discussion fora, blogs, wiki, learning paths, podcast etc.	25%	30%	19%	14%	33%
My teachers are generally good at applying e-learning platforms to activate students, (for instance through discussion fora, blogs, wiki, learning paths, podcast etc.).(Study Environment Survey 2011)	(23%)	(27%)	(23%)	(11%)	(20%)

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The rest of the students neither agree nor disagree, mostly disagree, or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.

The results are shown in Table 6.5. The majority of students find that their teachers are generally good at using the electronic learning platforms for distributing teaching material. The figures are highest at ST and AR and lower at BSS and HE.

A quarter of the students find that the teachers are generally good at using the electronic learning platforms for activating the students through the use of, for example, learning paths, discussion fora, blogs and the like. Again, the figures are highest at ST and AR and lower at BSS and HE.

As described in Chapter 2, you should be careful when interpreting the differences between the results from 2014 and 2011. However, the figures suggest the following development: That slightly fewer students at BSS find that their teachers are good at using the electronic

learning platforms for distributing teaching material, and that more students at ST find that their teachers are good at activating the students by using electronic learning platforms.

In the qualitative comments, many of the students point out that the digital learning platforms could be used more effectively than they are at present. Many students find there is a difference in how and the extent to which teachers use the platforms, which creates the impression that the platforms are not being used to their full potential.

"*After 2½ years on a Bachelor's degree programme, I have only encountered two teachers who have used the functions which are available on AULA. The only thing that teachers have normally been using AULA for is uploading lecture slides and other material and then for writing messages about changes between lectures. It would have been good if the teachers had made more use of the other functions for some of the courses I have followed.*" (Student, ST)

Other students comment on the challenges they experience in connection with the transition from e.g. CampusNet to Blackboard at BSS. Here, they describe difficulties with not knowing where to find materials, and how different teachers use Blackboard in very different ways. Other students call for more consistent use of Blackboard, with all information being made available in the system so that you only have to log on in one place to find everything related to their courses and studies.

"*Blackboard (BB) generally works OK. However, teachers fail to use it to its full potential The individual course pages on BB should contain information about the course, for example about exams, course description, teacher and timetables.*" (Student, BSS)

"*Blackboard is a good technical solution, but the way in which it is used varies too much between one teacher and another. (…) Right now chaos and anarchy reign, and no two teachers use BB in the same way. As a student, you therefore spend a long time looking for material, especially compared to what it was like at the old ASB campus – and I miss the calendar function especially!*" (Student, BSS)

7. WORK EFFORT AND WORKLOAD

- On average, 17% of students experience severe stress-related symptoms on a daily basis. This figure increases to 34% during exams.
- 87% of university students planned to take 30 ECTS credits or more in the spring semester 2014.
- On average, a student's week of study (instruction + preparation) is 30.7 hours. This covers variations across the main academic areas as well as considerable variations between one student and another.

Severe stress and having a workload which feels excessive undermines a person's sense of well-being, and these questions are therefore very relevant when mapping the study environment. The experience of being under pressure cannot always be ascribed to objective factors such as the amount of time spent, but of course it sometimes can. Being stressed can also stem from not knowing what you need to do, or if there are unclear goals for what needs to be done, or for when you have done enough. This chapter aims to identify the students' level of severe stress both on a daily basis and during exam periods, and the chapter shows the figures for the self-reported weekly hours spent on lessons, preparation, work etc.

Feeling stressed

Because the word 'stress' is so much part of everyday language, the incidence of stress is difficult to measure. To avoid confusing 'stress' with 'being busy', the students taking part in Aarhus University's study environment surveys were not asked about the incidence of stress, but rather about the incidence of severe stress-related symptoms, which were explicitly defined as solitude, irregular heartbeat, stomach-aches, muscular tension, sadness, restlessness, relaxation problems, concentration problems, forgetfulness and similar serious symptoms. Exposure to stress over a short period of time does not necessarily have negative consequences, but long-term exposure to severe stress can have serious implications. Therefore, the students were asked how often they experience severe stress symptoms.

As can be seen from Table 7.1, 17% of students state that they almost always or often experience severe stress symptoms in connection with their studies. This figure is the same across the main academic areas.

34% of students almost always or often experience severe stress symptoms in the period leading up to exams. Again, there are only minor variations across the main academic areas.

Table 7.1. Incidence of severe stress symptoms.

	AU	AR	BSS	HE	ST
Have you experienced strong stress-related symptoms* in connection with your studies? (During everyday life)	17%	17%	17%	16%	17%
Have you experienced strong stress-related symptoms* in connection with your studies? (During everyday life) (Study Environment Survey 2011)	(11%)	(12%)	(10%)	(8%)	(13%)
Have you experienced strong stress-related symptoms* in connection with your studies? (During examination periods)	34%	34%	34%	36%	32%
Have you experienced strong stress-related symptoms* in connection with your studies? (During examination periods) (Study Environment Survey 2011)	(32%)	(34%)	(31%)	(37%)	(26%)

Note: The figures show the proportion who have answered 'Almost always' or 'Often'. The remainder have answered 'Sometimes', 'Rarely' or 'Almost never'. The calculation does not include those who replied 'Don't know/not relevant'.
*: In the questionnaire, severe stress-related symptoms were described in the following way: 'Strong stress-related symptoms may be: solitude, irregular heartbeat, stomach-ache, muscular tension, sadness, restlessness, relaxation problems, concentration difficulties, forgetfulness etc.'

Comparing the figures from 2011 with those for 2014, there are indications that more students are experiencing severe stress-related symptoms.

The qualitative comments point to different reasons for students feeling stressed, including a heavy workload, competition among themselves, as well as financial pressure from having to study and also have a job in order manage financially. For some students, a stressful daily life becomes evident through clear physical stress-related symptoms.

A student at Health writes:

"*I feel extremely tired and unhappy, I suffer from stomach-aches, nausea, I have fainted a couple of times, and I have lost 6 kg because of a poor appetite since last summer.*" (Student, HE)

And another student from the same faculty feels that the lack of cooperation between the students can exacerbate the experience:

"*There is too much competition between students, particularly those doing a Bachelor's degree, in relation to the support they receive, and I believe that much of the stress stems from the fact that students are afraid to communicate that they are not 100% on board, and this puts unnecessary pressure on both themselves and their fellow students. It turns into a competition to see who has read the most instead of a battle you go into together offering support to each other. I think that you could perhaps avoid some students going down with stress by incorporating a short workshop or the like into the induction/intro programme on collegial support and a discussion about how nobody can do everything.*" (Student, HE)

At Science and Technology, many students suggest that the quarter structure contributes to more stress as a lot of new material has to be learned in a short space of time, which gives the students a sense that there is less time to really immerse yourself in your subject. One student writes:

"*I'm very conscious of the fact that, at Science, we have as many as 12 exams a year. This requires a lot of preparation, both academically and mentally, and if you are a bit of a perfectionist, it also increases the risk of becoming stressed.*" (Student, ST)

In all the main academic areas, there are students who have difficulties finding time for everything:

"*The degree programme workload can be pretty stressful, and I often find that my fellow students and I are completely run down because you are under pressure and falling behind, even though you spend every day from eight in the morning until ten at night almost exclusively studying. In addition, many of us have jobs, which is necessary given the high accommodation costs, and that can be another stress factor.*" (Student, BSS)

"*I have noticed that several people on the programme have gone down with stress or depression, especially during the third and fourth semesters, as the timetable is packed with lessons and because you have to spend so much time preparing given that you have to perform in front of your fellow students. That's why it's stressful if you have a period where you can't face being in the spotlight.*" (Student, AR)

Time spent studying

As was the case in 2007 and 2011, the students were asked to think back on the previous week and assess how many hours they had spent on lessons, preparation, student associations, leisure-time activities, study-related work as well as non-study-related work. For memo-technical reasons, the students were asked to think about a specific week in the middle of the semester (rather than an abstract 'typical' week).

In contrast to previous studies, in the Study Environment Survey 2014 the students were also asked to indicate how many ECTS credits they intended to take in the spring semester 2014, and the students were informed that 30 ECTS credits correspond to a full-time programme. The Study Environment Survey 2014 is the first survey of Danish university students' time use which takes account of how many ECTS credits the students have actually intended to take. The following figures are based on students who have stated that they intend to take 30 ECTS credits, in other words students who must be expected to be full-time students.

Table 7.2. The students' planned ECTS credits for spring semester 2014.

	AU	AR	BSS	HE	ST
0-9 ECTS	2%	2%	1%	4%	2%
10-19 ECTS	4%	6%	4%	2%	4%
20-29 ECTS	7%	5%	7%	5%	10%
30 ECTS	83%	84%	82%	86%	80%
31+ ECTS	4%	3%	5%	3%	4%

The question is worded as follows: 'How many ECTS credits have you planned to take this semester? (Full-time programme corresponds to 30 ECTS credits per semester.)'

In the following calculations, students with extreme values are discounted, as are students writing theses as this is a very special study situation. The figures should not be compared directly with the time figures from the Study Environment Survey 2011, as the 2011 survey could not take account of the number of ECTS credits. It should also be mentioned that the figures for teaching indicate how much time the students spend being taught and not necessarily how many hours of teaching have been offered.

Thus, the figures represent the number of hours spent studying in a week in the middle of the semester for a non-thesis-writing student who intends to do the prescribed number of ECTS credits.

Table 7.3. Students' indication of time use in hours per week (s.d. indicates standard deviation).

	AU	(s.d.)	AR	(s.d.)	BSS	(s.d.)	HE	(s.d.)	ST	(s.d.)
Teaching[a]	14.1	(8.3)	9.8	(4.3)	12.1	(6.5)	16.9	(8.9)	21.0	(9.2)
Preparation[b]	16.6	(10.1)	16.3	(9.3)	17.4	(10.4)	16.5	(10.0)	15.7	(10.6)
Student association work[c]	1.1	(3.0)	1.1	(2.6)	1.1	(3.1)	1.4	(3.7)	1.0	(2.7)
Study-related work	2.8	(6.2)	2.8	(6.1)	3.6	(6.6)	2.5	(5.4)	1.9	(5.9)
Non-study-related work	3.2	(5.5)	3.7	(5.9)	4.0	(6.0)	1.9	(4.5)	2.3	(4.4)
Leisure activities	7.3	(6.6)	6.9	(6.6)	7.8	(6.7)	7.3	(5.8)	7.0	(6.8)
Study week (instruction+preparation)	30.7	(11.8)	26.1	(9.9)	29.5	(10.9)	33.4	(12.1)	36.8	(11.9)
N	8383		2437		2816		1290		1838	

Note: The following conditions must be fulfilled in order for the students' answers to be included in the calculation of the average: i) The student must have planned doing 30 ECTS, corresponding to a full-time programme, ii) The student must not be writing his or her thesis, iii) The weekly time use must be greater than 0 hours and less than or equal to 84 hours. *N* indicates the number of responses that meet these conditions.
The wording of the question: 'Think back on the past seven days. How many hours did you spend on the following activities? If your week has been very atypical, for example if you have been ill or travelling, then think instead of a typical week outside the exam period.'
a) Defined as 'lectures, class lessons, exercises and the like'.
b) Defined as 'reading, study group work, writing, registration for exams, finding literature, writing emails and similar organisational activities related to being a student'.
c) Defined as 'academic, social and/or political'.

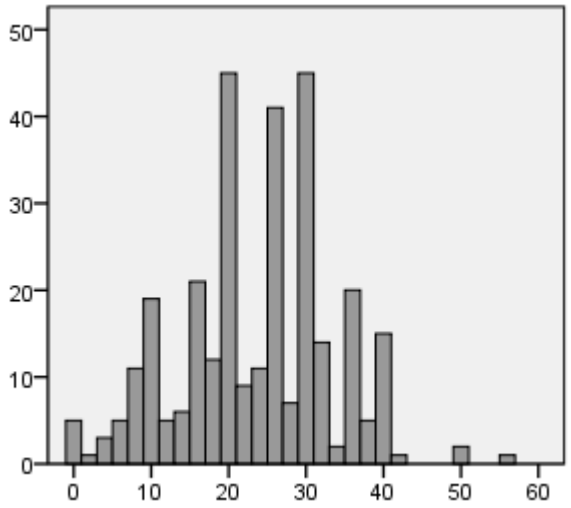
If a study week is defined as the number of hours spent being taught combined with preparation time, the average student at Aarhus University spends 30.7 hours a week on his or her degree programme. The standard deviation (which is basically a measure of the spread in the time use between students) of 11.8 hours seems to indicate that there is a very big difference between the individual students with regard to how much time they spend on their studies. In other words, it is highly likely that you can find students who spend 41-42 hours a week on their studies, and it is just as likely that there are students who spend about 20 hours a week. As an example of this, the histogram on the right shows the spread in the number of hours that Psychology students spend on preparation.

The average student at AR spends 26 hours on his or her studies, while at BSS the figure is 30 hours, at HE it is 33 hours, and at ST the figure is 37 hours. Again, the standard deviation shows that, within each main academic area, there are very considerable differences in time use among the student population.

Table 7.3 shows the variation in the number of hours used. It indicates that the number of hours spent on preparation is reasonably constant, while the number of lessons varies. Students at ST spend as many as 21 hours a week in teaching situations such as lectures, class lessons, doing exercises etc. In addition, they spend 16 hours on preparation. At BSS, the students spend an average of 12 hours a week being taught, but 17 hours on preparation. An average student at Aarhus University spends 1.2 hours preparing for a lesson. When broken down by main academic area, the figures are 1.7 hours at AR, 1.4 hours at BSS, 1.0 hours at HE and 0.7 hours at ST.

The calculation of the average time use can cover considerable variation, and Figure 7.1 shows the variation among the students within the same subject when they are asked how many hours they spend each week on preparation. Here, Psychology is used as an example, and the figure shows considerable variation between the students.

Figure 7.1. Preparation time in hours per week (x-axis) for students doing Psychology (number, y-axis).



Note: The following conditions must be fulfilled in order for the students' answers to be included in the calculation of the average: i) The student must have planned doing 30 ECTS, corresponding to a full-time programme, ii) The student must not be writing his or her thesis, iii) The weekly time use must be greater than 0 hours and less than or equal to 84 hours. The wording of the question: 'Think back on the past seven days. How many hours did you spend on the following activities?' Preparation.

In light of how important it is for many students to gain relevant work experience for the sake of their future careers, it is not surprising that many students spend time doing a relevant job. Students at BSS spend an average of 3.6 hours a week on jobs which are relevant to their studies. This is followed by students at AR, HE and ST.

The trends as regards time use for the various main academic areas can also be discerned from the answers to the open questions. In particular, many students from Arts would like more lessons. Two students write:

"*I feel that life is pretty boring because there are so few lessons – I would love it if there were just 6 hours more, so it would be necessary to leave the flat to go to lessons more than twice a week.*" (Student, AR)

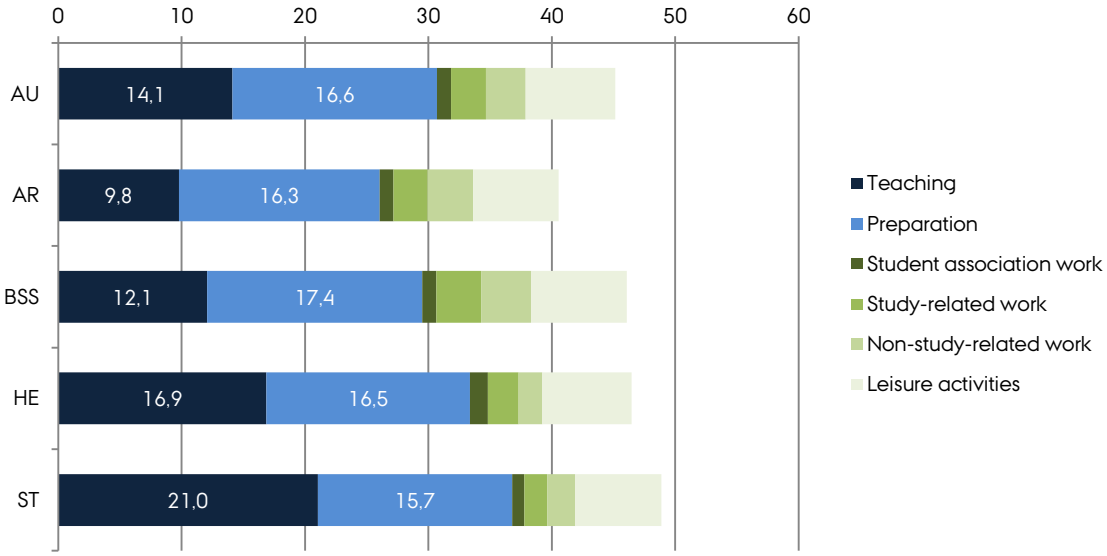
"*The level is OK, but I'm very surprised by how few lessons there are, and I keep thinking that the programme would be SO much better if we had more instruction, and that we would be so much more committed and feel that it was a part of our identity if it required more of our time.*" (Student, AR)

On the other hand, the qualitative comments also show that some students feel that with too many lessons at the university, it can be difficult to fit in your studies with part-time jobs and leisure pursuits. There are students in all the main academic areas who are finding that they have so many lessons and so much preparation that it is difficult for them to find time for everything else. This merely emphasises the differences between the programmes.

"*Completing your degree programme within the prescribed period of study takes a great deal of determination and drive. It is perfectly OK that we spend a lot of time at school, but the fact that so much planning is required in relation to clinical work and patients means that I hesitate to recommend the degree programme to others. Sometimes it can be very discouraging when you have to spend all your time planning – which we are not really prepared for.*" (Student, HE)

Figure 7.2 is a graphical representation of the figures in Table 7.3.

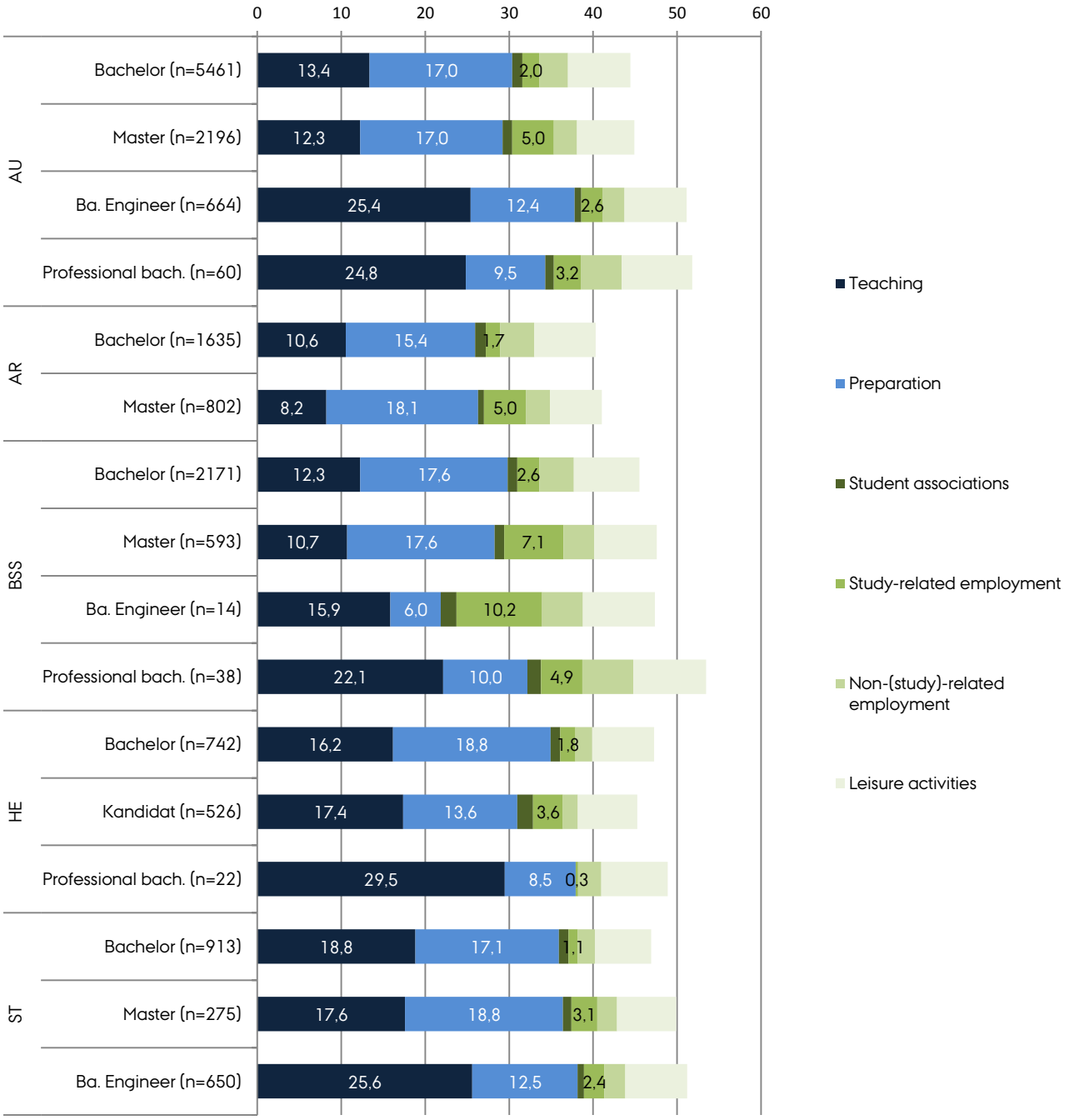
Figure 7.2. Students' indication of time use in hours per week (graphical representation of Table 7.3).



Note: The following conditions must be fulfilled in order for the students' answers to be included in the calculation of the average: i) The student must have planned doing 30 ECTS, corresponding to a full-time programme, ii) The student must not be writing his or her thesis, iii) The weekly time use must be greater than 0 hours and less than or equal to 84 hours. *n* indicates the number of responses that meet these conditions.
The wording of the question: 'Think back on the past seven days. How many hours did you spend on the following activities? If your week has been very atypical, for example if you have been ill or travelling, then think instead of a typical week outside the exam period.'

The table on the following page shows time use by main academic area and by type of programme. From this, it can be seen that there are variations across the groups. For example, BSc engineers and professional Bachelor's degree students generally receive more teaching. This is the case across all the main academic areas. At the same time, it looks as though these groups spend slightly less time on preparation than the other student groups.

Figure 7.3. Students' indication of time use per week by main academic area and type of degree programme.



Note: The following conditions must be fulfilled in order for the students' answers to be included in the calculation of the average: i) The student must have planned doing 30 ECTS, corresponding to a full-time programme, ii) The student must not be writing his or her thesis, iii) The weekly time use must be greater than 0 hours and less than or equal to 84 hours. *n* indicates the number of responses that meet these conditions.
The wording of the question: 'Think back on the past seven days. How many hours did you spend on the following activities? If your week has been very atypical, for example if you have been ill or travelling, then think instead of a typical week outside the exam period.'

8. DISCRIMINATION AND HARASSMENT

- The figures for bullying and harassment are very low at Aarhus University.
- And very few students have experienced discrimination.
- International students feel that they are treated differently to a greater extent than Danish students, but the proportion is still very small.

Phenomena such as bullying, sexual harassment, discrimination and threats are all classic elements in analyses of the psychological working environment in the labour market. They are phenomena which erode well-being, motivation, job satisfaction and work capacity, and which should all preferably be absent from good working and study environments.

Bullying and harassment

Table 8.1 shows the proportion of students who, within the past 12 months, feel that they have been subjected to bullying, sexual harassment, threats of violence or violence. In general, harassment rarely occurs at Aarhus University as practically no students feel that they have been subjected to sexual harassment, threats of violence or violence, whereas 1% feel that they have been subjected to bullying within the past 12 months. The figures are thus very low compared to employees in general – see the following websites (in Danish) (http://www.arbejdsmiljoviden.dk/Viden-om-arbejdsmiljoe/Mobning/Hvem-er-udsat-for-mobning) og skoleelever (http://dcum.dk/nyheder/nye-tal-mobning-lever-i-bedste-velgaaende) .

Table 8.1. Bullying and harassment.

	AU	AR	BSS	HE	ST
Bullying (bullying means deliberate and systematic victimisation)	1%	1%	1%	1%	1%
Sexual harassment	0%	0%	0%	0%	0%
Threats of violence	0%	0%	0%	0%	0%
Violence	0%	0%	0%	0%	0%

Note: The figures show the proportion of respondents who have indicated that they have been subjected to the various types of harassment.
The question was worded as follows: 'Click here if, within the past 12 months of your degree programme, you feel that you have been subjected to ...'

The comments to the open questions also suggest other reasons why students may feel excluded without it necessarily meaning that they have been subjected to bullying or harassment. A student from Health, who has taken a break from but now resumed his studies, writes:

"*I often go to the toilet and spend a long time there – then the others don't see how alone I am. I have experienced people moving away from me in lectures when they spot someone they would rather sit with – even*

though I have explained that it's difficult being on a semester where you don't know anyone." (Student, HE)

The student continues by writing that it does not necessarily amount to bullying, but that being isolated in this way is extremely unpleasant.

As mentioned in Chapter 5, other students mention that they feel excluded on their degree programme because they have children, are much older than their fellow students, have a disability or belong to a minority group.

For example, a Science and Technology student writes:

"*Well, I'm a bit unusual as I am one of the only girls in my year on the degree programme. Therefore, I often find that I can't join in the discussions and that I don't enjoy the same 'respect' as the boys show to each other. In my opinion, we work far too much in study groups where (if you are in a group which is otherwise only made up of boys) it can be difficult to be taken seriously.*" (Student, ST)

Discrimination

Table 8.2 shows the proportion of students at Aarhus University who, within the past 12 months, feel that they have been exposed to discrimination on the grounds of their gender, sexual orientation, ethnic background or religion.

Generally, there are almost no students who, within the past 12 months, have felt discriminated against. In the past 12 months, no students at Aarhus University have felt discriminated against because of their sexual orientation or gender. During this period, a few students have felt discriminated against because of their ethnic background. This is the case for 1% of students at Health and at Science and Technology.

Table 8.2. Discrimination.

	AU	AR	BSS	HE	ST
Discrimination on account of your gender	0%	0%	0%	0%	0%
Discrimination on account of your sexual orientation	0%	0%	0%	0%	0%
Discrimination on account of your ethnic background	0%	0%	0%	1%	1%
Discrimination on account of your religion	0%	0%	0%	0%	0%
Discrimination on account of your political convictions	0%	0%	0%	0%	0%

Note: The figures show the proportion of respondents who have indicated that they have been subjected to the types of harassment in question.
The question was worded as follows: 'Click here if, within the past 12 months of your degree programme, you feel that you have been subjected to ...'

In the open-ended responses, a number of foreign students wrote that they found their encounter with the Danish educational system and Danish students difficult, and that the language barrier in particular can pose challenges.

"*I am the only non-Danish student on my course, which sometimes makes me feel a bit isolated. My classmates are friendly and welcoming, but the language barrier (I'm not yet fluent in Danish) creates a sense of awkwardness. Sometimes, in class, I get the feeling everyone would much rather be speaking in Danish than in*

English (and that I'm the only reason why they are making the effort)." (Student, AR)

"*My impression is that Danes do not feel really comfortable speaking English with us, and for this reason, when the time comes to form study groups or write projects for different subjects, they simply form groups without including any of the international students so that we inevitably always end up working together.*" (Student, BSS)

In Table 8.3, the answers from Danish students are compared with the responses from international students. The Study Environment Survey 2011 showed that an average of 15% of the foreign students at Aarhus University felt discriminated against because of their ethnic background. The table shows that 3% of the international students feel discriminated against on account of their ethnic background. This is the case for 4% of students at Health and at Science and Technology, 3% at Business and Social Sciences and 2% at Arts.

The differences between the figures from 2011 and the figures for 2014 should be interpreted with considerable caution, as there are differences in how the questions have been phrased in the two surveys. In 2014, students had to answer in the affirmative that, within the past 12 months, they had experienced harassment or discrimination before they were given the chance to tick the background or the cause. This filter has meant that only those students who answer the first question in the affirmative are able to see the subsequent options.

In 2011, the comments suggested that the problem had more to do with being treated differently than systematic discrimination as such, and that the high discrimination figures were a reflection of this. The comments seem to indicate that such difference in treatment is experienced among the international students, even though the figures for discrimination are considerably lower than in 2011.

Table 8.3. Experience of discrimination on account of ethnicity according to the students' nationality (citizenship as well as native language).

	AU	AR	BSS	HE	ST
Danish citizenship	0%	0%	0%	0%	0%
Non-Danish citizenship	3%	2%	3%	4%	4%
Danish mother tongue	0%	0%	0%	0%	0%
Non-Danish mother tongue	3%	3%	3%	3%	5%

Note: The figures show the proportion of respondents who have indicated that they have been subjected to discrimination on account of their ethnic background. The figures are divided on the basis of the student's nationality.
The question was worded as follows: 'Click here if, within the past 12 months of your degree programme, you feel that you have been subjected to ... [Discrimination on the grounds of your ethnic background]'

9. PHYSICAL STUDY ENVIRONMENT

- More than two thirds of the students are satisfied with the physical surroundings of their educational institution.
- On average, 54% of students find that there is space for study group work at their educational institution.
- Less than half of the students meet their teachers outside the classroom environment.

This chapter looks at the physical study environment. The survey includes those aspects of the physical study environment which concern the students' perception of whether the physical surroundings support their learning activities (listening, reading, researching, writing, collaborating etc.). The questions thus relate to their assessment of classrooms, places to study, rooms for study group work and the facilities for social interaction and gatherings as well as the technical solutions offered by the university.

The regression analysis showed that the physical study environment also has a considerable impact on academic well-being. For example, questions about rooms for socialising outside teaching time were included in the dimension concerned with the possibility of meeting your fellow students (see Chapter 3 and Appendix C). It shows that the physical surroundings are a major determinant of the students' academic well-being.

Satisfaction with the physical surroundings

In the study, the students were asked a number of questions about the physical conditions at their educational institution, after which they were asked to indicate how satisfied they were with the physical surroundings, all things considered. The aim was to obtain a more general assessment of the physical study environment.

Table 9.1 shows that 72% of the students at Aarhus University mostly or strongly agree that they are satisfied with the physical surroundings of their educational institution. There is very little variation between the different faculties.

Table 9.1. Satisfaction with the physical study environment.

	AU 2014	AU 2011	AR	BSS	HE	ST
I am generally satisfied with the physical surroundings of my educational institution.	72%	67%	71%	73%	73%	72%

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The remainder neither agree nor disagree, mostly disagree or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.

Figure 9.1 represents the figures in Table 9.1, but with the distribution of responses to the individual response categories shown in more detail.

Figure 9.1. 'I am generally satisfied with the physical surroundings of my educational institution.'

Note: The calculation does not include those who replied 'Don't know/not relevant'.

The educational institution's physical surroundings

The physical study environment is generally a question of creating physical surroundings that support and encourage the learning activities which the students are expected to engage in during lessons and, not least, between the lessons. From a learning perspective, the quality of the physical surroundings must thus be assessed on the basis of whether they support the students' learning activities.

Table 9.2 shows that most students find that there is enough space for them to sit down in the classrooms. 86% say that this is the case, and there is only a small degree of variation between the main academic areas.

The figures are, however, generally lower with regard to working conditions between the lessons. At the university as a whole, 62% of students say that they are able to find a place to study when they need one. The proportion is the highest at Arts – 70% – and lowest at Science and Technology and Business and Social Sciences, where only 56% and 57% of the students, respectively, are able to find a place to study when they need one.

Business and Social Sciences also has the lowest proportion of students who believe it is possible to find a place for study group work when they need one. Only 44% and 48% of students at Business and Social Sciences and at Health, respectively, find there is sufficient space. At the university as a whole, 54% of students say that they can find a place for study group work when they need one.

When asked whether their educational institution's physical surroundings are suitable for social interaction with their fellow students, most students think that this is the case. As many as 72% of students at Aarhus University strongly agree or mostly agree with the statement without significant variation between the main academic areas.

Table 9.2. The educational institution's physical surroundings.

	AU	AR	BSS	HE	ST
My educational institution offers many places for me to meet with fellow students for social events, even outside of lessons.	72%	67%	73%	74%	77%
I am able to find a place to study when I need one.	62%	70%	57%	64%	56%
I am able to find a place to work with my study group or study buddy when I need one.	54%	69%	44%	48%	52%
There are enough seats in the classrooms so I can sit down during lessons.	86%	83%	89%	84%	88%

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The remainder neither agree nor disagree, mostly disagree or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.

Being part of an academic environment involves, in addition to making good contact with other students, being in contact with the teachers who are responsible for the teaching on the degree programme. In Chapter 6, the figures for the level of contact with the teacher were described, and in this chapter, the figures show whether the physical surroundings encourage students and teachers to meet on a daily basis. As can be seen from Table 9.3 below, there are considerable differences across the main academic areas in relation to the questions about the importance of the physical surroundings for seeing teachers outside of lectures. For the university as a whole, 54% of students find that the physical surroundings offer good opportunities for meeting teachers at the educational institution, while 43% believe that you often see teachers outside of lectures.

At Science and Technology, a relatively large proportion of the students – 75% – think that the physical surroundings offer good possibilities for meeting teachers, while 69% of students feel that they often see teachers outside of lectures. At Health, 43% of students say that the physical surroundings offer the possibility of meeting teachers, while only 28% of the students think that they see the teachers outside of lectures.

Table 9.3. Opportunity to see teachers in the physical study environment.

	AU	AR	BSS	HE	ST
The physical surroundings of my educational institution offer good opportunities to see teachers outside of lectures.	54%	52%	45%	43%	75%
At my educational institution, you often see teachers outside the classrooms (e.g. in corridors, hallways or common areas).	43%	43%	33%	28%	69%

Note: The figures show the percentage of students who strongly agree or who mostly agree with the statement. The remainder neither agree nor disagree, mostly disagree or strongly disagree. The calculation does not include those who replied 'Don't know/not relevant'.

In the qualitative comments, many students across the main academic areas are calling for more places to study and more group rooms. They would also like the canteens to stay open in the evening so that it is possible to buy food at that time of day. Not having friendly physical surroundings where you can feel at home as

well as a lack of space will make some students work at home instead of using the university facilities, as exemplified by the following quote:

"*I don't feel there is a proper place for us to be. Initially, it was particularly hard to settle in because the teaching happened all over the place – it took a very long time before you started feeling relaxed in your daily surroundings, and it is extremely stressful when you are not able to. Today, I think that I have grown used to it – and have decided to make my home my 'workplace' when we don't have classes, group work etc.*" (Student, AR)

Especially for degree programmes with very few timetabled lessons, the physical surroundings can have a strong bearing on whether the students spend their time studying at the university. Perhaps it is neither realistic nor desirable for all students to use the university as a workplace each and every day, but from the point of view of well-being, where well-being is closely associated with having an academic identity and feeling part of an academic community, the lack of workplaces can contribute to some of the challenges to well-being which may arise in the study environment.

Assessment of technical solutions

In the survey, the students were asked about their experience of the technical solutions supplied by Aarhus University. Here, technical solutions mean both wireless internet, printers/computers as well as E-learning platforms.

55% of the students at Aarhus University think that the technical solutions work when they need them. The figure is highest at BSS where as many as 58% find that this is the case, while at Arts the figure is 49%. The figures are generally slightly higher when the students are asked whether they feel they receive sufficient help/support when the technical solutions do not work; here, 61% of students state that this is the case. 70% of the students at Health feel they receive sufficient help, while the figure is lowest for Arts, at 53%.

Table 9.4. Assessment of technical solutions.

	AU	AR	BSS	HE	ST
The technical solutions* supplied by Aarhus University work when I need them.	55%	49%	58%	56%	56%
I receive the sufficient amount of help/support when I cannot get the technical solutions to work.	61%	53%	67%	70%	55%

Note: Technical solutions should be taken to mean wireless internet, WAYF, printers, computers, E-learning platforms (AULA, Blackboard, FirstClass). The figures show the percentage of students who strongly agree or who mostly agree with the statement. The remainder neither agree nor disagree, mostly disagree or strongly disagree. The calculation does not include those who ticked 'Don't know/not relevant'.

a) Note that the proportion of students who have ticked 'Don't know/not relevant' to this question is 14%.

The qualitative comments elaborate on some of the various problems which students experience in relation to the technical solutions. In their comments, many students mention that there are too many information channels, and that it would be better if everything could be gathered in one place:

"*There are lots of different communication sites which you have to refer to for information relating to lessons, exams, marks and other study-related information – AULA, Webmail, mit au, STADS Self-service and the student pages at au.dk. It is all slightly messy and cumbersome.*" (Student, HE)

In addition, several students comment on the challenges they face with printers which do not work, the poor user-friendliness of the AU website, an inadequate number of power sockets and problems with the Wi-Fi. These comments often relate to very specific buildings and locations. The boards of studies may request the qualitative material. At BSS, many students are frustrated by the system used for booking rooms, where they experience unnecessary waiting times and problems finding available rooms.

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APPENDIX A: RESPONSE RATES

Table A.1. Response rates

Department/board of studies/degree programme	N	n	%	Department/board of studies/degree programme	N	n	%
Health	**4012**	**1906**	**48%**	**Science and Technology**	**6421**	**2957**	**46%**
Public Health Science	165	50	30%	Engineering, Optics and Electronics	527	263	50%
Sports Science	388	110	28%	Graduate engineer and BSc	2131	956	45%
Medicine	2642	1382	52%	Agrobiology	171	58	34%
Molecular Medicine (MSc)	68	25	37%	Physics and Astronomy	401	198	49%
Odontology	315	205	65%	Biology	556	244	44%
Health Science	68	24	35%	Computer Science	511	247	48%
Nursing	158	65	41%	Geo	167	86	51%
Dental Hygiene	208	45	22%	IT	237	121	51%
				Chemistry	239	117	49%
				Mathematics	304	152	50%
				Mathematics - Economics	234	91	39%
				Medical Chemistry	172	68	40%
				Molecular Medicine (BSc)	167	93	56%
				Molecular Biology	353	164	46%
				Nanoscience	198	82	41%

Note: N indicates the total number of full-time students enrolled at the time of the survey. n indicates the number of responses.

Table A.1. Response rates (contd)

Department/board of studies/degree programme	N	n	%	Department/board of studies/degree programme	N	n	%
Aarhus University	**34510**	**13647**	**40%**				
				Art History	265	117	44%
Arts	**11340**	**4149**	**37%**	Spanish	109	54	50%
Anthropology of Education	27	16	59%	Linguistics	153	88	58%
Anthropology	502	220	44%	Comparative Literature	233	123	53%
Arab and Islamic Studies	134	29	22%	Media Studies	507	199	39%
Brazilian	61	23	38%	Medieval and Renaissance Archaeology	103	49	48%
Educational Theory and Curriculum Studies	329	96	29%	Music	244	131	54%
Digital Design	223	82	37%	Scandinavian Studies	461	203	44%
Dramaturgy	215	93	43%	Experience Economy	121	21	17%
English	413	217	53%	Educational Anthropology	398	123	31%
Theology	336	89	26%	Philosophy of Education	340	109	32%
European Studies	76	27	36%	Educational Psychology	857	280	33%
Philosophy	285	59	21%	Educational Sociology	611	184	30%
Prehistoric Archaeology	115	56	49%	Study of Religion	298	91	31%
French	63	22	35%	Rhetoric	80	44	55%
Educational Theory and Practice	397	99	25%	German	121	52	43%
History	554	259	47%	Education Science	664	266	40%
History of Ideas	189	51	27%	Aesthetics and Culture	199	78	39%
Information Studies	373	159	43%	Eastern European Studies	81	21	26%
International Studies	114	42	37%				
ICT-based Educational Design	91	21	23%				
Italian	51	10	20%				
Asian Studies	294	113	38%				
Journalism and Media	211	16	8%				
Journalism	195	38	19%				
Classical Archaeology	81	33	41%				
Classical Languages	45	18	40%				

Cognitive Semiotics	70	23	33%				

Note: N indicates the total number of full-time students enrolled at the time of the survey. n indicates the number of responses.

Table A.1. Response rates (contd)

Department/board of studies/degree programme	**N**	**n**	**%**	**Department/board of studies/degree programme**	**N**	**n**	**%**
Business and Social Sciences	**12735**	**4633**	**36%**	Business Intelligence	37	11	30%
Business Development Engineer	160	59	37%	Consumer Affairs	14	4	29%
International Business Communication, English (MA)	96	29	30%	Finance and International Business	260	83	32%
International Business Communication, German, Spanish, French (MA)	125	42	34%	Finance	149	46	31%
Corporate Communication (MA)	421	159	38%	Information Management	42	13	31%
Economics and Business Administration	2276	901	40%	International Business	133	48	36%
Business Administration	233	72	31%	International Economic Consulting	88	31	35%
Commercial Law	471	171	36%	Logistics	139	44	32%
Global Management	74	26	35%	Marketing	188	56	30%
International Communication	238	57	24%	Economics and Business Administration - Strategy, Organisation and Leadership	126	48	38%
IT, Communication and Organisation	190	86	45%	Financial Management	121	57	47%
Law	2101	482	23%	Innovation Management	68	28	41%
Psychology	1241	544	44%	International Business Communication (French, German, Spanish)	253	89	35%
Business Economics and Auditing	242	66	27%	International Business Communication with European Studies and languages	214	72	34%
Social Science	118	52	44%	International Business Communication, Arabic	42	2	5%
Political Science	1167	554	47%	International Business Communication, English	215	91	42%
Technology-based Business Development	203	91	45%	International Business Communication, two languages	191	60	31%
Economics and Management	772	339	44%	BA in Marketing and Management Communication	256	105	41%

Note: N indicates the total number of full-time students enrolled at the time of the survey. n indicates the number of responses.

APPENDIX B: EXPLORATORY FACTOR ANALYSIS

Table B. 1 Exploratory factor analysis of selected questions in Study Environment Survey 2014 ('pattern matrix' from a principal component analysis with oblimin rotation).

	Academic well-being	Feedback	Academic self-efficacy	Room for studying	Stress and loneliness	Contact with teaching staff	Study group work	Alignment of teaching activities	Possibilities for meeting fellow students	Kind and cooperative fellow students
	1	2	3	4	5	6	7	8	9	10
I would recommend my programme of study at Aarhus University to others	0.827									
I am generally satisfied with my studies	0.824									
My field of study is an important part of my identity	0.636									
In general, I feel comfortable as a student here	0.545									
My studies have made me feel part of an academic community	0.497									
The feedback I get regarding my assignments/work clarifies things I had not fully comprehended		0.873								
The feedback I get regarding my work helps me to improve my ways of learning and studying		0.873								
I receive a sufficient amount of feedback regarding my effort during the semester		0.729								
The possibilities for receiving feedback regarding my academic performance are good		0.613								
I am certain that I can acquire the skills required in my field of study			-0.831							
I am certain that I can understand the basic skills in my field of study			-0.806							
I expect to do well on my degree programme			-0.802							
I am confident that I can do well as long as I make an effort			-0.761							
I am certain that I can understand the most difficult teaching materials			-0.749							
I am able to find a place to work with my study group or study buddy when I need one				-0.887						
I am able to find a place to study when I need one				-0.884						
Have you experienced strong stress-related symptoms* in connection with your studies? (During examination periods)					0.911					

	Academic well-being	Feedback	Academic self-efficacy	Room for studying	Stress and loneliness	Contact with teaching staff	Study group work	Alignment of teaching activities	Possibilities for meeting fellow students	Kind and cooperative fellow students
Have you experienced strong stress-related symptoms* in connection with your studies? (During everyday life)					0.911					
How often do you feel lonely? (On a daily basis during your studies)					0.464					
At my educational institution, you often see teachers outside the classrooms (e.g. in corridors, hallways or in the canteen)						-0.863				
The physical surroundings of my educational institution offer good opportunities to see teachers outside of lectures						-0.828				
It is easy to get in contact with most teachers						-0.592				
The teachers that I have been in contact with generally seem interested in the students						-0.393				0.373
Are you part of a study group or do you have a study buddy outside of examination periods?							0.904			
Are you part of a study group or do you have a study buddy during examination periods?							0.890			
The learning objectives of the individual courses are clearly defined and communicated								0.851		
It is clear to me what I am expected to learn in courses								0.833		
What we are taught seems to match what we are supposed to learn								0.818		
The chosen teaching methods support my learning and prepare me for meeting the learning objectives and examination requirements								0.681		
It is easy to see a connection between the assignments and what we are supposed to learn								0.627		
It is clear to me what is expected in the assessed work (i.e. final exam, exercises)		0.305						0.552		
I am satisfied with the number and range of social activities									0.851	
The possibilities for social contact with my fellow students are good									0.743	
My educational institution offers many places for me to meet with fellow students for social events, even outside of lessons				-0.319					0.615	
I am satisfied with the number and range of academic activities									0.588	
Discussions with fellow students help me to better my understanding										0.771
I can generally work comfortably with other students										0.715
My fellow students are generally kind and cooperative										0.637

	Academic well-being	Feedback	Academic self-efficacy	Room for studying	Stress and loneliness	Contact with teaching staff	Study group work	Alignment of teaching activities	Possibilities for meeting fellow students	Kind and cooperative fellow students
I can receive help and support from my fellow students when I need it										0.536
Internal reliability (Cronbach's Alpha)	0.829	0.796	0.841	0.777	-	0.759	0.826	0.869	0.776	0.780

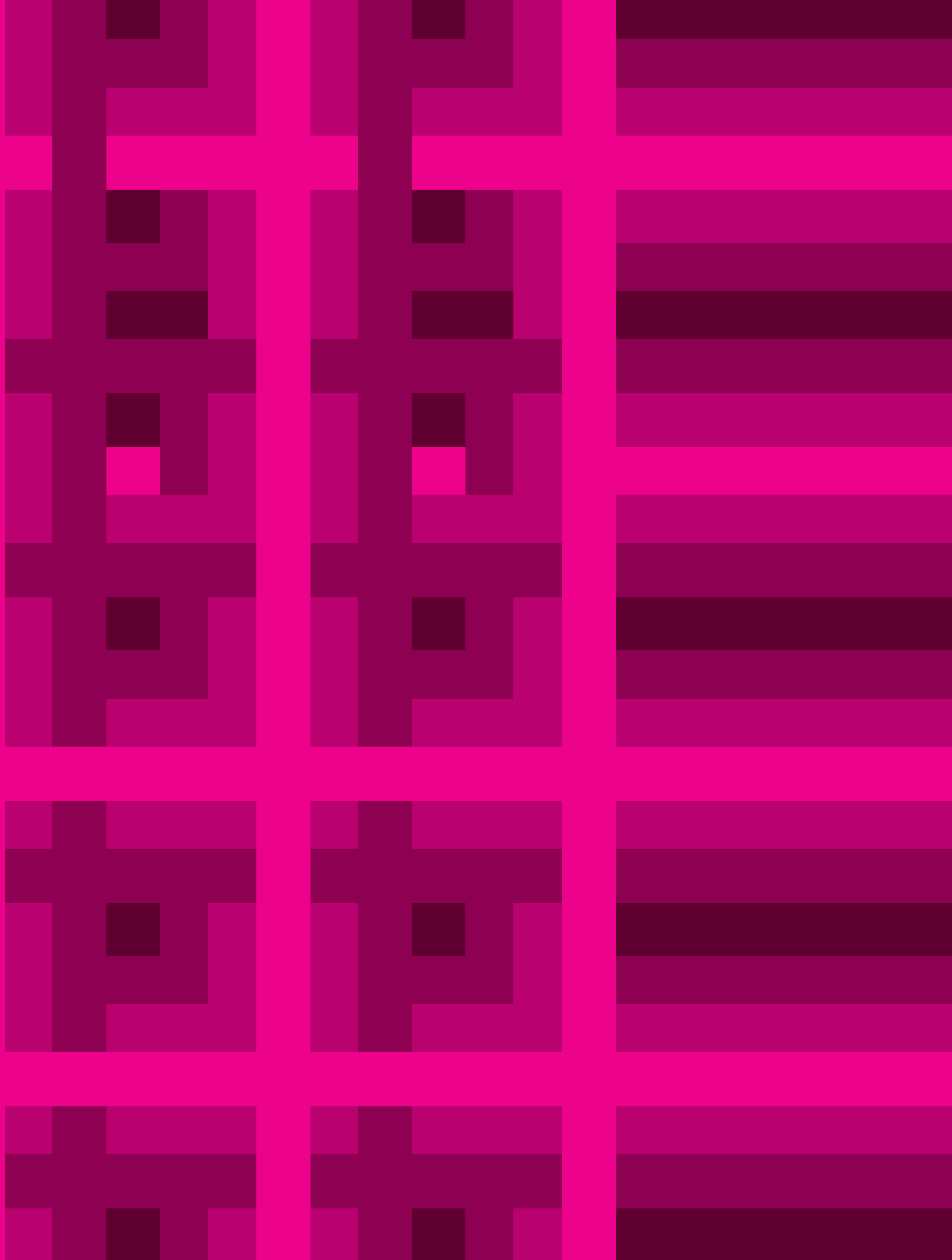
Note: The number of extracted components has been determined on the basis of Kaiser's criterion (*eigenvalues* < 1). The figures in the table indicate *factor loadings*. Loadings <0.30 are not shown for the sake of clarity.

APPENDIX C: REGRESSION ANALYSIS

Table C.1 Regression analysis of the correlation between the students' academic well-being and their experience of the study environment.

		β	
Experience of the study environment	Possibilities for meeting fellow students (0-10)	0.267	***
	Kind and cooperative fellow students (0-10)	0.223	***
	Alignment of teaching activities (0-10)	0.139	***
	Loneliness during everyday life	-0.113	***
	Contact with teaching staff (0-10)	0.066	***
	Part of study group (0-10)	0.040	***
	Feedback (0-10)	0.030	**
	Severe stress in everyday life	-0.024	**
	Space for studying (0-10)	0.018	**
Background	Gender (female)	0.055	***
	Age (years)	-0.015	
	Qualifying marks	0.025	**
	Academic self-efficacy (0-10)	0.210	***
Adjusted R^2		0.489	
N		9,047	

Dependent variable: Academic well-being measured on a summarised scale of 0-10
Note: * p<0.050; ** p<0.010; *** p<0.001. All scales from 0-10 are calculated on the basis of the students' responses to a number of individual questions (items). The scales are designed on the basis of a prior exploratory factor analysis which is presented in Appendix B.
β: The standardised correlation coefficient, which indicates how many standard deviations the dependent variable (academic well-being) is changed by in the event of a change in the independent variable (the different scales) on one standard deviation. In other words, indicates the direction and strength of the relationship between academic well-being on the one hand and the students' experience of the study environment on the other.



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