Report Users' Perspective Analysis

Project Result 2 - Users' perspective analysis: usage, perception, and impact of informal learning spaces

Institution: Akdeniz University

Country: Türkiye

Authors: Assoc. Prof. Dr. Evrim Çetinkaya Yıldız & Dr. Seval Apaydın

Antalya, 15.08.2023

Co-funded by the European Union

Content

Introduction 4
Methodology (student survey and focus groups) 6
Student survey: thematic structure of the survey 7
Descriptive analysis of the student survey 7
Sociodemographic data 8
Questions about studies 9
Focused learning activities 10
Collaborative learning activities 12
Hybrid learning activities 14
Dependent variables (satisfaction, belongingness, interpersonal relations, well-being) 14
Conclusion descriptive results 15
Hypotheses testing 16
Hypotheses 1a, 1b, 1c and 1d 16
Hypothesis 2 17
Hypotheses 3a, 3b, 3c and 3d 19
Discussion hypotheses testing 20
Conclusion quantitative data analysis 20
Focus groups/interviews: deductive themes 20
Student focus groups/interviews 21
Implementation 21
Results 22
Lecturer focus groups/interviews 32
Implementation 33
Results 33
Conclusion qualitative data analysis 42
Summary: Key findings regarding user's perspective ..... **Fehler! Textmarke nicht definiert.**
References 44
Appendix A – Student survey 45
Item and scale analysis for every university 45
Appendix B – Focus groups/interview 50
Interview guide – students: 50
Interview Guide – Lecturers: 53
Coding list ..... **Fehler! Textmarke nicht definiert.**

List of Figures

Figure 1. Campus Map of Akdeniz University 6
Figure 2: Research approach overview and variables included in the survey and focus groups (self-created, 2023). 7
Figure 3: Thematic structure of the survey (blue marked variables are subjective variables which are summarized to a scale after an item and scale analysis) (self-created, 2023)..... 7
Figure 4: Living situation (n =). 8
Figure 5: Personal challenges (students with fewer opportunities) (n =). 9
Figure 6: Field of study (n = 334) 10
Figure 7: Places used for focused learning activities (n = 334) 10
Figure 8: Item and scale analysis for focused learning activities 11
Figure 9: Descriptive statistics of focused learning activities..... 11
Figure 10. Obstacles to use focused learning activities. 12
Figure 11: Places used for collaborative learning activities (n = 334) 12
Figure 12: Item and scale analysis of collaborative learning activities..... 13
Figure 13: Descriptive statistics of collaborative learning activities 13
Figure 14. Obstacles to use collaborative learning activities 13
Figure 15: Item and scale analysis of central dependent variables..... 14
Figure 16: Descriptive statistics of central dependent variables 15
Figure 17: Results of hypotheses 1a, 1b and 1c..... 16
Figure 18: Results of hypothesis 2 18
Figure 19: Results of hypotheses 3a, 3b and 3c..... 20
Figure 20: Deductive themes of the focus group interviews (for students and lecturers)..... 21
Figure 21: Overview of the focus group participants - students..... 22
Figure 22: Important informal learning spaces at xy as identified by students ..... **Fehler! Textmarke nicht definiert.**
Figure 23: Overview of focus group participants - lecturers **Fehler! Textmarke nicht definiert.**
Figure 24: Important informal learning spaces at xy as identified by lecturers 36

Introduction

Akdeniz University was founded in 1982 and currently serves approximately 67.000 students. Akdeniz University provides various study fields in 24 faculties, 7 institutes, 1 school, 1 conservatory, 12 vocational schools, 4 departmental directorates, and more than 60 research and application centres. The Institute of Health Sciences offers graduate-level education in 57 programs (34 MS and 23 PhD.), including faculties of Medicine, Nursing and Dentistry, and the Faculty of Sport Sciences. The Institute of Science offers 54 graduate programs (22 for doctorate degree and 32 for MS degree). The Institute of Social Sciences offers 43 master's degree programs, 21 doctorate degree programs. The Institute of Fine Arts offers a master's degree program in the Departments of Painting, Music, Ceramics, and Carpet, Rug and Old Fabric Designs. The Institute of Education offers 16 graduate programs, including 13 master's degree programs and 3 doctorate programs.

In terms of physical infrastructure for ILS's, there is a Central Library that covers an area of 4305 m2 and has a seating capacity of 600 people. There are also faculty libraries and study halls in each faculty. As for social facilities, there are various centres including The Yakut Living Area, with a capacity of 2.000 people, various restaurants, cafeterias, cafes and open-air cinema. The Olbia Cultural Centre provides students with cultural facilities which include an Amphitheatre for 1.500 people, 2 cultural halls with capacities of 100 and 150 people, a culture cafe, art gallery and handicrafts workshop, and is also home to many student clubs. Ceypark Social Center has a total indoor area of 2.653 m² with a range of restaurants and cafes. Özgecan Aslan Youth Office and Diyanet Café are two centres that students use for studying and training, including music, archery, and art courses. Additionally, all faculties have cafeterias.

There are 5 dormitories belonging to the Ministry of Youth and Sports Higher Education Credit and Dormitories General Directorate in and near the Akdeniz University campus. In the dormitories, there are 5.196 female students and 3.424 male students. All dorm rooms have separate study rooms next to their bedrooms and there are study halls on each floor. Figure 1 presents the campus map.

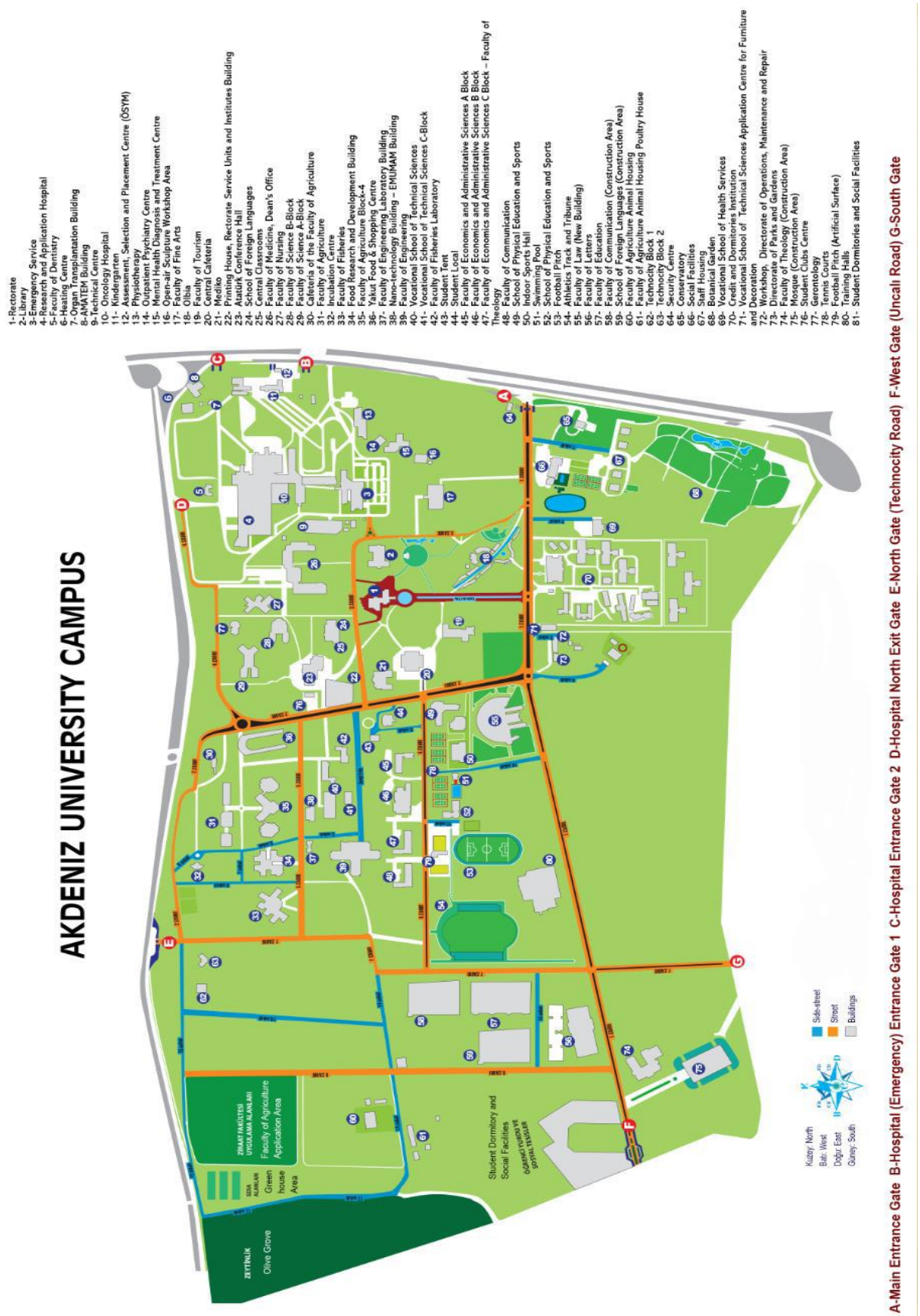

AKDENIZ UNIVERSITY CAMPUS
1-Rectorate
2- Library
3- Emergency Service
4- Research and Application Hospital
5- Faculty of Dentistry
6- Hearing Centre
7- Organ Transplantation Building
8- AMATEM Building
9- Technical Centre
10- Oncology Hospital
11- Kindergarten
12- Assessment, Selection and Placement Centre (ÖSYM)
13- Physiotherapy
14- Outpatient Psychiatry Centre
15- Mental Health Diagnosis and Treatment Centre
16- Open-air Sculpture Workshop Area
17- Faculty of Fine Arts
18- Olbia
19- Faculty of Tourism
20- Central Cafeteria
21- Mediko
22- Printing House, Rectorate Service Units and Institutes Building
23- Atatürk Conference Hall
24- School of Foreign Languages
25- Central Classrooms
26- Faculty of Medicine, Dean's Office
27- Faculty of Nursing
28- Faculty of Science B-Block
29- Faculty of Science A-Block
30- Cafeteria of the Faculty of Agriculture
31- Faculty of Agriculture
32- Incubation Centre
33- Faculty of Fisheries
34- Food Research and Development Building
35- Faculty of Agriculture Block-4
36- Yakut Food & Shopping Centre
37- Faculty of Engineering Laboratory Building
38- Nano-technology Building – EMUMAM Building
39- Faculty of Engineering
40- Vocational School of Technical Sciences
41- Vocational School of Technical Sciences C-Block
42- Faculty of Fisheries Laboratory
43- Student Tent
44- Student Local
45- Faculty of Economics and Administrative Sciences A Block
46- Faculty of Economics and Administrative Sciences B Block
47- Faculty of Economics and Administrative Sciences C Block – Faculty of Theology
48- Faculty of Communication
49- School of Physical Education and Sports
50- Indoor Sports Hall
51- Swimming Pool
52- School of Physical Education and Sports
53- Football Pitch
54- Athletics Track and Tribune
55- Faculty of Law (New Building)
56- Faculty of Letters
57- Faculty of Education
58- Faculty of Communication (Construction Area)
59- School of Foreign Languages (Construction Area)
60- Faculty of Agriculture Animal Housing
61- Faculty of Agriculture Animal Housing Poultry House
62- Technocity Block 1
63- Technocity Block 2
64- Security Centre
65- Conservatory
66- Social Facilities
67- Staff Housing
68- Botanical Garden
69- Vocational School of Health Services
70- Credit and Dormitories Institution
71- Vocational School of Technical Sciences Application Centre for Furniture and Decoration
72- Workshop, Directorate of Operations, Maintenance and Repair
73- Directorate of Parks and Gardens
74- Faculty of Theology (Construction Area)
75- Mosque (Construction Area)
76- Student Clubs Centre
77- Gerontology
78- Tennis Courts
79- Football Pitch (Artificial Surface)
80- Training Halls
81- Student Dormitories and Social Facilities
ZEYTİNLİK
Olive Grove
ZİRAAT FAKÜLTESİ UYGULAMA ALANLARI
Faculty of Agriculture Application Area
SERA ALANLARI
Green house Area
Student Dormitory and Social Facilities
Side-street
Street
Buildings
Kuzey: North
Batı: West
Doğu: East
Güney: South
A-Main Entrance Gate B-Hospital (Emergency) Entrance Gate 1 C-Hospital Entrance Gate 2 D-Hospital North Exit Gate E-North Gate (Technocity Road) F-West Gate (Uncalı Road) G-South Gate

Figure 1. Campus Map of Akdeniz University

Methodology (student survey and focus groups)

The research approach combined quantitative (student survey) and qualitative (focus groups) methods. The investigated variables are in line with the project handbook. Table 1 below outlines which variables are included in the survey and/or in the focus groups.

<table>
<tr><th>Survey
(Quantitative method)</th><th>Focus Groups
(Qualitative method)</th></tr>
<tr><td colspan="2">a) Availability, accessibility, spatial characteristics, equipment and use of informal or nonconventional learning spaces by different student groups (self-developed scale for availability and accessibility)</td></tr>
<tr><td>b) Analyzing and categorization of users' perceptions and experiences regarding the fit of learning strategies and learning spaces (differentiation into focused and collaborative learning)</td><td>• In-depth analysis of focused and collaborative learning environments</td></tr>
<tr><td colspan="2">c) Impact of the used informal or non-conventional learning spaces on students' well-being, knowledge acquisition and university belongingness</td></tr>
<tr><td>• Satisfaction with campus and knowledge acquisition (self-developed scale)
• Belongingness: Affective commitment to the university (Allen and Meyer, 1990)
• Interpersonal relations (French & Oakes, 2004)
• Well-Being: WHO-5 Well-Being Index (Topp, Oestergaard, Soendergaard & Bech, 2015)</td><td>• In-depth analysis of satisfaction with the support and the learning environment</td></tr>
<tr><td colspan="2">d) Existing inequalities and barriers related to informal or non-conventional learning spaces, including access to technical equipment and internet as well as to physical-spatial environments conducive to learning and well-being (self-developed items for barriers)</td></tr>
<tr><td></td><td>e) Students' and lecturers' awareness and enabling strategies to deal with existing inequalities and barriers</td></tr>
</table>

	• Future scenarios regarding hybrid learning and technological support

Table 1. Research approach overview and variables included in the survey and focus groups (self-created, 2023).

Further information regarding the implementation (procedure, instructions and questions) are documented in the survey and in the interview guide for the focus groups (see appendix).

The report is structured as followed:

(1) First, we describe the descriptive results of the student survey.

(2) Secondly, we present the results regarding the hypotheses testing as part of the student survey.

(3) Thirdly, we describe the key findings of the students' and lecturers' focus groups.

Student survey: thematic structure of the survey

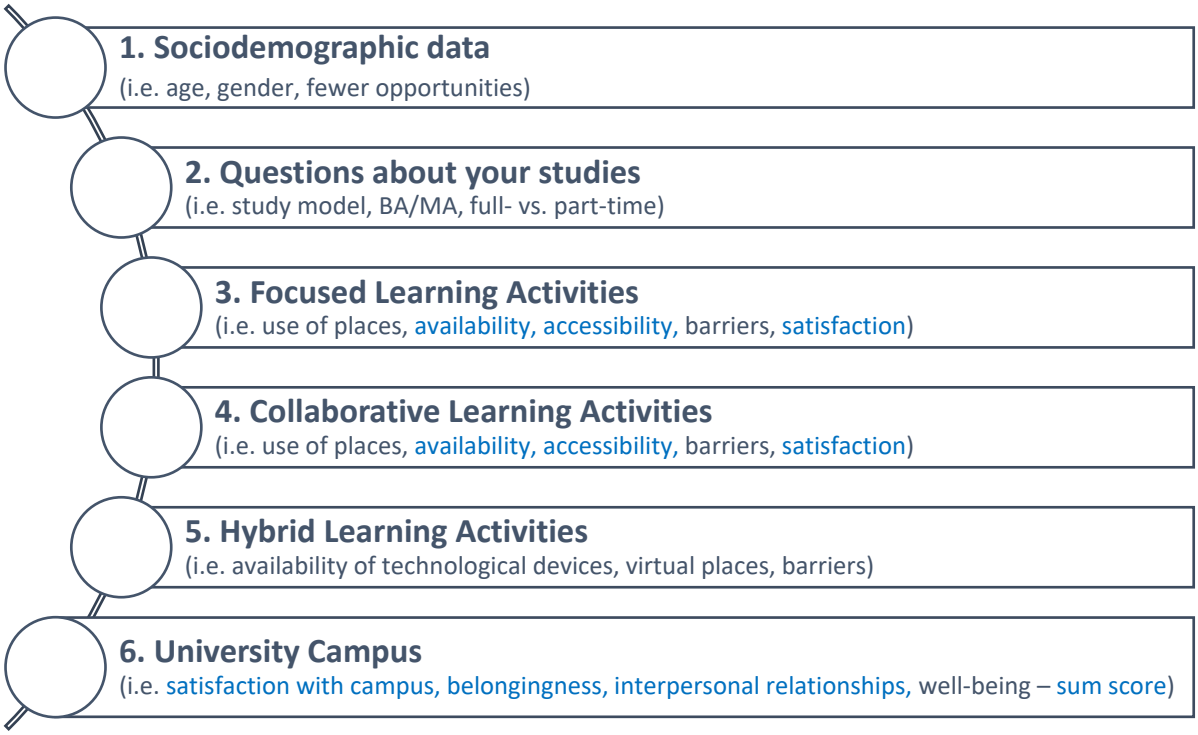


Figure 2: Thematic structure of the survey (blue marked variables are subjective variables which are summarized to a scale after an item and scale analysis) (self-created, 2023).

Descriptive analysis of the student survey

Firstly, data was transferred from the survey tool (Unipark) into a SPSS-file. We added all variable names and questions out of the survey as well as the answering categories for every item into the SPSS file. We checked for missing data and set up the correct scale levels. Coding for most items was aligned and coded in the same direction (e.g., fully agree = 5, fully disagree = 1).

For the central independent variables (availability, accessibility, satisfaction for focused and collaborative learning environments) and central dependent variables (satisfaction,

belongingness, interpersonal relations and well-being) we conducted an item and scale analysis and created scales.

In the **item analysis** every item was checked for the following criteria:

- **Mean** between **1,8 and 4,2** (to prevent floor and ceiling effects for five-point Likert scale, all scales except Well-being). Well-being is a **six-point Likert-scale** coded between 0 – 5, the **mean** has to be between **1 and 4** to prevent floor and ceiling effects.
- **Normal distribution**: checked by visual inspection
- **Corrected item-total-correlation**: between **0,30 and 0,80**

In the **scale analysis** the reliability was measured via **Cronbach´s alpha**. It should be **at least 0,70**.

Sociodemographic data

At Akdeniz University (AKD) **n = 334** students participated in the survey. Sample size may vary slightly among questions, since not every question was answered by every participant. Regarding the gender, 59% of female students and 39% of male students participated. About 1.5 % chose the options “diverse”, “prefer not to say” or skipped this question. The majority of the students are between 21 – 25 years old (68%). About 26% are up to 20 years and 6% are older than 26 years. Only 9% state that they are living in a household with minor children or persons in need of care, which fits to the young sample of participants who are predominantly in the beginning of their twenties. The living situation is very diverse (see Figure 3). Most of the students live at dormitories (59%), 17% live at their parents´ or relatives´ house, and 17% live at a shared flat with others. A small number of students reported that they live with their partner, live alone at their own apartment, or at a room for sublease (7%).

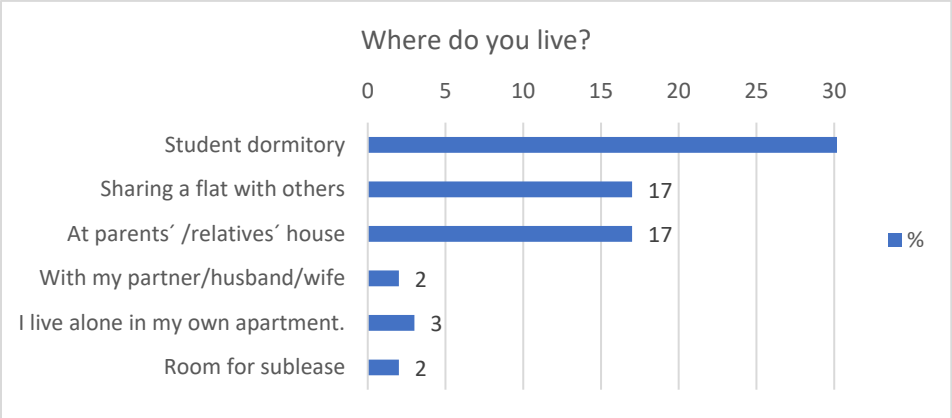


Figure 3: Living situation (n = 334).

Students state a lot of personal challenges (see Figure 4). The most prominent one is the “Economic obstacles” (52%). In addition, a dramatic number of students report to suffer from “Mental diseases”, including burnout (33%). The third common personal challenge is reported as “Need to work for living while studying” (22%). Every tenth student reported that they have “Geographical obstacles”, for instance, remote residence. Additionally, 9% of the students stated “Cultural differences” as a challenge. Every other challenge is experienced between 2 – 5% of the participants. Only 22% percent report to experience “None of these” challenges. 3% of the students reported that they have other challenges, such as, lack of health insurance.

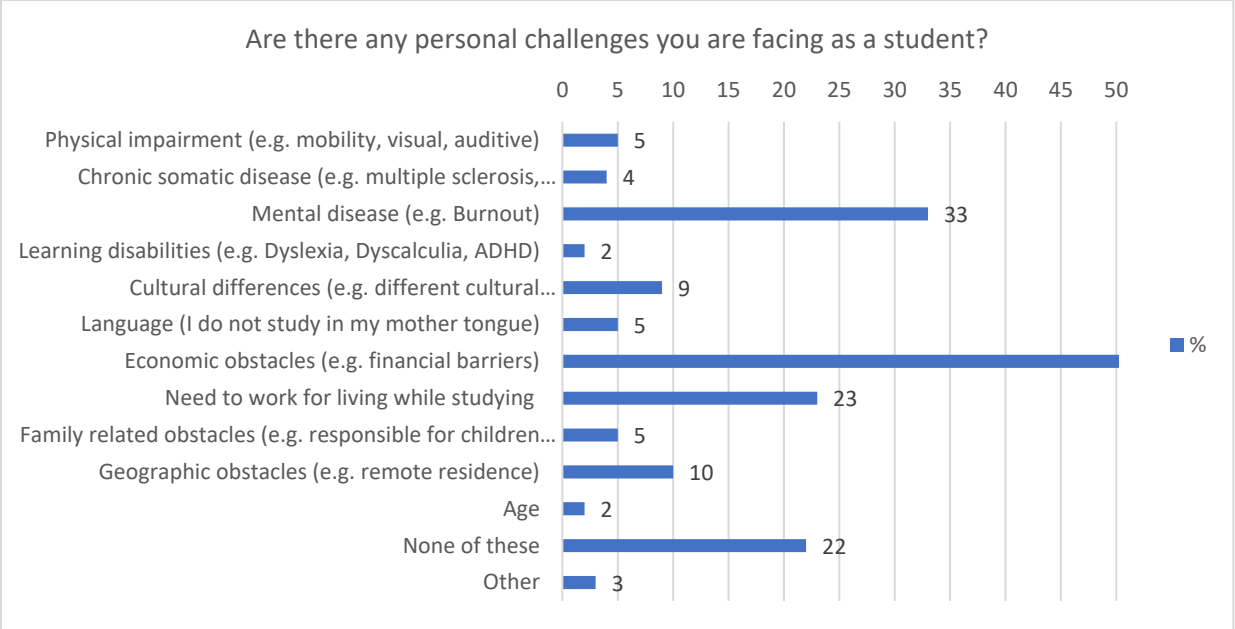


Figure 4: Personal challenges (students with fewer opportunities) (n = 334).

Questions about studies

Regarding the "Distance to university" most students commute between 0-4 km (64%), every fifth student commute between 5 – 10 km (20%), followed by 11 – 30 km (7%), to the campus. About 9% live more than 30 km away.

Slightly more than three quarter of participants are aiming at a Bachelor´s degree (78%), 18% are aiming at associate degree. About 4% are aiming at graduate degrees. Most of the students study full-time (87%) and they study in presence on campus (98%).

According to the full-time study model, most students state to spend up to 5 hours per week on their studies (40%). Around 26% report 6-10 hours per week, 13% report 11-15 hours per week, and %21 report that they spend more than 16 hours per week.

Students were enrolled mostly in 2020 (24%), 2018 (24%), 2021 (24%) or 2019 (22%).

There are three prominent fields of study in this sample (see Figure 5). Students at Akdeniz University mostly study "Education" (29%), "Business, Administration and Law" (20%) and "Health and Welfare" (19%).

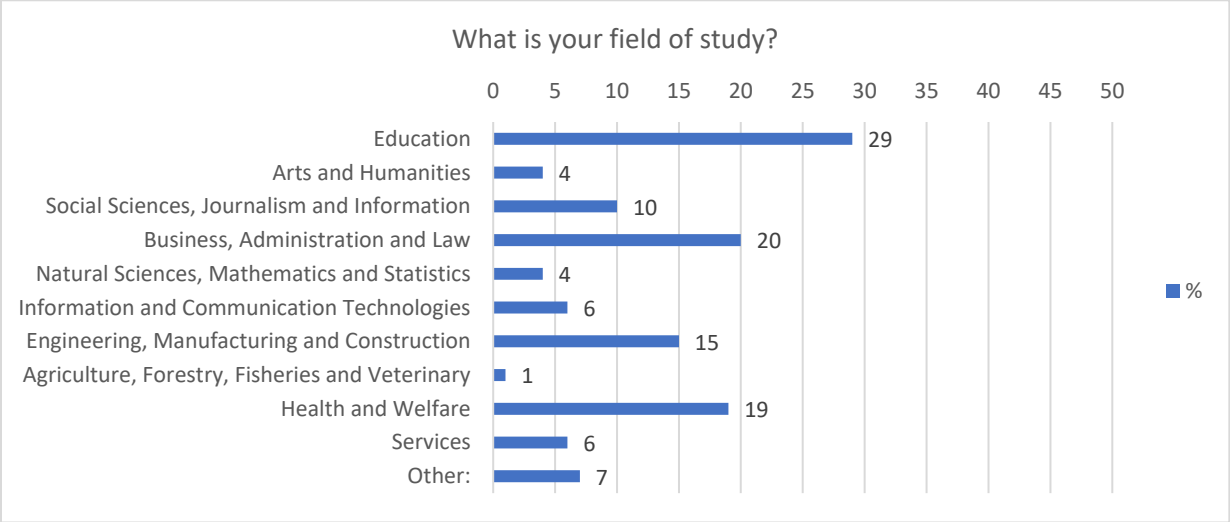


Figure 5: Field of study (n = 334)

Focused learning activities

Students were asked at which places they conduct focused learning activities (see Figure 6). The most prominent place to conduct focused learning is "The place where I live" (mean = 3,6), according to students. Every other place is less mentioned, e.g. the "University library" (mean = 2,8), "Students Lounge" (2,6), "Seminar rooms" (mean = 2,5 or "Outdoor places on campus" (mean = 2,5).

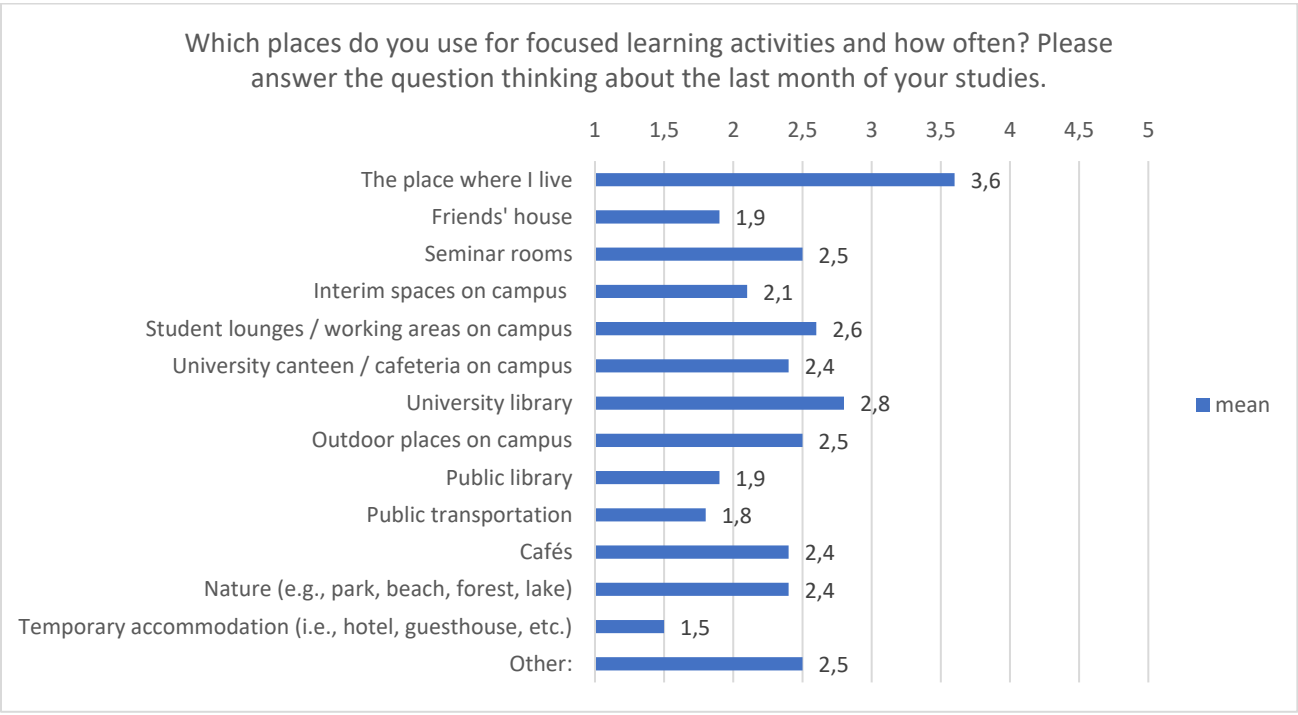


Figure 6: Places used for focused learning activities (n = 334)

The item and scale analyses were conducted, whereof the results are presented in Table 2. Students were asked to rate the availability and accessibility of focused learning spaces (see

Table 3). Here, availability is slightly better rated (mean = 3,66) than accessibility (mean = 3,58).

Name of Scale	Number of Items	Mean	Distribution	item-total-correlation	Reliability of scale (Cronbach's Alpha)
FL Availability	3	ok	ok	ok	0,76
FL Accessibility	4	ok	ok	Ok, except FL_AC_2 0,81, reliability without FL_AC_2 0,76, accepted	0,87
FL Satisfaction	2	ok	ok	ok	0,82

Table 2. Item and scale analysis for focused learning activities

Name of Scale	Mean	SD
FL Availability	3,66	0,84
FL Accessibility	3,58	0,83
FL Satisfaction	3,42	0,87

Table 3. Descriptive statistics of focused learning activities

Notes: 1 = totally disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = totally agree

Students report a lot of obstacles regarding focused learning activities. Most of all, 69% state "Limited availability (e.g. too crowded)" as an obstacle. About 45% perceive the "Opening Hours" as a barrier to use focused learning spaces. Difficulties in accessing (13%), registration (9%), or others (5%) are less mentioned (see Figure 7).

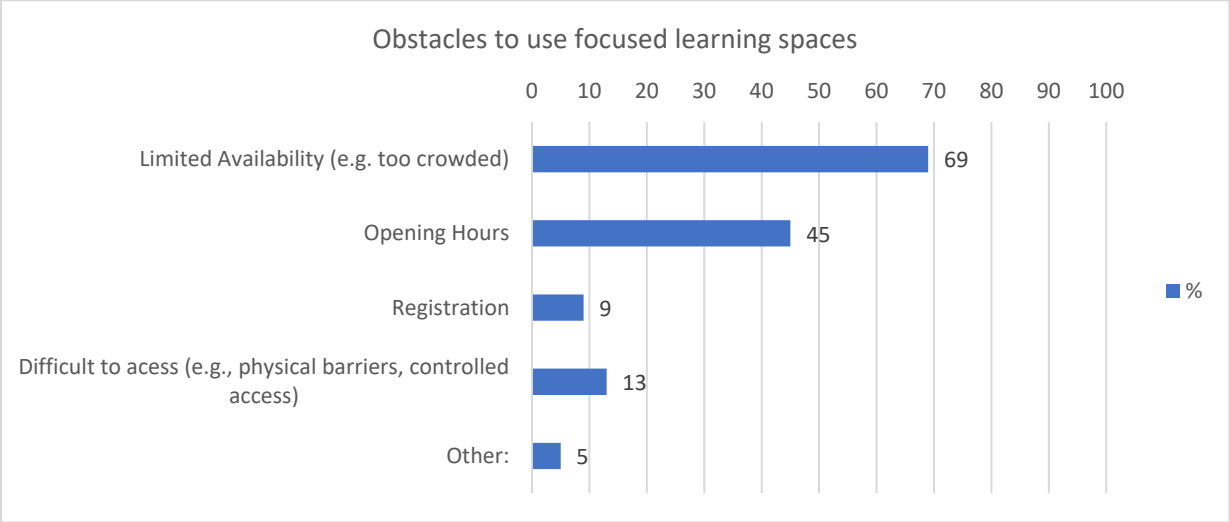


Figure 7: Obstacles to use focused learning activities.

Collaborative learning activities

Students were asked at which they use to conduct collaborative learning activities (see Figure 8). Compared to focused learning activities there is not a single, most prominent place for collaborative learning activities. Students report different places, e.g. “The place where I live.” (mean = 3,3), “University canteen” (mean = 2,7), “Seminar rooms” (mean = 2,6), “University Library” (mean = 2,6), and “Outdoor places on campus” (mean = 2,6).

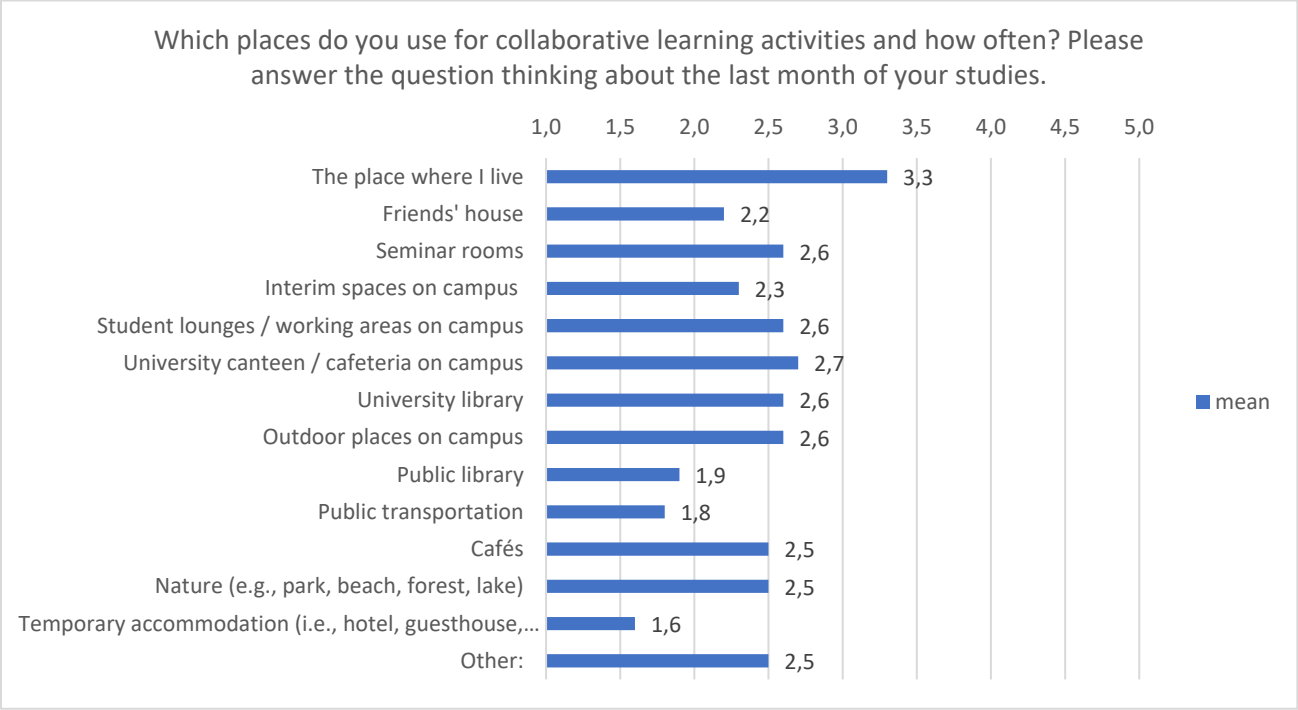


Figure 8: Places used for collaborative learning activities (n = 334)

Notes: 1 = never, 2 = rarely, 3 = occasionally, 4 = often, 5 = very often

The item and scale analyses were conducted, whereof results are presented in Table 4. There are two items which show high item-total correlations, indicating that items do not vary

regarding their content as much as wanted. Nevertheless, all items were included in the scales. Students were asked to rate the availability and accessibility of collaborative learning spaces (see Table 5). There is no difference between accessibility and availability in terms of spaces used to conduct collaborative learning activities.

Name of Scale	Number of Items	Mean	Distribution	item-total-correlation	Reliability of scale (Cronbach's Alpha)
CL_Availability	3	ok	ok	ok	0,84
CL_Accessibility	4	ok	ok	Ok, except CL_AC_2 0,85, reliability without CL_AC_2 0,83	0,89
CL_Satisfaction	2	ok	ok	ok	0,85

Table 4. Item and scale analysis of collaborative learning activities

Name of Scale	Mean	SD
CL_Availability	3,4	0,92
CL_Accessibility	3,4	0,85
CL_Satisfaction	3,3	0,92

Table 5. Descriptive statistics of collaborative learning activities

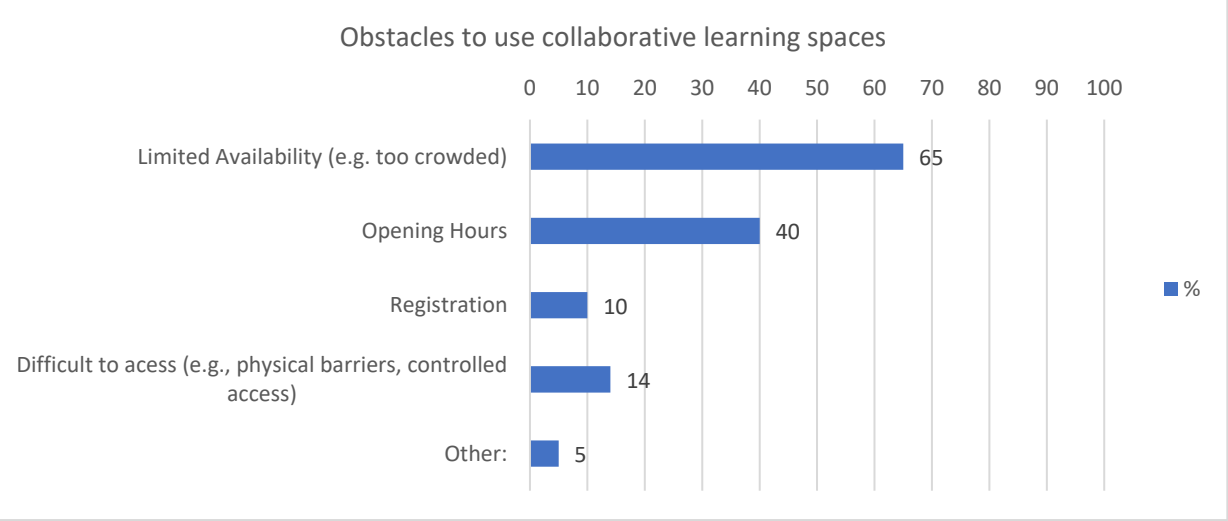


Figure 9: Obstacles to use collaborative learning activities

Accordingly, students report a lot of obstacles regarding collaborative learning activities (see Figure 9). Most of all, 65% state "Limited availability (e.g., too crowded)" as an obstacle. About 40% perceive the "Opening Hours" as a barrier to use collaborative learning spaces. Difficulties

in accessing (14%), registration (10%), or others (5%) are less mentioned. These percentages are very similar to the obstacles reported for spaces to conduct focused learning activities.

Hybrid learning activities.

Students were asked about the devices they have available for their studies. About 89% state that they have a smartphone, 72% have a laptop/notebook/netbook, and 7% have a tablet. E-book reader (0.3%) or other devices (0.9%) are less mentioned.

About 83% state that they have access or partly access (not everywhere / not anytime) to WIFI on campus and only 30% (agree and totally agree) are satisfied with the WIFI quality.

When it comes to using virtual spaces for studying, most students use “Messenger Services, i.e., WhatsApp” (mean = 3,8), “Video communication, i.e., Zoom” (mean = 3,5), social media i.e., Instagram, Twitter, YouTube, etc. (mean = 3,3), or “Online document management platforms, i.e., Google docs” (mean = 3,1). Learning Management Systems, online forums, online chats and augmented/virtual reality are less mentioned.

The top three of technological obstacles are 49% “Lack of infrastructure (e.g., availability of plugs)”, 37% “Technical support”, and 24% “Outdated technology”.

Dependent variables (satisfaction, belongingness, interpersonal relations, well-being)

The item and scale analyses were conducted, whereof results are presented in Table 6. For most scales, analysis results were satisfying. Only one item (B_U_2) had to be excluded. Means and standard deviations of the scales are presented in Table 7.

Name of Scale	Number of Items	Mean	Distribution	item-total-correlation	Reliability of scale (Cronbach’s Alpha)
Satisfaction	6	ok	ok	ok	0,87
Belongingness	6	ok	ok	Not ok, B_U_2 -0,13, reliability without B_U_2 0,75	0,63 (6 item scale) 0,75 (5 item scale)
Interpersonal relationships	6	ok	ok	ok	0,88
Well-Being	5	ok	ok	Ok, except W_1 0,82 and W_3 0,83, accepted.	0,89

Table 6. Item and scale analysis of central dependent variables

Name of Scale	Mean	SD

Satisfaction	3,49	0,78
Belongingness	3,29	0,77
Interpersonal Relationships	3,44	0,81
Well-Being	46,28	24,40

Table 7. Descriptive statistics of central dependent variables

Conclusion descriptive results

In conclusion, the survey conducted at Akdeniz University reveals some significant insights about the students' demographics, living situations, personal challenges, study habits, and learning environments. It can be stated that our sample at Akdeniz University is representative of the university's student population since the students in the sample closely resemble the overall student population in terms of gender, age, and field of study.

The majority of the surveyed students are female and aged between 21-25 years. Most of them live in dormitories, and their primary challenge is economic obstacles and mental diseases. They mostly study education (29%), business, administration, and law (20%), and health and welfare (19%). It is surprising that despite the expectation that economic barriers (52%) would be the primary difficulty experienced by students, mental illnesses are mentioned as the second most common difficulty with a very high rate (33%). Although it is important to identify which illnesses are perceived in this survey question, such as burnout and anxiety or other mental problems, students' ratings of mental illness as a challenge at such a high rate is an important issue to consider.

Most of the students spend up to five hours per week on their studies. It is surprising that students reported such a low weekly study time. In Akdeniz University, course evaluations are made by a mid-term and a final exam, and process evaluation is not very common. Thus, this evaluation approach might impact the results on students' study time in the survey. It can be assumed that they usually study one or two weeks before the exams, so they might not include the exam preparation time for this question. Most of the students conduct focused learning activities at the place where they live. The second highest focused learning place was identified as the university library. Availability of ILS's is slightly better rated than accessibility for the focused learning spaces, and limited availability and opening hours are the most significant obstacles for using these spaces, it can be assumed that students referred to the library or study rooms at the dormitories in this question.

Collaborative learning activities take place at different locations, they mostly prefer the places they live and canteen and cafeterias in the campus. Students report no difference between accessibility and availability of the collaborative learning spaces. According to the survey results, most students have a smartphone (89%) and a laptop/notebook/netbook (72%) available for their studies, while tablets (7%), e-book readers (0.3%), and other devices (0.9%) are less commonly used. Only 30% of students are satisfied with the quality of WIFI on campus, despite 83% having access to it, either fully or partially. When it comes to using virtual spaces

for studying, students mainly use messaging services (such as WhatsApp), video communication (such as Zoom), and social media (such as Instagram, Twitter, and YouTube). Lack of infrastructure (e.g., availability of plugs), technical support, and outdated technology are the top three technological obstacles faced by students.

Overall, the survey findings provide valuable insights that could help in enhancing the students' learning experiences and addressing their challenges.

Hypotheses testing

The hypotheses testing describes the impact of the used informal or non-conventional learning spaces on students' belongingness, interpersonal relationships, well-being and university campus satisfaction.

Hypotheses 1a, 1b, 1c and 1d

Hypothesis 1a: The higher the availability and accessibility of informal learning spaces on campus, the higher the university belongingness.
Hypothesis 1b: The higher the availability and accessibility of informal learning spaces on campus, the higher the interpersonal relationships.
Hypothesis 1c: The higher the availability and accessibility of informal learning spaces on campus, the higher the well-being of students.
Hypothesis 1d: The higher the availability and accessibility of informal learning spaces on campus, the higher the university campus satisfaction.

	Belongingness	Interpersonal Relationships	Well-Being	University Campus Satisfaction
Availability	r = 0,31 p < 0,001	r = 0,46 p < 0,001	r = 0,35 p < 0,001	r = 0,58 p < 0,001
Accessibility	r = 0,33 p < 0,001	r = 0,44 p < 0,001	r = 0,32 p < 0,001	r = 0,60 p < 0,001

Table 8. Results of hypotheses 1a, 1b and 1c

Before the analysis of the data, normality assumptions were tested by examining central tendency, kurtosis and skewness values and histograms. Since the kurtosis and skewness coefficients were not less than or greater than 1.5 (Tabachnik & Fidell, 2010), the normality of the distribution was ensured. Then, bivariate correlation among variables including belongingness, interpersonal relationships, well-being and campus satisfaction, and availability and accessibility of ILS's were computed. Findings indicated that there are moderate positive relationships among availability and accessibility of ILS's and belongingness, interpersonal relationships, well-being and campus satisfaction. Based on these findings, it can be stated that hypotheses 1a, 1b, 1c and 1d are supported.

The positive relationships among availability and accessibility and belongingness, interpersonal relationships, well-being, and campus satisfaction suggest that when students perceive that ILS's are available and accessible to them, they tend to have a greater sense of belongingness on campus, better interpersonal relationships, higher well-being, and greater campus satisfaction. This finding highlights the importance of providing students with easy access to ILS's, services, and support that can enhance their academic and personal success. Universities can improve availability and accessibility by promoting resources and services through various investments, such as improving the physical quality of ILS's. Additionally, they can provide training and support to staff and faculty to ensure they are equipped to assist students and connect them to appropriate resources.

Furthermore, fostering positive connections with others is likely to promote a greater sense of belonging and acceptance among students, which can have a positive impact on their academic progress. When students feel included and valued within their educational community, they are more likely to engage in class, participate in discussions, and seek out learning opportunities. This, in turn, can contribute to a more effective acquisition of knowledge and skills. By prioritizing positive interpersonal relationships and creating a supportive learning environment, educators and institutions can help facilitate a more successful academic experience for students.

Although the findings implied positive relationships among variables, it should be noted that the outcomes do not necessarily indicate causal connections. It is plausible that having positive informal learning environments and positive relations with other students leading to an enhanced perception of their availability and ease of access. Moreover, students who experience a greater sense of well-being may be better equipped to make use of university resources and view their university more favourably compared to those with lower levels of well-being.

To conclude, these findings suggested that when students perceive ILS's as available and accessible, they tend to have a greater sense of belongingness, better interpersonal relationships, higher well-being, and greater campus satisfaction. Universities should invest in improving ILS's and services to promote students' academic and personal progress and overall well-being.

Hypothesis 2

Hypothesis 2: The availability, accessibility and satisfaction with informal focused learning spaces is higher than of informal collaborative learning spaces.

	Mean	SD	n	T-Test	Effect size Cohen´s d
Availability_FL	3,67	0,84	324	t (323) = 5,73, p <0,001	
Availability_CL	3,43	0,91	324		

Accessibility_FL	3,59	0,83	319	t (318) = 6,30, p <0,001	
Accessibility_CL	3,35	0,85	319		
Satisfaction_FL	3,42	0,87	319	t (318) = 1,83, n.s	
Satisfaction_CL	3,35	0,92	319		

Table 9. Results of hypothesis 2a, 2b, 2c.

Prior to the analysis of the data, normality assumptions were checked by examining central tendency, kurtosis and skewness values and histograms, and the normality was ensured. Afterwards, a paired samples t-test analysis was run in order to compare students' campus satisfaction, campus belongingness and well-being regarding availability, accessibility and satisfaction of informal focused and collaborative learning spaces.

The findings partly supported hypothesis 2, which indicated that the availability, accessibility and satisfaction with informal focused learning spaces is higher than of informal collaborative learning spaces. According to the results, there is a significant difference regarding availability and accessibility of the two types of ILSs. Students rated higher availability and accessibility of ILSs for focused learning than collaborative learning. When considering the approaches of universities towards learning environments, these findings are quite expected. The traditional approach of universities has been to prioritize cognitive and functional competencies, which are acquired through individual learning activities such as reading and writing. Collaborative learning spaces that foster social and personal competencies have become more prominent in recent years, but they are still not as prevalent in university settings, as noted in the European Qualification Framework from 2008. As a result, we can assume that focused learning spaces, such as libraries or quiet study areas, are often readily available and accessible to students. Collaborative learning spaces, on the other hand, may be less available or accessible to students, especially if they require specific technology or resources. Additionally, some students may feel less comfortable in these spaces, which could affect their preferences and overall satisfaction with the learning experience. Further, cognitive competencies are often acquired through independent study and are essential for success in academic pursuits. In contrast, social and personal competencies involve skills such as communication, teamwork, and problem-solving, which are typically developed through collaborative learning experiences. While these competencies are also important, they are not always given the same emphasis as cognitive and functional competencies in traditional university settings.

On the other hand, there is no significant differences between satisfaction levels of the students in terms of two types of ILSs. This could indicate that both types of ILS are equally effective in providing a conducive learning environment for students. Alternatively, it could mean that factors other than the physical space itself, such as the availability of resources or support from instructors, are more influential in determining learners' satisfaction levels.

Overall, the findings implied that the satisfaction of students in ILS is generally consistent, regardless of the specific type of ILS being used.

According to this findings, informal collaborative learning spaces can be an essential tool for students to enhance their learning experience. These spaces can provide opportunities for students to work together, share their ideas and perspectives, and learn from one another. However, it is not enough to simply provide these spaces. The accessibility of these areas is crucial to ensure that students can take full advantage of them. For instance, if these areas are difficult to locate, require booking in advance, or have other barriers, it may discourage students from using them. In contrast, making these areas easily accessible and available can increase their use and promote more effective group learning. Overall, universities can greatly benefit from investing in informal collaborative learning spaces and ensuring their accessibility. These spaces can create opportunities for students to work together, learn from one another, and enhance their overall learning experience.

Hypotheses 3

Hypothesis 3a, 3b, 3c and 3d:

In order to test the Hypothesis 3a, 3b 3c and 3d, which indicated that Informal collaborative learning spaces are more relevant to enhance university belongingness, interpersonal relationships, well-being and university campus satisfaction than informal focused learning spaces, the correlations among variables were computed.

The findings partly supported the hypothesis. Considering belongingness, (hypothesis 3) availability of the two types of ILS's have the same level of relationships with campus belonginess. On the other hand, the findings suggested that availability of informal collaborative learning spaces indicated stronger associations with interpersonal relationships, well-being and university campus satisfaction than informal focused learning spaces. Moreover, regarding accessibility, informal collaborative learning spaces indicated stronger associations with campus belongingness, interpersonal relationships, well-being and campus satisfaction compared to informal focused learning spaces. In other words, having access to informal collaborative learning spaces was more strongly related to positive outcomes such as better interpersonal relationships, improved well-being, and higher satisfaction with the university campus and campus belongingness than having access to informal focused learning spaces. This means that the presence of collaborative ILSs on the university campus is likely to have an impact on students' interpersonal relationships with others, their well-being, and their satisfaction with the campus as a whole. These findings could be used to guide university administrators in decisions related to the allocation of resources and the design of campus facilities, especially collaborative ILSs to optimize the well-being and satisfaction of the students.

	Belongingness	Interpersonal Relationships	Well-Being	University Campus Satisfaction

Availability_FL	r = 0,29 p < 0,001	r = 0,35 p < 0,001	r = 0,25 p < 0,001	r = 0,44 p < 0,001
Availability_CL	r = 0,29 p < 0,001	r = 0,47 p < 0,001	r = 0,41 p < 0,001	r = 0,60 p < 0,001
Accessibility_FL	r = 0,28 p < 0,001	r = 0,38 p < 0,001	r = 0,22 p < 0,001	r = 0,52 p < 0,001
Accessibility_CL	r = 0,35 p < 0,001	r = 0,45 p < 0,001	r = 0,37 p < 0,001	r = 0,59 p < 0,001

Table 10. Results of hypotheses 3a, 3b and 3c

Discussion hypotheses testing

According to the results, Hypotheses 1a, 1b, 1c, and 1d are confirmed. The results indicate that when students perceive that ILS's are easily available and accessible, they are more likely to experience a stronger sense of belonging on campus, improved interpersonal relationships, better well-being, and greater satisfaction with the campus.

The results provided partial support for hypothesis 2, which stated that the availability, accessibility, and satisfaction with informal focused learning spaces is higher than that of informal collaborative learning spaces. Based on the findings, there is a significant difference between the availability and accessibility of the two types of ILS. On the other hand, the is no significant difference considering the satisfaction levels of two types of ILS's.

Hypotheses 3 supported in general, except the strength of the relationship between availability of two types of ILS's and belongingness. Regarding accessibility, informal collaborative learning spaces indicated stronger associations with campus belongingness, interpersonal relationships, well-being and campus satisfaction compared to informal focused learning spaces.

Conclusion quantitative data analysis

The findings of the study demonstrate that informal learning spaces play a significant role in enhancing the sense of belongingness, interpersonal relationships, well-being, and overall satisfaction with university campus. The study establishes positive correlations between the availability and accessibility of informal learning spaces with various factors such as belongingness to campus, satisfaction with campus, interpersonal relationships, and well-being. These findings suggest that improving the quality of informal learning spaces on campus can foster integration among students, promote interactions between them, and ultimately enhance their satisfaction and well-being.

Based on these findings, universities can prioritize the availability and accessibility of informal collaborative learning spaces as they are more strongly associated with positive outcomes for students. This can include increasing the number of collaborative learning spaces on campus, ensuring they are easily accessible, and promoting their use. Additionally, universities can assess the satisfaction levels of students with the different types of ILS's and consider ways to

improve satisfaction with informal focused learning spaces. Finally, universities can continue to conduct research on the relationship between ILS's and student outcomes to further inform policies and practices related to student well-being and campus satisfaction. Future research should explore these relationships in greater detail to better understand how universities can create optimal learning environments that support the positive outcomes for students.

Overall, universities need to recognize the importance of informal learning spaces and invest in creating optimal learning environments that foster positive outcomes for students. By doing so, they can enhance student satisfaction, well-being, and success.

Focus groups/interviews: deductive themes

*This chapter is **based on the results of the focus groups and interviews with students and lecturers.*** Table 11 displays the frame of the focus group interview guide, and simultaneously, the **four deductive themes** for both focus groups (students and lecturers):

1.	Impact of the used informal or non-conventional learning spaces on students' knowledge acquisition and satisfaction with support and the learning environment.
2.	Existing inequalities and barriers related to informal or non-conventional learning spaces, including access to tangible and intangible technical equipment (i.e., sockets, WIFI) as well as to physical-spatial environments conducive to learning and well-being.
3.	Students' and lecturers' awareness and enabling strategies to deal with existing inequalities and barriers.
4.	Hybrid and virtual learning activities.

Table 11. Deductive themes of the focus group interview (for students and lecturers)

An English version of the interview guide was developed by HTW Berlin as the lead partner of PR2. The interview guide was revised two times following the suggestions and comments of the project partners in a participatory process. Final guidelines, including interview questions and some instructions concerning the interview process, were translated into the respective languages (see Appendix).

It was aimed to conduct at least one focus group interview with students (5-7 students, including three students with fewer opportunities) and at least one with lecturers (5-7 lecturers) from each university in each country. Data was transcribed, coded and analysed according to guidelines developed by HTW Berlin in cooperation with the partners (see Appendix).

Student focus groups/interviews

Implementation

Two separate student focus groups, involving a total of 11 students, were conducted face-to-face. Among the participants, two were international students and two were students with fewer opportunities. The students are enrolled in undergraduate programs in different faculties. The first focus group took place on May 26, 2022, in the meeting hall of the Faculty of Education, between 14:00 and 16:00. The second focus group was conducted on June 2,

2022, in the meeting hall of the Faculty of Education, between 14:00 and 16:00. Information about the participants is presented in Table 12.

Students	Campus	Faculty	Degree
Student 1 (S1)	AKD Main campus	Faculty of Sports Sciences (Physical Education and Sports)	Bachelor
Student 2 (S2)	AKD Main campus	Faculty of Education (Educational Sciences)	Bachelor
Student 3 (S3)	AKD Main campus	Faculty of Education (Educational Sciences)	Bachelor
Student 4 (S4)	AKD Main campus	Faculty of Education (Mathematics Teaching)	Bachelor
Student 5 (S5)	AKD Main campus	Faculty of Engineering (Geological Engineering)	Bachelor
Student 6 (S6)	AKD Main campus	Faculty of Education (Educational Sciences)	Bachelor
Student 7 (S7)	AKD Main campus	Faculty of Education (Mathematics Teaching)	Bachelor
Student 8 (S8)	AKD Main campus	School of Health Services (Child Development)	Bachelor
Student 9 (S9)	AKD Main campus	Faculty of Education (Educational Sciences)	Bachelor
Student 10 (S10)	AKD Main campus	Faculty of Education (Educational Sciences)	Bachelor
Student 11 (S11)	AKD Main campus	Faculty of Education (Social Studies Teaching)	Bachelor

Table 12. Overview of the focus group participants - students

Results

The subsequent section presents the findings obtained from the focus group conducted with students, organized in the sequence of the four interview themes.

1. ***Impact of the used informal or non-conventional learning spaces on students' Knowledge acquisition: Satisfaction with the support and the learning environment***

1.1. Places Used for Informal Learning

The information and usage of informal learning spaces (ILS) by students on Akdeniz University campus is displayed in Figure 10. The identified areas include popular and frequently used ILSs on the campus. The areas marked with **orange dots** on the map indicate spaces used **for both focused and collaborative informal learning activities**, while **green dots** represent spaces used **for focused informal learning activities**. The **blue dots**, on the other hand, represent spaces used **for collaborative informal learning activities**.

When the distribution of the ILSs is examined, it can be observed that they are dispersed to different locations throughout the campus. These locations include common areas for all students, such as the library, green areas, and dormitories, as well as the faculty buildings, where the students in the focus group continuing their education, and their immediate surroundings.

1.2. Frequency of use in the last four weeks (favourite/most important place)

Students frequently use common spaces on campus, such as the library, green areas, and dormitories, which are accessible to students from all faculties. However, they tend to have more knowledge and familiarity with the spaces near their faculties and their immediate surroundings, and thus, they prefer those areas more frequently. The list of frequently used ILSs identified by the students interviewed is provided in Table 13.

The frequency of students using these spaces is generally stated to be around 3-4 times per week. However, they have mentioned that the frequency of use increases during exam periods and when preparing group assignments. Some students, on the other hand, have expressed their preference to study outside the campus, for example, the place they live, in private preparatory courses for exams or in public libraries.

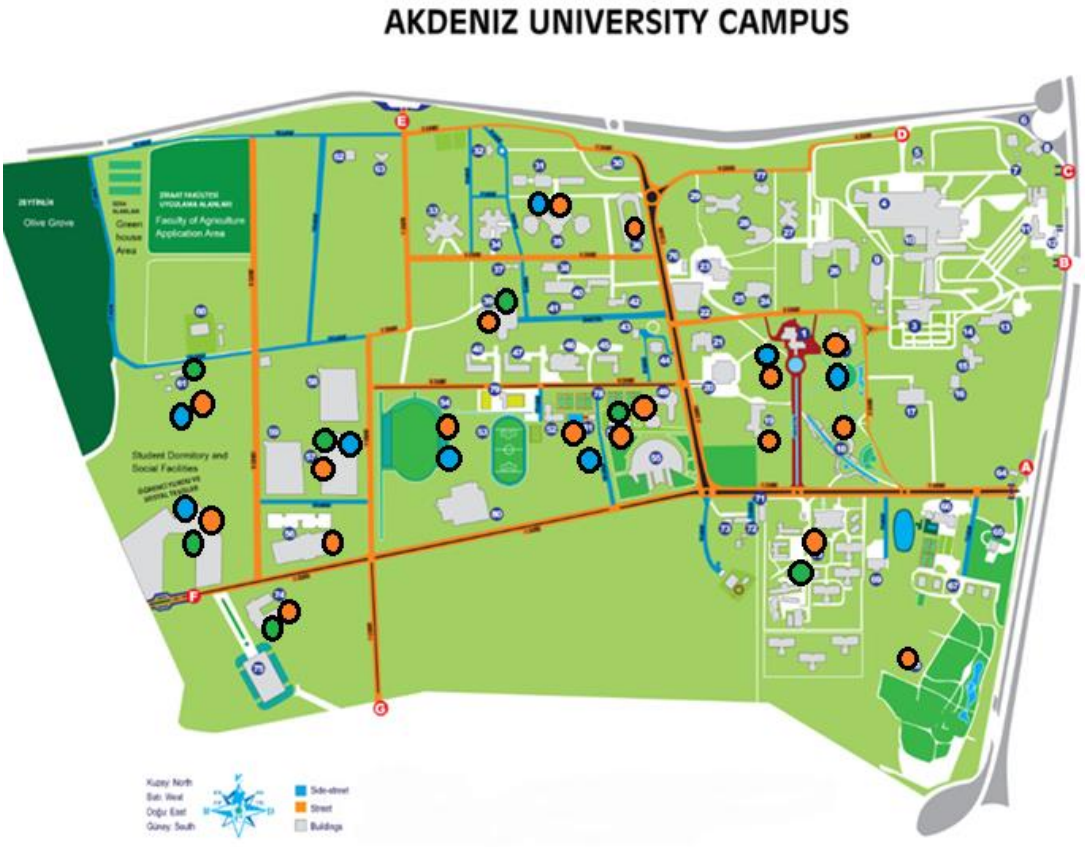


Figure 10. Akdeniz University campus map of informal learning spaces used by students (self-created, based on focus groups with students, 2022).

1.3. Satisfaction with the most important/most frequently used learning location (strengths/weaknesses)

It has been mentioned that students are generally satisfied with and find sufficient the cafes, cafeteria, and green areas in the campus. In other words, students generally express higher satisfaction with open spaces that they use for group work. However, the satisfaction level

with indoor spaces is generally reported to be around 6-7 out of 10. Factors that reduce satisfaction with indoor areas include a limited number of tables and chairs, inadequate table size, insufficient number of electrical outlets, and a shortage of computers.

> *"I would rate central library around 6.5 to 7 out of 10. Its capacity should be increased, and more tables should be added. The comfort of the tables can be improved to make them more ergonomic. As my friend also mentioned, there is a shortage of plugs. We have one plug for every four people, which can cause difficulties when using computers... The library is crucial for me because I can access books whenever I want, and it provides various resources. However, I would rate it around 6.5 to 7 out of 10."*

When these deficiencies are addressed, student satisfaction increases. For example, a student from the Faculty of Engineering expressed that the usage of the faculty canteen increased when the tables were replaced with larger ones and the number of computers was increased.

> *"Not only computer engineering students but also all students in our faculty need computers. Therefore, appropriate tables are necessary, and they have made these changes in our canteen since last year. They have put suitable tables for computers. They have also added some taller tables, and now there is enough space. Our canteen is great for working in groups."*

Campus/Building	Label	Notes / Description	Indoor	Outdoor	Off campus	Focused learning	Collaborative Learning	Reference
Main Library	Main Library		X			X		S4, 2022, ln. 148; S2, 2022, ln. 155; s7, 2022, ln.78.
Faculty of Education	Meeting rooms	4th floor	X				X	S3, 2022, ln.42-46
Faculty of Education	Reading room		X			X		S3, 2022, ln.48; S7, 2022, ln. 119-120.
Faculty of Education	Seminar rooms & classes		X			X	X	S3, 2022, ln.49-50; S6, 2022, ln. 120; S4, 2022, 144; S9, 2022, ln. 145-148.

Faculty of Education	Canteen		X	X			X	S4, 2022, 145.
Ceypark	Cafés	Tables, sofas inside & outside	X	X		X	X	S3, 2022, ln.38; S2, 2022, ln.51-53; S4, 2022, 147; S8, 2022, ln. 86.
Faculty of Tourism	Botanical reading room	Benches, computer tables	X			X	X	S2, 2022, ln. 54-56.
Outdoor yard	Green areas &benches	Near Faculty of Education, Faculty of Literature, Faculty of Agriculture, near rectorate building, botanical park		X		X	X	S3, 2022, ln.67-72; S1,2022, ln. 89-91; S4, 2022, 145-147; s8, 2022, ln.52; S10, 2022, ln.77&113-114; S11, 2022, ln. 183-188&221.
Faculty of Education	Foyers in each floor	Computer tables, chairs	X			X		S3, 2022, ln.82-84; S6, 2022, ln. 120.
Faculty of Sports Sciences	Tennis, Courts, Swimming Pool, Stadium, Mavi sports Hall	For training and practice	X	X		X	X	S1,2022, ln. 87-89.
Faculty of Sports Sciences	Seminar rooms & classes	For theoretical classes & exams	X			X	X	S1,2022, ln. 96-97.
Faculty of Sports Sciences	Faculty library & study rooms	For theoretical classes & exams				X		S1,2022, ln. 99.
Faculty of Sports Sciences	Faculty Canteen		X				X	S1,2022, ln. 99.
Dormitories	Room		X			X		S1,2022, ln. 102-103; S6, 2022, ln. 114; S9, 2022, ln. 79&136.

Dormitories	Study halls		X				X	S1,2022, ln. 110-112; S9, 2022; ln. 79-81; S10, 2022, ln.170-171; S8, 2022, ln. 195-196.
Özgecan Aslan Youth Office						X		S6, 2022, ln. 115.
Faculty of Engineering	Seminar rooms & classes	Two classes reserved for the students					X	S5,2022, ln. 125-128.
Faculty of Engineering	Computer lab					X		S5,2022, ln. 130-132.
Faculty of Engineering	Faculty Canteen	Computers for students use & large tables					X	S5,2022, ln. 132-140.
Private Tutoring Center "Dershane"		A preparation course for the public personnel selection exam required to become a teacher.			X	X		S4, 2022, ln.202.
Olbia	Cafes	Tables, sofas inside & outside	X	X		X	X	S8, 2022, ln. 86.
Yakut	Cafes	Tables, sofas inside & outside	X	X		X	X	S8, 2022, ln. 66.
Cemil Meriç Library	Municipality Library		X		X	X		S7, 2022, ln. 106-108.
Public Library			X		X	X		S7, 2022, ln. 200.

Table 13. Important informal learning spaces at Akdeniz University as identified by students (self-created, based on focus groups with students, 2022).

As seen in Table 13, students identified following places where they use frequently for **focused informal learning activities:**

-Main library (S4, 2022, ln. 148; S2, 2022, ln. 155, S7, 2022, ln. 78)

-ILSs in Faculty buildings, such as reading rooms, foyers, computer labs etc. (S3, 2022, ln.48; S3, 2022, ln.82-84; S6, 2022, ln. 120; S1,2022, ln. 99; S5,2022, ln. 130-132)

-Dormitory rooms (S1,2022, ln. 102-103; S6, 2022, ln. 114)

Students in focus groups were identified following informal learning spaces that they use for **collaborative informal learning activities**.

-Meeting rooms and seminar rooms in faculty buildings (S3, 2022, ln.42-46; S5,2022, ln. 125-128

-Faculty canteens (S1,2022, ln. 99; S5,2022, ln. 132-140 S4, 2022, 145)

-Study halls in dormitories (S1,2022, ln. 110-112; S9, 2022; In. 79-81)

Most of the learning spaces available on the campus were identified for **both focused and collaborative informal learning activities**. These spaces include various environments, such as indoor and outdoor areas. Following spaces were frequently used by the students f

-Seminar rooms, foyers and classes in faculty buildings (S3, 2022, ln.49-50; S6, 2022, ln. 120; S4, 2022, 144 S2, 2022, ln. 54-56)-Cafés in social facilities (S3, 2022, ln.38; S2, 2022, ln.51-53; S4, 2022, 147; S8, 2022, In. 86)

-Outdoor spaces and green areas (S3, 2022, ln.67-72; S1,2022, ln. 89-91; S4, 2022, 145-147; s8, 2022, In.52; S10, 2022, In.77)

Please find images of the identified learning spaces (ILS) in Appendix B

2. Existing inequalities and barriers related to informal or non-conventional learning spaces, including access to technical equipment, internet and physical-spatial environments conducive to learning and well-being.

The satisfaction levels of the interviewed students indicate that there are various study areas on the campus that are highly satisfying, particularly the open spaces. However, in terms of accessibility and usability, various barriers and challenges, primarily related to technological infrastructure, ergonomics, and the large student population, were expressed. The following sections discuss student opinions regarding the availability and accessibility of informal learning spaces on campus.

2.1. Availability of informal learning places

Considering the availability of informal learning spaces, students have mentioned a wide range of different areas both outdoor and indoor spaces in the campus. Having a large campus and various indoor and outdoor study areas are identified as strengths by the students. In other words, it can be said that there are numerous diverse areas located near or within different faculties, and the number of informal learning spaces is sufficient. However, the problem lies not in the quantity of available spaces but in the quality. Students frequently expressed problems including technological infrastructure, environmental factors, quality and the number of the furniture. Following titles summarize these barriers.

a) Technological infrastructure (plugs, computers, wi-fi)

The barriers identified by students mostly related to technological infrastructure, such as plugs, computers, and Wi-Fi. Limited and broken power outlets in the library (S 2, 2022, ln. 238; S7, 2022, In. 257-258), in study & reading rooms (S3, 2022, ln. 230), in dormitory study rooms (S9, 2022, In. 304), and also in cafes (S10, 2022, In. 312) was a major concern mentioned by students. The limited availability of shared computers or their malfunctioning has also been expressed as a technological infrastructure deficiency (S3, 2022, ln. 293-294).

The insufficient Wi-Fi coverage in certain classrooms, inconsistent speed across different areas, such as different floors and weak connectivity in green spaces have been commonly identified as another barrier (S3, 2022, ln. 550-553; S2, 2022, ln. 555; S5, 2022, ln. 578-579; S10, 2022, ln. 319). Moreover, the initial process of setting up an eduroam connection has been expressed as difficult and complicated (S2, 2022, ln. 555; S4, 2022, ln. 556). In the dormitories, where the internet provided is not eduroam but provided by the Ministry of Youth and Sports, there are limitations in terms of both data usage quotas and speed (S6, 2022, ln. 574-575). One of the students mentioned the problems of internet access and speed is as a common problem of the country as follows:

"…. the internet speed is insufficient for students studying software engineering or those who are engaged in advanced-level work. I think it is generally inadequate in Turkey. No matter what is done, our internet is not very fast. Therefore, problems may arise, especially when it comes to downloading files and similar tasks" (S3, 2022, ln. 588-591).

Another student expressed that both the quality and speed of internet in cafés in the campus are excellent, and the availability of free internet access is also appreciated. This provides a favourable environment for students to study, work, or access online resources while enjoying a café setting (S2, 2022, ln. 582-587).

b) Environmental factors (occupancy, noise-level, climatic conditions)

The major barrier to availability is the high demand for the ILSs, particularly during exam periods, when a significant number of students require access to them. For instance, despite the library being open 24/7, it is consistently crowded, and the insufficiency of tables and chairs is considered a significant barrier by almost all students. Shared study areas in dormitories (S5, 2022, ln. 311-312; S4, 2022, ln. 314) and classrooms (S3, 2022, ln. 305) are commonly expressed as overcrowded as well. They also stated that there is a need for collaborative learning spaces in the library. Moreover, conservatory students need areas where they practice with their instruments out loud.

In the canteens during lunch breaks, the smell of food and smoke, excessive crowd, and noise have been identified as barriers (S5,2022, ln. 268-276). However, despite these challenges, it has been noted that the canteens are still preferred by students during certain hours due to the availability of suitable tables and chairs, as well as the presence of outdoor seating options for group work (S5, 2022, 136-140).

For the outdoor spaces, rainy weather during winter, and for both indoor and outdoor spaces, heat during summer have been mentioned as barriers. The lack of shade outdoor areas (S4, 2022, ln. 323) and the absence of air conditioning in some dorm rooms (S6, 2022, ln. 325) has been identified as a barrier. The ventilation in the library, particularly during the summer, has also been expressed as insufficient. This can create discomfort for students studying or spending time in the library, especially when temperatures rise (S3, 2022, ln. 318-321).

c) Ambience (conditions promoting well-being)

The suitability and ergonomics of the tables and chairs have been identified as barriers to creating conducive conditions for well-being. It has been mentioned that the tables are small, making it difficult to accommodate both books and computers simultaneously. This issue has

been raised regarding the tables and desks in the foyers of the Faculty of Education (S3, 2022, ln. 84-85), the main library (S2, 2022, ln. 238-240), and dorm rooms (S6, 2022, ln 257). Students also mentioned that they need to put their belongings to a place in the library beforehand to have a place for studying during the evening and nighttime.

The overall overcrowding of the campus, which results in tightly packed seating arrangements in many study areas, has been identified as a privacy barrier. The large number of students and limited space often lead to tables and chairs being placed too closely together, which can impede privacy and concentration during study sessions. This lack of privacy has been recognized as a hindrance to focused studying, prompting students to prefer the comfort of their home environment, dorm rooms, or private tutoring centres. (S4, 2022, ln. 202-205).

The safety, cleaning and air-condition problems in the dormitory study rooms are also mentioned as important conditions that are affecting students' well-being by the participants (S9, 2022, In. 555-590; S11, 2022, In. 592; S9, 2022, In.596; S8, 2022, In. 603-607).

2.2. Accessibility of informal learning spaces

a) Restricted opening hours

The most common issue raised regarding accessibility is the opening hours of study and reading rooms within the faculty buildings. These places are open at 8.30 a.m. and close at 5 p.m. (S3, 2022, ln. 290-291). There is no issue in this regard as the library is open 24/7.

b) Controlled access

In the Faculty of Education, classrooms are frequently utilized as informal learning spaces. As the classrooms are unlocked, there is no issue regarding access. However, the absence of a posted schedule on the doors indicating their availability has been identified as an accessibility barrier by students (S3, 2022, ln. 291-293).

The lack of accessibility to specific classrooms in Faculty of Education, such as the Mathematics Classroom can be considered an accessibility barrier. This limitation prevents students from accessing the resources and materials they need for their studies (S4, 2022, ln. 430-440). Similarly, in the Faculty of Engineering, classrooms and laboratories that contain specialized equipment are locked due to the security reasons (S5, 2022, ln. 295-296).

Moreover, the social area at the dormitories is very big and there are different places for different purposes, but they are not accessible on regular basis. Only the study room is open but other spaces are used on special occasions (S9, 2022, In. 289-295).

c) *Students with fewer opportunities*

One of the students has indicated that they need to pay for swimming pool after 5 p.m. in faculty of Sports Sciences. The student stated that it should be free of charge for sports science students to be able to practice outside of class hours (S1, 2022, ln. 302-304).

It has been expressed that international students face language barriers when accessing informal learning spaces. This language barrier can make it challenging for them to understand the instructions, guidelines, or resources available in these areas (S5, 2022, ln. 359-365).

The absence of yellow-marked paths for visually impaired students in dormitories and the poor maintenance of existing paths and signs in hallways or buildings, such as missing signs, have been expressed as barriers (S1, 2022, 375-378; S6, 2022, ln. 382).
One of the students stated that she had a problem on campus because she/he had a visual disability and she cannot know which stop is which in the ring buses (S11, 2022, In. 394-396). She/he also stated that mapping of the campus is not good, so it is hard for her to navigate (S11, 2022, In. 675-678).

Moreover, one student stated that when using outdoor spaces one of her/his friend with a physical disability faced a problem in open areas because he/she could not stand for a long time or had to walk by holding on. For them, attachment points can be made to some garden areas (S11, 2022, In. 423-427).

3. Students' perception on awareness and enabling strategies to deal with existing inequalities and barriers

3.1. Lecturers and/or university administrations' awareness and plans to reduce barriers

Students have expressed that they believe administrators are aware of existing inequalities and barriers but fail to take measures to correct them. According to the students, administrators do not consider these issues important. They have also stated that one reason for this situation could be related to the country's economic condition and budget constraints (S3, 2022, ln. 387-390).

The students have expressed that the administration and faculty members are not closely engaged with the students. They have stated that student opinions are not taken into consideration in a detailed manner and that student issues are not addressed (S2, 2022, ln. 393-395; S6, 2022, 402-405). Specifically, they mentioned that the views and difficulties of disabled students are only listened to on specific days, such as May 3rd, International Day of Persons with Disabilities, but they do not believe that significant steps are taken to solve various problems (S1, 2022, ln. 396-399).

3.2. Students' ideas and potential plans to break these barriers

A student has mentioned that they break the barriers with communicating with Deanship. Student representatives of each department gathered monthly to express the problems to the professors and administration, and then, they saw these concerns being addressed (S5, 2022, ln. 409-422). In other words, they stated that regular meetings between students and the dean's office, along with the written and verbal communication of student demands, have contributed to the resolution of these problems.

Due to high demand, some students suggested implement time limits in certain study spaces. For example, different study areas in the library could be designated for 1, 3, or 5 hours of usage. Students can make reservations for these spaces (S4, 2022, ln. 628-631). One other student stated that it would be nice to have information of free seats in the library before leaving the dormitory. An online tool that shows the free spaces may help (S7, 2022, In. 476-479).

Another student suggested increasing the number of study desks for collaborative learning. They proposed the idea of a centralized study building, where circular tables specifically designed for collaborative learning could be available (S4, 2022, ln. 710-711).
They also recommended putting creative and aesthetic materials outdoor spaces. For example, they suggested placing small poufs and tables on the green areas to create a more inviting and relaxed study environment (S3, 2022, ln. 714-717).

One of the students revealed that university administration should ask for the demands of the disadvantaged students on a regular basis to overcome the accessibility problems in the informal learning spaces (S11, 2022, In. 509-512). Another student suggested that the university administration should visit each faculty and talk to the students and others spontaneously or once every month or week (S7, 2022, In. 642-650). One of the students stated that there should be an audio warning system that tells the names of the stops on the buses. She/He also stated that the campus map should be improved (S11, 2022, In. 675-685). Students suggested web pages or applications that give information about the indoor and outdoor informal learning spaces in campus and also off campus, and how to access them (S7, 2022, In.696-708).

4. Hybrid and virtual learning activities

4.1. Knowledge/support to find informal learning spaces on campus

Students stated that there is no official source or application providing information about ILS at the university campus. Students rely on word-of-mouth information or discover these resources through trial and error. They have expressed that such an application would be highly beneficial in helping them access and navigate these resources effectively (S2, 677-680).

4.2. Enhancing interactions within the physical space

The students have mentioned that having a map on campus showing the locations of ILS (S1, 2022, ln. 603) and providing information about their operating hours (S3, 2022, ln. 612) would be beneficial. This would assist them in easily locating these spaces and accessing them at the appropriate times for their study needs.

The most frequently mentioned concern raised by the students is the integration of a system that shows the occupancy rate of study spaces on campus into the applications (S4, 2022, ln. 605; S1, 2022, 608; S3, 2022, ln. 612-614; S4, 2022, ln. 615). They expressed the need for a system that would allow them to easily check the availability of study spaces and plan their study accordingly. The students have expressed the necessity of an application that shows the real-time locations where students gather and study for specific courses. They believe that adding such an option to the application would facilitate collaborative work. This feature would enable students studying the same subjects to easily come together in the same location and foster teamwork (S2, 2022, ln. 606-607).

4.3. Overcoming barriers in collaborative hybrid groupwork by integrating services into the virtual space

It has been stated in the focus groups that students frequently engage in group work in online environments to cope with obstacles and engage in learning activities regardless of time and place. Accordingly, students use:

- Zoom, Google Meet and Teams for ***synchronous group work*** (S3, 2022, ln. 452-459; S5, 2022, ln. 501; S1, 2022, ln. 486-491; S4, 2022, ln. 504-509; S6, 2022, 511-513; s11,2022, In764-767).
- WhatsApp for communication and scheduling online meetings (S3, 2022, ln. 476-478)
- WhatsApp, Telegram, Teams, and Google Drive for ***asynchronous group work***, such as, file sharing (S2, 2022, 480-481; S3, 2022, ln. 482-484; S1, 2022, ln. 493).
- Youtube and Udemy for ***asynchronous group work***, such as individual preparation before collaborative learning activities. Counselling students in the focus group have mentioned that they watch sample counselling sessions from YouTube with their groupmates. This allows them to observe and learn from real-life examples of psychological counselling sessions for the Counselling Skills and Techniques course (S3, 2022, 519-524; S2, 2022, ln. 525-528).

The students have mentioned that online platforms, such as Zoom and Teams, remove the time and location constraints and allows them to meet on these platforms for group work at desired hours (S4, 2022, ln. 504-509). Another advantage of these applications was mentioned as their contribution to personalized learning. Students can access the course files or recordings at any time when they feel prepared and motivated. Thus, they can enhance their learning experience (S3, 2022, ln. 452-459; S2, 2022, ln. 462-465).

Another student mentioned that not only students from Akdeniz University but also students from other universities in the country upload documents in Telegram groups. This allows them to create a large learning network where they can share knowledge and resources across relevant departments and institutions (S3, 2022, ln. 482-484).

In addition, they especially emphasized that applications for synchronous group work is an important tool in reducing the inequalities and barriers that disabled students face in their learning experiences (S1, 2022, ln. 495-496).

Lecturer focus groups/interviews

Implementation

The focus group meetings with lecturers were conducted face-to-face on November 15th, 2022, from 2 p.m. to 4:30 p.m., in the Faculty of Education Meeting Room. The group consisted of seven lecturers representing five different faculties of Akdeniz University. Among the participants, there was two professors, four associate professors, and one assistant professor. Table 14 provides a summary of the information on the lecturer focus group.

Lecturers	Campus	Faculty	Position
Lecturer 1 (L1)	AKD	1	Professor
Lecturer 2 (L2)	AKD	5	Associate Professor
Lecturer 3 (L3)	AKD	2	Associate Professor
Lecturer 4 (L4)	AKD	3	Associate Professor
Lecturer 5 (L5)	AKD	4	Associate Professor
Lecturer 6 (L6)	AKD	4	Assistant Professor
Lecturer 7 (L7)	AKD	2	Professor

Table 14. Overview of focus group participants – lecturers (self-created, 2022).

Results

The subsequent section presents the findings and main takeaways obtained from the focus group with lecturers, organized in the same sequence as the four interview themes explored in the previous analysis of the student focus group.

1. **Impact of the used informal or non-conventional learning spaces on lecturers' knowledge acquisition**

Figure 13 provide a summary of the insights gained from the lecturers regarding the usage of Information Learning Spaces (ILS) on Akdeniz University campus. **The orange dots indicate ILSs used by students for both focused and collaborative learning activitie**s, while **the green dots** represent ILSs known to be used by students **for focused learning activities**. On the other hand, **blue dots represent ILSs for collaborative informal learning activities.** Additionally, **the purple dots** represent ILS where lecturers engage with students through meetings, beyond formal lectures and seminars.

Figure 11. Akdeniz University campus map of informal learning spaces known and used by lecturers (adapted, based on focus groups with lecturers, 2022).

Accordingly, the lecturers participated in the focus group have listed the informal learning spaces frequently used by students across the campus, starting with their own faculties. These spaces, as observed by the lecturers, are presented in Table 15.

Building	Label	Notes / Description	Indoor	Outdoor	Off campus	Focused learning	Collaborative Learning	Reference
Olbia Culture Center	Cafes, Amphitheatre, Conference halls	It is suitable for different learning activities	X	X		X	X	L1, 2022, ln. 65-69; L3, 2022, ln. 108-109, L4, 2022, ln. 357-358
Faculty of Architecture	Canteen	It has shaded areas	X	X		X	X	L1, 2022, ln. 70-73
Faculty of Architecture	Foyer	It is used exhibitions of	X	X			X	L1, 2022, ln. 79-85

		work and group collaboration						
Faculty of Architecture	Conference Hall		X				X	L1, 2022, 324
Outdoor yard	Green areas &benches	Near Faculty of Education, Faculty of Letters, Faculty of Architecture, Faculty of Engineering, Faculty of Theology, School of Foreign Languages, near rectorate building, Botanical Park,		X		X	X	L1, 2022, ln. 73-75; L2, 2022, ln. 96-99; L3, 2022, 106-107; L4, 2022, ln. 118-119; L5, 2022, ln. 158; L6, 2022, 289-290 & 294-295 & 302-303
Faculty of Applied Sciences	Canteen		X	X		X	X	L2, 2022, ln. 88-94
Faculty of Education	Classrooms &Study Halls		X			X	X	L3, 2022, ln. 105-106
Faculty of Education	Individual & Group Counselling Rooms	For only counselling students use Group counselling rooms: Limited access requires permission	X			X	X	L3, 2022, ln.347-348
Ceypark	Cafes						X	L3, 2022, ln. 107; l5, 2022, ln. 159; L6, 2022, ln. 291
Main library			X			X		L3,2022, ln.107-108
Faculty of Theology	Canteen		X				X	L4, 2022, ln. 117-118
Özgecan Aslan Youth Office			X			X	X	L4, 2022, ln. 121-122
Lecturers' Offices in Conservatory Building		Limited access requires permission	X			X		L4, 2022, ln. 151-155
Faculty of Letters	Classrooms & Reading rooms & study halls		X			X	X	L5, 2022, ln. 161-162

Faculty of Letters	Psychology Laboratories	Limited access requires permission	X			X		L5, 2022, 192-193; L6,2022, ln. 197-199
Faculty of Letters	Offices		X			X		L6, 2022, 307-309
Dormitories	Rooms		X			X		L6, 2022, ln. 293-294
Faculty of Medicine	Canteen	It is open 24/7	X			X	X	L6, 2022, 298-299
Faculty of Medicine	Classrooms		X			X		L6, 2022, 305
Antalya Chamber of Architects	Halls & Conference Halls	It is used exhibitions of work and group collaboration			X		X	L1, 2022, 334-335

Table 15. Important informal learning spaces at Akdeniz University as identified by lecturers

As seen in Table 15, lecturers identified following places where they observed students use frequently for **focused informal learning activities:**

-Main library (L3,2022, ln.107-108)

- Lecturers' Offices in Conservatory Building (L4, 2022, ln. 151-155)

-Psychology Laboratories in Faculty of Literature (L5, 2022, 192-193; L6,2022, ln. 197-199)

-Offices in faculty of Literature (L6, 2022, 307-309)

-Dormitory rooms (L6, 2022, 298-299)

-Classrooms in Faculty of Medicine (L6, 2022, 305)

-Individual Counselling rooms in faculty of education (L3, 2022, ln.347-348)

Students in focus groups were identified following informal learning spaces that they use for **collaborative informal learning activities**.

-Conference Hall and Foyer in Faculty of Architecture (S3, 2022, ln.42-46; S5,2022, ln. 125-128

- Cafés in Ceypark (L3, 2022, ln. 107; l5, 2022, ln. 159; L6, 2022, ln. 291)

- Group Counselling Rooms in Faculty of education (L3, 2022, ln.347-348)

An off-campus space, Antalya Chamber of Architects, also identified as an ILS for collaborative learning activities (L1, 2022, 334-335)

Most of the learning spaces available on the campus were identified by the lecturers as **both focused and collaborative informal learning activities**. These spaces include various environments, such as indoor and outdoor areas.

-Olbia Culture Center (L3, 2022, ln. 108-109, L4, 2022, ln. 357-358)

"Olbia Cultural Centre is actually a social and cultural centre. In some areas of Olbia, students can relax and have fun, while in other areas, they can work together as a

group. It provides opportunities for both group work and individual study for students who prefer to work alone. There are small things like benches and platforms where students can sit and work individually. I have observed students working individually on those steps" (L1, 2022, ln. 65-69).

-Faculty Canteens (L1, 2022, ln. 70-73; L2, 2022, ln. 88-94; L4, 2022, ln. 117-118; L6, 2022, 298-299)

-Outdoor spaces and green areas across the campus (L1, 2022, ln. 73-75; L2, 2022, ln. 96-99; L3, 2022, 106-107; L4, 2022, ln. 118-119; L5, 2022, ln. 158; L6, 2022, 289-290 & 294-295 & 302-303)

- Classrooms, reading rooms and study halls in Faculties (L3, 2022, ln. 105-106; L5, 2022, ln. 161-162)

Additionally, lecturers identified following spaces used for **informal interactions** between lecturers and students:

Foyers, laboratories, study halls, lecturers' offices, classrooms in faculty of buildings as well as green areas (L1, 2022, ln. 83-85; L6, 2022, ln. 437),

*"I hold weekly laboratory meetings with my students. For this purpose, we use classrooms and our laboratory. In addition to that, when we need to gather as a group, if the weather is suitable, we meet outside with the students, sitting on the grass to create a more informal atmosphere and spend time with the students" (*L5, 2022, ln. 431-435).

Please find images of the identified learning spaces (ILS) in Appendix B

2. Existing inequalities and barriers related to informal or non-conventional learning spaces, including access to technical equipment, internet and physical-spatial environments conducive to learning and well-being

2.1. Availability of informal learning spaces

Similar to student-focused groups, it has been noted in the lecturer-focused group that there are numerous spaces across the campus suitable for different learning activities. In this regard, outdoor areas have emerged as strong assets. However, it has been recognized that there are many areas in all spaces that need improvement and correction. For instance, one lecturer emphasised the improving the quantity of the furniture outdoor yards as follows:

"In the backyard of the Faculty of Engineering, there are 5-6 benches and tables available in the green areas, and they are consistently occupied by students. Especially during exam periods, I often see students using those benches. In fact, I sometimes think that it would be even better if they added more benches and transformed that entire area into an ILS with seats" (L2, 2022, 96-101).

Additionally, it has been mentioned that there are very few or no ILSs that bring students and faculty together (L6, 2022, ln. 728-730; L1, 2022, 740-743). Accordingly, it has been emphasized that Information Learning Spaces (ILS) should be designed specifically to cater to the diverse needs of different faculties.

a. Differences among faculties

Each faculty's unique needs in designing these spaces have been emphasized in lecturers' focus group. Beyond theoretical classes, each faculty has different practicum courses, and therefore requires appropriate spaces that are suitable for specific activities of the faculties. Due to the current state of the conservatory building (it is under construction), the conservatory students are currently taking classes in different faculty buildings. However, other faculty buildings may not be suitable for conservatory students, making it challenging for them to find appropriate study spaces. For example, it is important to have quiet areas for individual study in general, but for conservatory students who need to rehearsal, spaces should be designed where they can work out loud and conduct rehearsals. One lecturer expressed this need as follows:

"…. Theatre Department students engage in mutual text work and movement exercises. Therefore, they require spaces where they can conduct rehearsals.... Students can work in areas that have proper ventilation, insulation, and are designed to accommodate two or three people without disturbing others. These spaces should be suitable for collaborative work" (L4, 2022, ln. 115-116 & 134-136).

b. Infrastructure and ambience

One of the common opinions that emerge during lecturer focus group is that there are many suitable venues throughout the campus, but most of them are not effectively used because of lack of infrastructure, lack of seating areas, insufficient number of seating, or furniture that do not meet the standards (e.g., desk sizes does not meet the standards for architecture students), insufficient electrical outlets or Wi-Fi (L5, 2022, ln. 177; L2, 2022, ln. 178-180; L1, 2022, ln. 235-240; L3, 2022, 350-354). Many outdoor spaces cannot be utilized in different weather conditions due to the lack of shading or rain protection.

Technical infrastructure is indeed needed for every faculty building, such as soundproof rooms, auditoriums with sound systems, small spaces with stage and set materials, and backstage areas for conservatory students, rooms equipped with cameras, audio recording systems, and one-way mirrors for counselling students could be provided (L2, 2022, ln. 361-368 & 377-380; L3, 2022, ln. 347-348). There is also a need for a large and fully equipped conference hall with proper technical infrastructure (L3, 2022, ln. 386-390; L1, 2022, ln. 391-393). Moreover, comfortable seating, suitable tables, and ergonomic chairs should be designed in both individual and collaborative learning spaces to improve students' well-being.

2.2. Accessibility of informal learning spaces

a. Registration and controlled access

It has been noted that classrooms are open in many faculties and students can use them as ILSs. However, due to security reasons, access to laboratories, especially those containing technical equipment, is controlled. However, in many faculties, students are also required to use these laboratories for informal learning activities. At this point, there is a shortage of human resources. There are only a few part-time student employees in the university. These students are mostly assigned to student affairs or library duties. However, if there were students constantly assigned to the laboratories, at least some laboratories, such as computer labs, could made them more accessible to students.

"The students take the key from me for using the labs, but it doesn't seem to be very effective. Students want a place where they can stay and study throughout the day. Because once they start using the labs, they need to continue with it, which might take up their hours. Therefore, having students constantly assigned to the labs could increase their usage" (L2, 2022, ln. 221-224).

The library is open 24/7, but the need for other spaces which are open for longer hours has been emphasized. Many students, especially those involved in project-based studies, require spaces can be used for long hours during the day and at night. Therefore, it is important for certain study environments to be accessible not only during regular working hours but also during late hours. However, building security emerges as a fundamental problem in this regard (L1, 2022, ln. 232-235).

a. Accessibility of the campus for SWFO

In lecturer focus group it was expressed that while new faculty buildings have the necessary features for accessibility (L2, 2022, ln. 454-457), there are problems with older faculty buildings as they were not constructed according to these standards. For example, some older buildings lack elevators or accessible restrooms (L5, 2022, ln. 517). Students have difficulties in accessing ILSs for focus learning or canteens (L1, 2022, 458-463).

It is unfortunate that wheelchair-bound students in dormitories can only access the ground floor, which limits their ability to socialize on upper floors or utilize social areas and study rooms located on higher floors. This creates a barrier for their full participation and engagement in the dormitory community and use of ILSs (L2, 2022, ln. 493-500).

3. Lecturers' awareness and enabling strategies to deal with existing inequalities and barriers

3.1. Lecturers and/or university administrations' awareness and plans to reduce barriers

It can be said that the lecturers who participate in the focus group have a high level of awareness regarding the existing barriers, based on their own observations and their

communication with the students. In fact, they expressed that the university administration is also aware of these barriers and the areas that need improvement, and they believe that efforts are being made to address these issues. However, because of inadequate planning, structural issues, rapid growth of the university, high student numbers, and bureaucratic obstacles can be counted as challenges (L7, 2022, ln. 794-799; L3, 812-814; L1, 2022, ln. 827-839. Due to limitations arising from the government's tender system, budget constraints, and cost-related limitations, progress is slow (L1, 2022, ln. 882-894). It has also been noted that, due to budget constraints, important needs are not given priority because the budget is allocated to other more critical needs (L1, 2022, ln. 894; L3, 2022, ln. 896-899).

3.2. Lecturers' plans to break these barriers

Lecturers have noted that breaking the barriers can be achieved through enhancing the awareness and understanding of existing barriers. Awareness can be achieved through the communication of faculty, administration and students (L1, 2022, ln. 715-717). Lecturers also suggested seeking input from architects who have expertise in exploring learning environments and how they can be utilized effectively (L6,2022, ln. 718-719).

> *"…. collaborating with architecture departments and study the relationship between human behaviour and space is important to improve ILSs. Therefore, to improve well-being ILSs and related areas such as parking lots, entrances, exits, green areas and communal gathering spaces etc. should be considered together"* (L1, 2022, ln. 720-721).

Lecturers echoed similar suggestion emerged in student focus groups: Due to the large campus area, creating ILSs near each faculty or shared by multiple faculties that are suitable for both focused and collaborative work (L6, 2022, ln. 314-319). Additionally, it is suggested to create small multipurpose rooms that can be used according to the unique needs of each department (L4, 2022, 365-368; L6, 2022, ln. 444).

The importance of improving and utilizing existing buildings rather than constructing new ones was emphasized. One lecturer expressed their opinion as follows:

> *"… we are spending a significant operational cost. We heat it, cool it, clean it, and maintain it. These are all very expensive. Therefore, we must use it efficiently. We are not a country so rich that we can afford to build and leave it empty. Efficient utilization must be ensured without a doubt." (L1, 2022, ln. 947-950).*

Another lecturer has suggested that due to the large campus area, each faculty should have its own faculty library.

> *"A library could be established within the faculty. The dean also expressed a desire for this, but currently, there is no library available. As a result, students are using whatever spaces they can find within the faculty"* (L5, 2022, ln. 172-174).

Additionally, it has been suggested to make certain outdoor areas protected from the sun and rain for efficient use in different weather conditions. For example, placing shading structures in the amphitheatre located in Olbia has been proposed (L1, 2022, ln. 404-407).

The suggestions made in the focus group to break the barriers and enhance the functionality, comfort, and collaborative atmosphere in the campus can be summarized as follows:

- Create shaded areas considering climatic conditions.

- Design ecological and ergonomic spaces with appropriate furniture, technical infrastructure.
- Convert underutilized areas into student-friendly spaces through proper planning and design.
- Improving existing spaces rather than constructing new ones
- Seek input from architects specialized in designing effective learning environments.
- Encourage the participation of professors and students in discussions and design processes to shape a way of life in the campus.
- Design spaces that facilitate interaction and engagement between professors and students, fostering a sense of community.

4. Hybrid and virtual learning activities

4.1. Opinions on overcoming barriers by integrating services in the virtual space (apps, etc.)

It has been stated that services and apps used in hybrid and remote learning activities have several advantages and are useful overcoming the barriers. In terms of advantages, lecturer in the focus group have indicated that they frequently utilize various applications in their teaching processes and in that way, they can sustain learning activities regardless of time and location. Hybrid learning activities include communicating students and providing feedback their projects (L1, 2022, ln. 543-548); sharing information and teaching (L2,2022, ln. 558-563; L3, 2022, ln. 609); inviting lecturers abroad or different universities to give seminars (L5, 2022, ln. 600-607; L6, 2022, 610-611), carrying out projects with the students from different locations (L5, 2022, ln. 631-637).

However, there are also some constraints and disadvantages of hybrid learning activities. It has been emphasized that hybrid learning may not be suitable for certain courses, such as counselling and psychology, where the observation of non-verbal cues like body language and eye contact is crucial in practical sessions (L6, 2022, ln. 617-624). Likewise, it is mentioned that hybrid learning may not be suitable for evaluating musical performance of conservatory students because it may not capture the student's instrument positioning accurately, hinder the ability to demonstrate correct posture, or limit the visibility of the student on the screen while playing (L2, 2022, ln. 571-577).

Another disadvantage of hybrid learning is the barriers faced by students with limited access to technology or outdated devices. For example, students may encounter difficulties if they have an old model phone or lack access to a computer. These challenges can hinder their participation and engagement in the learning process (L3, 2022, ln. 587-590).

4.2. Opinions on how an online platform could enhance interactions within a physical space

Lecturers mentioned that an online platform would greatly enhanced interactions within a physical space. The general consensus was that such a platform could effectively expand students' understanding of different areas in which they can study or interact with their peers.

In order to enhance students' and lecturers' understanding and assist them in locating existing ILSs with their key facilities (such as areas for group or focused learning activities, availability of food & beverage, etc.), a web application would be effective. Lecturers suggested that this

application would have features such as a rating system for the spaces (L6, 2022, ln. 759-760), indicating whether they are occupied or available (L7, 2022, ln. 763), displaying their opening hours (L1, 2022, ln. 769), identifying nearby options for food & beverage (L3, 2022, ln. 772) and indicating whether students from different disciplines can collaborate in those spaces (L1, 2022, 770-771).

Conclusion qualitative data analysis

Bringing together the outcomes of the focus groups with students and lecturers, it is possible to derive the following findings regarding the key issues, concerns, and challenges pertaining to the investigated topics.

1. **Impact of the used informal learning spaces on students' knowledge acquisition and satisfaction with support and the learning environment**

In the focus groups, the students identified 24, and lecturers identified 20 informal learning spaces. The majority of the spaces identified by the lecturers and students are common. Therefore, it can be said that they have similar level of knowledge about these spaces. Identified ILSs in both groups scattered across various locations throughout the campus. These locations include shared areas accessible to all students, such as the library, green areas, and dormitories, as well as the faculty buildings. Both the lecturers and students tend have more knowledge and familiarity with the spaces near their faculties and their immediate surroundings. Thus, it can be said that both groups have less knowledge about the presence and usage of ILSs across the campus and in different faculty buildings, outside of their own faculties and immediate surroundings.

2. **Existing inequalities and barriers related to informal learning spaces, including access to tangible and intangible technical equipment (i.e., sockets, WIFI) as well as to physical-spatial environments conducive to learning and well-being**

The findings of both focus groups highlight similar themes regarding the existence of satisfying study areas on campus, the presence of barriers affecting accessibility and usability, and the need for improvements in infrastructure, accessibility, and environmental conditions. Both groups identify technological infrastructure deficiencies, such as limited power outlets and Wi-Fi connectivity issues, as significant concerns impacting the usability of study areas. Environmental factors like overcrowding, noise levels, and weather conditions are recognized as additional barriers in both groups. Challenges related to canteens, including smell, noise, and crowdedness, are noted in student focus groups, while ergonomics and the lack of suitable furniture are identified in lecturers' focus group.

Limited opening hours of study rooms and locked classrooms and laboratories are mentioned as accessibility barriers in both groups. The absence of marked paths and inadequate signage are highlighted as challenges for visually impaired students.

The lecturer-focused group specifically emphasizes the need for ILSs that cater to the unique needs of different faculties and address deficiencies in technical infrastructure and facilities. The lecturers' group also highlights security concerns, accessibility issues in older buildings, and limitations faced by wheelchair-bound students in accessing upper floors in dormitories.

Overall, the findings from both perspectives converge on the importance of addressing various barriers and making necessary improvements to create inclusive and conducive learning environments on campus.

3. Students' and lecturers' awareness and enabling strategies to deal with existing inequalities and barriers

The findings from both students and lecturers focus groups highlight various barriers and challenges that affect the accessibility and usability of informal learning spaces on campus. Both groups stress the importance of addressing these issues and providing equal opportunities for all students.

In terms of awareness, students express their belief that administrators are aware of existing inequalities and barriers but fail to take effective measures to address them. They feel that their opinions and issues are not adequately considered. On the other hand, lecturers believe that efforts are being made by the administration, but challenges such as budget constraints, rapid growth, and bureaucratic obstacles slow down progress.

To overcome the identified barriers, both students and lecturers suggest various solutions. Common suggestions include improving infrastructure, enhancing awareness and understanding of existing barriers, involving experts in designing learning environments, creating ILSs near faculties, optimizing existing buildings, improving outdoor areas, and utilizing technology to provide information about available study spaces.

Overall, both students and lecturers emphasize the need for better communication, increased awareness, and improved accessibility in the learning environment. While students provide specific suggestions for managing demand, enhancing study spaces, and utilizing technology, lecturers focus on optimizing existing resources and improving the design and functionality of learning spaces. Despite their different perspectives, both groups aim to create a more inclusive and supportive learning environment by addressing the identified barriers.

4. Hybrid and virtual learning activities

Both groups highlight the importance of technology and applications in supporting learning activities and overcoming barriers. Students express the need for an official source or application that provides information about ILSs on the campus. They rely on word-of-mouth or trial and error, and an application would greatly assist them in accessing and navigating these spaces effectively. They also emphasize the integration of a system showing the occupancy rate of study spaces, enabling them to check availability and plan their study sessions accordingly. Additionally, students desire an application that displays real-time locations where students gather and study for specific courses, promoting collaboration and teamwork.

Lecturers also highlight the advantages of services and apps in hybrid and remote learning activities. These tools allow for communication, feedback, information sharing, and collaborative projects regardless of time and location. However, they also acknowledge constraints, such as limited technology access as a barrier for some students. Similarly, lecturers support developing a web application that provides information about ILS, including ratings, occupancy status, opening hours, nearby amenities, and interdisciplinary collaboration options.

Overall, both students and lecturers emphasize the importance of technology and applications in enhancing learning experiences, improving access to resources, and facilitating collaboration.

Summary: Key findings regarding user's perspective

The findings of the quantitative study suggest that Informal Learning Spaces (ILS) are important for promoting belongingness, interpersonal relationships, well-being, and campus satisfaction. The findings suggest that improving the quality of ILSs on campus can foster integration among students, promote interactions between them, and ultimately enhance their satisfaction and well-being.

However, although the availability of ILSs for different learning activities found sufficient by the lecturers and students in Akdeniz University, the need for improving these spaces' qualities including technological infrastructure, comfort and ambiance. Both students and lecturers emphasize the need to improve existing ILS by upgrading equipment, addressing basic needs such as food and beverage, and providing more collaborative and creative spaces based on different needs of faculties throughout the campus.

It is also crucial to increase the visibility of ILSs on campus and provide information about their availability and accessibility. Through expanding the offer and access to ILS, the quality of the campus can be improved, leading to greater integration among students, increased interactions, and higher satisfaction and well-being, as indicated by the quantitative results.

In summary, the study underscores the significance of ILS in promoting positive outcomes for students. Improving the provision and quality of ILS, along with addressing technological and environmental considerations, will contribute to a more supportive and effective learning environment.

References

Please use APA7 citation style for the references (https://apastyle.apa.org/instructional-aids/reference-examples.pdf)

Appendix A – Student survey

Item and scale analysis for every university

Akdeniz University Antalya

Name of Scale	Number of Items	Mean	Distri-bution	item-total-correlation	Reliability of scale (Cronbachs Alpha)
FL_Availability	3	ok	ok	ok	0,76
FL_Accessibility	4	ok	ok	Ok, except FL_AC_2 0,81, reliability without FL_AC_2 0,76, accepted	0,87
FL_Satisfaction	2	ok	ok	ok	0,82
CL_Availability	3	ok	ok	ok	0,84
CL_Accessibility	4	ok	ok	Ok, except CL_AC_2 0,85, reliability without CL_AC_2 0,83	0,89
CL_Satisfaction	2	ok	ok	ok	0,85
Satisfaction university campus	6	ok	ok	ok	0,87
Belongingness to your university	6	ok	ok	Not ok, B_U_2 -0,13, reliability without B_U_2 0,75	0,63 (6 item scale) 0,75 (5 item scale)
Satisfaction with interpersonal relationships	6	ok	ok	ok	0,88
Well-Being	5	ok	ok	Ok, except W_1 0,82 and W_3 0,83, accepted	0,89

HTW Berlin

Name of Scale	Number of Items	Mean	Distri-bution	item-total-correlation	Reliability of scale (Cronbachs Alpha)
FL_Availability	3	ok	ok	ok	0,81
FL_Accessibility	4	ok	ok	ok	0,85
FL_Satisfaction	2	ok	ok	ok	0,83
CL_Availability	3	ok	ok	Ok, except CL_AV_2 0,80, alpha without CL_AV_2 0,77, accepted	0,87
CL_Accessibility	4	ok	ok	Ok, except CL_AC_2 0,82, alpha without CL_AC_2 0,83	0,88
CL_Satisfaction	2	ok	ok	ok	0,85
Satisfaction university campus	6	ok	ok	ok	0,90
Belongingness to your university	6	ok	ok	Ok, except B_U_2 0,24, alpha without B_U_2 0,79	0,76 (6 item scale) 0,79 (5 item scale)
Satisfaction with interpersonal relationships	6	ok	ok	ok	0,89
Well-Being	5	ok	ok	ok	0,87

Mykolo Romerio universitetas – Vilnius

Name of Scale	Nr. Items	Mean	Distrib.	item-total-correlation	Reliability of scale (Cronbach)
FL_Availability	3	Ok, except FL_AV_1 and FL_AV_2 mean > 4,2	ok	Ok, except FL_AV_1 0,82, alpha without FL_AV_2 0,84 and FL_AV_2 0,84, alpha without FL_AV_2 0,84	O,90
FL_Accessibility	4	Ok, except FL_AC_1 and FL_AC_2 and FL_AC_1 and FL_AC_3 mean > 4,2	ok	Ok, except FL_AC_3 0,81, alpha without FL_AC_3 0,83	0,89
FL_Satisfaction	2	ok	ok	Not ok: FL_S_1 0,87,and FL_S_2 0,87	0,93
CL_Availability	3	Ok, except CL_AV_1 and CL_AV_2 mean > 4,2	Not ok	Ok, except CL_AV_1 0,81, alpha without FL_AV_1 0,84 and CL_AV_2 0,81, alpha without CL_AV_1 0,85 and	0,90
CL_Accessibility	4	Ok, except CL_AC_1 and CL_AC_2 mean > 4,2	Not ok	Not ok, CL_AC_1 0,86, alpha without item 0,94; CL_AC_2 0,91, alpha without item 0,93; CL_AC_3 0,90, alpha without item 0,93; CL_AC_4 0,87, alpha without item 0,94	0,95
CL_Satisfaction	2	Ok, except CL_Satisfaction_1 mean > 4,2	ok	Not ok, CL_Satisfaction_1 0,82,and CL_Satisfaction_2 0,82	0,83
Satisfaction university campus	6	ok	ok	Ok, except S_U_C_1 0,83, alpha without item 0,90 and except S_U_C_2 0,81, alpha without item 0,90 and except S_U_C_3 0,81, alpha without item 0,90 and except S_U_C_4 0,82, alpha without item 0,90	0,92
Belongingness to your university	6	ok	ok	Ok, except B_U_2 0,26, alpha without B_U_2 0,79	0,77 (6 item scale) 0,79 (5 item scale)
Satisfaction with interpersonal relationships	6	ok	ok	Ok	0,89
Well-Being	5	ok	ok	Ok, except W_3 0,82, accepted	0,92

Sapienza Università – Rome

Name of Scale	Number of Items	Mean	Distri-bution	item-total-correlation	Reliability of scale (Cronbachs Alpha)
FL_Availability	3	ok	ok	ok	0,81
FL_Accessibility	4	ok	ok	ok	0,82
FL_Satisfaction	2	ok	ok	ok	0,70
CL_Availability	3	ok	ok	Ok, except CL_AV_2 0,82, alpha without FL_AV_2 0,74	0,86
CL_Accessibility	4	ok	ok	ok	0,83
CL_Satisfaction	2	ok	ok	ok	0,76
Satisfaction university campus	6	ok	ok	ok	0,89
Belongingness to your university	6	ok	ok	Ok, except B_U_2 0,25, alpha without B_U_2 0,87	0,84
Satisfaction with interpersonal relationships	6	ok	Ok, except S_IR_2	ok	0,89
Well-Being	5	ok	ok	ok	0,87

Donau-Universität – Krems

Name of Scale	Number of Items	Mean	Distri-bution	item-total-correlation	Reliability of scale (Cronbachs Alpha)
FL_Availability	3	ok	ok	ok	0,78
FL_Accessibility	4	ok	ok	Ok, except FL_AC_1 0,82, alpha without FL_AC_2 0,88; and FL_AC_2 0,90, alpha without FL_AC_2 0,86	0,91
FL_Satisfaction	2	ok	ok	ok	0,82
CL_Availability	3	ok	ok	Ok, except CL_AV_1 0,85, alpha without CL_AV_2 0,85; and CL_AV_2 0,84, alpha without CL_AV_2 0,86	0,91
CL_Accessibility	4	ok	ok	Ok, except CL_AC_1 0,87, alpha without CL_AC_2 0,90; and CL_AC_2 0,870, alpha without CL_AC_2 0,70	0,96
CL_Satisfaction	2	ok	ok	Not ok, CL_Satisfaction_1 0,81,and CL_Satisfaction_2 0,81	0,89
Satisfaction university campus	6	ok	ok	ok	0,88
Belongingness to your university	6	ok	ok	Ok, except B_U_2 0,17, alpha without B_U_2 0,82	0,78
Satisfaction with interpersonal relationships	6	ok	ok	ok	0,89
Well-Being	5	ok	ok	Ok, except W_2 0,87 and W_3 0,85, accepted	0,90

Appendix B – Focus groups/interview

Interview guide – students:

Questions for the focus group interviews with students

Duration of focus groups: 100 minutes

In advance	**In advance, students get the campus maps, information regarding the project, and aspects which will be discussed in the focus groups** One/two weeks before the focus group: Contact the participants and ➢ Definition of informal learning places and focused/collaborative learning, ➢ ask them to fill out the survey (Word, PDF, paper&pencil) ➢ ask them to take pictures of their preferred learning places on campus ➢ send the Consent Form
Welcome, presentation of the project, agenda for the focus group	**15 min** Welcome! - Project NIILS (informal, inclusive learning environments) - Participants with fewer opportunities - Voluntariness, anonymity, confidentiality of all statements Short self-presentation of participants (warm-up) Name, study program, semester, where do I live, Show your picture(s) of your preferred learning places on campus
c) **used informal or non-conventional learning spaces** on students' knowledge acquisition: **Satisfaction** with the support and the learning environment **Map and Photos at MURAL-Board**	**Informal learning environments (20 min)** Definition "Informal learning spaces, […], are places of learning which can be selected independently by differentiated and self-organizing actors […]." (translated from Ninnemann & Jahnke, 2018, p.141) What places do you use for informal learning? ➢ a map of the campus and mapping of the important learning places ➢ Photos of preferred learning spaces on campus ➢ green cards for focused learning activities

	➢ blue cards for collaborative learning activities ***find the Link to the MURAL Board at the end of this document** In-depth questions (supported quantitatively, if necessary, or via point polling on the facilitation wall/flipchart): ➢ red dots for important places to learn ➢ Frequency of use in the last four weeks (favorite or most important place to learn?) ➢ Satisfaction with the most important/most frequently used learning location (strengths/weaknesses)
d) Existing **inequalities and barriers** related to informal or non-conventional learning spaces, including access to technical equipment and the internet as well as to physical-spatial environments conducive to learning and well-being	**In-depth inequalities and barriers (20 min)** ➢ Look at the most frequently / preferred learning places and tell us about the existing barriers: ➢ What are the barriers that you face in accessing informal learning places? o Possible answers: opening hours, registration /controlled access, physical barriers) ➢ Are there any obstacles regarding the availability of informal learning places? o Possible answers: not enough places, too crowded, environmental factors (light, temperature, acoustic, air), atmosphere/well-being, technological infrastructure (plugs, wifi) ➢ In the project, we also focus on students with "fewer opportunities". We have a broad perception of fewer opportunities, including a wide range of aspects: Physical impairment (e.g. mobility, visual, auditive); Chronic somatic disease (e.g. multiple sclerosis, cancer, diabetes); Mental disease (e.g. Burnout); Learning disabilities (e.g. Dyslexia, Dyscalculia, ADHD); Cultural differences (e.g. different cultural background to my university); Language (I do not study in my mother tongue.); Economic obstacles (e.g. financial barriers); Need to work for a living while studying; Family-related obstacles (e.g. responsible for children or nursing cases); Geographic obstacles (e.g. remote residence); Age: Think again, what are the barriers? What have you experienced yourselves?
e) Students' and lecturers' **awareness and enabling strategies** to deal with existing inequalities and barriers	**Awareness and existing strategies to decrease inequalities (15 min)** ➢ What do you think: Are your lecturers and the university administration know these barriers? ➢ Are you aware, or do you know if anything is being done to break down these barriers? ➢ What could be done in the future to reduce these barriers?

Hybrid and virtual learning activities	**Definition Hybrid Activities:** combining activities concerning space (physical and virtual spaces) and time (synchronous and asynchronous activities; see Reinmann, 2021, S. 4) *Examples:* students meet partly physical and remote to discuss a presentation (e.g. Zoom), and students work together on a document (e.g. file sharing). Students get course material after class via the university provided learning platform (e.g. Moodle) **Hybrid and virtual learning activities (20 min)** Hand out the following questions as a questionnaire or prepare them in the MURAL Board or on the moderation wall. In-depth questions: 1. Can integrating services in the virtual space (apps, etc.) help you overcome barriers you are facing when using the campus? 2. How could an online platform make interacting within a physical space easier? 3. If you are in a physical environment, how could an online platform make it easier to interact with other students or colleagues who are over distance?
Summary, open questions by the participants, acknow-ledgement, and farewell	**10 min**

Interview Guide – Lecturers:

Questions for the focus group interviews with lecturers

Duration of focus groups: 90 minutes

Welcome, presentation of the project, agenda for the focus group	**Welcome 15 min** – Welcome the participants – Collect the Consent Form – Start the audio transcription – Give information about the NIILS Project (informal inclusive learning environments) and the focus group – Participants are lecturers from different status groups (professor, lecturer, research associate) – Conditions are: Voluntariness, anonymity, confidentiality of all statements – Short self-presentation of participants (warm-up): name, faculty/study program, professional background, which campus working/teaching
c) **used informal or non-conventional learning spaces** on students' knowlegde acquisition: **Satisfaction** with the support and the learning environment **Campus Map on Mural or on moderation wall** (if lecturers do not know any spaces, you might use pictures)	**Informal learning environments (15 min)** – Which spaces for informal learning environments do you know? (Mark the spaces with dots on a Campus Map on MURAL or on a moderation wall) – How do the students use these spaces? Which spaces are used for focused learning activities? Which spaces are used for collaborative (community/group) learning activities? – What places do <u>you</u> use for meetings/interaction with students outside of courses and formal teaching situations? – Are you satisfied with the existing informal learning places for students? • If yes, why? Which characteristics are satisfactory? • If no, why not? What are the reasons?
d) Existing **inequalities and barriers** related to informal or non-conventional learning spaces, including access to technical equipment and internet as well as to physical-spatial environments	**In depth inequalities and barriers (15 min)** ➢ How do you evaluate the **access** to existing informal learning places on campus and in the surrounding? ➢ Are you aware about any barriers that students face in accessing the informal learning spaces you mentioned? ○ Examples: opening hours, registration /controlled access, physical barriers ➢ How do you evaluate the **availability** of existing informal learning places? ➢ Are there any obstacles regarding the availability of informal learning places?

conducive to learning and well-being PPT: List of categories for fewer opportunities	○ Examples: not enough places, too crowded, environmental factors (light, temperature, acoustic, air), atmosphere/well-being, technological infrastructure (plugs, wifi) – Now we want you to consider the **students with fewer opportunities** which can be identified as: ... (Read out/present categories out of the survey for students with "fewer opportunities") ○ Physical impairment (e.g. mobility, visual, auditive); Chronic somatic disease (e.g. multiple sclerosis, cancer, diabetes); Mental disease (e.g. Burnout); Learning disabilities (e.g. Dyslexia, Dyscalculia, ADHD); Cultural differences (e.g. different cultural background to my university); Language (I do not study in my mother tongue.); Economic obstacles (e.g. financial barriers); Need to work for living while studying; Family related obstacles (e.g. responsible for children or nursing cases); Geographic obstacles (e.g. remote residence); Age: – Are you aware if any of these groups of students face challenges in accessing and using the informal learning places? Have you observed any difficulties and barriers for these groups of students? If yes, what type of challenges?
e) Lecturers' **awareness and enabling strategies** to deal with existing inequalities and barriers	**Awareness and existing strategies to decrease inequalities (15 min)** – What do you think: Are these barriers known by your students and the university administration? – Are you aware or do you know if anything is being done to break down these barriers? – What could be done in the future to reduce these barriers? – Which strategies would decrease existing inequalities and barriers in accessing and using the informal learning spaces?
Hybrid and virtual learning activities PPT: List of in-depth-questions	**Definition Hybrid Activities:** combining activities with regard to space (physical and virtual spaces) and time (synchronous and asynchronous activities; see Reinmann, 2021, S. 4) *Examples:* students meet partly physical and remote discussing a presentation (e.g. Zoom), students work together on a document (e.g. file sharing). Students get course material after class via the university provided learning platform (e.g. Moodle) **Hybrid and virtual learning activities (15 min)**

	Hand out the following questions as a questionnaire or prepare them in the MURAL Board, on the moderation wall or in a power point presentation. In-depth questions: 4. Can the integration of services in the virtual space (apps, etc.) help students to overcome barriers they are facing when using the campus? 5. How could an online platform make interacting within a physical space easier? 6. If students are in a physical environment, how could an online platform make it easier for them to interact with other students who are over distance?
Summary, open questions by the participants, acknowledgement and farewell	**15 min**

Coding list

The table below lists the deductive codes/subcodes (additional codes/subcodes arose inductively).

Codes	**Subcodes**
Informal Learning Spaces on Campus	Focused Informal Learning Spaces

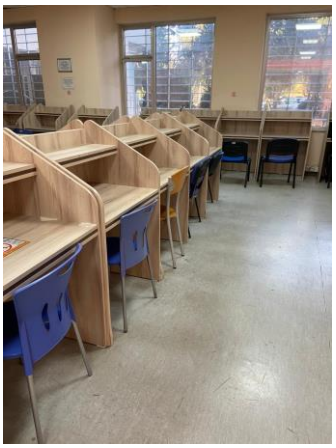
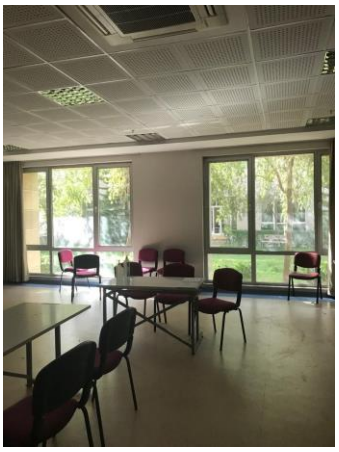
	Collaborative Informal Learning Spaces
	Informal Learning Spaces Used for Meetings
	Satisfaction
Barriers to Access	Opening Hours
	Registration/Controlled Access
	Physical Barriers
Barriers to Availability	Limited Availability/Crowded
	Atmosphere/Well-being
	Technological Infrastructure
Awareness of Barriers	Barriers to SWFO
Strategies to Mitigate Barriers	
Support through Virtual Spaces	Hybrid Groupwork

Photos of informal learning spaces

ILS identified in student focus groups

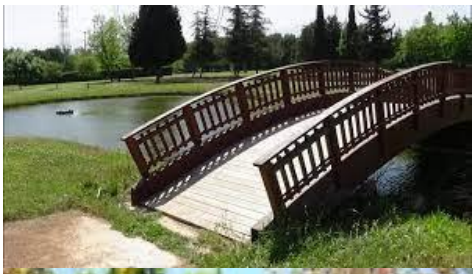
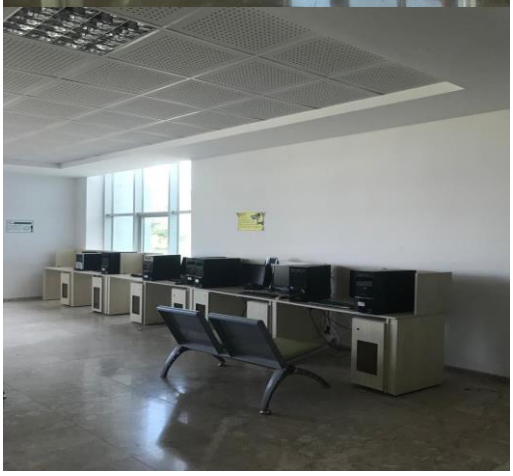
Unless otherwise indicated, photos were taken as part of the NIILS project.

Labels		**Photos of ILS**

Main Library	Main Library	 
Faculty of Education	Meeting rooms &study hall	 

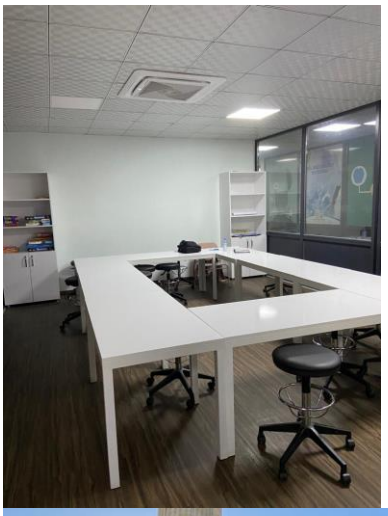
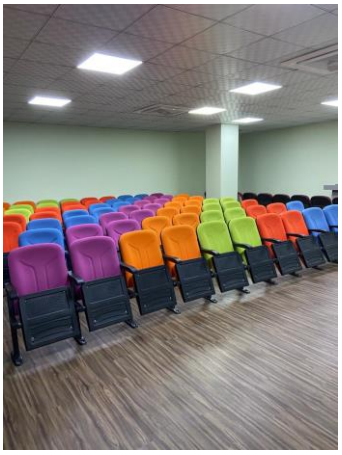
Faculty of Education	Reading room	
Faculty of Education	Seminar rooms & classes	 
Faculty of Education	Canteen	

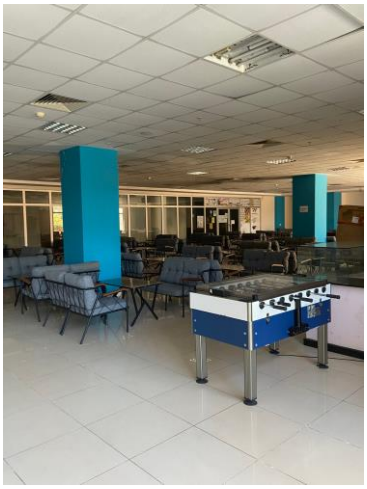
		 https://egitim.akdeniz.edu.tr/tr/galeri/egitim_fakultesinden_kareler-2034
Ceypark	Cafés	 http://galeri.akdeniz.edu.tr/kampustenkareler/
Faculty of Tourism	Botanical reading room	

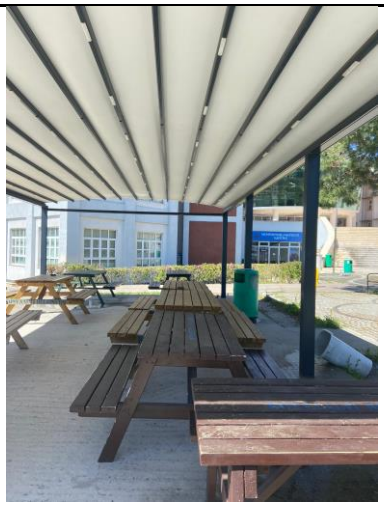
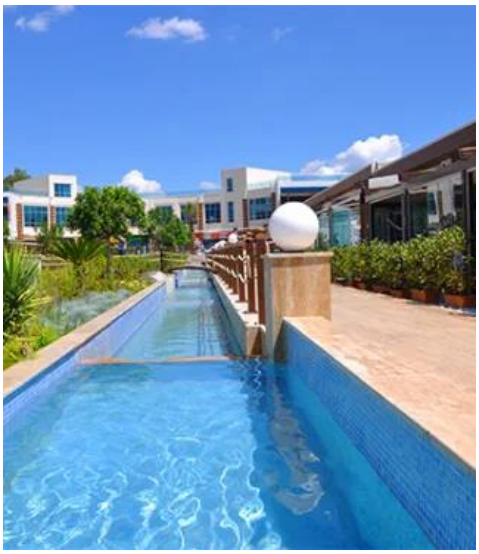
Outdoor yard	Green areas &benches	  http://galeri.akdeniz.edu.tr/kampustenkareler/ 
Faculty of Education	Foyers in each floor	 

		
Faculty of Sports Sciences	Tennis, Courts, Swimming Pool, Stadium, Mavi sports Hall	   http://galeri.akdeniz.edu.tr/kampustenkareler/
Faculty of Sports Sciences	Seminar rooms & classes	
Faculty of Sports Sciences	Faculty library & study rooms	
Faculty of Sports Sciences	Faculty Canteen	
Dormitories	Room	

Dormitories	Study halls	 

Özgecan Aslan Youth Office		  

Faculty of Engineering	Seminar rooms & classes	
Faculty of Engineering	Computer lab	
Faculty of Engineering	Faculty Canteen	

		
Olbia		 http://galeri.akdeniz.edu.tr/kampustenkareler/
Yakut	Cafes	 http://galeri.akdeniz.edu.tr/kampustenkareler/

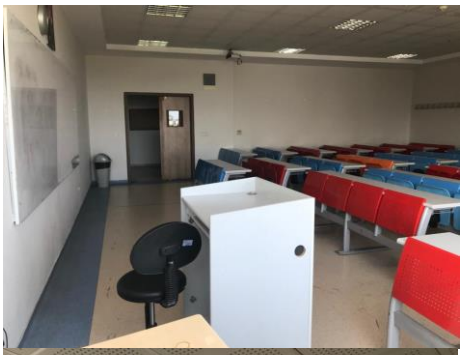
Cemil Meriç Library	Cafes	 https://www.kepez-bld.gov.tr/building_38_cemil-meric-kutuphanesi#gallery-4
	Municipality Library	

ILS identified in lecturer focus groups

Unless otherwise indicated, photos were taken as part of the NIILS project.

Labels		**Photos of ILS**

Olbia Culture Center	Cafes, Amphitheatre, Conference halls	 http://galeri.akdeniz.edu.tr/kampustenkareler/
Faculty of Architecture	Canteen	
Faculty of Architecture	Foyer	
Faculty of Architecture	Conference Hall	
Outdoor yard	Green areas &benches	
Faculty of Applied Sciences	Canteen	

Faculty of Education	Classrooms &Study Halls	 
Faculty of Education	Individual & Group Counselling Rooms	
Ceypark	Cafes	

		http://galeri.akdeniz.edu.tr/tanitimkatalogu/
Main library		
Faculty of Theology	Canteen	 https://ilahiyat.akdeniz.edu.tr/tr/fotograf_galerisi-6433
Özgecan Aslan Youth Office		
Lecturers' Offices in Conservatory Building		
Faculty of Letters	Classrooms & Reading rooms & study halls	 https://edebiyat.akdeniz.edu.tr/tr/galeri/edebiyat_fakultesi-2019
Faculty of Letters	Psychology Laboratories	

Faculty of Letters	Offices	
Dormitories	Rooms	
Faculty of Medicine	Canteen	 
Faculty of Medicine	Classrooms