# Needs and prioritisation map, T3.4

This activity combines the results of the previous activities within WP3 and aims to compile previous work to map:

- existing AI tools and approaches which are considered most appropriate in the HEI work environment.

- the practicalities and perceived effectiveness of implementing digital tools according to the insights gathered via Participatory Action Research activities (surveys).

In the participatory research the following sample from 57 universities all over Europe was involved.

Target	Number
Students	253
Teachers	82
Experts	46
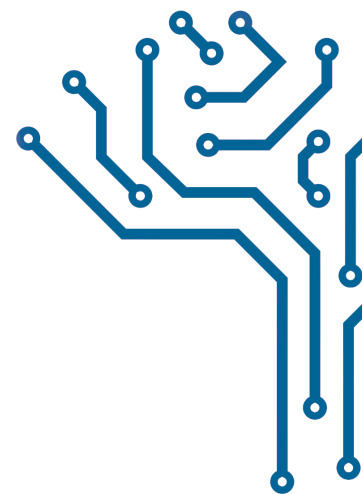
Experts

According to the responses of tutoring experts, tutoring services are reported to be heterogeneous in the different universities involved in the survey. The answers were clustered in 8 types of tutoring service:

1. **Academic and Subject-Specific Tutoring**
   - Subject or course-specific tutoring for focused academic support.
   - Assistance for first-year students and orientation for new enrollees.
   - Specialized tutoring sessions to aid in curriculum understanding and assignments.

2. **Career and Professional Guidance**
   - Career counseling and job/internship advising.
   - Mentorship for career paths, postgraduate options, and internships.
   - Specific tutoring for final thesis or capstone projects.

3. **Digital and Online Tutoring Support**
   - Online tutoring for distance education and digital competency training.
   - Virtual platforms (e.g., Moodle, Campus Virtual) with tools for remote learning, exams, and tutoring.

4. **Specialized Tutoring for International and Special Needs Students**
   - Support for international students, including Erasmus+ and exchange students.
   - Tutoring tailored for students with disabilities or special needs.

5. **Social, Cultural, and Soft Skills Development**
   - Non-formal activities and workshops to build soft skills and social competencies.
   - Programs that support cognitive development and personal growth.

6. **Individual and Group Tutoring Options**
   - Personalized, one-on-one tutoring and group sessions.
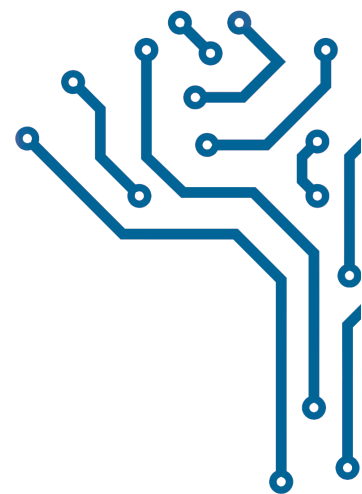
- Tailored support through individual meetings, in-person or remote.

7. **Introductory and Orientation Tutoring**
   - Guidance for new students, including orientation programs.
   - Introductory sessions to help students integrate into the university environment.

8. **Advisory and Counseling Services**
   - Vocational, psychological, and aptitude counseling.
   - Advisory services for academic progress and personal well-being.

When asked how tutoring services could be improved, experts reported several options which are grouped and summarised below. The points provide an organized summary for enhancing tutoring services based on the responses received by experts working in tutoring services.

1. **Increased Visibility and Promotion**
   - Promote tutoring services more among students and faculty.
   - Use multiple channels (e.g., social media, email, posters) to improve outreach.
   - Host more events, fairs, and orientation sessions throughout the academic year.
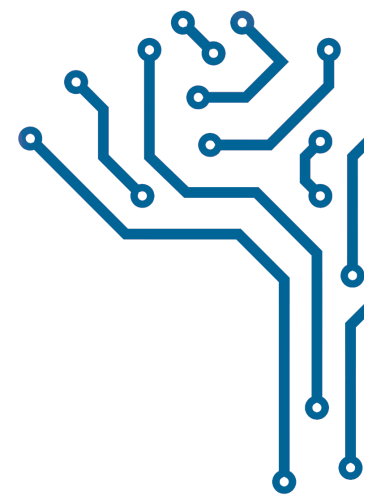
2. **Enhanced Communication**
   - Improve the clarity and availability of information about services.
   - Foster better communication between tutoring services, faculty, and students.
   - Consider more direct outreach to students who might need tutoring.

3. **Greater Personalization and Student Focus**
   - Offer more personalized services tailored to individual student needs.
   - Create a more comfortable and approachable environment to encourage students to seek help.
   - Develop specialized groups or sessions based on degree programs or academic needs.

4. **More In-Person and One-on-One Sessions**
   - Increase face-to-face and individualized tutoring options.
   - Set up pre-scheduled, in-person tutoring sessions for students seeking direct support.

5. **Digital and Technological Enhancements**
   - Establish a centralized online platform for resources and communication, similar to a repository.
   - Standardize digital tools for easier access to tutoring materials and updates.
   - Increase the availability of digital services, particularly for international students.
6. **Faculty and Administrative Support**
   - Increase the involvement of faculty in promoting and supporting tutoring.
   - Engage more student mentors in the tutoring process for peer-based support.
   - Consider hiring additional staff to better meet the demand for tutoring.
7. **Increased Language and Cultural Support**
   - Expand services in English and potentially other languages for international students.
   - Provide tailored support and outreach to help international students feel included.

When asked if they use the university platform dedicated to teaching or tutoring services to schedule activities and communicate with students, 58,7% reported they use digital support.

55,6% of experts considered the university's platform in the section dedicated to teaching and tutoring not functional for delivering their services. This subgroup mentioned primarily that this is due to students' preferences towards direct calls (54,2%). The second main reason is related to limitation of the digital platform which is reported not to be designed to plan, organise and deliver the services they offer (33,3%).
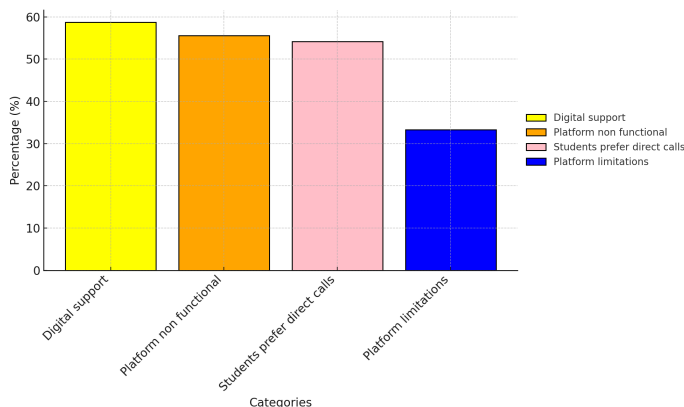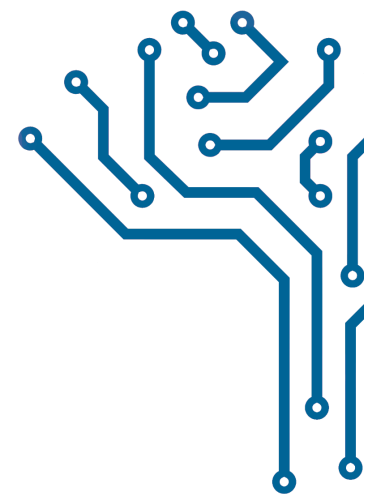
Teachers

Teaching staff of the universities was first asked to reflect on the most common causes that lead students to change their decisions regarding their study plans.

They primarily reported that this is most commonly due to social life events (48,78%). As a second and third option, they report difficulties in their academic life especially related to obstacles encountered during classes (18,29%) and study sessions and exams results (18,29%).

They also report the role of stress related to the need to meet goals with tight deadlines (6,2%).
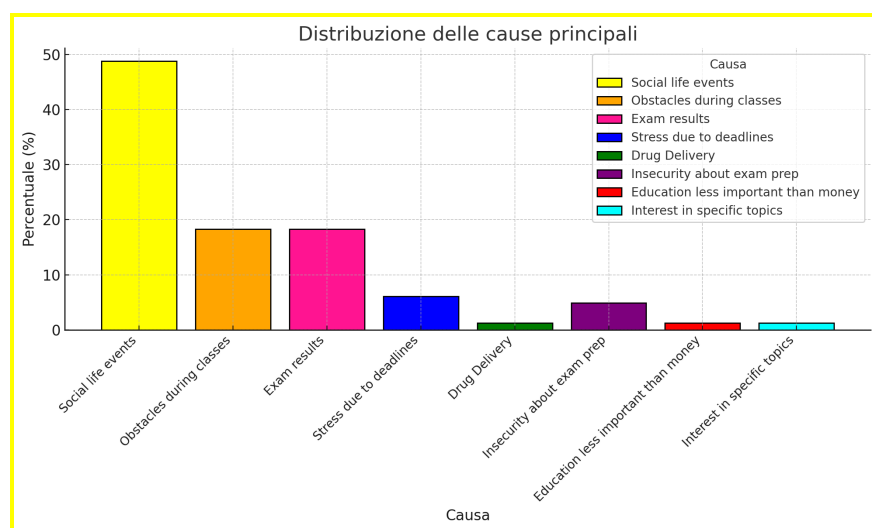
They also expressed their opinions regarding the skills they consider most important for students in constructing their study path.

Among the many options, they significantly mention the role of using all the opportunities offered by the university, followed by time and stress management and suitable goal setting.
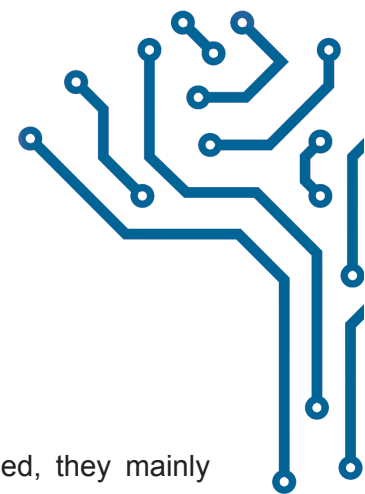
When their view on the digital infrastructure for tutoring services was analylised, they mainly reported that digital tutoring services consisted of informative functionalities (41,46%) followed by more interactive functionalities such as virtual spaces for providing guidance and educational interventions (28,04%) and informative and interactive pages where students can interact as an academic community (28,04%) and for a minority part is no clue (2,08%).

Frequency Percentage of 'Informative pages'

- Informative pages
- Virtual spaces for providing guidance and educational interventions
- Informative and interactive pages where you can interact as an academic community
- No clue
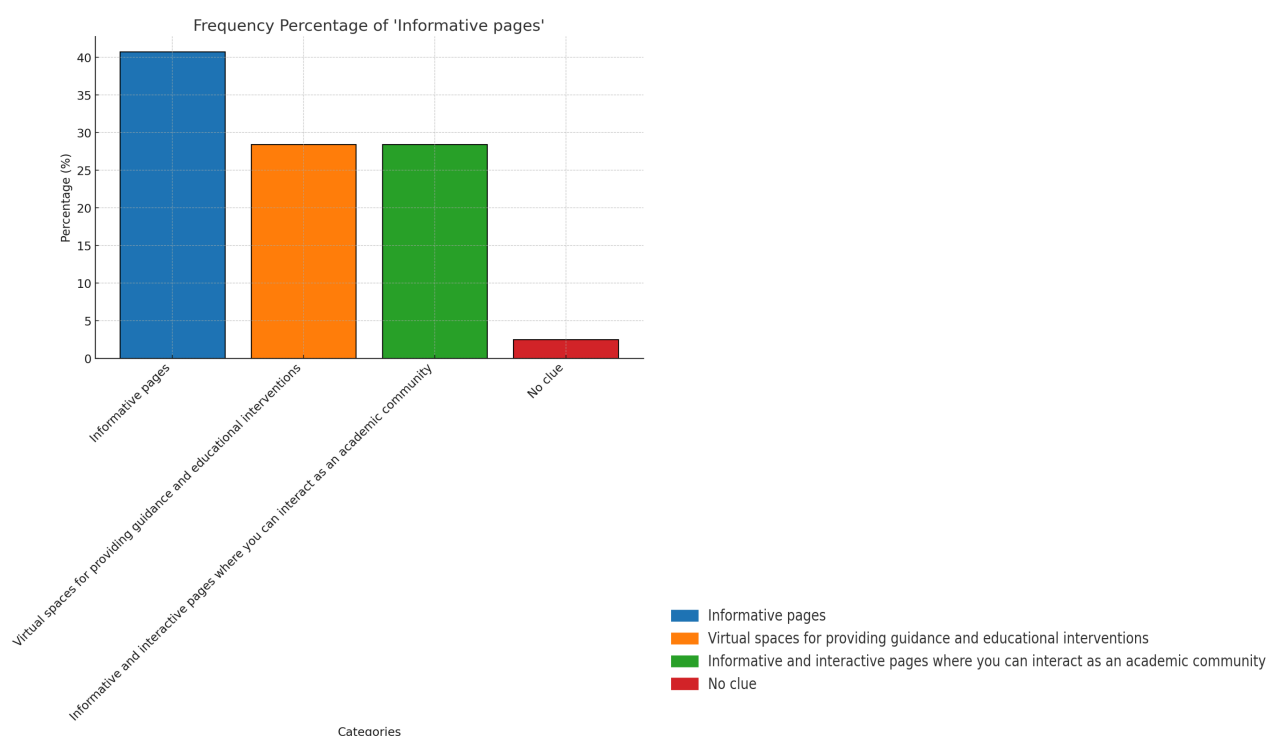
43,9% of them reported they collaborated with external experts and only 14,5% of those who collaborated reported that this was not effective and fruitful.
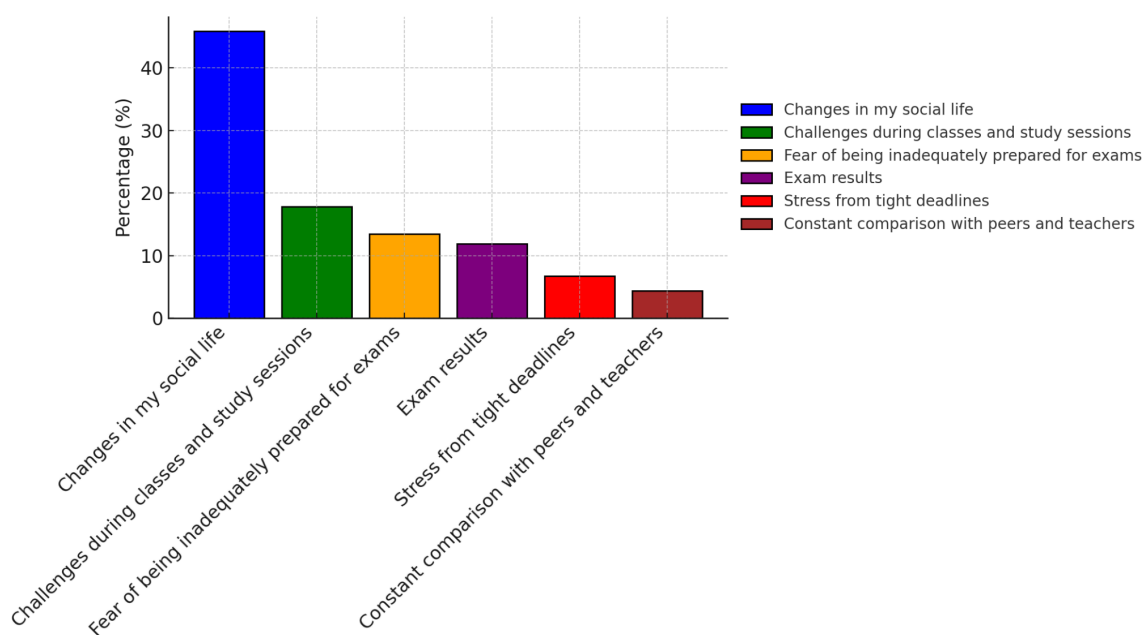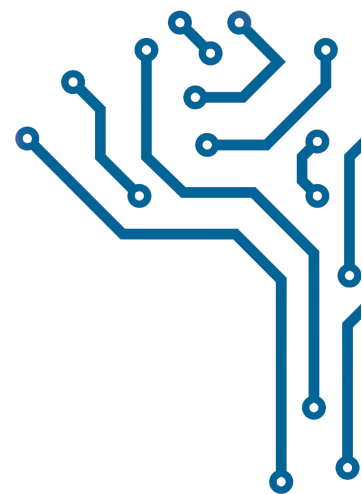
When mentioning the digital tools used, they reported several tools such as:
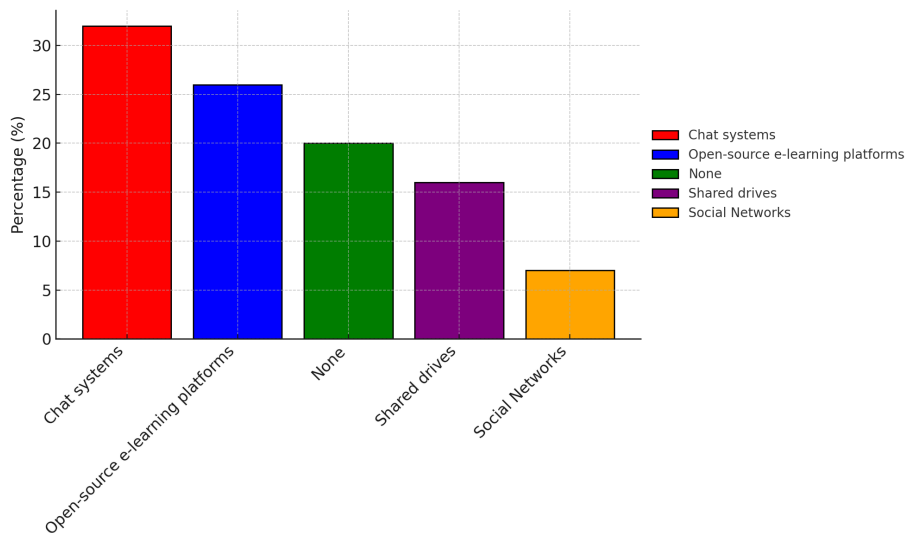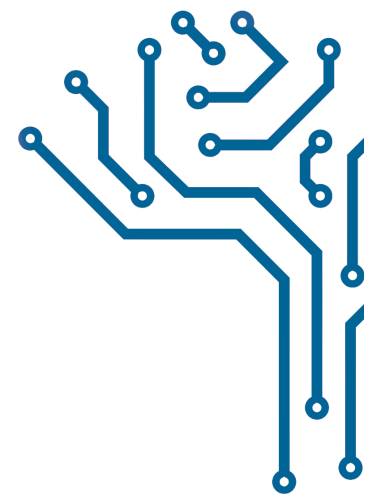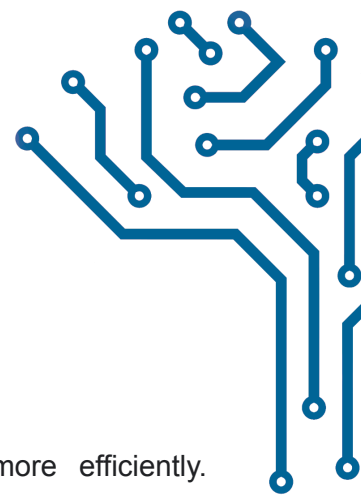
Students

253 students took part in the survey. 67,5% of them reported that they define by themselves and individually the goals of their personal study plan with more than 45% of them describing that changes in the study plans are most commonly due to changes in social life.
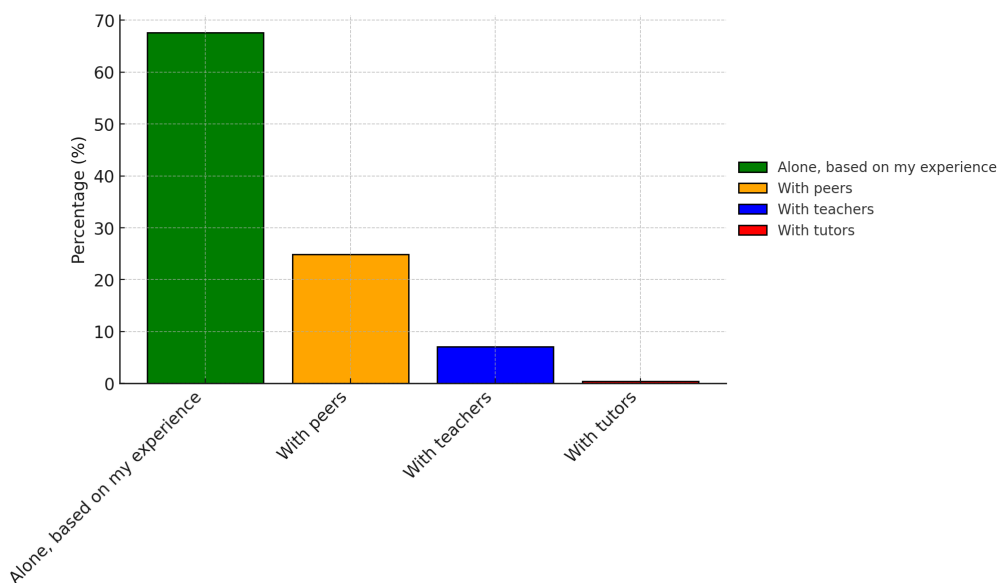
55,2% of them schedule their activities using a digital agenda and this represents a significant result for guiding the HITS project highlighting a students' population open and keen on using digital tools.
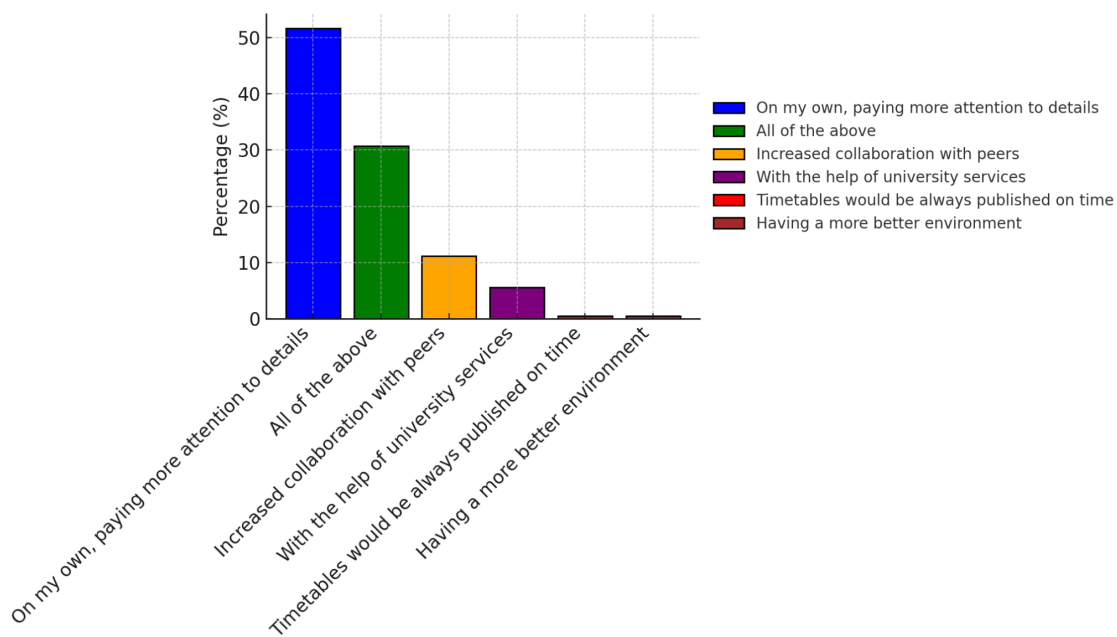
55,71% do not consider your leisure activities and extracurricular interests when organizing their study commitments.
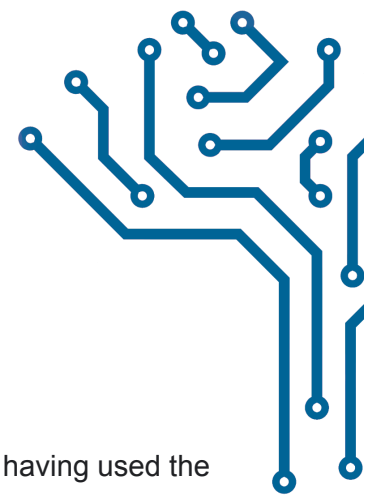
Interestingly, 83,7% of them think they could organize their study plan more efficiently.
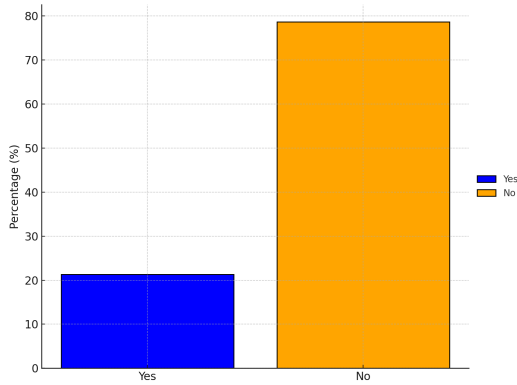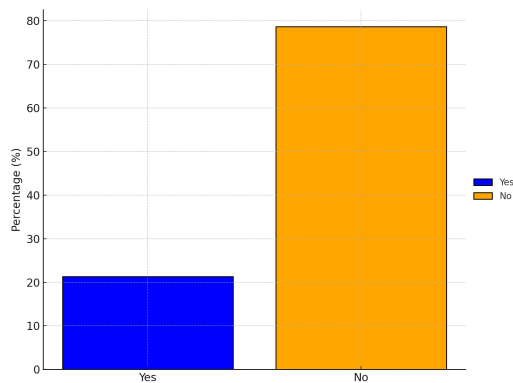

Among this subgroup, they report:

Tutoring services are still not fairly used by students with around 1 student out of 5 having used the services (21,34%).


They also consider that their success is due to their commitment and to the role of their peers. This highlights the role of peers for students' success and shows a strong lack of tutoring professionals in supporting students' careers.
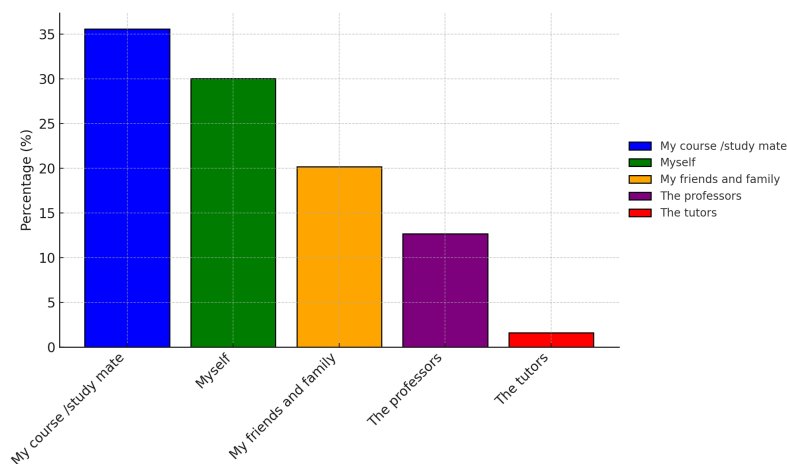
When asking specific questions on digital services and functionalities, 46,64% of students report that their university has a students section dedicated to creating your schedule or academic
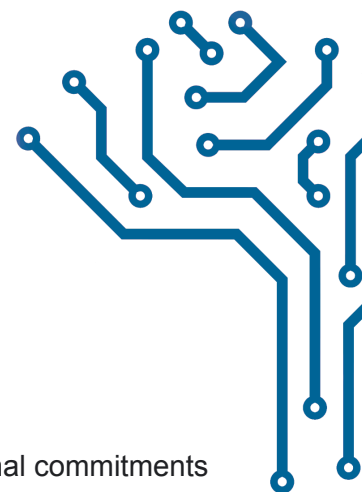
agenda with only 51,38 % of them reporting that this section also considers personal commitments together with academic obligations.
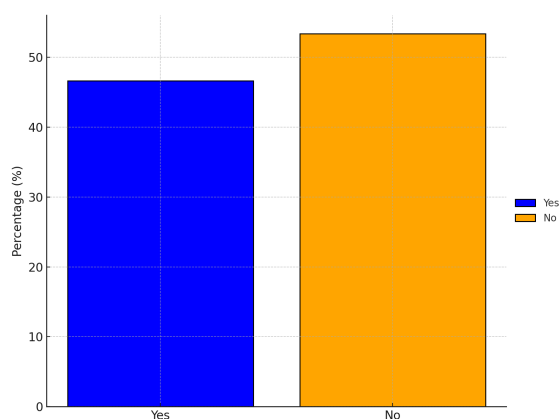
These digital infrastructures in nearly all the cases provide a repository for educational material, 62,05% has a section dedicated to the community.

The answers to the question "Is the tutoring service linked through links or specific sections in the educational web portal of your university?" show a clear picture of the students' population. In nearly 60,67% of the cases, they do not know if tutoring services are linked to the educational webpage of the university.
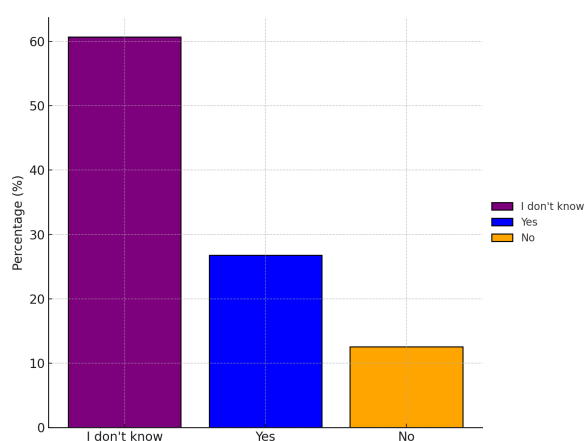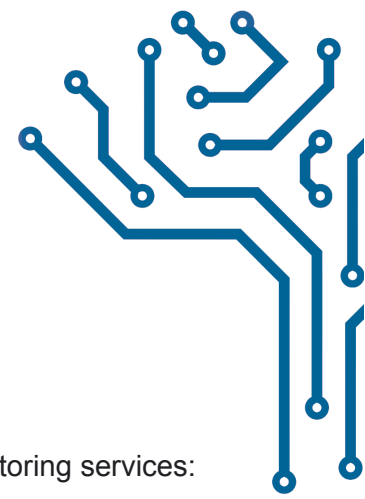
The list below shows what users reported they can do through the web portal for tutoring services:

1. **Direct Communication with Tutors**
   - Many users noted they can "chat or call tutors directly" through the portal, indicating a strong focus on immediate communication options.

2. **Booking Tutoring Sessions**
   - Users can book various types of tutoring sessions, including:
     - Individual sessions
     - Group sessions
     - Educational-psychological support sessions
   - Appointments through the call service

3. **Accessing Information on Schedules and Locations**
   - Users frequently highlighted the portal as a source for "schedules and locations where tutoring services are provided," which helps them plan sessions and navigate available services.

4. **Other Responses**
   - Some users expressed unfamiliarity with the portal or its options, indicating potential areas for clearer guidance or user support.
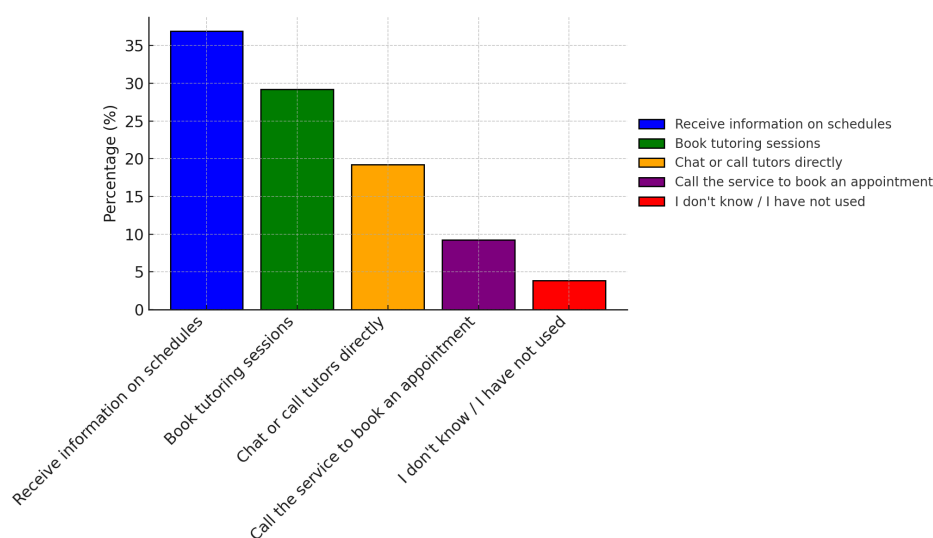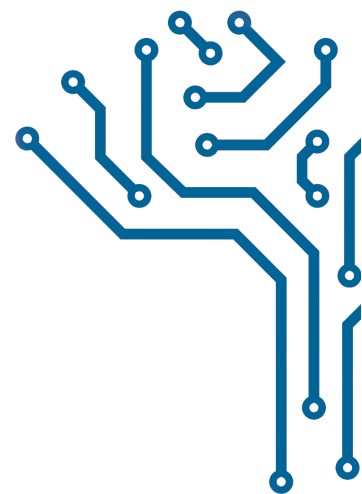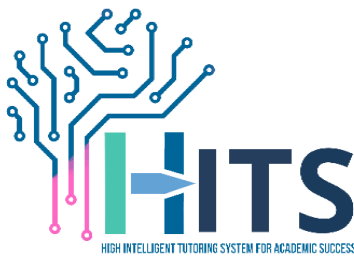
Conclusions

Key Insight

Data collected from various sources highlights a clear and growing demand among students for personalized academic support, as learners increasingly seek tailored assistance that aligns with their individual needs and learning styles. In this context, the integration of Artificial Intelligence into tutoring systems presents a particularly promising opportunity. Studies and pilot initiatives have already shown that AI-powered tutoring solutions can significantly enhance student performance by providing real-time feedback, adaptive learning paths, and round-the-clock availability. Moreover, the current technological infrastructure and available resources make the development and deployment of such platforms not only feasible but strategically advantageous. These factors together create a strong foundation for investing in AI-based tutoring systems that are both scalable and impactful.

Challenges

While the development of an AI tutoring platform offers considerable potential, several key challenges must be addressed to ensure its successful implementation. One of the primary concerns is the integration with existing university systems, which requires careful planning to ensure full compatibility with current digital platforms, learning management systems, and institutional tools. Additionally, engaging students and promoting regular use of the AI service is essential for maximizing its impact; this involves not only intuitive design and user-friendly interfaces but also clear communication of the platform's benefits. Finally, maintaining the quality of the educational content generated or delivered by the AI remains a critical priority. To preserve academic standards, the system must be continuously monitored and refined, ideally with input from educators and subject matter experts. Addressing these challenges is fundamental to building a reliable, effective, and trusted AI-based tutoring environment.
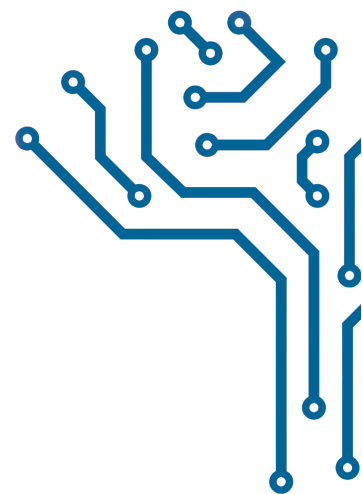
Benefits and opportunities

The implementation of an AI tutoring system presents a range of significant benefits and strategic opportunities for the education sector. One of its most compelling advantages is scalability: once developed, the system can be adopted and adapted by multiple institutions, extending its impact across diverse educational contexts without the need for substantial additional investment. Furthermore, the platform promotes flexible learning, offering personalized support that accommodates various learning paces, styles, and individual student needs—thereby fostering greater inclusion and academic success. Lastly, there is strong collaborative potential, as universities and academic institutions can actively participate in the ongoing development, refinement, and enrichment of the platform. This not only enhances the quality and relevance of the service but also creates a shared innovation ecosystem around AI in education.