OPEN ACCESS
VOL. 7, NO. 2, PP.193-202, MEI 2025

ISSN : 2622-8106 (ONLINE)
DOI: 10.20895/INISTA.V7I2.1817

Journal of Informatics, Information System, Software Engineering and Applications (INISTA)

Application Management Project Based on Technology Information: Study Case ASANA Evaluation of Courses Interaction Humans and Computers Surabaya State University

Azis Suroni*[1], Bonda Sisephaputra[2], Saifudin Yahya[3]

[1,2,3]*Surabaya State University, Indonesia*
Jl. Maospati - Bar. No.358-360, Kleco, Maospati, Kec. Maospati, Magetan Regency, East Java 63392, Indonesia

[1]azissuroni@unesa.ac.id
[2]bondasisephaputra@unesa.ac.id,
[3] saifudinyahya@unesa.ac.id

Received on 01-03-2025, revised on 01-05-2025, accepted on 25-05-2025

Abstract

The development of information technology has had a significant impact on various sectors, including in the world of education, especially in project management. One of the popular information technology-based project management applications is ASANA, which offers various features to facilitate team collaboration and task management. This article aims to evaluate the use of ASANA in the Human Computer Interaction (HCI) course of the Informatics Undergraduate Study Program at Surabaya State University (UNESA) Campus 5, with a focus on ease of use, the effectiveness of team collaboration, and its impact on student work outcomes. This study uses a case study method by collecting data through questionnaires and interviews with students who use ASANA in group projects. The results of the study indicate that ASANA provides convenience in organizing tasks, speeding up communication between team members, and increasing transparency and accountability in project completion. However, several challenges such as difficulties in initial adaptation and limited features in the free version of ASANA were found in the use of this application. Overall, the ASANA application has proven effective in supporting project management in the HCI course, but there are several aspects that need to be improved to maximize its benefits. This study is expected to provide insight into the development of information technology-based project management methods in academic environments.

Keywords: Application Evaluation, ASANA, Human Computer Interaction, Information Technology, Project Management

Corresponding Author:
*Azis Suroni
Surabaya State University, Indonesia
Jl. Maospati - Bar. No.358-360, Kleco, Maospati, Kec. Maospati, Magetan Regency, East Java 63392, Indonesia
Email: azissuroni@unesa.ac.id

I. INTRODUCTION

In recent years, the advancement of information technology has significantly transformed the landscape of project management in higher education. As academic institutions strive for greater efficiency and effectiveness in delivering curriculum, particularly in technology-oriented courses such as Human-Computer Interaction (HCI), digital tools have become essential in managing course-related activities and collaborations. One such tool is ASANA, a cloud-based project management application designed to facilitate task organization, communication, and progress tracking among team members[1]. One of the widely used project management applications is ASANA, a web-based platform that allows teams to plan, organize, and track project progress[2]. ASANA provides various features, such as task creation, deadline setting, responsibility assignment, and progress reporting that can facilitate collaboration between team members[3]. By using ASANA, projects involving many parties can be managed in a more structured and controlled manner. ASANA also has a simple yet feature-rich interface, allowing users with various backgrounds to use it efficiently[4].

The Human Computer Interaction (HCI) course at Surabaya State University (UNESA) is one of the courses in the Informatics Undergraduate Study Program, which combines theory with practice in developing IT-based systems[5]. In this course, students not only learn about the theory of human computer interaction but are also given the opportunity to be involved in projects that require them to work in teams. Therefore, effective project management is essential so that students can work in a more organized manner and complete tasks with maximum results.

However, the challenges often faced by students in completing group projects are time management, coordination between team members, and monitoring project progress[6]. Therefore, an evaluation of the use of project management applications such as ASANA in the context of the Human Computer Interaction (HCI) course at the Informatics Study Program Campus 5, Surabaya State University needs to be carried out to determine the extent to which this application can improve efficiency, collaboration, and the final results of projects worked on by students .

The purpose of this article is to evaluate the implementation of ASANA as a project management tool in the Human-Computer Interaction course in the Informatics Study Program, Surabaya State University Campus 5. This evaluation will focus on aspects of ease of use, effectiveness in team collaboration, and its impact on student learning outcomes. Thus, this article is expected to contribute to the development of information technology-based project management methods in academic environments.

This research methodology uses a descriptive qualitative approach with a case study, which aims to evaluate the implementation of the ASANA project management application in the Human Computer Interaction (HCI) course at the Informatics Study Program, Surabaya State University (UNESA) Campus 5. This approach was chosen to gain a deeper understanding of students' experiences in using ASANA as a project management tool in the context of collaborative learning.

This research was conducted in the form of a case study, which focused on the application of ASANA by IMK students in completing group project assignments. This study not only aims to evaluate the effectiveness of ASANA, but also to identify the challenges, obstacles, and impacts of using this application on the results of student teamwork. The subjects of this study were students who took the Human Computer Interaction (HCI) course at the Informatics Study Program, Surabaya State University Campus 5 in a certain semester. Specifically, the research respondents consisted of students who had used ASANA in their group projects during their studies. The sample was selected by purposive sampling, namely by selecting students who were directly involved in projects that used ASANA as a task management tool.

Data collected through questionnaires, interviews, and observations were analyzed qualitatively. Quantitative data from questionnaires were analyzed using descriptive statistical techniques to provide an overview of student experiences, while qualitative data from interviews and observations were analyzed using a thematic analysis approach to identify patterns, themes, and categories related to the use of ASANA in project management. To ensure the validity and reliability of the data, the following steps were taken:(a) Data Triangulation : Researchers use source triangulation by comparing the results of questionnaires, interviews, and observations to ensure consistency and accuracy of findings,(b) Member Checking : The interview results will be conveyed to respondents to verify whether the researcher's interpretation is in accordance with their perspective,(c) Peer Review : Data analysis and findings will be reviewed by peers to ensure the objectivity and reliability of the research results.

II. RESULTS AND DISCUSSION

2.1. Educational Project Management

Project management is a technique for organizing and supervising the tasks associated with conducting a project by a business or organization[7]. Managing a project encompasses distinct phases. Prior to delivering its output, a project undergoes multiple phases, such as initiation, planning, execution, monitoring & controlling, and closure. This phase or process is referred to as the project management life cycle. To attain favorable project results, a competent project manager is required to monitor the project's advancement[8].

In higher education, particularly in classes with project-based tasks, proficient project management can boost the quality of collaboration, strengthen communication among team members, and aid in tracking project advancement. Students participating in group assignments require tools that enable them to handle different elements of the project in a more organized way, including task distribution, deadlines, and tracking project advancement [9].

2.2 Project Management Information Technology

In higher education, particularly in classes with project-based tasks, efficient project management can enhance the quality of collaboration, boost communication among participants, and support the tracking of project advancement[10]. Students participating in group projects require tools that enable them to manage different facets of the task in a more organized manner, including task distribution, deadlines, and project progress reporting[11]. Various IT-based project management applications, such as ASANA, TRELLO, and MICROSOFT PROJECT, offer features that can help teams plan, execute, and monitor projects. These applications allow for clear task allocation, deadline setting, automated reporting, and the ability to integrate with various other collaboration tools. By using these applications, project management becomes more structured, easily accessible, and can be tracked accurately[12].

Utilizing appropriate project management tools influences the seamless advancement of the project phases[13]. Effect The beneficial effect of utilizing these tools will be evident when they are employed effectively based on the project's requirements. This encompasses user-friendliness for everyone engaged in the project, output quality, functionality, and general user satisfaction. Conversely, if a company or organization fails to choose the right tool to manage the project, the tool may not facilitate the user but have a negative impact. The choice of project management tools is based on the results generated throughout the project execution process. Consequently, it is crucial to evaluate the tool's capabilities, advantages, disadvantages, available functionalities, and compatibility with the ten areas of project management knowledge[14].

2.3 ASANA Project Management Application

ASANA, identified as a Content Management System (CMS), functions as a workspace available through a website and mobile application. ASANA can be tailored to assist businesses in fulfilling their organizational requirements and functions as a project management resource. ASANA's key features encompass a task management tool aimed at enhancing the allocation and tracking of task performance[15]. Below is a description of the features offered in ASANA.

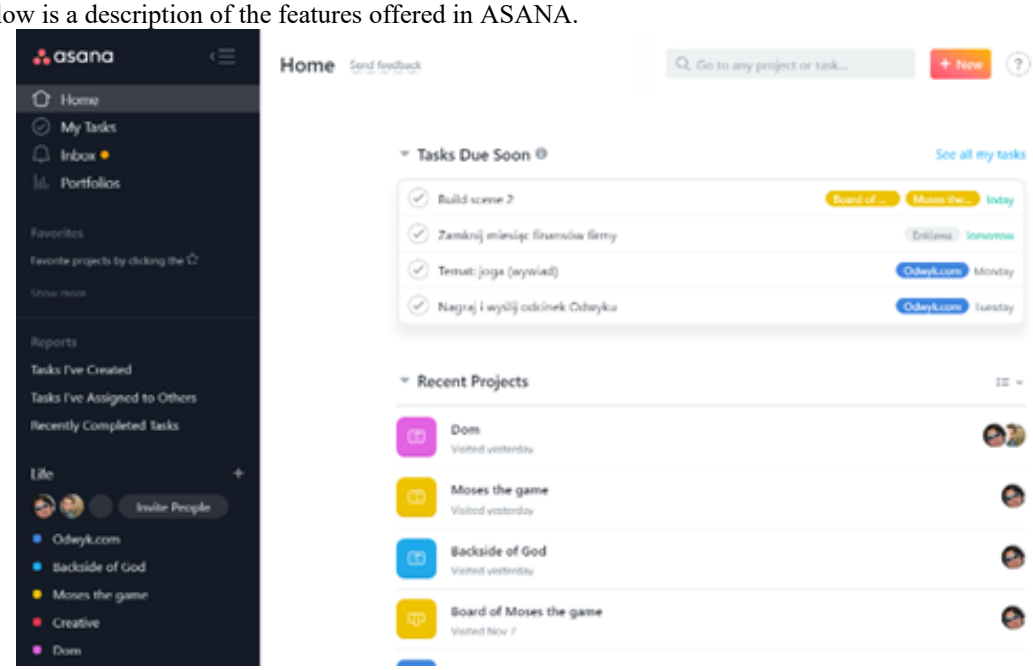

Fig. 1. The features available on ASANA's homepage[16]

Based on Figure 1, the following is a description of the features contained in the ASANA system:

1) *Job, Project, and Task Management Features*
This functionality arranges project-related tasks in a list or Kanban board format. These tasks can additionally be broken down into smaller subtasks. It features a Gantt-style task display and timestamps indicating the start and end of tasks. ASANA users can add different attachments from their local computer, Google Drive, OneDrive, Dropbox, or Box to the associated task page.

Furthermore, users could initiate new projects and share them with team members for joint efforts. This allows for task monitoring since ASANA presents tasks among team members, indicating which members are assigned to a specific task.

2) *Communication Features*
ASANA enables users and project participants to engage with each other directly. Users can comment and tag members associated with a task. Moreover, members could send messages, leave feedback, and share announcements on the project or task page.
3) *Display Features*
ASANA offers a feature that helps users see a list of essential tasks that must be completed along with the workload associated with each task. With this feature, ASANA users can look for a specific task, see the schedule or task timeline via the calendar, check the inbox for updates or messages from other team members regarding the project, and explore files through the gallery view.
4) *Reporting Features*
The Reporting feature in ASANA enables the establishment of project goals, milestones, and portfolios to organize and track project interests collectively, status updates to keep stakeholders informed of project advancements, and dashboards that offer an array of customizable charts and graphs.
5) *Management Features*
Team Management in ASANA defines task responsibilities for team members. Moreover, with this feature, members can work together on tasks. Moreover, there is an option for a person to serve as either an admin or team member. Admins possess greater functionalities compared to standard ASANA website or app users. Therefore, an administrator can oversee and regulate permissions for member access.
6) *Integration Features*
ASANA also connects with various applications including Adobe Creative Cloud, Dropbox, Google Drive, Zoom, Jira Cloud, and Microsoft. Users of ASANA can enhance project management by utilizing the integrations offered by ASANA.

These features enable a project manager to easily manage a project remotely, ensuring the smooth running of the project[17].

2.4 Human-Computer Interaction in Learning Context

Human-Computer Interaction (HCI) is a field of study that focuses on how humans interact with computers and information technology[18]. In the context of learning, HCI discusses how technology can be effectively integrated to enhance the learning experience for both instructors and students. One of the goals of technology-based learning is to increase interaction and collaboration among students, as well as provide tools that facilitate communication and collaborative task completion.

In the IMK course at the Informatics Study Program, Surabaya State University (UNESA) Campus 5, Surabaya State University (UNESA), students are not only taught about the basic theories of human-computer interaction, but are also given project-based assignments that require them to collaborate in teams[19]. By using project management applications such as ASANA, students can manage group assignments more efficiently, improve coordination, and ensure that each team member has a clear understanding of their roles and responsibilities. The use of this application also supports the application of Human Computer Interaction (HCI) principles in an educational context, where technological tools are used to increase the effectiveness of interaction and collaborative learning.

2.5 Challenges of Using Project Management Applications in Education

Although technology-based project management applications, such as ASANA, have many advantages, their implementation in education is not always smooth. Some of the challenges that are often faced include technology adoption issues, where students need time to adapt to the new application interface. In addition, the limited features of the free version of the application can reduce its functionality, especially in larger or more complex projects. Differences in digital skills between students can also affect how effectively the application is used in teams. In addition, issues such as lack

of training or clear guidance on how to use the application can slow down students' understanding of the benefits of the application. Therefore, this study is important to identify how ASANA can be optimally utilized in Human Computer Interaction (HCI) courses, as well as to identify the obstacles that students may face in using it[20].

2.6 Analysis results

The purpose of this research data presentation is to present the results obtained from data collection conducted through questionnaires, interviews, and participant observations of students who use the ASANA application in completing group project assignments in the Human Computer Interaction (HCI) course at Surabaya State University (UNESA). The data collected were analyzed to evaluate aspects of ease of use, effectiveness of team collaboration, impact on work results, and challenges faced by students in using the ASANA application.

The questionnaire was distributed to fifty students of the Informatics Study Program, Surabaya State University, Campus 4 who participated in a group project using ASANA as a project management tool. The determination of the list of questions in this study was conducted based on a literature review and the needs of the topic of evaluating human and computer interaction (IMK) on the use of the ASANA project management application. The questions were compiled by referring to usability theory, user experience (UX), and information technology-based system evaluation models, such as the System Usability Scale (SUS) and Technology Acceptance Model (TAM). In addition, observation of the learning process and informal interviews with ASANA users (lecturers and students) helped formulate important aspects that need to be asked.

This questionnaire included questions regarding ease of use, effectiveness of collaboration, impact on work results, and overall experience in using the ASANA application. The following are the results of the questionnaire analysis obtained:

TABLE I. QUESTIONNAIRE ANALYSIS RESULTS

Question	Questionnaire Answers					
	Y	*T*	*S*	*TS*	*E*	*TE*
1. USING ASANA						
Have you ever used the ASANA application before?	91.7%	8.3%				
How often do you use ASANA in your college assignments or projects?	12.5%	87.5%				
2. ASANA EFFECTIVENESS IN PROJECT MANAGEMENT						
ASANA's ease of use in project management					75%	25%
Do ASANA features help in completing tasks or projects?	58.3%	41.7%				
Does ASANA help improve collaboration between 50% group members on a project?	50%	50%				
3. INFLUENCE ON PROJECT RESULTS & TIME MANAGEMENT						
How effective is ASANA in helping you manage your time to complete tasks on time?					54.2%	45.8%
Do you feel like the end result of your project was better thanks to using ASANA?			54.2%	45.8%		
Are you having trouble using ASANA?	16.7%	83.3%				

Information:

Y	: Yes	S	: Agree	E	: Effective
T	: No	TS	: Disagree	TE	: Not Effective

Based on Table 1 the validation of the questionnaire is a crucial step to ensure that the instrument accurately measures what it is intended to assess—in this case, the user experience and interaction quality with the ASANA project management application within the Interaction Humans and Computers course at Surabaya State University. The validation process was conducted in multiple phases:

1. Expert Validation (Judgmental Validity)
   The first phase involved consulting with experts in educational technology, human-computer interaction, and information systems. These experts reviewed the questionnaire items for clarity, relevance, and alignment with the research objectives. Their feedback was used to refine the language, improve focus, and eliminate any ambiguous or redundant items.
2. Content Validity Testing
   A Content Validity Index (CVI) was used to quantify the relevance of each item. Experts rated each question based on how well it represented the construct being measured (e.g., usability, ease of interaction, user satisfaction). The CVI scores helped determine which items should be retained, revised, or removed
3. Pilot Testing (Preliminary Field Trial)
   A pilot study was conducted by distributing the questionnaire to a small group of students who had experience using ASANA during the course. The goal was to identify any confusing wording, misinterpretations, or technical issues in the questionnaire format. Respondents' feedback was collected and used to make final adjustments.
4. Statistical Validation (Construct Validity and Reliability Testing)
   The data from the pilot test were analyzed using statistical methods to assess : (a) Construct Validity: Examining correlations between items to ensure they measure the same underlying concepts. For example, Pearson Correlation was used to verify the relationship between related items and (b) Reliability: Using Cronbach's Alpha to test the internal consistency of the questionnaire. A Cronbach's Alpha score above 0.7 was considered acceptable, indicating that the items reliably measure the same construct.

Observations were conducted during 4 group work sessions where students used ASANA to complete their Human Computer Interaction (HCI) projects. Observations were made of two large groups of students, namely the group that used ASANA as a project management tool, and the group that did not use ASANA. The purpose of this observation was to evaluate the extent to which the use of ASANA can enhance the effectiveness of project-based learning in the context of human and computer interaction.The following are the findings from the observations:

TABLE II. OBSERVATION RESULTS

Aspects	Results
1. Coordination & Time Management	During the observation, it was found that students were more organized in dividing tasks and monitoring the progress of each team member. They used the **task** and **deadline features** in ASANA to ensure that each task was completed on time. The entire team could access relevant information in real-time, which increased the efficiency of project completion.
2. Using ASANA Features	Features such as **checklists** and **task prioritization** were used effectively by students in managing projects. However, some students seemed to struggle to maximize the **custom fields** and **integration features with other applications** , indicating that while ASANA is easy to use, utilizing advanced features requires further learning.
3. TEAM Interaction	During the observation sessions, interaction between team members occurred mostly through comments and task updates in ASANA. While this helped with coordination, some students expressed that **direct communication** was more helpful in speeding up decision-making, especially when faced with technical issues or confusion.

Based on Table 2, the observation results of the three points, the researcher also compared the groups that used ASANA and did not use ASANA. The following table analyzes the comparison:

TABLE III. GROUP COMPARISON ANALYSIS

Aspects	Using ASANA	not using ASANA
1. Engagement	High, collaborative, documented	Varies, not all active
2. Task Management	Structured, real-time, automated Manual	not real-time, often lags behind

Aspects	Using ASANA	not using ASANA
3. UX & Adaptation	Generally positive, needs initial adaptation	No dedicated platform, free but vulnerable
4. Project Outcomes	More organized and documented	Less systematic, difficult to review

Based on Table 3, students in groups using ASANA showed increased engagement in the project. Collaboration between teams became more structured as ASANA provided real-time task assignments, scheduling, and progress tracking features. Notifications and visual displays such as boards and timelines make it easier for students to monitor deadlines and tasks of each member. Group projects are more organized, both in documentation and progress reporting. The ASANA interface was also considered quite user-friendly, although some students needed time to adapt at the beginning of use. Meanwhile, groups that do not use ASANA rely on manual methods such as Google Docs, Excel, or WhatsApp groups to communicate and share tasks. This led to disorganization in project implementation. Not all team members were actively involved, and work progress was difficult to monitor thoroughly. In addition, project documentation became less systematic and difficult to trace back by the supervisor, so the evaluation process also became more subjective and limited.

In general, it was seen that using ASANA had a positive impact on teamwork effectiveness, member engagement, and project documentation and reporting. In contrast, groups that did not use ASANA faced more barriers in communication and time management. Thus, ASANA can be considered as an effective tool to improve the quality of collaborative work in project-based learning, especially in Human and Computer Interaction courses.

This study aims to evaluate the implementation of the ASANA project management application in the Human Computer Interaction (HCI) course at the Informatics Study Program, Surabaya State University (UNESA) Campus 5[18]. The evaluation was conducted by collecting data through questionnaires, in-depth interviews, and participatory observations of students who use ASANA to complete group project assignments. The results obtained will be discussed in several sub-chapters covering ease of use, collaboration effectiveness, impact on work results, and challenges faced by students.

1. ASANA Ease of Use

Based on the results of a questionnaire distributed to 50 Informatics Study Program students at Universitas Negeri Surabaya (UNESA) Campus 5 who participated in a group project, most respondents considered ASANA easy to use. In general, students gave high marks to the ease of access and intuitive user interface. More than 80% of respondents stated that they felt comfortable with ASANA's simple and easy-to-understand design, even for first-time users. However, although ASANA's interface was considered user-friendly, several students expressed confusion in utilizing several advanced features, such as creating task templates and setting task priorities. Several respondents also considered that the benefits of these advanced features were not immediately clear, which could cause confusion for novice users. However, after receiving guidance from lecturers or classmates, students were able to overcome these obstacles.

2. Team Collaboration Effectiveness

ASANA has been shown to be effective in improving collaboration between team members. Interviews with twenty-four students involved in group projects indicated that the app facilitated communication and coordination between team members. Most students felt that ASANA helped them to divide tasks in a more structured way and allowed them to monitor each other's progress in real time[21].

Additionally, over 70% of students stated that ASANA’s comments and notifications feature were helpful in ensuring that all team members could stay connected and informed about assignment updates. This feature allowed for more efficient discussions and clarifications, without having to switch to other

applications such as email or instant messaging. This shows that ASANA makes a significant contribution to increasing transparency and collaboration within the team.

However, some students expressed that while ASANA made collaboration easier, they felt limited in terms of social interaction compared to face-to-face communication. Some team members felt that discussions and exchanges of ideas through ASANA were not as effective as in-person meetings, which were still considered a more powerful method of communication in the context of completing group projects.

3. Impact on Work Results

The use of ASANA in Human Computer Interaction (HCI) group projects also had a positive impact on teamwork results. Based on observations and data collected, most teams that used ASANA were able to complete projects on time and with excellent quality. As many as 85% of respondents reported that using ASANA helped them manage deadlines and interdependent tasks, which contributed to efficient project completion. In addition, the progress reporting feature in ASANA provides a clear picture of the status of tasks being worked on, making it easier for teams to know which parts need more attention. This improves project progress monitoring and ensures that the project is running according to the predetermined plan. However, several teams also revealed that although ASANA makes it easier to manage projects, the assessment of the quality of work results still depends on individual contributions and team collaboration capabilities. Several students felt that although they were able to complete tasks on time, the results of the project did not always reflect the best quality when compared to projects worked on with a traditional approach (direct discussions and face-to-face meetings).

4. Challenges of Using ASANA

ASANA offers a robust set of tools that significantly enhance project management for student groups, enabling better task organization, improved team communication, and streamlined workflows. However, research exploring its use in academic environments has uncovered several obstacles that students often encounter when integrating this platform into their collaborative work. These challenges, while manageable with the right strategies, can initially hinder the effectiveness of ASANA for some users.

One of the most prominent issues reported is the restricted functionality of ASANA's free version. In the study, 60% of participants noted that the limitations of the free tier constrained their ability to fully utilize the platform's capabilities. Specifically, the free version restricts project collaboration to teams of fifteen members or fewer, which poses a significant challenge for larger groups, such as those working on extensive research projects or interdisciplinary assignments. Furthermore, advanced features like customizable reporting, task dependencies, and timeline views—critical for managing complex projects with multiple deadlines—are only available in the premium version. For students juggling intricate group assignments, these restrictions can make it harder to track progress, allocate tasks effectively, or gain a comprehensive overview of project milestones. Many respondents expressed frustration that these paywall-locked features limited their ability to tailor ASANA to their specific academic needs, particularly when managing multifaceted projects with diverse team roles.

Another key challenge is the difficulty some students face when adapting to ASANA's digital interface, particularly those less experienced with technology or accustomed to traditional methods of group coordination. For instance, students who typically rely on physical planners, handwritten notes, or face-to-face discussions found it challenging to navigate ASANA's task management system or understand its collaborative features, such as assigning tasks or setting deadlines. This was especially true for individuals with limited exposure to project management software, who reported feeling overwhelmed by the platform's array of options and settings. The transition from familiar methods like email chains or in-person check-ins to a digital-first approach required a period of adjustment. However, the study found that these barriers were not insurmountable. Through targeted support, such as one-on-one training sessions, peer-led workshops, or access to ASANA's online tutorials, most students were

able to overcome their initial reluctance. Over time, they grew more comfortable using the platform to organize tasks, communicate with teammates, and monitor project progress in real time.

To further support adoption, the study emphasized the importance of ongoing resources and guidance. For example, instructors who incorporated brief ASANA orientation sessions into their courses saw higher engagement and proficiency among students. Similarly, access to ASANA's help center, interactive guides, or community forums allowed users to troubleshoot issues and explore creative ways to apply the tool to their academic projects. These findings highlight that while the free version's limitations and the initial learning curve can pose challenges, proactive measures like tailored training and accessible support can empower students to leverage ASANA effectively, transforming it into an asset for managing group assignments.

5. ASANA Implementation Recommendations

Based on the results of this evaluation, several recommendations can be given to improve the implementation of ASANA in Human Computer Interaction (HCI) courses at UNESA:

a. Additional training: To increase students' understanding and confidence in using ASANA, it is recommended to conduct short training or more in-depth tutorials on the features available in the application.
b. More features: Providing access to more advanced features in the paid version of ASANA is necessary so that students can take full advantage of the application's potential in more complex group projects.
c. Strengthening social interactions: Although ASANA makes communication easier, face-to-face meetings or direct discussions are still necessary to ensure the quality of team interactions and encourage more productive creative ideas.

III. CONCLUSION

Overall, the implementation of the ASANA application in project management in the Human Computer Interaction course at Surabaya State University has shown positive results in terms of ease of use, team collaboration, and timely completion of tasks. Despite some challenges, such as limited features in the free version and technology adoption, ASANA has proven effective in supporting collaboration-based project management in educational environments. With some improvements and adaptations, this application can be even more optimal in helping students complete projects with better quality results.

REFERENCES

[1] H. Hassen, "Journal of Learning Development in Higher Educations) (CC-BY 4.0) The use of a project management tool in distance education to enhance students' engagement in group work," no. 30, 2024.

[2] J. Syafa Kamila and M. Falah Marzuq, "Asana and Trello: A Comparative Assessment of Project Management Capabilities," *Int. J. Informatics Vis.*, vol. 8, no. 1, pp. 207–212, 2024, [Online]. Available: https://planyway.com/blog/trello-kanban-

[3] I. Grigorescu and G. E. Garais, "ASANA – A PROGRAM FOR DIGITIZING TEACHING ACTIVITIES IN A UNIVERSITY Ioana-Gabriela GRIGORESCU 1 Gabriel Eugen GARAIS 2," vol. 17, no. December, pp. 127–139, 2023.

[4] Oluwaseun Abiola Ajiva, Onyinye Gift Ejike, and Angela Omozele Abhulimen, "Advances in communication tools and techniques for enhancing collaboration among creative professionals," *Int. J. Front. Sci. Technol. Res.*, vol. 7, no. 1, pp. 066–075, 2024, doi: 10.53294/ijfstr.2024.7.1.0049.

[5] Tim Bell, Peter Andreae, and Anthony Robins, "A case study of the introduction of computer science in NZ schools," *ACM Trans. Comput. Educ.*, vol. 14, no. 2, pp. 10:1-10:31, 2014, [Online]. Available: https://doi.org/10.1145/2602485

[6] S. F. Claudia Iacob, "Exploring the gap between the student expectations and the reality of teamwork in undergraduate software engineering group projects," *J. Syst. Softw.*, vol. 157, 2019.

[7] S. L. Jan vom Brocke, "Managing collaborative research projects: A synthesis of project management literature and directives for future research," *Int. J. Proj. Manag.*, vol. 33, no. 5, pp. 1022–1039, 2015.

[8] PMI, "No Title," What is Project Manajement? [Online]. Available: http://asana.com/guide/help/fag/all-ASANA-features.

[9] Harold Kerzner, *Project Management : A Systems Approach to Planning, Scheduling, and Controlling*, vol. 11. 2019. [Online]. Available: http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf?sequence=12&isAllowed=y%0Ahttp://dx.doi.org/10.1016/j.regsciurbeco.2008.06.005%0Ahttps://www.researchgate.net/publication/305320484_SISTEM_PEMBETUNGAN_TERPUSAT_STRATEGI_MELESTARI

[10] R. Shpeizer, "Towards a successful integration of project-based learning in higher education: Challenges, technologies and methods of implementation," *Univers. J. Educ. Res.*, vol. 7, no. 8, pp. 1765–1771, 2019, doi: 10.13189/ujer.2019.070815.

[11] D. S. M. John M. Carroll, Dennis C. Neale, Philip L. Isenhour, Mary Beth Rosson, "Notification and awareness: synchronizing task-oriented collaborative activity," *Int. J. Hum. Comput. Stud.*, vol. 58, no. 5, pp. 605–632, 2003.

[12] P. Crawford and P. Bryce, "Project monitoring and evaluation: A method for enhancing the efficiency and effectiveness of aid project implementation," *Int. J. Proj. Manag.*, vol. 21, no. 5, pp. 363–373, 2003, doi: 10.1016/S0263-7863(02)00060-1.

[13] R. O. Ajirotutu, B. Matthew, P. Garba, and J. S. Olu, "Advancing lean construction through Artificial Intelligence : Enhancing efficiency and sustainability in project management Advancing lean construction through Artificial Intelligence : Enhancing efficiency and sustainability in project management," no. May, 2025, doi: 10.30574/wjaets.2024.13.2.0623.

[14] K. W. Bergmann T, "Agile Project Manajement and Project Success : A Literature Review." [Online]. Available: doi:10.1007/978-3-319-94709-9_39

[15] M. Weir, "A Guide to Asana." [Online]. Available: https://www.businessinsider.com/guide/tech/what-is-asana

[16] A. C. Forum, "New homepage." Accessed: Mar. 21, 2025. [Online]. Available: https://forum.asana.com/t/new-homepage/31781/28?page=3.

[17] Asana, "Asana Feature." [Online]. Available: https://asana.com/guide/help/fag/all-asana-fetures

[18] M. K. Yuricha, S.T., M.T.I ,Brian Sebastian Salim, S.Kom., M.T.I, Sinarring Azi Laga, S.Kom., M.MT,Azis Suroni, S.Kom., M.Kom, Reisa Permatasari, S.T., *Buku Ajar Interaksi Manusia dan Komputer*, no. September. 2009.

[19] L. Yusuf, S,& Oktaviani, "Penggunaan Aplikasi Manajemen Proyek dalam Pembelajaran Berbasis Kolaborasi : Studi Kasus pada Pendidikan Tinggi," *J. Pendidik. Teknol.*, vol. 29(1), pp. 50–60, 2021.

[20] A. Mardiana, T., & Prabowo, "The Role of Information Technology in Project Management for University Students," *Int. J. Educ. Learn.*, vol. 23(3), pp. 190–202, 2019.

[21] UNESA, *Panduan Pelaksanaan Mata Kuliah Interaksi Manusia dan Komputer (IMK)*. Surabaya: Universitas Negeri Surabaya, 2023.