User Research Plan

School Management System Application

Group ID: 2021S2_REG_WE_36

Group Name: Mind Maps

Group Members:

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IT19143828	Munasinghe M. A. S. S.	Test function, Custom query function
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IT19204062	Chamudini H.A.N	Fee function, Accounts Head

Table of Contents

Introduction.....3

Test Objectives.....3

Methodology.....4

Interviewing.....5-6

Video Recodings.....7

Questionnaire.....8-11

Participant Profiles.....12

User Research – Tasks/Scenarios.....12-13

Plan for Data analysis.....14-19

Introduction

This project is done to improve the user experience of a mobile application. In this project, an existing mobile application with problematic interfaces was selected and redesign it in a user-friendly way. The selected mobile application is “School Management System”. That application is for manage activities like student management, staff management, attendance management, tests management, fee management and account management in a school. When identifying user groups of the application, we have identified Teachers, Accountant and Admin as users.

In the progress of the project, we have planned to conduct a usability testing and get some feedbacks from users to identify issues of the application easily. From the usability test, we have planned to test users' feedback regarding the design of the application, functions of the application and user friendliness of the application. Therefore, we can collect necessary information to improve the productivity and the quality of the revamped product.

Test Objectives

- Identifying failure points of the application.
- Improve the user friendliness of the application.
- Identifying inconsistencies of the application.
- Identifying design issues of the application.
- Identifying user’s preferences regarding the application.
- Identifying usability problem areas within the user interface and content areas.
- Establishing user-satisfaction levels of the user interfaces.

Methodology

Conducting user interviews and collecting user feedbacks through a questionnaire were chosen methods to the user experience research.

The interviews are conducted with two people who best fit to the personas and those two interviews were conducted as online interviews via Zoom flat form. Also, both interviews were semi structured interviews.

The questionnaire was done by using a google form and there were 21 selected participants for the survey. The google form was shared by using mobile phone and there were 9 questions to answer.

Interviewing

The interviews were conducted with selected two people who best fit to the personas and each interview was covered two functions of group two members. In those interviews, we have given some tasks to complete and got the opinion regarding those tasks and the interfaces. The user had to turn on the web cam and that was easy to see the user's facial expressions.

Scripts

Interview 1 – Student function, Class function, Student attendance function, Test function

Warm up Questions
1. Question - What is your Designation?
    Answer – I am a teacher.

2. Question - What is your School?
Answer – Ibankatuwa Maha Vidyalaya.

Task Questions
1. Question – Okay sir, We will start from the registration. Can you open the app and get registered?
Answer – Sure.

2. Question - Can you log into the application?
Answer – Ok.

3. Question – Can you identify the tasks that you have to do as a teacher from the home page?
Answer – I think students, classes and mark attendance are those tasks but it's difficult to identify all tasks.

4. Question – Yes, those are the tasks that a teacher has to do. And test section is another task. Okay sir, can you go to the class page by clicking class button and add a class.
Answer – Sure

5. Question – Is there any issue sir?
Answer- No

6. Question – Okay Sir, can you check student button.
Answer – Sure

7. Question – Can you identify what you have to from there?
Answer – hmmm. It's quite difficult.

8. Question – Okay. There's a button with an arrow bottom of the page. You can click it and see the tasks sir.
Answer – Ah Yes, I can

9. Question – Can you check all tasks from there?
Answer – Okay

10. Question – Is there any issue in those functions Sir
Answer – Yes, I think it would be better if I can see separate buttons for those tasks

11. Question – Okay. Can you go to mark attendance page, please?
Answer – Ok.

12. Question – Can you mark attendance of students by selecting a grade?
Answer – Ok I'll do it.

13. Question – Did you face any difficulties when marking attendance?
Answer – Yes. It's difficult to identify the correct procedure.

14. Question – Can you check other buttons of the attendance section in the home page?
Answer – Ok.

15. Question – Is there any issues?
Answer – Yes. It's difficult to find out how to update an attendance record. Other things are ok.

16. Question – Can you check all the buttons of the mark test in the home page?
Answer – Ok. I'll do it.

17.Question – Is there any issues in those pages?
Answer – I think it is better to have more attractive and simple user pages.

18.Question – Can you close the application and open it again?
Answer – Ok.

19.Question – Is there any problem?
Answer – Yes. I must log into the system again. I think it's time wasting.

20.Question – Ok. Thank you for your valuable feedbacks and time
Answer – Thank You

Interview 2 – Custom query function, Fee function, Account heads function, Staff attendance function

Warm up Questions
1. Question - What is your Designation?
Answer – I am usually handling account parts.

2. Question - What is the School?
Answer –Leeds international School.

Task Questions
1. Question - We will start from the registration. Can you open the app and get registered?
Answer – Ok.

2. Question - Can you log into the application?
Answer – Wait.

3. Question – Can you identify the tasks you have to do as an accountant from the home page?
Answer – I think fee section and the account section.

4. Question – Yes. Can you check all the pages by clicking all the buttons of the fee section?
Answer – Ok. I'll do it.

5. Question – Did you face any difficulties when completing any tasks?
Answer – Yes. I think it's better to display student list to select relevant student when submitting a fee.
And also, I think it's take some time to load a page after clicking a button.

6. Question – Ok. Can you go all the pages by clicking all the buttons of the account section?
Answer – Ok. Done

7. Question – Is there any issues?
Answer – There is not any big issue. But I think it's better to have a beautiful design.

8. Question – Can you add staff member?
Answer – Ok, but I can't add staff member because there has error message.

9. Question – Ok Sorry. Can you go please Designation page and add designation by clicking designation button in home page? Then there after you can add staff member.
Answer – Done

10. Question – Can you check now if you can add a staff member to this app?
Answer – Now it is ok. I added.

11. Question – Is there any issues?
Answer – Yes. I think it's better for the User to add the staff member first. It's not user friendly to add designation first.

12. Question – Thank you. Can you go Mark attendance page by clicking mark attendance button in the staff attendance section?
Answer – Ok I am in mark attendance page.

13. Question – Is there any issues?
Answer- I think there is not big issue.

14. Question – Is there any problem?
Answer – No. There didn't have issues.

15. Question – Can you check account heads page?
Answer – I checked it and added account also.

16. Question – Ok. Did you see any problem in that page?
Answer – Yes. Alert box is not beautiful. I think it is much better you can change alert box.

17. Question – Thank You. Can you go make transaction page please?
Answer – I'm in transaction page.

18. Question – Did you see any issue in this page?
Answer – No. It is good.

19. Question – Ok. Can you check custom queries page by clicking apply custom queries button?
Answer – Ok I'll do it.

20. Question – Can you see any problems in this page?
Answer – Yes. It's much better if you add delete buttons for relevant pages.

21. Question – Ok Thank you. Can you see any issues in the overall app?
Answer – Yes. I think would be nice to have only relevant buttons for the relevant user in the home page.

22. Question – Ok. Thank you for your valuable feedbacks and time
Answer – Thank You!

Video Recordings

- Interview was done by only two members but all the members were participated to the interviewing meeting. Then, all the members were able to identify all the failure points, design issues and other things that need to improve of the application.

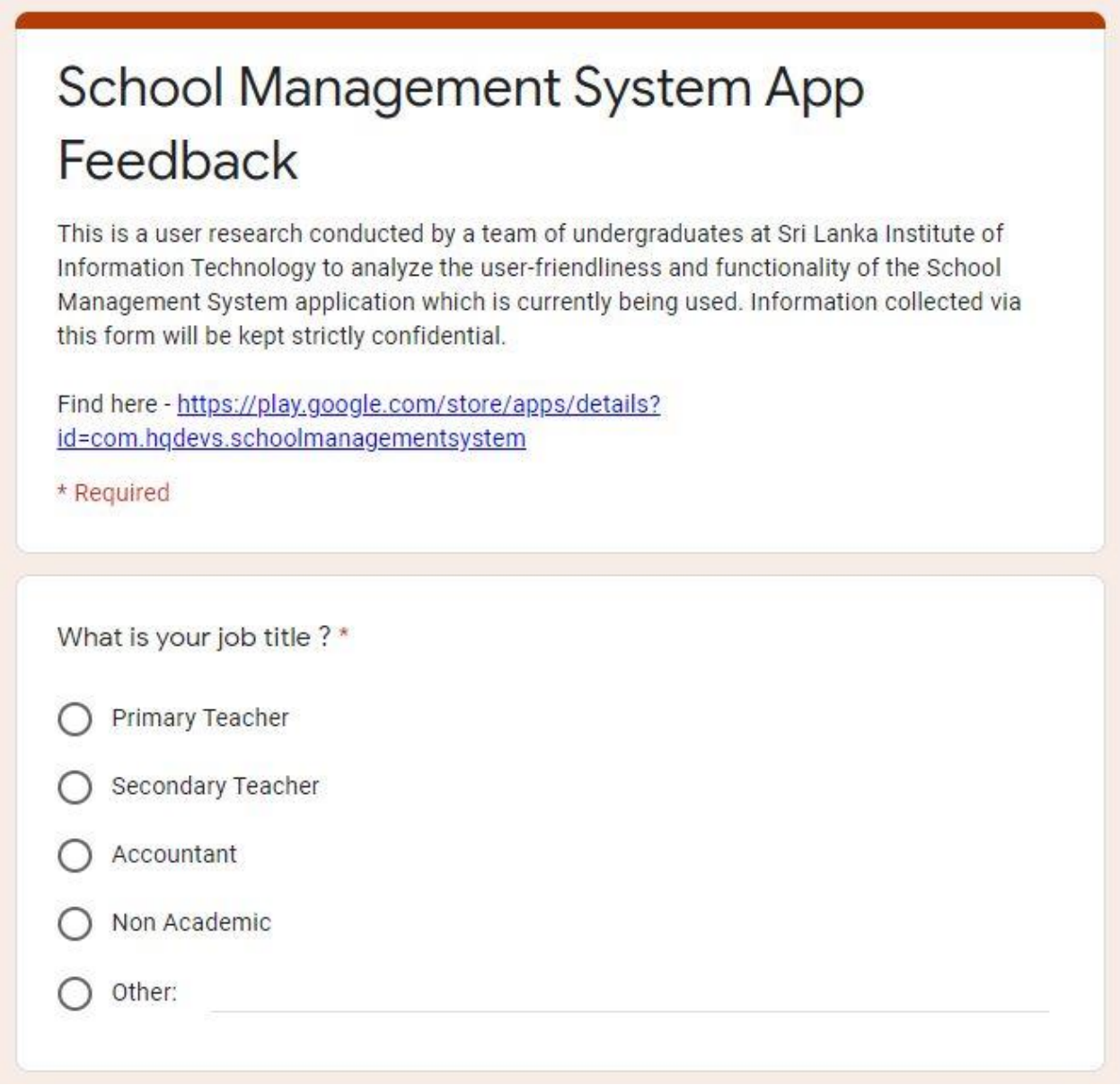
Interview 1 – **https://web.microsoftstream.com/video/ecfccab2-1e21-48e2-9eaf-ed1c807140f3**

Interview 2 – **https://web.microsoftstream.com/video/4100b0c3-5ac8-4114-ad1e-f7b570aeca23**

Questionnaire

A questionnaire has been created to get feedback among few users. The questionnaire consists of only simple 09 questions. The questionnaire was created to cover some functionalities and user interfaces.

Link to questionnaire: https://docs.google.com/forms/d/1H0DXgkmccLg-5oTAwM5rzR9i74ZXswqYpuTb08z0z6I/edit?ts=61200bfd



School Management System App Feedback

This is a user research conducted by a team of undergraduates at Sri Lanka Institute of Information Technology to analyze the user-friendliness and functionality of the School Management System application which is currently being used. Information collected via this form will be kept strictly confidential.

Find here - https://play.google.com/store/apps/details?id=com.hqdevs.schoolmanagementsystem

* Required

What is your job title ? *

- Primary Teacher
- Secondary Teacher
- Accountant
- Non Academic
- Other:

Is your school currently using a computer based database for managment purposes? *

- ◯ Yes
- ◯ No

Do you think using a mobile app for your school management purposes will make school work easier ? *

- ◯ Yes
- ◯ No
- ◯ Maybe

Have you used the school mangement system application before ? *

- ◯ Yes
- ◯ No

If not Please Download and reffer this application
https://play.google.com/store/apps/details?id=com.hqdevs.schoolmanagementsystem

Is this application user friendly ? *

- ◯ Yes
- ◯ No

What issues did you encounter while using the application ? *

- ☐ There are multiple tasks to complete from one page
- ☐ Long loading time
- ☐ Some buttons are not working
- ☐ Error messages are not displaying properly
- ☐ Some inputs are not working
- ☐ Some task take long time to complete
- ☐ Other: _____

What are the things do you think should change of the application ? *

- [ ] Include seperate pages to complete difference tasks
- [ ] Reduce the loading time
- [ ] Include an user profile
- [ ] Make the application more attractive
- [ ] Allow to add multiple students and staff members at once
- [ ] Other: _____

Rating *

	1	2	3	4	5	
Worst	○	○	○	○	○	Best

Reviews

Your answer

Submit

Participant Profiles

The table below provides a breakdown of the participants selected for testing:

Name	Demography	Location, Date and Time
Participant 1	Teacher at Ibbagamuwa Central College.	Location – Zoom virtual meeting Date - 28-08-2021 Time - 9.00PM
Participant 2	Accountant at Leeds International College.	Location – Zoom virtual meeting Date - 28-08-2021 Time - 10.45PM

User Research – Tasks/Scenarios

No.	Task Instruction	Target	Probes
1.	Sign into the mobile application.	Test the user experience on the sign in process.	
	Log into the mobile application.	Test the user experience on the log in process.	
	Navigate between interfaces.	Test the usability of the interfaces.	
2.	Identify the tasks must do as a teacher from the home page.	Test the user experience on the identify tasks role as teacher.	
	Add a class clicking class button in home page.	Test the user experience on the identify tasks and add a class process.	
	Check student button in home page.	Test the user experience on the identify button and test the usability of the interfaces.	
	Identify what he must from there.	Test the user experience on the identify tasks are add a new student, import/export process, ID card process, and Generate barcode process.	
	Click button with an arrow bottom of the page.	Test the user experience on the identify tasks.	

	Check all tasks from there.	To confirm whether the arrow bottom button is working properly, and user understand the process properly.	
	Go to mark attendance page.	Test the user experience on the identify task of the mark attendance process.	
	Mark attendance of students by selecting a grade.	Test the user experience on the identify correct procedure by selecting a grade.	
	Check other buttons of the attendance section in the home page.	Test the usability of the attendance section interfaces and can identify tasks.	
	Check all the buttons of the mark test in the home page.	Test the usability of the mark test interfaces and can identify tasks.	
	Close the application and open it again.	Test the app works after closing and reopening.	
3.	Identify the tasks must do as an accountant from the home page.	To confirm user can understand the process properly.	
	Check all the pages by clicking all the buttons of the fee section.	To confirm whether the fee section function is working properly, and user understand the process properly.	
	Go all the pages by clicking all the buttons of the account section.	Test the usability of the account section interfaces and can identify tasks.	
	Add staff member.	Test the user experience on the identify correct procedure by selecting a designation.	
	Go Mark attendance page by clicking mark attendance button in the staff attendance section.	Test the user experience on the identify tasks.	
	Go view/update attendance, attendance history and number of present/leave/absent pages by clicking relevant buttons of the staff attendance section.	To confirm user be able to understand the process properly and functions working properly.	
	Check account heads page.	Test the usability of the interfaces and add account function work properly.	
	Go make transaction page.	To confirm user can understand the process properly.	
	Check custom queries page by clicking apply custom queries button.	To confirm user be able to understand the process properly and functions working properly.	
	See any issues in the overall app.	To know user ideas and improve functions for this app.	

Plan for Data analysis

< Interviews>

- ✓ The participants for the interview were given a brief idea of what about the interview.
- ✓ Some warmup questions were asked from the participants to confirm whether the participants fit the demography of the personas.
- ✓ Recorded all the tasks performed during the interview.

< Qualitative or quantitative collected data>

- ✓ The interviewee shared their experience on this application.
- ✓ Tasks identify role as teacher: The interviewee explains that some tasks can identify but difficult to identify all tasks.
- ✓ Check Student button in home page: The interviewee explains that the add student page UI was a little bit compact to identify.
- ✓ Check button with an arrow bottom of the page: The interviewee told it would be better if he can see separate buttons for those tasks.
- ✓ When mark attendance by selecting grade: The interviewee told It's difficult to identify the correct procedure.
- ✓ Tasks identify role as accountant: The interviewee explains that some tasks can identify but difficult to identify all tasks.
- ✓ When asked about any issues in those pages: The interviewee mentioned that "I think it is better to have more attractive and simple user pages."
- ✓ When asked about any difficulties when completing tasks from accountant: The interviewee mentioned that "Yes. I think it's better to display student list to select relevant student when submitting a fee. And also, I think it's taken some time to load a page after clicking a button."
- ✓ When add staff member by selecting designation: The interviewee told he can't add staff member because there is error message.
- ✓ When asked about any issues in custom queries page: The interviewee request add delete buttons for relevant pages.

We conducted 2 interviews for identify the failure point in user research.

1. Identify the real users' issues that were faced while using the application is the main objective in this interview.
2. Identify the tasks for relevant role is another objective in this interview.
3. The two scripts covered all the functionalities.

< Video recordings>

Video recording was done for identify failure points from the users and system functionalities checked when tasks are assigned.

- ✓ Initially, we told brief idea of what about the video recording, why we do the research and then on the application.
- ✓ Video recording conducted via zoom and recorded in using zoom.
- ✓ One team member interviewed one user.
- ✓ The moderators assigned tasks for the teacher and the accountant.
- ✓ Some special information were noted down during the video recording.
- ✓ Teacher and accountant response questions while using the mobile app and mobile app recording is also included in the interview video recording.
- ✓ Suggestions provided by teacher and accountant were noted down

    - **Watched the facial expression of the users when completing tasks and identified users' ideas**
    - **Got an idea about the loading time of some interfaces**

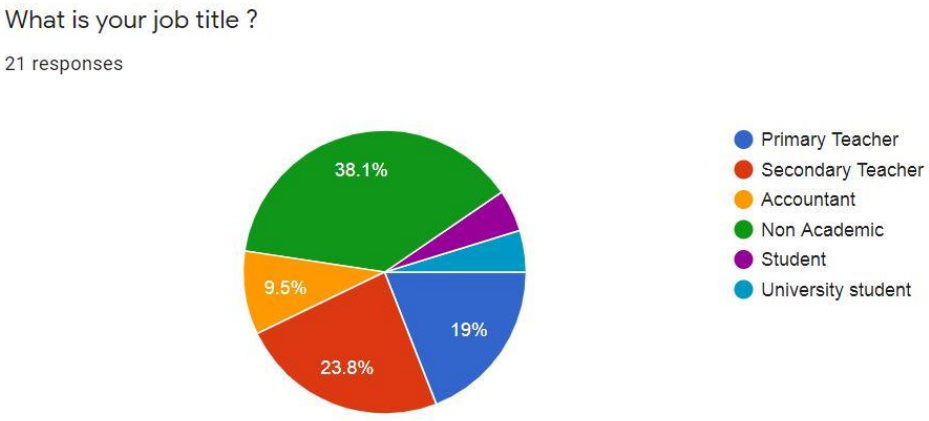
<Questionnaires>

https://docs.google.com/forms/d/1H0DXgkmccLg-5oTAwM5rzR9i74ZXswqYpuTb08z0z6I/edit?ts=61200bfd

- ✓ The questionnaire consists of 09 questions, all in one section.
- ✓ There were 21 responses.
- ✓ There was a review section to get users' feedbacks
- ✓ The questionnaire consists of few other questions that will cover all the other functionalities in the system.
- ✓ Those questions focused on the problems available in the functions.
- ✓ Questionnaire was about get the users idea about the user friendliness.
- ✓ Questionnaire was created as a google form and shared it to some selected people through Whatsapp.

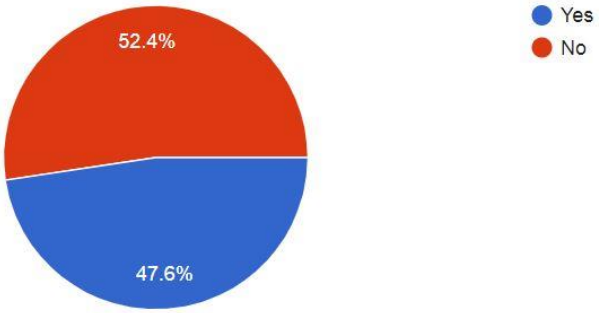
< Qualitative or quantitative collected data>

There are bar charts and pie charts to analyze the result.



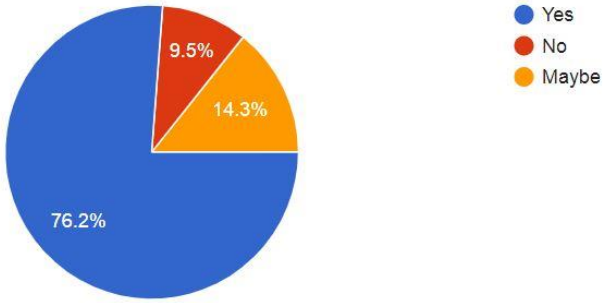
Is your school currently using a computer based database for managment purposes?

21 responses



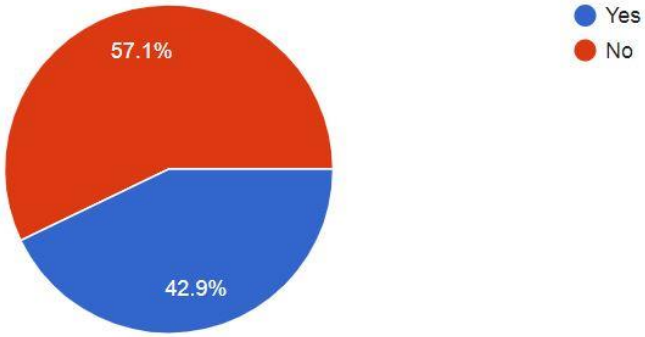
Do you think using a mobile app for your school management purposes will make school work easier ?

21 responses



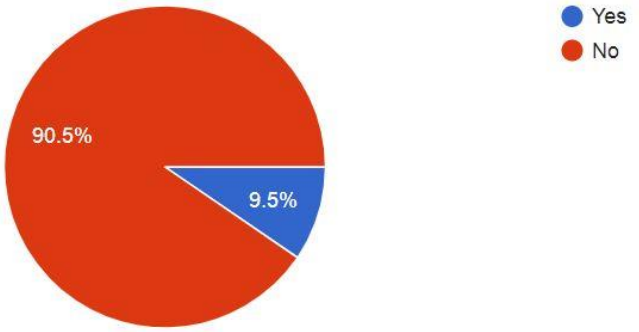
Have you used the school mangement system application before ?

21 responses



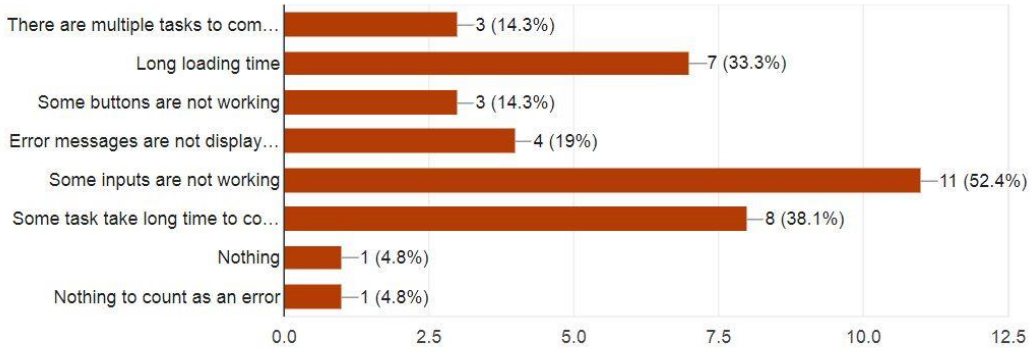
Is this application user friendly ?

21 responses



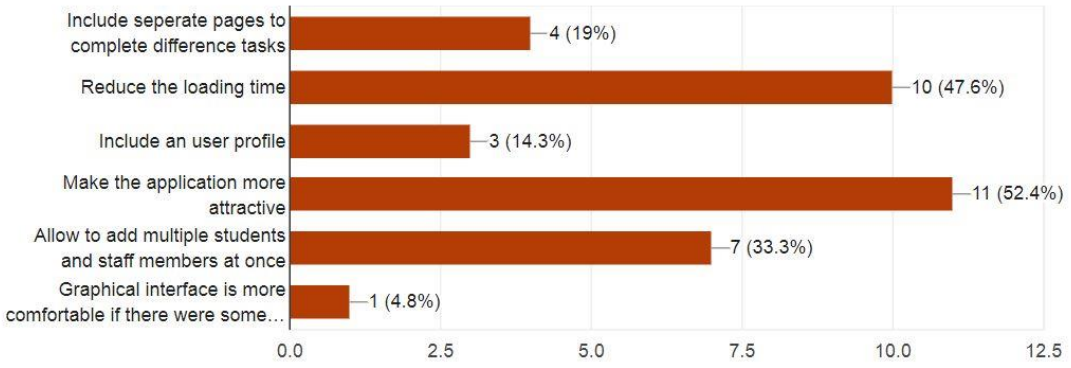
What issues did you encounter while using the application ?

21 responses



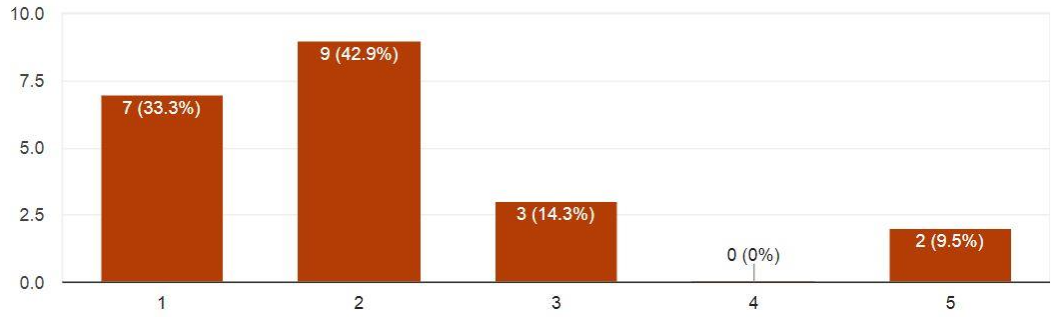
What are the things do you think should change of the application ?

21 responses



Rating

21 responses



Reviews

2 responses

Not user friendly app. Improve to design user pages

Don't have user profile. Can't identify works fro relevant users.