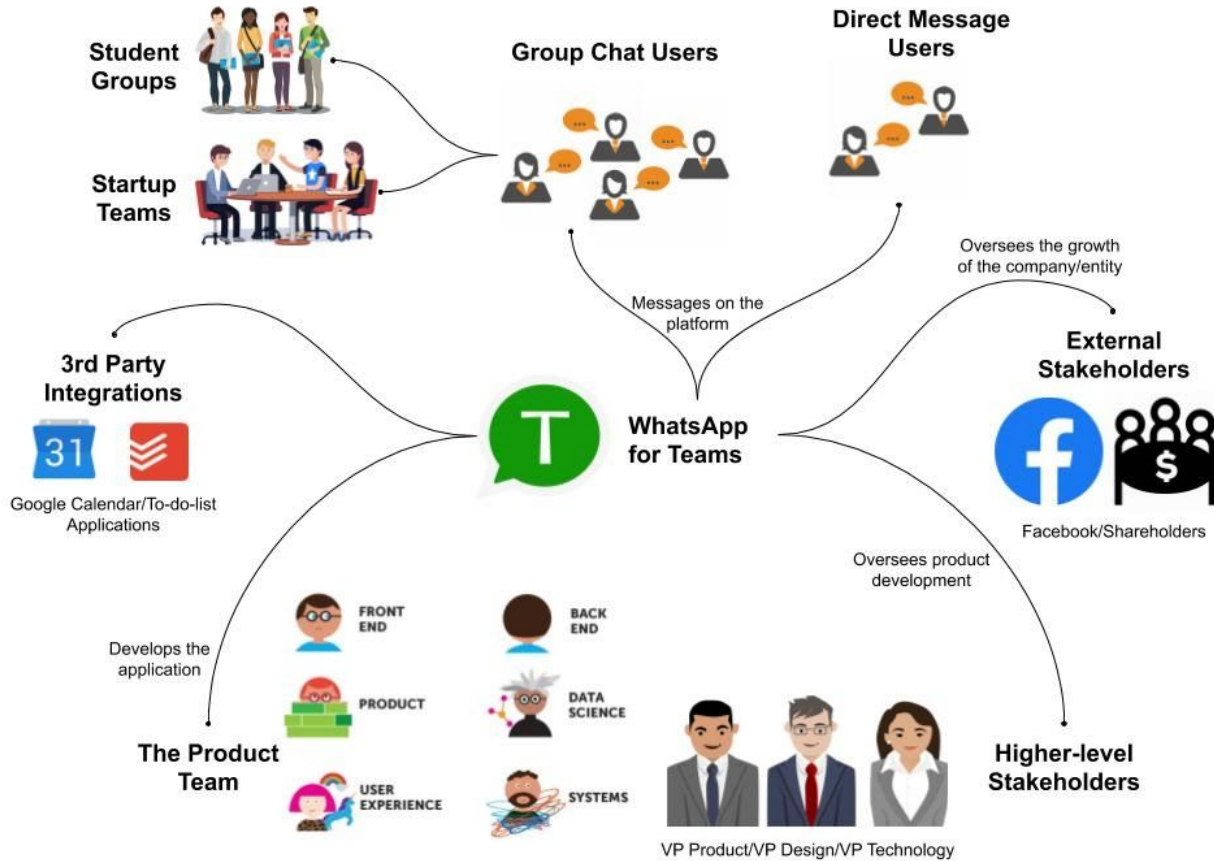


WhatsApp for Teams - User Interview - Supporting Document

By Adil Haris

1. Stakeholder Map

The primary stakeholders I've identified for this product is:



1. The Product Team: The team at WhatsApp responsible for researching and designing the changes to the application
2. Higher-level Stakeholders: The managers to the product team who are responsible for the successful delivery of the enhanced product
3. 3rd Party Applications: Applications such as Google Calendar/iCal/Zoom/Skype that can be possibly integrated to the enhanced WhatsApp application in some capacity
4. External Stakeholders: Owners of WhatsApp (Facebook) and company shareholders who wish to see the company succeed
5. Direct Message Users: Users of the regular WhatsApp direct messaging who also use the group chat features
6. Group Chat Users: Users of WhatsApp group chat whose experience we are attempting to enhance. We aim to offer these enhanced features to the subset groups of student and startup teams

2. Research Questions

My initial observations of the way people use WhatsApp groups led me to identify 6 areas where I thought the interaction could be improved -

1. **Scheduling Capabilities:** The conversations that take place before a team arrives at a time to meet either in-person or online
2. **Polling, Surveying and Brainstorming:** The conversations that take place where teams share ideas and brainstorm OR attempt to quickly poll the opinions of all members for a given piece of work.
3. **File Management:** The messages that are sent as files on WhatsApp while collaborating in teams and how efficient WhatsApp is in carrying these out.
4. **Reminders:** How users set reminders using other apps on their phone and understanding how WhatsApp can enhance this experience
5. **Starring/Bookmarking Messages:** The interaction involved in marking important messages in WhatsApp and how this experience can be enhanced
6. **Project Management:** The conversations that take place in assigning tasks, deadlines and follow-ups for small assignments on WhatsApp chats and the possibility of enhancing these experiences

Given the above areas I wanted to focus on, these are the high-level learnings and research questions I wanted to ask my participants.

Learning: Number of student groups and group sizes

Question:

How many WhatsApp student groups are you a part of?

What is the average size of these groups?

Learning: Types of conversations they have in these WhatsApp groups and identifying the most common type of conversation

Question:

What types of conversations do you have in your project groups?

What type of conversation do you think is the most common?

Learning: Scheduling habits of teams on WhatsApp groups

Question:

How often do you plan to meet on WhatsApp?

Walk me through how a typical conversation flow sounds like while planning a time to meet on WhatsApp

Learning: The way polls and surveys are conducted via WhatsApp chats

Question:

How do you ask for opinions on WhatsApp?

Walk me through how your last experience in taking an opinion on your team group came out?

Were there instances where you were not satisfied with the responses?

Were there times you failed to reply to an opinion question? Why?

Learning: The way groups brainstorm on ideas on WhatsApp chats

Question:

How is your experience in sharing ideas via WhatsApp text images?

Learning: The means by which teams manage files on WhatsApp groups

Question:

What type of files do you share on WhatsApp?

Tell me a bit about how you share files on WhatsApp groups?

What are some of the issues you've run into while doing this?

Learning: The method team members in WhatsApp groups use to manage reminders of tasks they are working on

Question:

How do you manage reminders in your day-to-day life?

What app do you use?

How effective is the app in managing your tasks?

Learning: The means by which team members manage task distribution and follow-up on WhatsApp

Question:

How do you typically break-up and manage assignment work?

How much of this is done on WhatsApp?

What are some of the issues you run into while managing work for assignments?

What could be made better in this experience?

Learning: The general experience of students using WhatsApp groups

Question:

What is your general opinion of WhatsApp groups?

Is there something about WhatsApp groups that bothers you? Tell me more about some of these issues

3. Interview and Observation Guide

3.1 Interview Guide

3.1.1. Before Starting the Interview

1. Self-introduction (“researching on how student teams use WhatsApp for collaboration. This is for an HCI assignment”)
 - a. “I’m not testing you, I’m testing my own hypotheses about a product idea and would encourage you to answer as honestly and in as much detail as you feel comfortable doing so”
 - b. This interview would be much more effective if you have WhatsApp open so that you can quickly refer to some of the things we talk about
2. Ask for recording consent (audio)
3. Ask about the person’s background (their profession/major, what program they are pursuing)

3.1.2 Research Questions

1. *Could you tell me how many student teams are you a part of on WhatsApp?
2. *What is the average size of these groups (how many students)?

Types of Conversation

3. *You don’t have to show me anything. Could you open one of those groups for me. Tell me the most common categories of discussions you usually have? What are the conversations usually about?
4. *If you were to rank the frequency of these types of conversations which ones would you consider the top three most frequent?

Scheduling

5. *Do you plan meetings on WhatsApp? How often do you do that? Are you able to quickly arrive at a time?
6. *Walk me through this experience of planning a time to meet on WhatsApp?

Polling, Surveying, and Brainstorming

7. *Do you often have a need to quickly take the opinion of others in the group? (Give example). How has this experience been?
8. *Do you get sufficient responses? What do you do when people don’t respond?
9. *Are you happy with the content of the responses or do you wish there could’ve given you more?
10. *Can you recall a time when you didn’t respond? Why is it that you did not respond?

File Management

11. *Do you share files on WhatsApp? What are the types of these files? Are you able to effectively perform your file sharing function with what WhatsApp has provided?

Reminders

12. *How do you manage Reminders in your daily life? What about reminders specific to project work (give an example)?
13. *Do you benefit from these reminders? Do you follow through with them?
If yes, tell me a bit about how they benefit you?
If no, tell me why they don't work?

Bookmarking Messages

14. *Do you often use the starred messages feature on WhatsApp?
15. *Do you ever find a need to mark an important message on WhatsApp?
If no, why?
If yes, how do you presently do it?
16. *Do you go back to your starred messages? If no, why?

Project Management

17. How do you manage tasks on your WhatsApp groups? Do you use a tool? Can walk me through how you manage a given assignment?

WhatsApp Groups

18. *Walk me through how you generally treat groups on WhatsApp (off-project work)? Do you like what WhatsApp has done with groups?

3.1.3 Post-Interview

That brings us to the end of our interview. To give you a bit more context, I'm trying to research how student teams use WhatsApp for collaboration and would make this experience seamless for them.

I know the time of a student is more valuable than anything. Thank you so much.

3.2 Observation Guide

1. **Number** of WhatsApp groups
2. **Average size** of WhatsApp groups
3. **Common types** of conversation on groups
4. **Frequency** of each type of conversation
5. **Scheduling process** via WhatsApp chat - **frequency** and **ease of scheduling**
Possible pain points expressed in scheduling on a scale
(rate the level inconvenience on a scale of 1 to 10 with 10 being very inconvenient)
6. **Polling process** via WhatsApp chat - **response quality** and **% of members who contribute**
Possible pain points expressed in surveying team members
(rate the level inconvenience on a scale of 1 to 10 with 10 being very inconvenient)
7. **Brainstorming process** via WhatsApp chat - **ideation quality** and **% of members who contribute**
Possible pain points expressed in brainstorming
(rate the level inconvenience on a scale of 1 to 10 with 10 being very inconvenient)
8. **File sharing process** on WhatsApp - **File types** and **sharing efficiency**
Possible pain points expressed in the file sharing process
(rate the level inconvenience on a scale of 1 to 10 with 10 being very inconvenient)
9. **Management of reminders** on their phone - **applications used** and **satisfaction with the existing process**
Possible pain points expressed in setting and sticking to reminders
(rate the level inconvenience on a scale of 1 to 10 with 10 being very inconvenient)
10. **Marking messages** on WhatsApp - **frequency of use**, **need for bookmarking** and **current level of convenience**
Possible pain points expressed in starring messages on WhatsApp
(rate the level inconvenience on a scale of 1 to 10 with 10 being very inconvenient)
11. Routine **project management process** - **application used** and **effectiveness of managing tasks with team members**
Possible pain points expressed in managing small and large assignments
(rate the level inconvenience on a scale of 1 to 10 with 10 being very inconvenient)
12. Experience of using WhatsApp groups - **likes** and **dislikes**

4. Recruitment & Participant Profile

4.1 Recruitment Plan

Candidate requirements

1. Graduate or Undergraduate student
2. Uses WhatsApp for team collaboration

Two categories of people were interviewed for this assignment

1. My MSPM classmates during class hours
2. An external candidate from SCS, CMU

The interviews with the MSPM candidates were not recorded, but notes and observations from their usage of WhatsApp has been added to the notes section. The external candidate interviewed was a person I'd worked with on my Acting for Business class at Tepper. He had agreed to the interview and met my criterion of student who uses WhatsApp for team collaboration

4.2 Participant Profile

Candidate #1 (Primary Candidate)



Name: Avinash Hemashwar

Age: 29 **Gender:** Male **Location:** Pittsburgh, Pennsylvania

University: Carnegie Mellon University

School: School of Computer Science

Program: Master of Science in Robotics Systems

Mode: Zoom Interview- ([Link](#) to recording) (Interview transcript attached)

Code: [AVI]

Candidate #2

Name: Sujat Dandekar

Age: 31 **Gender:** Male **Location:** Pittsburgh, Pennsylvania

University: Carnegie Mellon University

School: Tepper School of Business

Program: Master of Science in Product Management

Mode: In-class Zoom Interview

Code: [SUJ]

Candidate #3

Name: Monica Krishnamurthy

Age: 29 **Gender:** Male **Location:** Charlotte, North Carolina

University: Carnegie Mellon University

School: Tepper School of Business

Program: Master of Science in Product Management

Mode: In-class Zoom Interview

Code: [MON]

5. Interview Notes and Documentation

5.1 Format

[Note Number] [Note from Interview] [Interviewee Code]

5.2 Interview Notes

01. WhatsApp has been largely used by Asian communities at CMU [AVI]
02. Most people have been using WhatsApp for a very long time (> 5 years) [AVI] [SUJ]
03. Every semester has 2-3 group projects which would result in the creation of 2-3 WhatsApp groups among students [AVI] [SUJ] [MON]
04. Each group would consist of a team of 3-4 people [AVI] [SUJ] [MON]
05. Interviewees believe that a group any larger than 5 would start become unproductive [AVI]
06. Student teams only last for a maximum of 3-4 months. WhatsApp is better than Slack for this reason as it does not make sense to switch to Slack for such a short period [AVI]

Types of Conversation

07. The top 3 most common messages on student groups are
 - a. Messages regarding scheduling a meeting with shared link [AVI] [MON] [SUJ]
 - b. Messages regarding assignment deadlines [MON] [SUJ]
 - c. Messages regarding task assignments and updates [AVI]
 - d. Messages of greetings [AVI]

In the above order of frequency with scheduling conversations being the most discussed

Scheduling

08. Scheduling is mostly done based on deadlines. A link is shared to the group to meet after a time is agreed via chat [AVI] [MON] [SUJ]
09. Meetings are largely scheduled during nights when everyone is free. Meetings are harder to conduct during the day due to class hours. [AVI]
10. Some students do not respond to schedule-polling messages because they are available throughout the day and have no preference for a time. They prefer to wait for someone who has a time constraint and accomodate what works for them [MON] [SUJ]
11. There is a high level of interaction between chats on WhatsApp and scheduling a meeting on Google Calendar. [AVI] [SUJ]
12. Scheduling when all members are busy (Eg: between class times during the day) can get really painful because different people have different availabilities [AVI] [MON] [SUJ]

Polling, Surveying and Brainstorming

13. Brainstorming on WhatsApp groups via text is rare. It is only done if the object to be polled is very simple (like a one slide of a deck). Else they would discuss via in-person meeting or Zoom [AVI]
14. Responses on WhatsApp have always been good as long the group size is small. With larger group sizes the frequency of responses are less. [AVI]

15. Students do indicate the need for a simple polling feature that would allow them to give quick opinions from teammates. This would also allow the person who posted the question to get the responses he is looking for without allowing his team members to digress too much in their responses [AVI] [MON] [SUJ]

16. Students choose to ignore messages on team groups in the following scenarios
- If their opinion does not pertain to their task or expertise [AVI] [MON] [SUJ]
 - If there are a number of messages to scroll through before and after hitting the poll question [AVI]
 - Lack of time at the time of viewing the message [MON] [SUJ]

File Management

17. Only simple files such as images and PDFs are shared on WhatsApp. These are usually non-essential to the group and only used for quick reference. [AVI]
18. Important files such as code and slides are shared via GitHub and Google Drive/Email respectively [AVI]

Reminders

19. Students manage their reminders using three key means
- Google Calendar/iCal [AVI] [SUJ]
 - Google Home/Voice Assistants [MON]
20. Calendar is the primary input for tasks and deadlines. Students like the benefit of seeing their reminders and schedules all in one place [AVI] [SUJ]
21. Sometimes students still fail to follow through on set reminders because of their busy schedules [SUJ]

Bookmarking Messages

22. Students are unaware of the facility to mark messages on WhatsApp [AVI] [SUJ] [MON]
23. Students have not had the need to mark important messages either [AVI] [SUJ] [MON]
24. Whenever there is a need to go back to a message, students often keep scrolling above or simply search for the message [AVI] [SUJ] [MON]
25. A student indicated that file organization could've been made better if WhatsApp would provide dedicated file directories for each group [AVI]

Project Management

26. Tasks are usually distributed in-person or on Zoom for shorter/smaller projects/assignments. WhatsApp is used infrequently for assigning such tasks as most people know what they have to do [AVI]
27. For larger projects such as capstones, a project management tool such as JIRA is preferred [AVI]

WhatsApp Groups

28. Students are not fond of the experience of scrolling through a number of messages, especially in those groups where they don't know other members. [AVI] [SUJ] [MON]
29. Students do partake in groups that interests them or those with their close friends [AVI]
30. Students are satisfied with all the group functionality WhatsApp offers outside of schoolwork [AVI] [SUJ] [MON]

Post-Interview Notes

31. Student believes that the WhatsApp web interface could be improved to accommodate for more reading given the larger screen real-estate [AVI]
32. WhatsApp could be made more like Slack for improved collaboration [AVI] [MON]

5.3 Learning and Insights

1. Student groups are formed on WhatsApp because of the convenience. Given the fact that most student teams will not exist for more than a few months, they find it unnecessary to start using Slack.
2. Group sizes on WhatsApp range from 3-5 with each member being a part of 2-3 groups per semester
3. Scheduling (or deciding when to meet) is the most common type of conversation that takes place. This experience can be excruciating at times during school days when members are busy with personal priorities
4. Polling and surveying are presently not very effective on WhatsApp. Some students tend to give responses that digress from the original question or poll while many of them do not even participate.
5. Students prefer not to brainstorm via chat on WhatsApp. These are much better conducted during in-person meetings or via Zoom
6. Students use WhatsApp to share unimportant files quickly. Larger or important files are preferred to be shared via email. They are quite satisfied with the way file sharing works
7. Students use a diverse set of applications to manage their reminders. Users of WhatsApp traditionally manage and maintain reminders using the Google ecosystem of products (Calendar, Google Assistant, Google Home)
8. Students have no need to mark important messages on WhatsApp. All students interviewed have never used the feature to star/mark messages for later viewing. Even when they are important, students prefer to scroll above and search for messages as a practice of habit.
9. Students are very satisfied with the way group chats are currently designed on WhatsApp. For team collaboration they do wish WhatsApp could be more aligned to function like Slack.
10. One major downside that can be identified in group conversations is the long amount of scrolling that is required when a group has not been followed in a long time. Most of these messages are ignored and often disregarded