

NS HUB USER FEEDBACK FORM

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Abstract

The NS Hub building, which is set to be completed by 2023, is planned to be a one-stop location for pre-enlistees to accomplish all their pre-NS tasks, such as the medical check-up, boots sizing, as well as purchase items needed for NS in a store in NS Hub. This location is open to not only NSmen and NSF's, but also the general public, with a planned NS Gallery showcasing the history of the SAF. The building, located along Upper Bukit Timah Road, will incorporate facilities such as a Fitness Conditioning Centre, where pre-enlistees can take their IPPT, as well as sports infrastructure such as a football field and running track, and retail stores alongside food and beverage options. As the go-to place for all NS-related tests and medical checks, the NS Hub is expected to have a high footfall. To facilitate easy usage of facilities, NS Hub will have to collect user feedback on the state of these facilities, and this project aims to design a fitting user feedback system to collect relevant data on the status of NS Hub.

Introduction

The NS Hub is slated to be completed by 2023, and the building will include not only the new CMPB, but also a FCC and the MMI. In line with Singapore's transition towards being a digital society, the NS services will be facilitated with the help of a digital application tailor made for the new NS Hub. Since the NS Hub is a new concept that tries to put many related facilities together in the same area, while also integrating UX design and technological aid into the design of the building, a feedback form can be used to find areas of improvement for the Hub, as well as to provide general feedback on the experience at NS Hub.

The feedback form for NS Hub can be primarily fielded to users of NS Hub through the app, with QR codes to the form to be placed around exits to assist non-users of the app with providing feedback. This feedback can be collated and evaluated to determine areas of improvement for the Hub, as well as find areas where the intended or ideal state of facilities in NS Hub do not coincide with their de-facto state.

A good feedback form should be intuitive and help users to provide feedback on NS Hub, as well as detect pain points where Users have less than ideal user experience. To understand what feedback a user would provide, I must first find out what constitutes the visitor experience.

This project aims to identify certain key features of a good feedback form, as well as elaborate on their value and propose a prototype feedback form for the NS Hub. The research question for this report is thus "What constitutes a good feedback form?".

Methodology

To design a feedback form, the first thing to do is to understand the user. I did this by creating an empathy map and coming up with several user stories to convey more unique or specific needs of the NS Hub user community. To design a prototype of the feedback form, I decided to use Google Forms, alongside sketches made in the Notes app of potential additional features and more ideal question designs. This will help me to flesh out the form, with its multiple parts, in a clean and easy to understand manner, while also incorporating some additional features that can be as detailed as I want due to the unconstrained nature of sketches. Google Forms and Notes are also free, reducing the costs that I incur when working on them. I also used onesignal.com to simulate notifications that could be sent by NS Hub.

With regards to background research, I gathered information through online articles and research papers as they are readily available on most search engines and provide reliable information on the ideal user experience and how to assess it. Additionally due to the nature of the internet, the most up-to-date information can be found for a relatively low amount of effort allowing me to gather more relevant information faster.

Results

A feedback form should be an avenue of collecting data on how effectively a system is working. In the case of NS Hub, the system consists not just of the physical location itself, NS Hub, but also the NS Hub app for visitors which would work in conjunction with the building to facilitate activities taking place in NS Hub. This means that the feedback form not only has to collect feedback on the experience at NS Hub, but also user feedback on the app itself.

One key thing to note about the visitor experience is users' motivations. In the case of NS Hub, this target audience consists mostly of pre-enlistees and NSmen. Their goal when going to NS Hub is to complete the task they must do as fast as possible. This means that the main pain point, or the main issue that users will have with NS Hub, is crowd levels and waiting times. On the other hand, the NS Hub app does have a system to book appointments in advance and will send reminders of the appointments. With the app, the main goal of this is to book a convenient appointment. Thus, the main pain point that users will have is not having enough space at the slot they want to book, or having to go to NS Hub at inconvenient times because the deadline for their appointments is close by and they do not want to default on their tasks.

To motivate users to provide feedback, some features are very powerful and can greatly increase the chances of a user completing the feedback form. One essential feature is a progress bar for form completion. Ideally, this progress bar would advance with every question answered. This progress bar would motivate users to give feedback by representing how many more questions they need to answer and providing a sense of progression towards a tangible goal (which in this case is 100% completion of the form). However, a progress bar with linear completion rate is not the best type of progress bar to use. By exaggerating the progress of the first few questions, the form can take advantage of the sunk cost fallacy to further motivate users to continue filling up the form even if they no longer want to, so as not to "waste" the effort they've already invested into completing the form.

Another way to motivate users to complete the form is to use simple to answer questions as this allows them to complete the questions quickly, which would cause their brains to produce dopamine in response to a task being completed, which would make them feel better about themselves, motivating them to complete the next question to feel good about themselves again. Ideally, the questions should be completed in 1 to 2 clicks/taps, and short-answer

questions, where users can type out the main point of concern should be prioritised over long-answer questions that require elaboration and substantiation.

Some question types should also be avoided to save on time and reduce the hassle of answering the questions. One such question type is questions that require users to select an option from a drop-down list. While this is a commonly used question type since it makes the form more intuitive, while also limiting the answer types to make data collection easier, to cover all the bases for a facility as large as NS Hub, the drop-down list would need to be quite large, and scrolling would be needed. The disadvantage of lists that require scrolling is that while scrolling through the list, some options may be missed, and reading all the options in the drop-down list is often rather time consuming. Additionally, this type of question often creates a situation where less than perfect information is collected because the user can only choose one option from the dropdown list, and this does not reflect properly the state of reality where users often have multiple problems with a system. While this is normally a problem that is not faced by big data, as the multiple datapoints considered in aggregate reflect the major problems in representative percentages, this will probably not be the case for NS Hub as users of NS Hub are mostly of a single demographic, adult Singaporean males, and since they are of similar demographic the problems they notice will probably be similar, making other underlying but existing problems with NS Hub harder to detect.

As with all feedback forms, a trade-off must be made between datapoint type data and open-ended feedback. While open-ended feedback is often more conducive to finding out about problems, it is much less practical to collect and evaluate discrete feedback like this on a large scale. With a project as big as NS Hub, with an extremely high number of visitors, evaluating and analysing discrete data will be a very time and labour-intensive task. The scale of NS Hub also makes collecting enough data to support big data analysis on datapoint type feedback much

easier and more convenient. As such, I made a decision to prioritise datapoint-style feedback on NS Hub in the form, while also including a few short-answer questions to collect detailed feedback for some questions and also to ensure that users can feedback on issues not covered by the datapoint-style questions.

Using one single type of question for a majority of the questionnaire can also save on time, because the user can get used to the questions and answer them faster. As such, I decided to design the questionnaire with many “On a scale of 1 – 10” questions to collect data on the visitor experience.

One type of question that can cover all the above-mentioned bases are “if so” questions. These questions allow users to save time on answering the questions if they do not give a negative/positive opinion for which elaboration is constructive by only offering the opportunity to elaborate when prompted with the appropriate response. These questions allow for more specific open-ended answers while limiting the responses that need to be filtered through, making data processing and evaluation much easier.

Discussion

Since most of the users of NS Hub will have the NS Hub app installed in their phones, the app can send a notification to the users to thank them for using NS Hub as they are leaving the venue. This thank you message can also include a link to fill up the feedback form through the app, which would make collation of information on the demographic of the user much easier as their personal information is already stored in the app. The users of the NS Hub mobile app should also be able to scan QR codes placed at exits to access the form through the app.

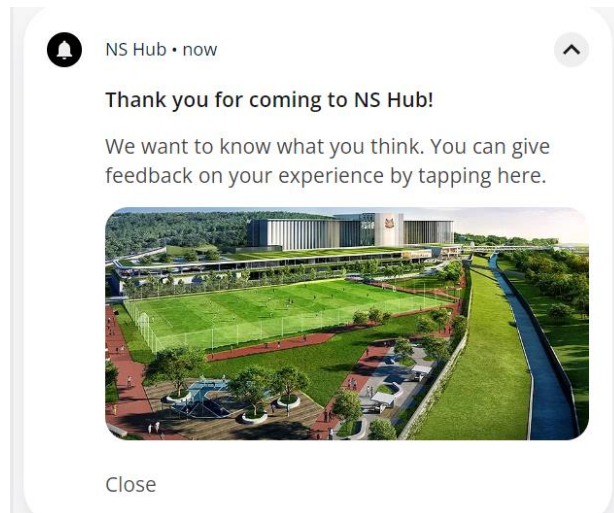


Fig. 1: Notification sent by NS Hub when user's device leaves NS Hub

Another feature that should be included in the app is a progress bar. It should be placed at the top, where people will look first (this is because almost all language systems read from top to bottom, so people usually look at things from top to bottom.) reminding users of their progress. This is contrasted with the less ideal progress bar used by Google Forms.

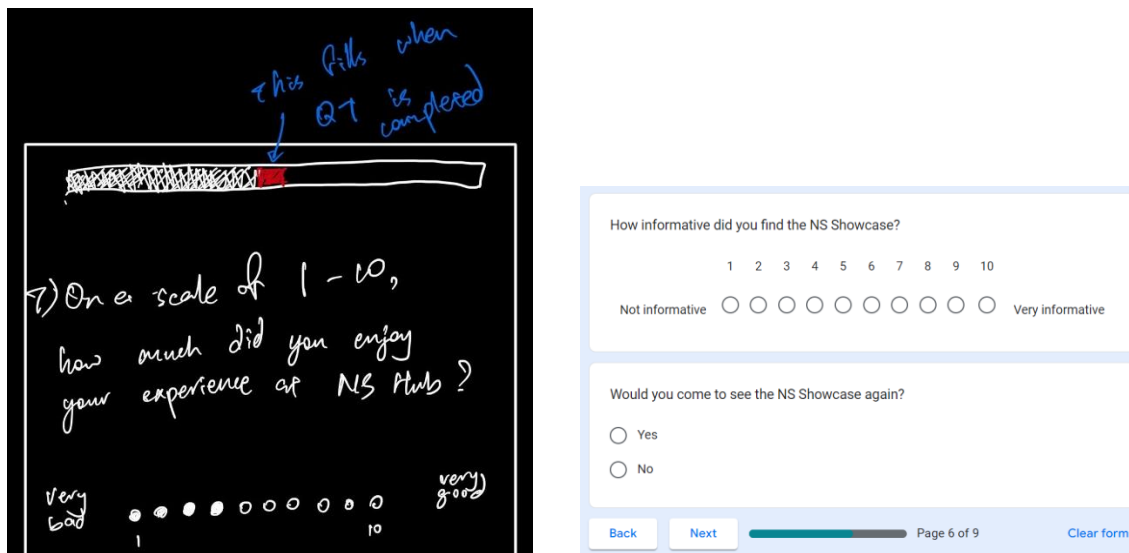


Fig. 2: Examples of a progress bar.

Another important feature that can be included is an “if so” type question. The question can be indented to the right and/or labelled differently to show that it is a sub-question to a previous question.

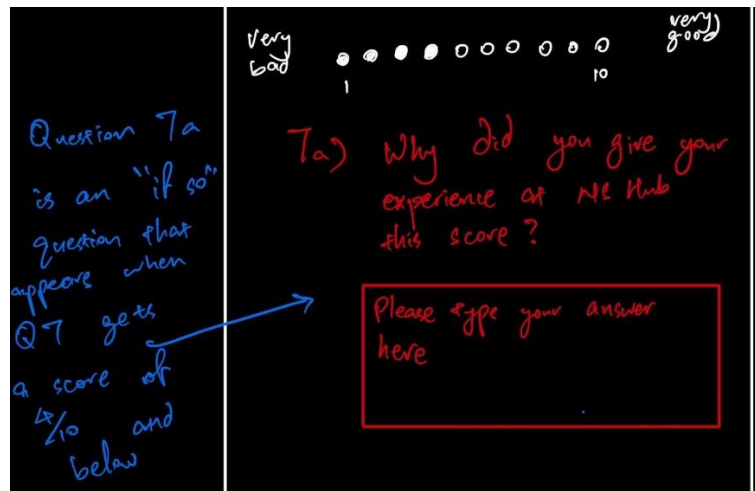


Fig. 3: Example of an “If so” type question with reference to Question 7 (see: Fig. 2)

Since NS Hub has many different sections, such as CMPB, FCC, MMI and the open-to-public facilities, and not everyone will be using all the facilities. Therefore, to collect the most relevant feedback, the questions should be organised into sections based on the facilities at NS Hub, and users should be able to indicate which parts of NS Hub they visited. This can come in the form of a question where the facilities used can be indicated, which will change the sections of questions that visitors have to answer.

What parts of NSHub did you frequent on this trip? (Design separate sections for specific feedback on each place visited)

- ☐ CMPB
- ☐ MMI
- ☐ FCC
- ☐ NS Museum/Showcase
- ☐ Sports Facilities (Running Track/Football Field)

Fig. 4: Example of a question to assign Question Groups to visitor

This feedback form should also be able to provide feedback on the app itself. As an app, it will probably have some problems that need to be addressed. One way to offer a point of contact for the user would be to add a link to a feedback form, perhaps in the settings. This feedback form should be only for feedback on the mobile app and not the NS Hub building.

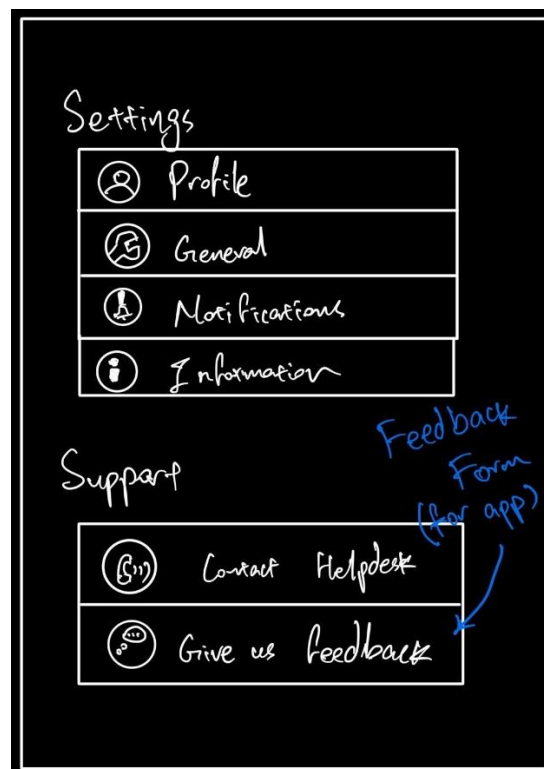


Fig. 5: A possible layout of the Settings page where the form for feedback on the app can be accessed.

Conclusion

The main concern of the proposed feedback system is to gather information on the perceived flaws of NS Hub and its partner app. To do this, I designed a feedback form that can gather feedback on the multiple areas in NS Hub, as well as a smaller feedback form to provide feedback about features of the app, such as the booking system as well as general comments on aspects of the app such as the User Interface. These feedback forms can work with each other to allow the smooth gathering of large amounts of feedback on the NS Hub building and

app so changes can be made to remedy problems that crop up as fast as possible. This can help to improve the efficiency of the building and the app in serving their respective purposes.

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