

A Design Solution prepared for AMS Nest

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**Transforming Data into
Insights:**

**COLLECTING USER
FEEDBACK**

A Design Solution prepared for AMS Nest

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EXECUTIVE SUMMARY

Alma Mater Society (AMS) has struggled to get a deep understanding of the needs and wants of AMS Nest users, because it lacks access to focused, constructive feedback from a representative sample. This lack of data-driven insights has led decision-makers in AMS to make key decisions about the Nest haphazardly, without fully consulting major stakeholders, such as its end-users.

Thus, we identified an opportunity to empower decision-makers in AMS to make data-driven decisions by devising methods to better collect data. With more data, AMS can:

- Evaluate current performance(eg. user satisfaction of products and services)
- Identify problem areas that contribute to poor user satisfaction
- Find potential solutions (eg. find next food item to add to menu)
- Indirectly engage users in decision-making

With these insights, decision-makers in AMS Nest can better understand the needs and wants of the users, and better create an enjoyable Nest experience. In particular, we focused the scope of this design to methods on how to regularly collect data about user satisfaction and feedback about the to-go AMS-owned food outlets.

Using the following design methods, we identified the best opportunities to gather user feedback, brainstormed unique concepts, and identified the best concepts that meet target audience and user needs: User Journey Map, Concept Sorting and Concept Evaluation.

As a result, we designed a user-friendly system to gather daily feedback from customers that is easy/cheap to implement and maintain, but still gathers meaningful and accurate data. The receipt drop-off bin poses questions to customers as they leave the restaurant. This method can evaluate aspects ranging from cleanliness to employee interaction. Depending on AMS' capacity, these receipts can be used for more detailed analysis about customer satisfaction of specific food items or peak times.

In addition, we suggested a potential complementary solution, Gamified Feedback, and a potential solution to replace Receipt Drop-off Bin in the long-term.

EXPLORING THE PROBLEM



We explored the problem space for AMS Nest through multiple stages of asking ourselves, 'why' to identify the root cause of the surface problem.

Surface problem (Level 1)

Users feel dissatisfied about the Nest experience, especially the performance of food outlets.

- eg. frustration expressed in online forums and our primary interviews with Nest users

Problem (Level 2)

AMS has made decisions that perform poorly and do not reflect the needs/wants of Nest users.

- eg. poor financial performance of recent openings (PHTea) or the closing of Lower Case

Problem (Level 3)

AMS Decision-makers do not have a deep understanding of the needs and wants of AMS Nest users.

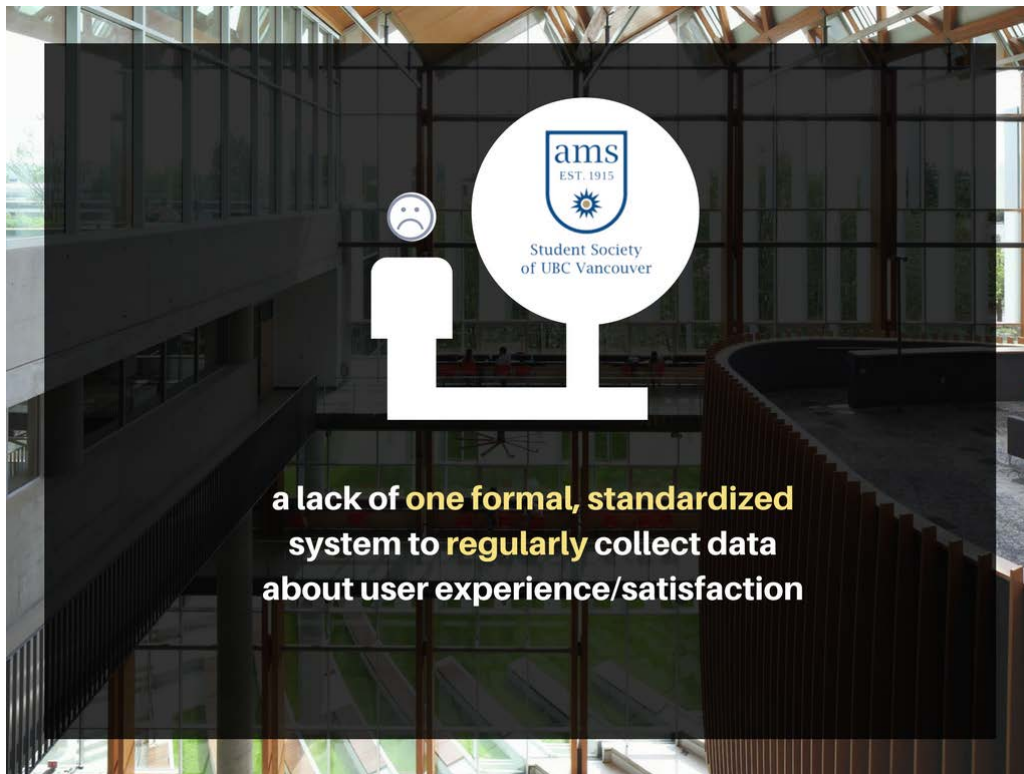
- eg. interviews with AMS staff defined two gaps on how to: 1) understand user expectation/trigger/benchmark and 2) encourage/count/understand return visits.

Problem (Level 4)

Decision-makers at AMS Nest lack useful data; specifically, they lack focused, constructive, and unbiased feedback from its users; about their satisfaction of service at to-go food outlets.

- eg. demonstrated poor data collection and analysis process, explained in more detail in the next page

UNDERSTANDING OUR AUDIENCE

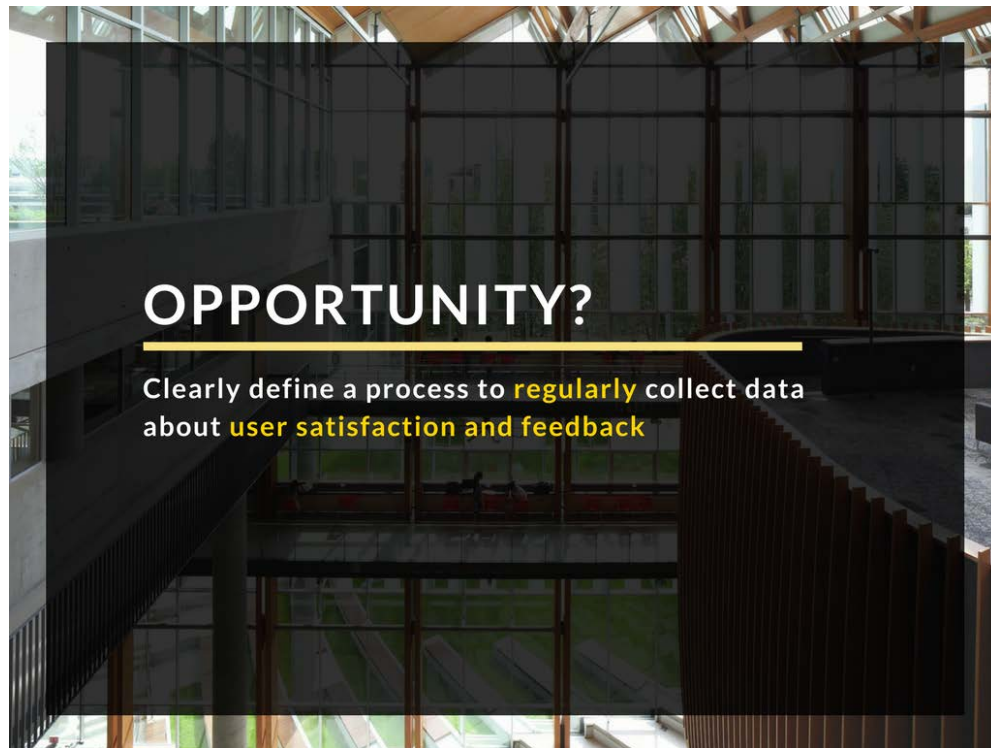


Our direct target audience are the **full-time AMS staff who collect data and make day-to-day decisions about their lines of control**. These staff also influence some decisions that have to be approved by executive management through their reporting. Through our research, we discovered that:

- Our audience makes most decisions about F&B services based on: 1) financial/sale performance and 2) some opinions from shift managers and frontline staff that interact with the end-users.
- Most of the data available are quantitative, transactional data through POS system of each food outlet. This data is stored in Excel files, and sit on local hard drives of respective departments and cannot always be accessed by the right decision-maker at the right time.
- Our audience has tried several different surveys, with varying scope, timing, format to collect information about user experience. These surveys have had limited success in gathering actionable insight or low participation rate (eg. short in-person lunchtime surveys, a long and comprehensive survey conducted by external companies). RTown loyalty program, a recent attempt to measure and encourage return visits, was dismissed because of low user adoption.

From our observations, we identified a lack of **one formal, standardized system to regularly collect data about user experience and satisfaction**. Though frontline staff make valuable observations about user behaviour or receive customer complaints, this data is not quantified or systematically recorded.

IDENTIFYING THE OPPORTUNITY



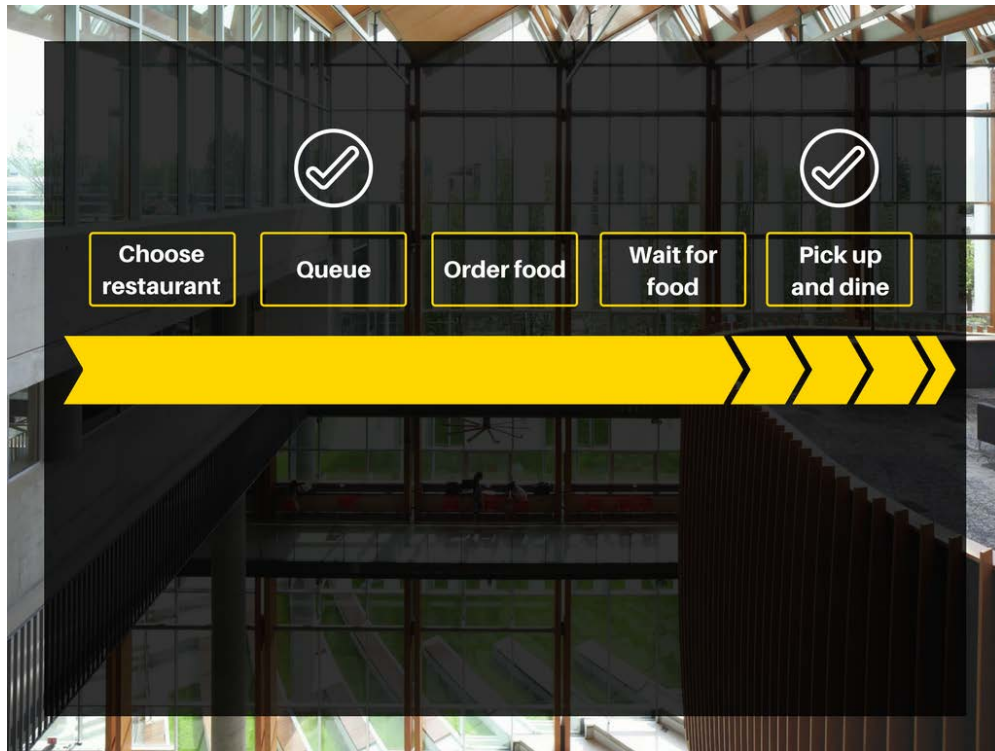
From this need, we identified the opportunity to improve decision-making by incorporating more data-driven insights. This design solution covers the first step of the transformation towards data-driven decision-making, which is to **create a clearly defined process to regularly collect data about user satisfaction and feedback**. Data about user satisfaction and feedback will allow decision-makers to:

- Evaluate current performance (eg. user satisfaction of products and services)
- Identify problem areas that contribute to poor user satisfaction
- Find potential solutions (eg. find next food item to add to menu)
- Engage users and address their dissatisfaction at having little voice in AMS decisions

In particular, we concentrated how to collect user feedback about the AMS-owned food outlets (Flip Side, Grand Noodle Emporium, Palate, Honour Roll, Pie r 2, Upper Case, PHTea) because food services are one of the largest source of revenue and a core business of AMS Nest.

We excluded sit-down restaurants such as The Pit or The Gallery, and instead focused on to-go restaurants because they present a bigger challenge to collect user feedback due to their shorter interaction with the customers. We also excluded food outlets owned by tenants because of the difficulty in getting tenants to comply with our data collection methods or share their private information.

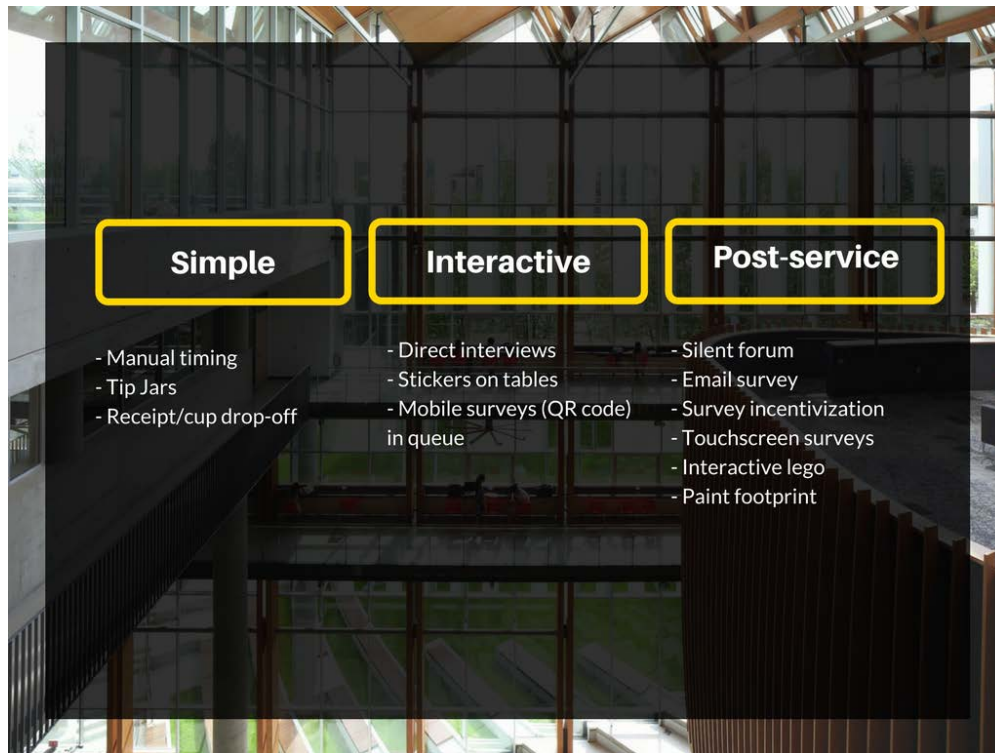
DESIGN METHOD: USER JOURNEY



User Journey Map serves as a tool to create a time line of all activities that a customer goes through and to dissect the entire interaction between a customer and the food outlet.

- 1. We first generated a list of all the activities and clustered them. Then, we showed the activity clusters as nodes on a timeline.** Customers usually follow this process: deciding which outlet to visit, queuing, ordering, paying, waiting, picking up food and leaving. These clusters each has sub-level activities associated with them, such as reading menus or chatting with friends.
- 2. From this timeline, we identified where are the most appropriate points to gather feedback.** The two points in the user journey map with idle time were: 1) queuing to order and 2) the wait for food after ordering. If we were to conduct a survey, these points would be the only appropriate time to engage with the customers. Otherwise, we could potentially distract the customer from ordering food and engaging with the staff.
- 3. We could then deduce some opportunities to engage with the customers.** For example, customers do not have any specific or urgent tasks to perform, such as paying attention for their food to come out or deciding which food to purchase before they leave. Thus, customers have idle attention at the station to pick up cutlery and napkins before their exit. Also, we noticed that most students do not keep their receipt. They either discard it immediately after paying and leave the restaurant to find a seat, or eat first inside the restaurant and discard it afterwards.
- 4. In this process, we also identified key barriers and limitations.** For example, we realized that gathering feedback about the quality of food may be difficult because “to-go” customers often leave before eating.

DESIGN METHOD: CONCEPT SORTING



We used Concept Sorting to brainstorm new concepts in meaningful clusters. Firstly, we defined which elements affect the level of satisfaction and the overall customer experience. We identified the following aspects of services:

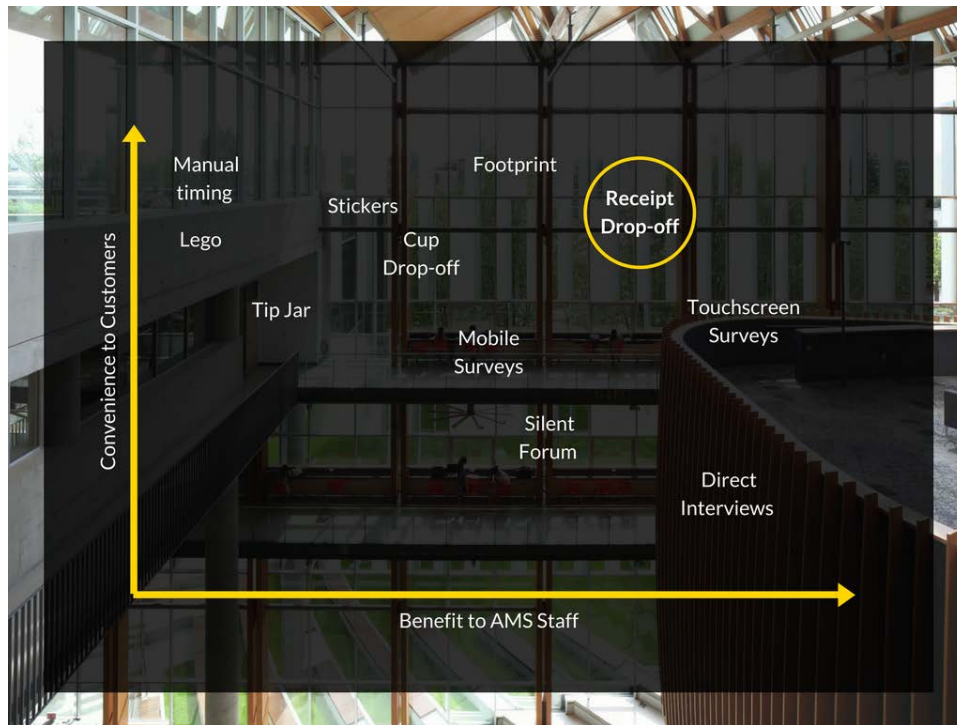
- cleanliness
- food selection
- taste / quality of food
- waiting times
- courtesy of personnel

After that, we differentiated between three main categories of data collection techniques, which are:

- **Simple Concepts.** Which can be implemented rapidly and be active for unlimited time, since they do not require real effort from customers and will not bother them. Their advantage is to be effective and efficient, but usually capable of only one direct question with negative / positive answer.
- **Interactive Concepts.** They usually require customers to participate somehow, using a tool or answering to questions during the food outlet experience. They are better techniques in order to collect more comprehensive data.
- **Post-service Concepts.** Hardest to implement since we are working with pick-up outlets, but practically the only way to collect feedback also about food. They require more effort and participation from customers.

See appendix for brief description of every concept brainstormed.

DESIGN METHOD: CONCEPT EVALUATION



Concept Evaluation is a design method that converged the list of concepts brainstormed from Concept Sorting and User Journey Map down to a small selection. We first identified what constitutes our target audience and the Nest customers value:

For the decision-makers in AMS, a valuable data collection method would be:

- Cheap and easy to implement/maintain/upkeep
- Provide accurate and useful data
- Flexible enough to be adapted to answer different research questions

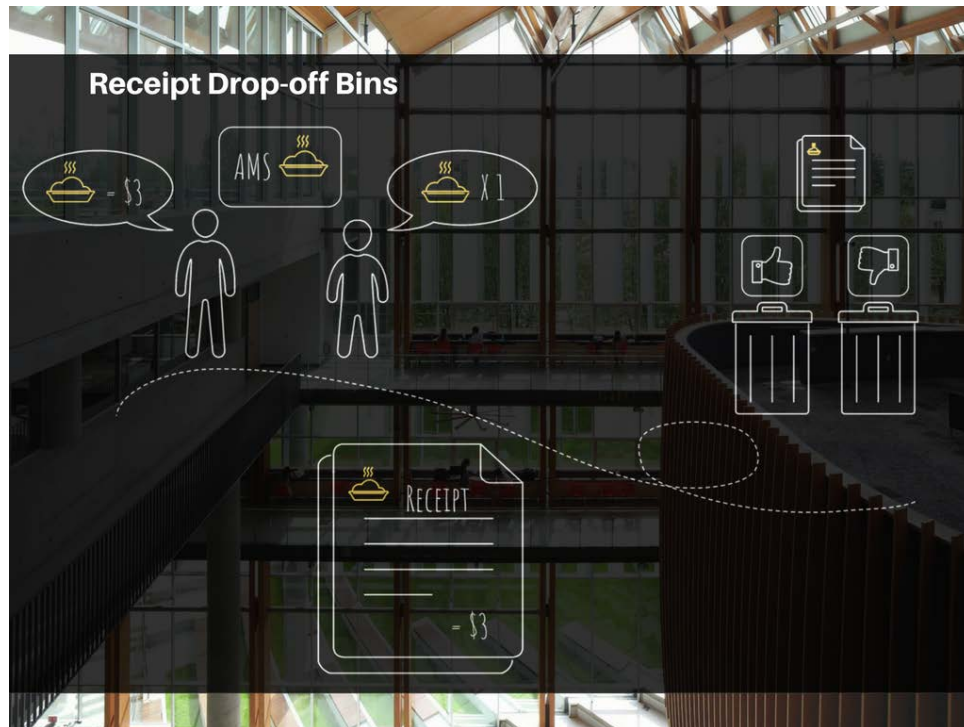
For the customers of AMS food outlets, a valuable data collection method would be:

- Non-invasive
- Not too divergent from their existing routine
- Engaging and fun to participate in
- Allows freedom to give as little or as much data as they want

Then, we ranked each concept based on its value and placed it on two corresponding axes. Through this evaluation, we found several trade-offs. For example, a mobile survey, accessed through a QR code, may be easy to maintain and to change research questions, but diverges from the usual activity that users do in the queue (eg. answering questions on the phone vs. reading the menu to choose a food item).

However, we found some concepts that did not have such a trade-off. For example, a receipt drop-off would be non-invasive and mimic the usual routine that users use to discard their receipt, but is easy for AMS to change the research question weekly and cheap to implement/maintain.

FINAL DESIGN



Process of Receipt Drop-off:

Step 1: Post a sign at the beginning of the queue for food that shows the question and tell them they can answer on their way out through disposing their receipts

Why? Customers can brainstorm the question while they are waiting in line

Step 2: Place two bins at the exit for customers to dispose their receipts. On these bins, simple questions with two alternatives (Yes/No) would be written. For instance, “Were the staff nice today?”, “Was the price reasonable?”. The customer will put the receipt in one of the two boxes.

Why? The opinion at the exit represents the entire experience the last customer interaction.

Step 3: AMS employees count the receipts at the end of each day in each box and record the data.

Advantages:

- User-friendly (non-invasive and requires little effort to participate)
- Cheap and easy to collect feedback on a daily basis
- Achievable in the short term

These collected receipts can be used for more detailed analysis if AMS chooses to. For example, the time stamp and food items on the lists of the 'dissatisfied' pile can bring insight into questions like service levels at peak shifts or performance of specific items.

FINAL DESIGN



LIMITATIONS	MITIGATION
<ul style="list-style-type: none">• Only one question at a time• Only binary answers• Requires extra labour• May become obsolete	<ul style="list-style-type: none">• Update questions weekly• Smartly designed questions• Find cheaper labour/method• Replace with long-term solution

Despite its advantages, we identified the following limitations of our final design solution:

1: Receipt drop-off bins can only ask one question at a time. This reduces the variety and quantity of data collected.

- Mitigation: Questions can be changed every week to measure different aspects of performance.

2: Having two bins limits research questions to only binary answers. Binary answers leave no room for identifying the specific problem area or explaining the rationale behind the evaluation.

- Mitigation: Once a problem area is identified, ask more specific questions in the following weeks to isolate reasons for the problem. For example, we may ask "Were you satisfied with the service today?" this week, then ask "Was the server friendly?" or "Was the waiting time too long?" next week.

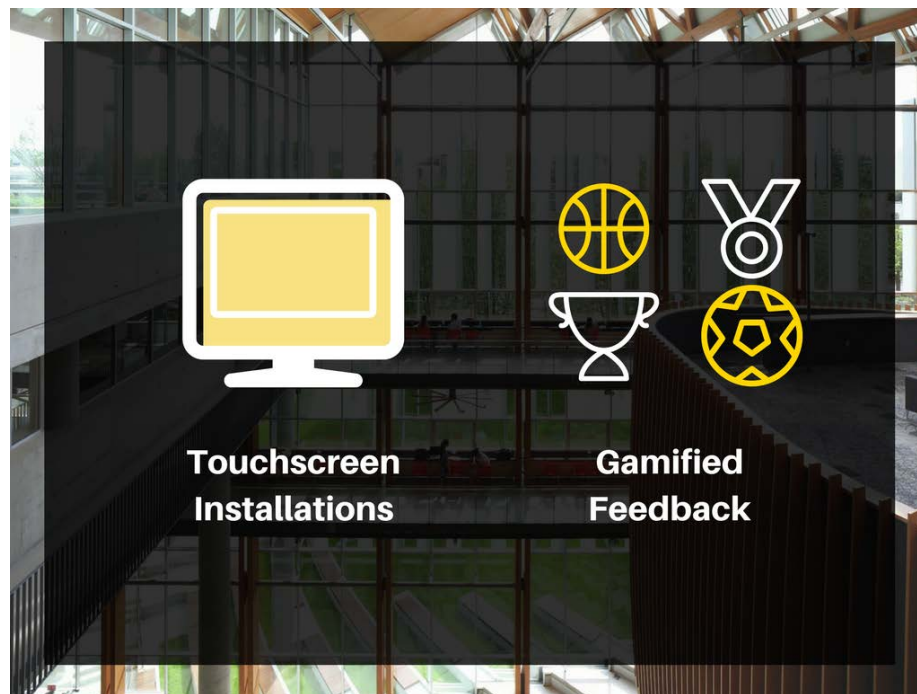
3: This solution requires employee time and labour to count the number of receipts and digitize results.

- Mitigation: Find cheaper labour through organizing volunteers or collaborating with UBC courses who may be interested in helping out with the data analysis process. Using a receipt scanner to digitize the information or weigh boxes for crude estimates on amount in each pile.

4: This solution may become obsolete in the long-term when paper receipts are replaced by digital receipts as a sustainability initiative to reduce waste.

- Mitigation: Consider replacing with other alternatives, such as the screens discussed on the next page.

ALTERNATIVE SOLUTIONS



Long-term solution: **Touchscreen installations**

Install a touchscreen tablet with simple and interactive surveys in the Nest for customers to evaluate their experience. Design the questions to address relevant problem areas in the location that the installation is in.

Advantages

- Reduces waste
- Can incorporate more number of questions
- Give richer data, such as rankings or descriptions beyond binary answers
- Easy to switch research questions
- Data output is already digitized

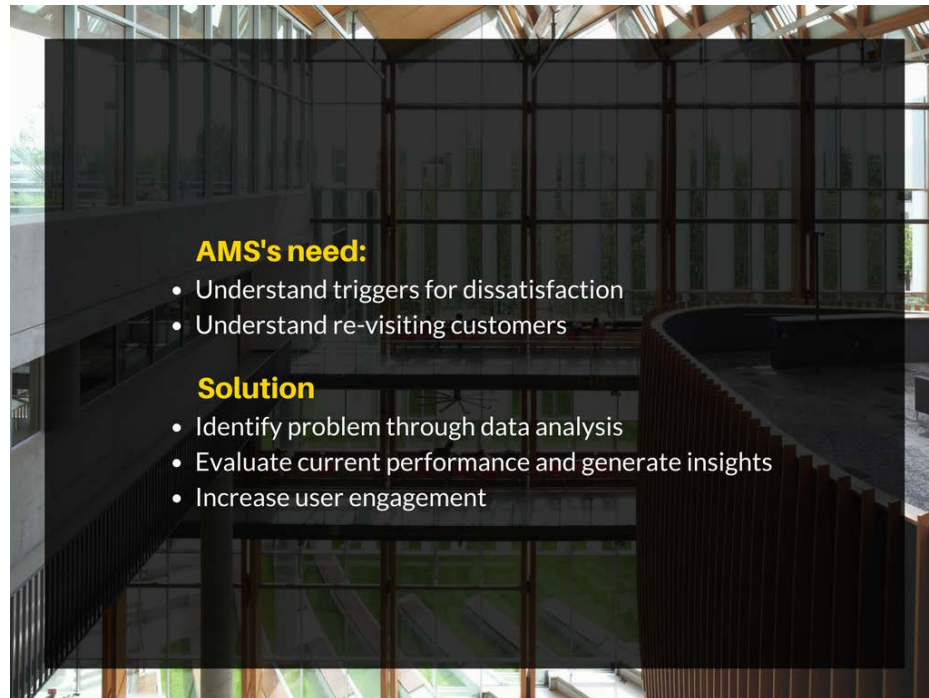
Complementary solution: **Gamified feedback**

Organize occasional events with food incentives and carnival-style games in the Nest to encourage customers to fill out a more comprehensive survey.

Advantages

- Fun and engaging for users
- Increase participation in existing experience survey
- Create culture of encouraging feedback
- Address user dissatisfaction over lack of student input

EVALUATING SUCCESS



The original design challenge from AMS requested insights on how to: 1) better understand user expectation, benchmarks for expectations, and the triggers for dissatisfaction, and 2) count/explain/understand return visits. However, we discovered that AMS has to first achieve the following before we can do such advanced data analysis:

- Improve users' perception that 'AMS is not listening' and develop a culture where feedback is encouraged
- Develop a system to measure specifics about current performances of each to-go food outlets to identify problem areas for further investigation

As a result, our final design solution, receipt drop-off, is developed to not immediately address the design challenge, but to build a foundation for future improvements in the direction of eventually answering the design challenge. We believe the collection of data will allow AMS to better evaluate the performance of food outlets, better understand its customers, and ultimately increase sales and customer loyalty.

From the initial criteria, our solution achieves the following:

- Identify problem areas through the analysis of overall user satisfaction in respect to different aspect of service provided
- Evaluate current performance and generate insight through the analysis of receipts in terms of items that was ordered by customers and their time of visit
- Increase user engagement by inviting daily feedback