## **Practical Component Proposal**

## What is your hypothesis for your research?

By creating the explorative game, scavenger hunt in the neighborhood, and selling self-designed garbage bags (color, diagram, English, and Chinese), I will be able to improve the public receptions of correct garbage sorting policy. I will consider an improvement as effective progress when the local cleaners reported the overall easier task in redistributing the task. The survey of questions on garbage sorting has a higher average grade. I will not add a distinctive bottom-line of the score for the survey question. Instead, I am looking for improvements. I have handed out a survey before the project goes into the core part. This is a pre-assessment of the understanding of the policy. I am expecting 10 points higher average score of similar questions after the project.

## What data do you expect to collect? Describe this in as much detail or possible. What form do you expect it to take? Will this be a quantitative, qualitative or mixed analysis?

It will be both quantitative and qualitative analysis. As the previous question has stated, I will collect the response from both residents and cleaners.

The information I will be collecting from cleaners will be continuous. Every week, I will be interviewing the two local cleaners about the garbage sorting each week in the neighborhood, letting the local cleaners give a score on a scale, and describing the garbage disposition spot. This part of the data collection includes both quantitative, which is a subjective score, and qualitative analysis, which is based on the interview of local cleaners. Beginning the third week, I start to sell the garbage bag. I will do this interaction with cleaners weekly to attain subjective, first-hand information about the neighborhood's garbage categorization. This is because I believe there will be a few improvements in the waste classification awareness after two weeks. The cleaners' continuous response will be noted down until March 12th, when is the deadline for the PC report.

The information I will be collecting from residents is mainly quantitative. It is a survey in both two languages asking about the garbage sorting policy. It will be a "quiz" that can be filled in only 15minutes. The question will involve essential questions and a "self-score." By "self-score," I mean the respondent will grade him, or herself base on how much he or she thinks she is skilled at this city policy and how well he or she performed for the past weeks (since some people may know how to do it, but don't want to do it due to laziness). The higher average score on the questions (questions have correct answers, but not the self-score question) means better awareness of categorizing the garbage.

## How do you expect to collect this data? Measurements, surveys and interviews are common forms of data collection, but describe your particular plan.

As I have mentioned in the previous question. The data sources will be both cleaners and residents. The interview will include subjective questions and score graded by the cleaner. Survey questions will include basic "quiz" questions about the kinds of garbage and a "self-score."

As for the interview part, I will be obtaining the information of which cleaners are responsible for this week from the tables they fill in every day (that they put all the bulletin board). To obtain a precise analysis of garbage sorting progress, I will be taking photos on the spot. The question will be mainly like, "Is there misplacement in kitchen waste?" A similar question will place five times for all categories of garbage. The reason I am splitting up the question is that I can modify the questions accordingly. Besides selling a garbage bag that begins earlier, I also have a scavenger hunt event in the community. The question can be modified if there are more misplacements in specific kinds of garbage type. Flexible modifying the questions in the event can solve the issue more effectively because the questions ask about the things they don't really know, making sure they know after they engage in the event.

As for the survey questions part, I will hand out questions for residents to fill. I am aware that not everyone in the neighborhood is willing to fill in the question, so I expect to ask committees to help me handle them. I expect to see at least 150 responses in the whole neighborhood in a neighborhood of around 1200 families. The specific time of passing out the questions is undetermined. I decided to hand out the questions after the scavenger hunt event, which still needs to decide specific date with the primary schools, kindergarten, and neighborhood committee. However, the date will be around March 5th. I will ask the committee to help me in spreading the survey questions. The person who responds to such a "quiz" can be either the child or the adult. My job is just to make sure each resident of a room has received one survey question. There will be a box at the side gate for residents to toss in their Responses when they finished. I will collect the response after a week. The person who fills this survey depends on the decision of the family. (I guess the parents will decide to leave this chance to their children because it is an excellent opportunity for them to check how well their kid(s) are doing.

By using both methods, quantitative as the "quiz" and qualitative as the interview, I will check the extent of improvement I make in the community.

Your project should represent 40 hours of work. Break down your project into two-hour chunks -- what will you do for each section of time? This might be contacting individuals, collecting data, creating charts or many other activities, as long as they are active work.

1-2	3-4	5-6	7-8
Interview with the cleaners for the week, take investigation on the garbage disposition spot	Cooperate with neighborhood committee to hand out the pre-assessment on the awareness of garbage sorting policy	Use the words of local cleaners, make color posters and put it up on the bulletin board.	Use the words of local cleaners, make color posters and put it up on the bulletin board.  Collect the assessment
9-10	11-12	13-14	15-16
Deliberating the questions, answers and locations for scavenger hunt according to the interview and the result of pre-assessment survey questions	Refined designed of the garbage bag according to the interview and the result of pre-assessment survey questions	Agree on the design and the price with the manufacturer, adjust schedule (if necessary) with the time I can have the bag in hand	Print the carefully designed hard boards that will be placed in the neighborhood
17-18	19-20	21-22	23-24
Print the carefully designed hard boards that will be placed in the neighborhood.  Make preparation place the boards in the neighborhood	Buying the material that use to fix the board  Communicate with the community committee	Putting up boards in the neighborhood.  Selling bags weekly, community committee and my grandmother will handle the shop during the school days	Putting up boards in the neighborhood.  Checking if the whole route of exploration is correct (If need modification, change quickly)
25-26	27-28	29-30	31-32
Determined dates for scavenger hunt with collaboration with surrounding educational institutions (primary school, middle school, kindergarten)	Determined dates for scavenger hunt with collaboration with surrounding educational institutions (primary school, middle school, kindergarten)	Design and put up poster for the advertisement of scavenger hunt event in the neighborhood.	Design and put up posters (continued). Plus discuss with community committee about the appropriate prize for the prize in the game
33-34	35-36	37-38	39-40
Edit the website for the place of entering the "treasure code" find after the SH game. Predict the number of children engaging in the game	Regulate the game of scavenger hunt by starting with a Chinese speech and wandering in the neighborhood while playing (help children to some extent)	Handling the event of Scavenger Hunt in the same way of the previous block	Redesign the questionnaire about garbage sorting and handing out by committee. Interview cleaners again a week after the event.

List the individuals or organizations that will be supporting you in completing your project. What will they add to your project? Do you already have confirmation of their assistance? If not, what is your plan for gaining that support? What will you do if they aren't able to help in the way you expect?

The primary individual and organizations included in my plans are parents, grandmother, cleaners, the community committee, bag manufacturers, primary school nearby, kindergarten nearby, and middle school nearby. Minor individuals are the printers and board makers. I have confirmed the assistance of my family members and community committees. My parents will take care of the garbage side gate market twice a week when I am in school. My grandmother, who has influential reputation in the neighborhood, will also help to tell each other about my project. In addition, since the manufacturer is essentially a business store, I will contact them anytime when I am ready to start to decide the design and prize. It is an online store in Taobao that I can communicate with the manufacturer easily. I haven't confirmed the cooperation with the nearby educational institution. However, all institution nearby is the school and kindergarten I was in. I still have contact such as social media with all teachers and acquittances in the institution. If some institution is not able to help with my plan, I still have other institutions. (Unless all of them cannot work)

List the materials and/or facilities you need to complete your project. This might include people to help move a large item, access to a lab, or a specialized pipe fitting. How do you plan to acquire and use them? What are your plans if a facility or item is unavailable?

The materials will be the manufactured bag (of course), prizes, and the question board that I make to put up on the trees and other landscapes in our neighborhood. My plan is to decide the time to start selling the bag based on the arrival of a self-designed manufactured bag. (Because production takes time, so I push forward the time of communicating with the store so that the bag can come as early as possible). The second one is the information boards on the tree. It is easy to have access to produce those things because it can just be done in printing shops. One printing shop two crossroads away from my neighborhood can print and make those boards. Prizes are significant because they triggered the motivation of children playing the

exploration game in the neighborhood. At the same time, I cannot add too much extrinsic motivation in their mind because the children may stop categorizing garbage if they don't get a prize like in my game. "Don't be too cheap or too expensive," my dad said. Thus, I will take into careful consideration the prizes I can give. There is no specific facility required besides my neighborhood landscape (if my neighborhood is a facility).