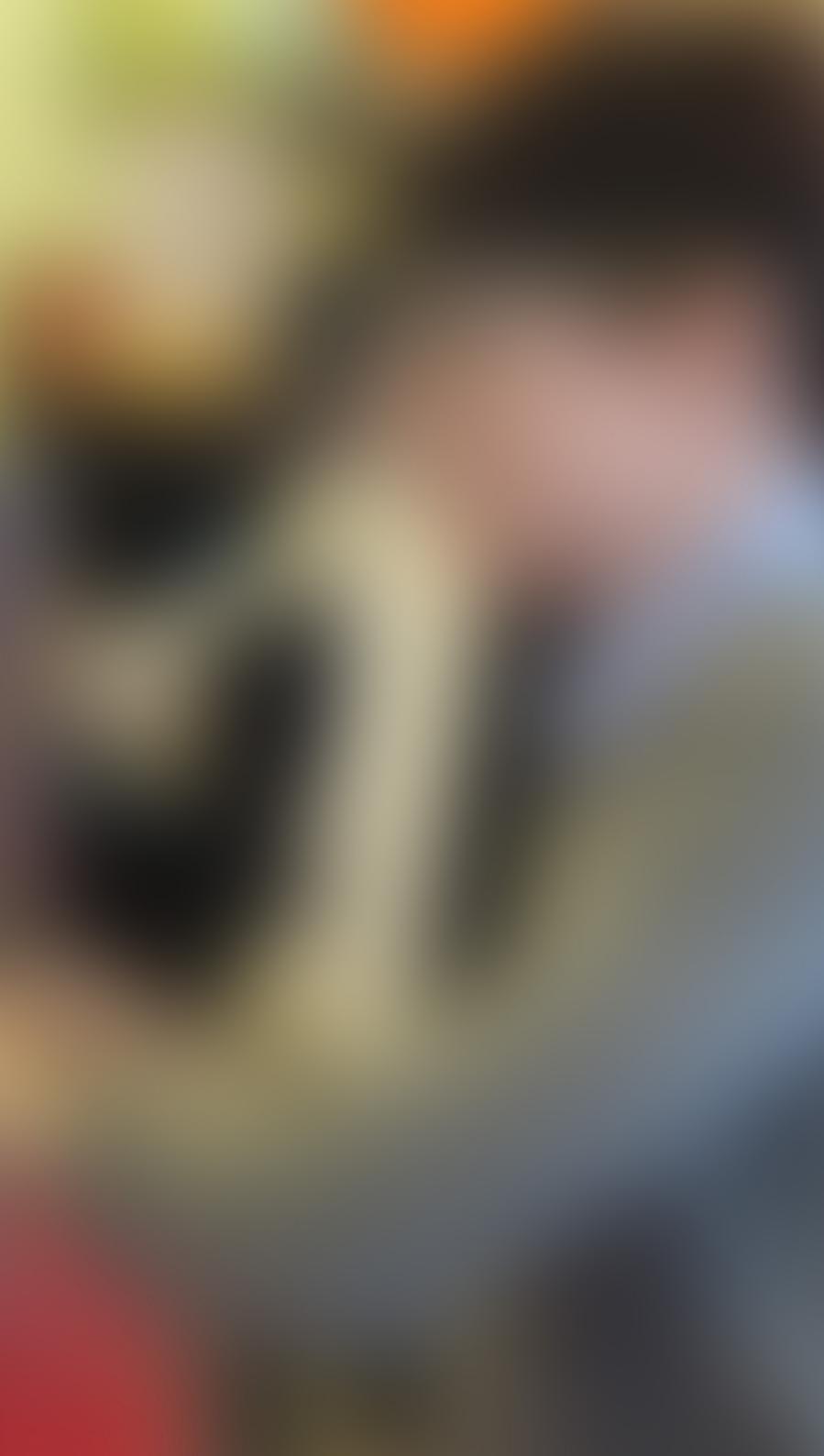




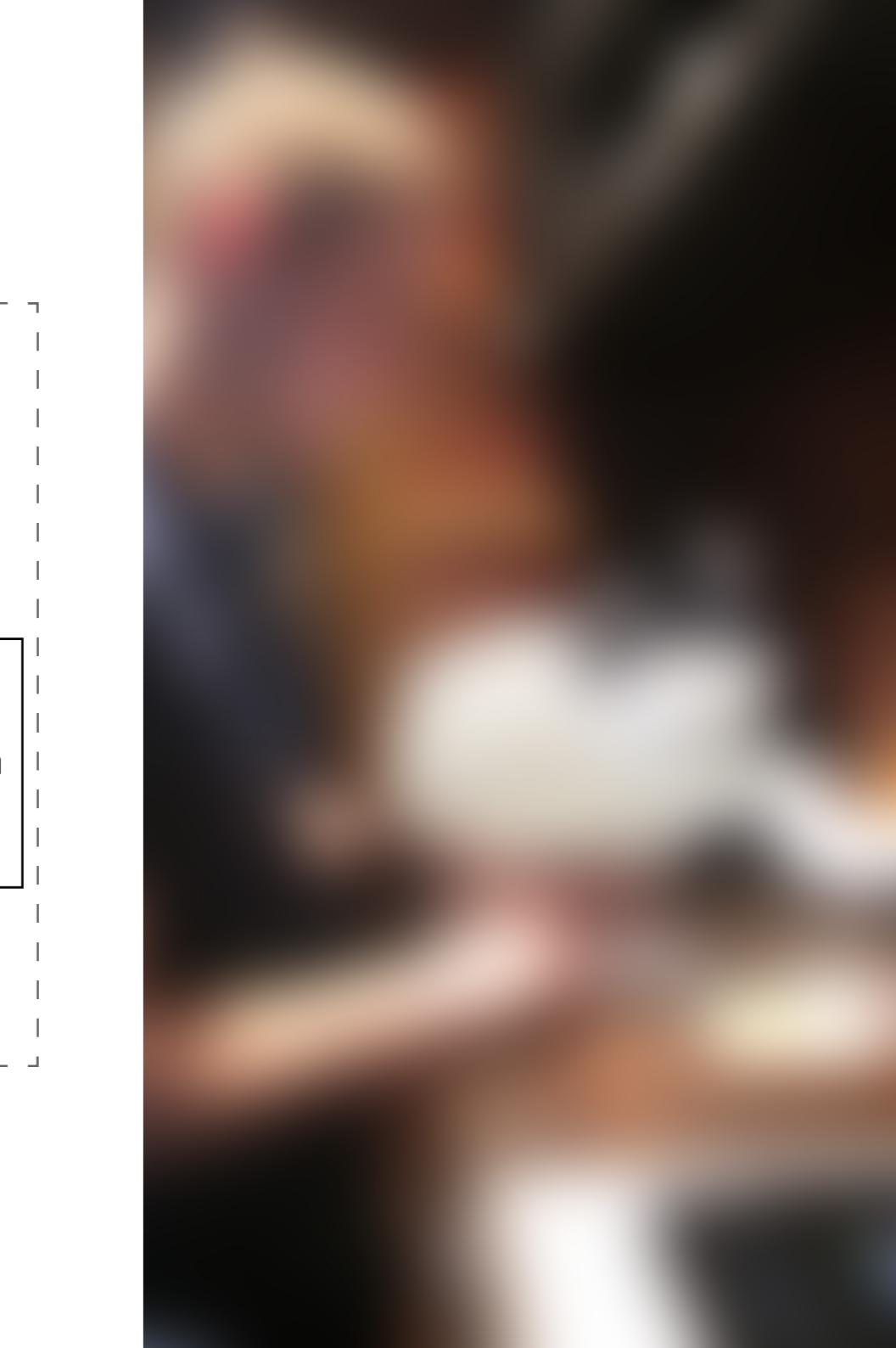
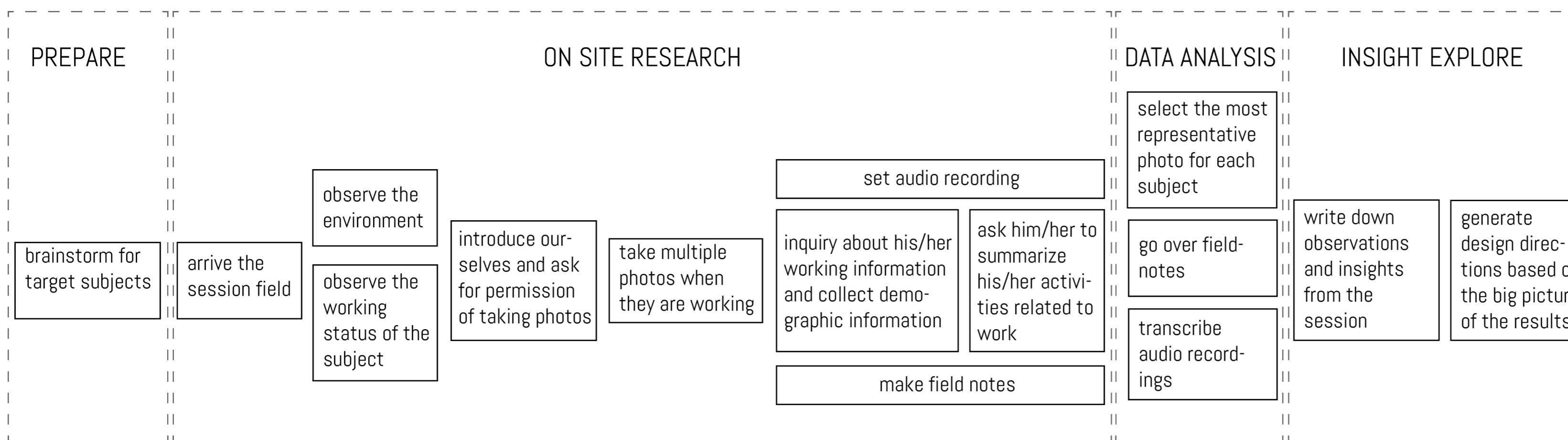
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INTERACTION DESIGN METHODS
VISUAL ETHNOGRAPHY
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INTRODUCTION

This project aims to observe and record the mundane and idiosyncratic features of everyday life in Bloomington through photographic technique and learn how to interpret the visual data for design interventions. The objective is to use photography as a lens to understand **the people who are working in service industry in Bloomington** while focusing on the context in which images are produced. When choosing different subjects, we keep in mind that **our subjects should vary from different kinds of work and experience levels**. By which, we could get a general picture about Bloomington citizen's working lives vertically and horizontally in service industry. We approached to many different subjects and select five subjects to present: restaurant waiter, oriental market staff, Best Buy sales consultant, yogurt store supervisor and vintage shop assistant manager and document their working lives.

STUDY PROCESS





SUBJECT DESCRIPTION

Our first subject is a waiter who is in his twenties, working at DO restaurant (404 E 4th St, Bloomington, IN 47408). It is 6 p.m. on Friday afternoon, so it is the rush hour for the restaurant.

NARRATIVE OF THE SUBJECT

“ I did all the things we need to get the day started. When customer came in, I serve them, order things they need and get they start. And after they leave, I clean up, so food prep, serve and clean up, that's pretty much my job. **”**

The subject does the job in a personalized way. When he serves customers, he uses body language, gestures and humorous words to get more close to his clients and make them satisfied.

DESIGN DIRECTION

From our observation and interpretation, the major needs for this subject are 1) bringing up work efficiency in rush hours; 2) better serving guests in a personalized way. Hence here we provide two possible design directions:

- As we observed, waiters are always busy shuttling from kitchens and tables. It might take two more times coming back and forth for a waiter to respond to guest's request. It will be possibly helpful if some special channels can be built between guests and waiters so that common request (e.g. asking for water, tissues or checking) can be directly conveyed to waiters, thus bring up working efficiency.
- Since the subject does not only want to meet the basic requests from customers, but also expect to entertain his clients. Possible design implications could be oriented to creating new uniform or tableware that could be leveraged as tools to facilitate waiter's service. We assume that his intention to perform personalized services could be better demonstrated with interactive uniform and tableware.



SUBJECT DESCRIPTION

Our second subject is an assistant manager of the Cactus Flower, a vintage shop at downtown Bloomington (322 E Kirkwood Ave, Bloomington, IN 47408). Usually, she works four days a week and has worked here for two years. She feels happy with the recent promotion to this new position.

NARRATIVE OF THE SUBJECT

The subject's day-to-day management includes checking in new clothes, arranging clothes to make them tidy, serving clients and selecting nice background music. The most exciting thing for her is managing these consignments.

“ If any consigne or anybody needs to talk with me, I am for, I can help like consignment account and trackingshipments. Since I have been here for long than others, I do quick with pricing (the vintage items), measuring the quality, style, the material, brands. Then I check the product tags online to make sure it's real. **”**

Due to the visual information and our observation, there are two points where we can make improvement on: 1) more accuracy in pricing phase of the consignment; 2) less work load to reorganize messed clothes on hangers and shelves. Hence here we provide two possible design directions:

DESIGN DIRECTION

- From our observation, the pricing of the consigned goods could be subject to some extent as it's determined by one assistant manager of the vintage store. We propose that leveraging on image recognition and cloud database will be possibly beneficial to estimate a more accurate price which reflects the need of the market.
- It takes her considerable amount of time for the subject to reorganize clothes. If hangers or shelves could somehow monitor the status of the clothes and notify the subject to reorganized these messed items, it will increase the efficiency of her manage work.

SUBJECT DESCRIPTION

This subject is a Chinese woman around 40-50 years old, who is now working at Obo's - an oriental market in Bloomington. She starts to work 10a.m every morning and goes off at early afternoon. Another staff will take over her responsibilities after that.

NARRATIVE OF THE SUBJECT

“ Generally, I arrange and examine vegetables to make sure it doesn't go bad and remove degenerative part, it takes me an hour or so. I range goods from time to time, to make them tidy and classified clearly. ”

In order to keep vegetable in fresh, the subject also need to transport some ice-cube with trolley from a restaurant nearby. She will go for it again when ice melted. For groceries in fridge, the subject has to check everything is still within the shelf life. Then she manages for showcase so that clients could find goods easily.



DESIGN DIRECTION

Based on our observation and visual data, possible opportunity space for this subject is 1) a better way to notify the shelf life of vegetables which have production date; 2) enhancement of the shopping experience in an oriental store.

- It is quite noticeable that most vegetables in Obo's don't have labels, which might cause difficulties in determining whether the vegetable is expired or not. Digital labeling system might be helpful to track the date of vegetables so that the staff will be more aware of the status of the vegetables and always keep them fresh.
- As the staff reported, many ingredients at Obo's are little known to local residents. It could be possibly helpful to install certain device (e.g. arcade or game console) for consumers to get a better knowledge of unknown ingredients and discover asian cuisine recipes with a playful and interactive experience. For instance, customers could select any ingredients, make combination and see what kind of cuisine they will get. The recipe suggestion could be based on the consumer database and online recipe resources.



SUBJECT DESCRIPTION

This subject is right now working as one of the three supervisors of Freshen Yoghurt in Indiana Memorial Union. He is around 25 and works all 5 days a week, from 1 pm to 5pm everyday.

NARRATIVE OF THE SUBJECT

The subject described his job as *kinda jack of all trades*. Except for food making (smoothies, popcorns and frozen yoghurt as the photo shows above), as a supervisor he is also in charge of some of the major administration, depositing of the money, closing the place, making the inventory is ready for not only the next day, but also of that day.

“ We train normal workers, try to coordinate with managers and also do scheduling stuff. “So it’s pretty like jack of all trades, then transactional process of work and then on top of that, the more the manager part. **”**

He summarized his work in 3 levels.

DESIGN DIRECTION

Grounded on our observation and follow up questions, we suggest two possible design directions for the subject working at Freshen: 1) lowering the operational error rate for the cashier; 2) upgrading the time scheduling and timing system for their work.

- As the subject reported, it is often the case that the cashier and the remote console have different sums when he does his daily check at the closing phase. A simplified design of cashier which can validate the daily sums in a more accurate way would be of great help.
- The subject spares tons of time to schedule stuff. A possible ideation to make this process easier is to build up a scheduling platform such as 'when is good' and 'doodle', which also provides working hour analytics (clock-in, clock-out, time block editing, etc.) information.

SUBJECT DESCRIPTION

The young subject works as a sale consultant at BestBuy, who starts working in store from last August. He loves the job because it offers him great experience to communicate with people, though sometimes he feels tired when he has to work overtime. In Best-Buy store, there are more than ten staff, consultant and manager shuttle from counter to counter to serve for clients.

NARRATIVE OF THE SUBJECT

"I work everywhere" our subject said, and he did run through all the counter.

“ *The main thing is taking care of unique case, another priority thing is to make sure everything in store looks good, something is not belong there, so make sure they go to the right place. Another big one is help customer's issues and problems, to figure it out or get someone else to help, and basically sale stuff, sale is my main focus.* **”**

He talks with other staff and manager from time to time to make sure that they offer customers right answers. Additionally, he does cashier work when clients ask for.



DESIGN DIRECTION

On the basis of our visual data analysis, some design directions could be applied to improve the service quality of Best Buy: 1) accumulating consumer Q&A database; 2) using staff location system for better management.

- We find that the subject asks other staff and manager to help solving some questions raised by customers when he is not familiar with. It is not an efficient way and not appropriate to keep customers waiting. We suppose that a database of common problems could be setup. Being supported by voice recognition, the consultant could get on time information via his earphone.
- Through the observation, most of the staff work everywhere in the store, instead of fixed locations. It makes them to serve customers in a more flexible way. However, it happens sometimes when several staff are all working or staying at one place, while other counters may be short of people. A staff location tracking system (e.g. wearable tech) will help staff to locate others and remind him/her to fill the spot if necessary.

REFLECTION

STRENGTH +++++

Photo ethnography is a direct and vivid way to document subjects' ongoing activities. Compared with traditional ethnography, which depends on field session sketch and subject description, photo ethnography works better on these two parts. First, there is no potential misleading caused by language barrier via the visual photo, the readers will get accurate information in short time. Second, photos will offer much detailed information beyond words, such as their dress, tools they use and working environment, all of these are useful for researches to go deep, make relation to their job and explore insights. It also helps those researchers who didn't attend the session have a more visible context.

When researchers wait for the good time to take pictures, they are actually doing observation at the same time. It is a useful method and could be used supportively to methods like contextual inquiry.

REFLECTION

LIMITATION -----

The main challenge for using visual ethnography as a user research method is that taking photos, inevitably will have some influence on the performance of subjects. Chances are that they would like to act as "good subject".

Secondly, it is sometimes not an easy job for ethnography researchers to determine when and where to press the shutter when people are working. To be specific, it is much easier to record people who work at the desk, however, it becomes hard to take a clear and insightful picture when people keep moving in the work, such as the market staff(subject#3).

Finally, it might be somewhat subject for researchers to choose and take pictures from their point of view. Methodologically, visual ethnography might be better integrated with other research approaches that give more power to subjects.