DC1E_SETTING USER TESTING

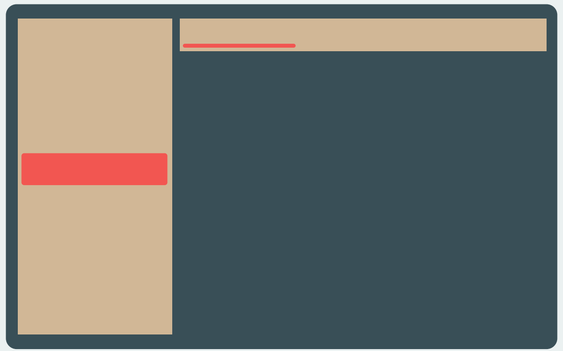
This test is to explore the user's behaviors in different CSD Setting frameworks, and evaluate which framework is closer to the user's mental model. Draw conclusions through quantitative and qualitative analysis to provide evidence for future's business strategies. The test lasted 2 days. There are 50 participants, half of the people tested plan A, and the other half tested plan B.

TEST PREPARATION

Tree Testing

Fast, Iterative Evaluate of Menu Labels and Categories

- Explore Product's **frame or architecture information**
- At least **50 users**
- Each participant performs only **13 tasks**
- Define Metrics and some significance functions
- Based scenarios
- **A and B** plan
- Low- fidelity prototypes



Metrics

Success rate

The percentage of users who found the right category for that task

Directness

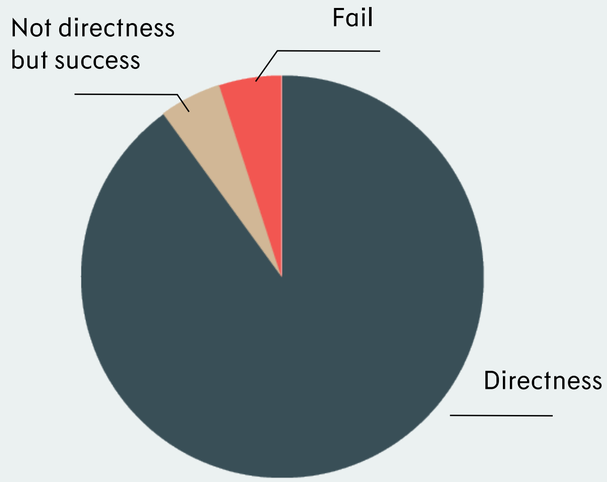
The percentage of users who went to the right category immediately, without backtracking or trying any other categories

Destination

The category most people designated as their final answer

Overall satisfaction

Suggestions and preference about menu and function hierarchy.



Data Example, not the test result

Task list

A list that observer need to fill when testing

Vertical columns
- Significance tasks (Based scenario)
- Modified function items

Horizontal columns
- Whether to find the target quickly (success for the first time)
- Times of errors
- Error location (user first cognition)
- Whether to complete the task or not
- Notes

User list

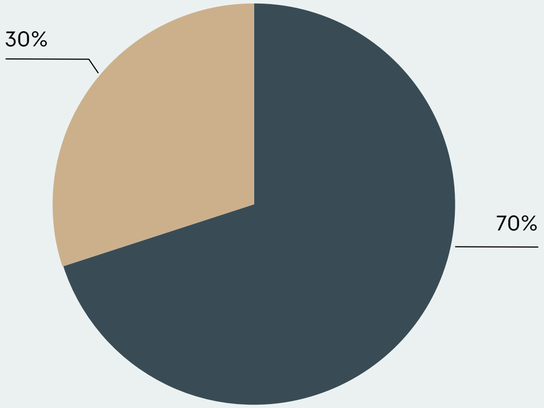
A list that user need to fill after testing

User information
- Name/ Gender/ Age/ Driving experience/ Occupation
- Which plan did he test

Open-end questions
- Are you satisfied with the whole process?
- What do you think is unreasonable?
- Any suggestions for the above dissatisfaction?
- Other notes

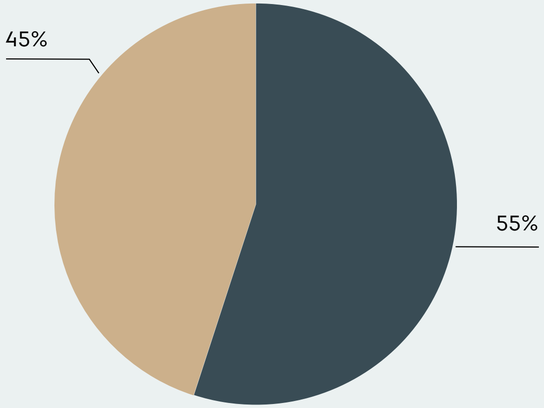
DATA ANAIYSIS

User information-Plan A



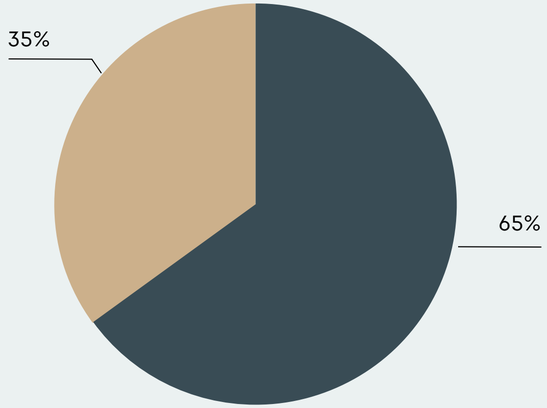
Gender

- Female
- Male



Age

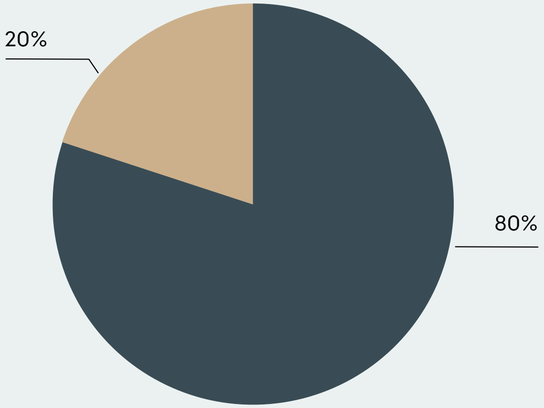
- 20-30 years old
- Over 30 years old



Driving Experience

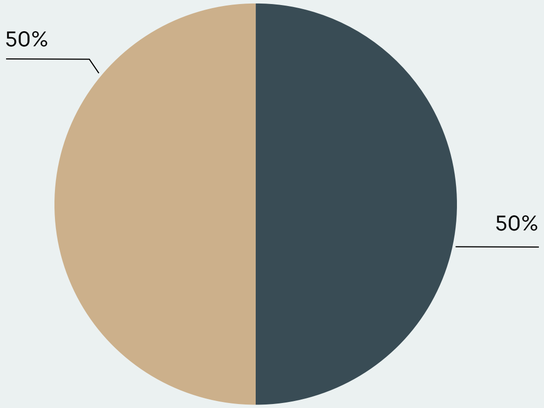
- 0-3 years driving experience
- Over 3 years of driving experience

User information-Plan B



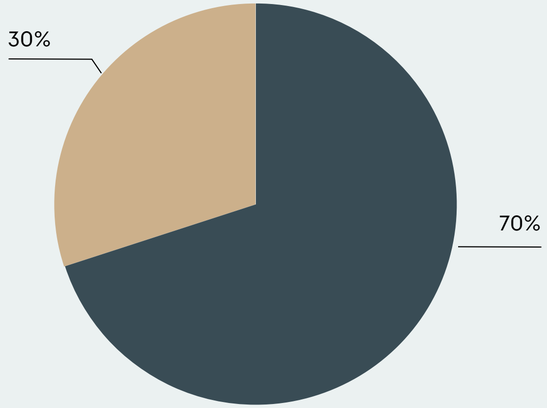
Gender

- Female
- Male



Age

- 20-30 years old
- Over 30 years old



Driving Experience

- 0-3 years driving experience
- Over 3 years of driving experience

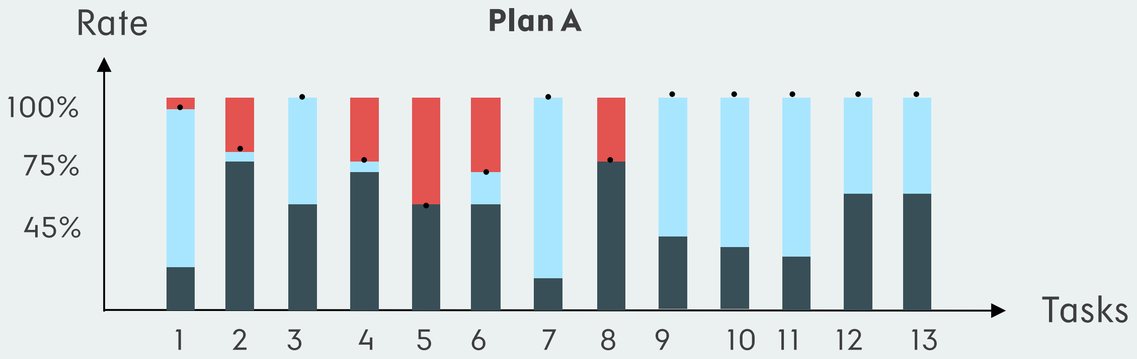
Quantitative analysis

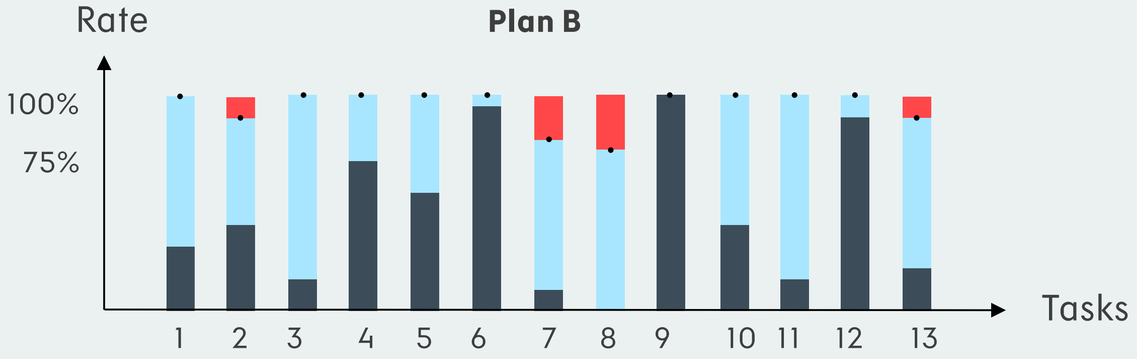
Success rate

We can see from the line graph
- Plan A performed well on 9-13 tasks.
- Plan B has a better overall success rate and directness.

Task 1	Driver seat
Task 2	Location services
Task 3	Date and Time
Task 4	Face recognition
Task 5	Theme selector
Task 6	CSD brightness adjustment
Task 7	Trailer mode
Task 8	Parking comfort
Task 9	Driver window
Task 10	Language and Unit
Task 11	Speed limit sign information
Task 12	Glove box
Task 13	EPB

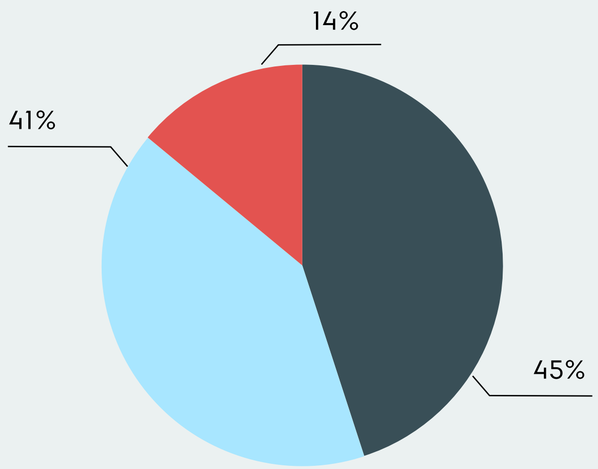
Success with trying
Directness
Failed
Success rate



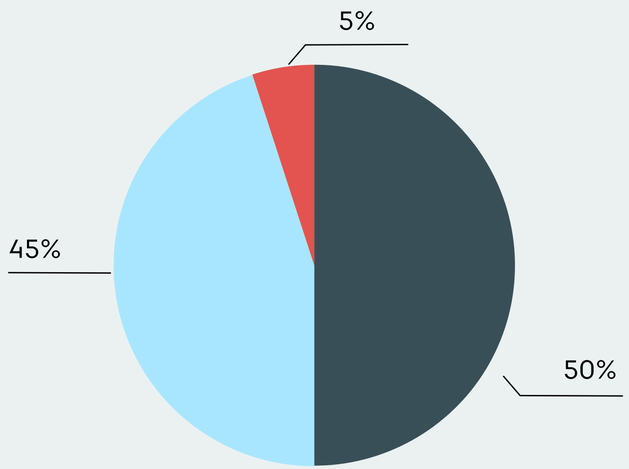


Average success rate

We can see from the pie chart
- Plan B performs well in average success and directness.



Plan A



Plan B

Success with trying
Directness
Failed

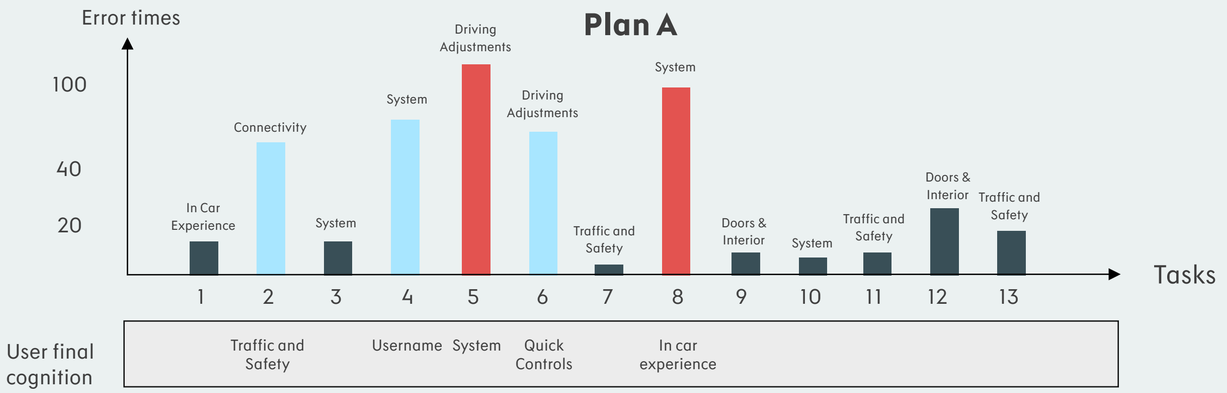
Destination

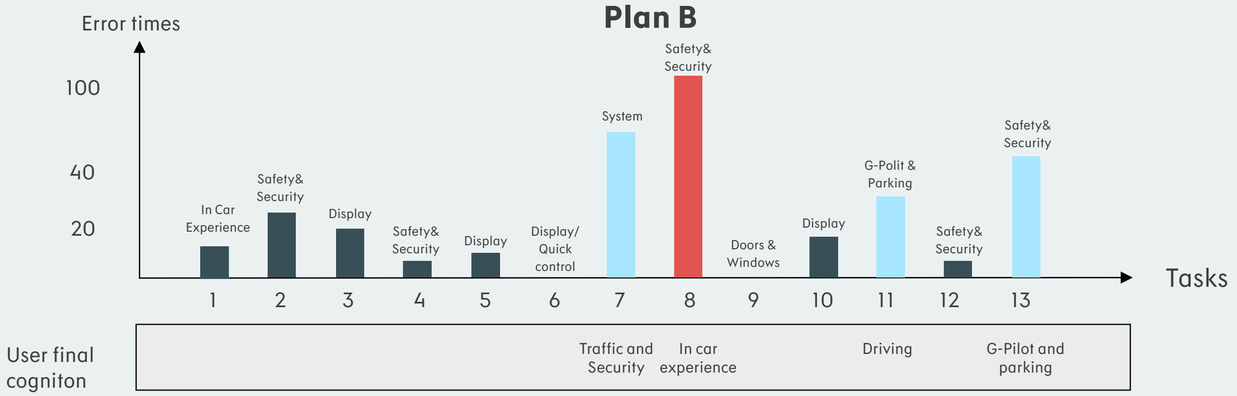
Through data analysis, we found that in both 2 frameworks, there are some menus that are not closer to the user's mental model.

Users' final answer are under the Bar Graph.

Task 1	Driver seat
Task 2	Location services
Task 3	Date and Time
Task 4	Face recognition
Task 5	Theme selector
Task 6	CSD brightness adjustment
Task 7	Trailer mode
Task 8	Parking comfort
Task 9	Driver window
Task 10	Language and Unit
Task 11	Speed limit sign information
Task 12	Glove box
Task 13	EPB

- < 40 (less than 2 times /per people)
- 40-100 (2 -5 times /per people)
- 100+ (More than 5 times /per people)

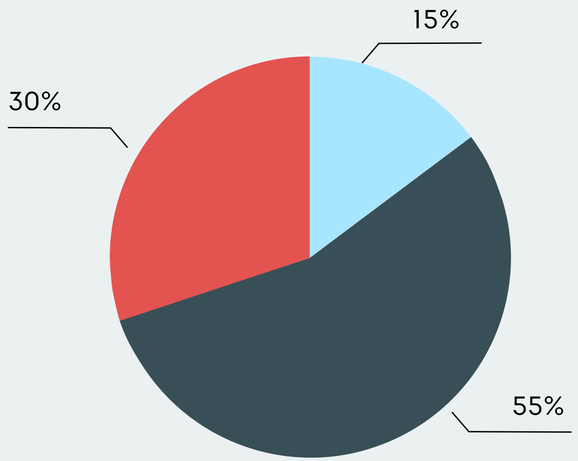




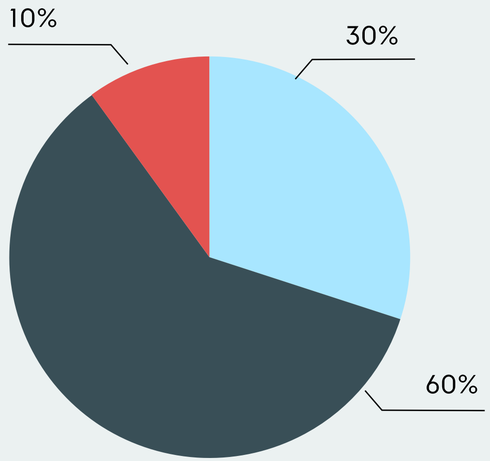
Qualitative analysis

Overall satisfaction

From the overall results, the satisfaction of plan B is slightly higher.



Plan A



Plan B

Satisfaction
Basically satisfied
Dissatisfied

Suggestions or comments about plan A

Summary

Some functions are not easy to be identified and found. Here are Users' suggestions:

-The functions in "Displays & Buttons" should not be placed in driver adjustments that are not very relevant. It is recommended that some functions can be placed in the system or in quick control.

-Parking comfort is not easy to recognize in the system menu, it is recommended to be related to the experience or parking.

-"Door and interior" is not easy to understand and often be confused with "in car experience".

-The user believes that the system should be some CSD settings; but "service" is more like a function outside the car, it is not suitable to be placed in system.

Suggestions or comments about plan B

Summary

Some functions are not easy to be identified and found. Here are Users' suggestions:

-Most users suggest that "Parking comfort" is more reasonable to put in “in car experience” or “Parking”.

- More high- requency functions need be placed in Quick Control. Such as seat adjustment， theme selector.

- G-Polit & Parking is confused with Driving. Can intelligent driving be merged into driving? Parking integrates the functions of Parking.

-"Trailer mode" may be more reasonable in driving.

Thank you!