

Kano Prioritization

Use Cases

Plan a family activity

The system allows family members to initiate, schedule, and host a family activity. This includes giving family members the ability to propose an activity for the whole family to participate in, vote on a specific activity, and check each participant's availability through the integration with an existing calendar service.

Coordinate the usage of shared resources

The system allows family members to book time for when they want to use a certain shared tangible resource and notify all other family members of that usage. It will also allow family members to set priorities for who gets to use a resource at what time, and remind family members to return a shared resource to its original place after usage.

Connect with family members to keep up-to-date

The system integrates with existing social media networks to share updates that family members post on those platforms with the family. The system also aids in creating a space that allows family members to connect with each other on a deeper level.

Monitor shared digital subscriptions

The system allows family members to create a centralized inventory of digital subscriptions that are used by the family. The inventory contains the account credentials, start date, termination date, and payment methods for each subscription. The family members can view, edit, add, and delete any subscription in the inventory to ensure that it is up-to-date.

Collaborate on shared media playlists

The system enables family members to create shared media playlists consisting of music or videos for different occasions, such as family dinners, camping trips, and driving, through an integration with media services. This feature helps family members share common interests through media.

Note: The list of stakeholders interviewed is the same as those from the quality attributes interviews.

Stakeholders

- A. Young Adult A
- B. Young Adult B
- C. Young Adult C
- D. Young Adult D
- E. Busy Parent A

Functional Questions

Use Case	Like (4)	Expect (2)	Neutral (0)	Tolerate (-1)	Dislike (-2)
Plan a family activity	B	A, C, E	D		
Coordinate the usage of shared resources	B, C, E	A	D		
Connect with family members to keep up-to-date	A, E		B, C, D		
Monitor shared digital subscriptions	D	A, B, C	E		
Collaborate on shared media playlists	A, B, C	E	D		

Use Case	Average	Standard Deviation
Plan a family activity	2	1.414
Coordinate the usage of shared resources	2.8	1.789
Connect with family members to keep up-to-date	1.6	2.191
Monitor shared digital subscriptions	2	1.414
Collaborate on shared media playlists	2.8	1.789

Dysfunctional Questions

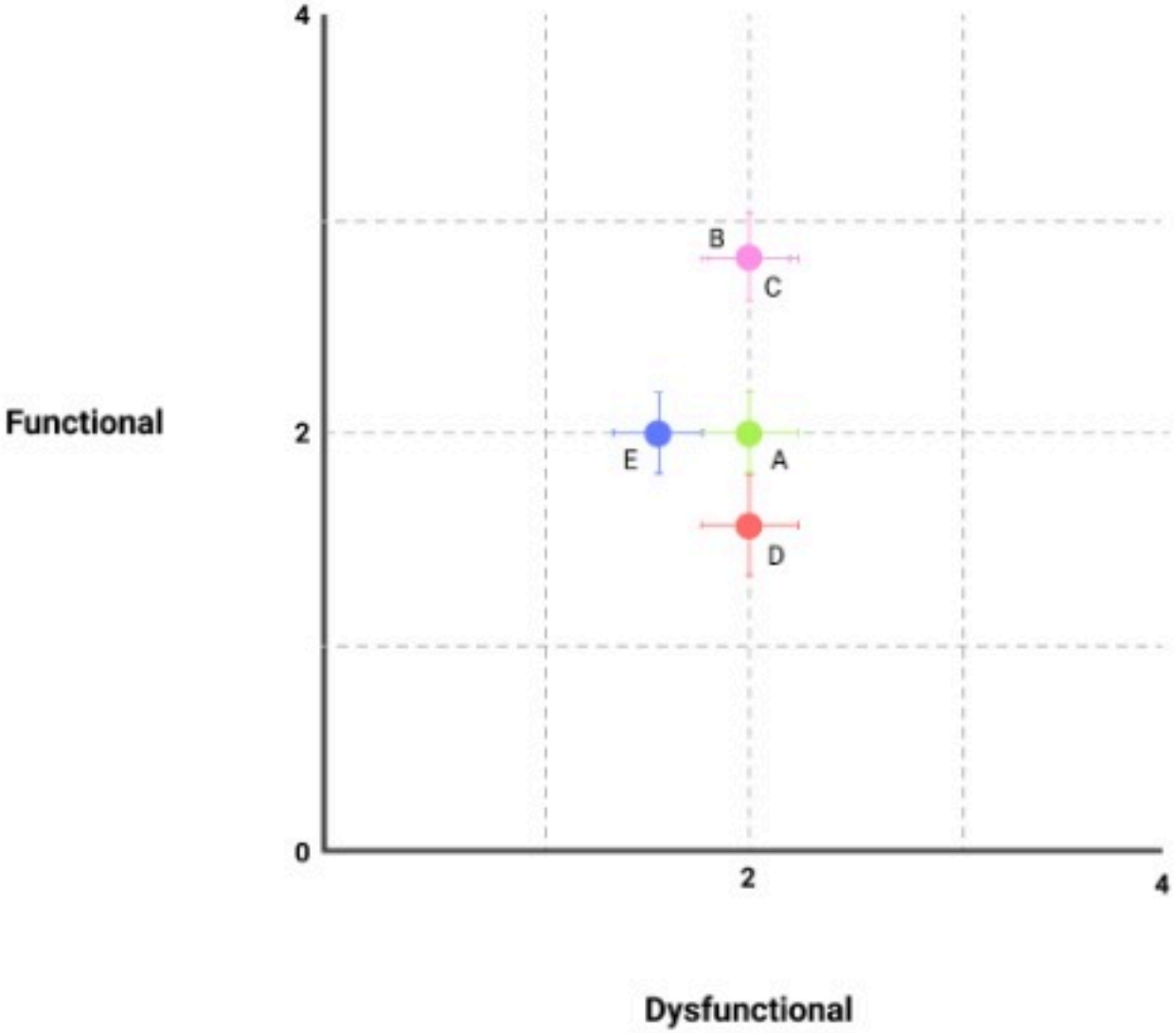
Use Case	Like (-2)	Expect (-1)	Neutral (0)	Tolerate (2)	Dislike (4)
Plan a family activity			B, D	E	A, C
Coordinate the usage of shared resources			E, D	A	B, C
Connect with family members to keep up-to-date			B, D	C	A, E
Monitor shared digital subscriptions			B, E	A, C	D
Collaborate on shared media playlists			B	C, D, E	A

Use Case	Average	Standard Deviation
Plan a family activity	2	2.000
Coordinate the usage of shared resources	2	2.000
Connect with family members to keep up-to-date	2	2.000
Monitor shared digital subscriptions	1.6	1.673
Collaborate on shared media playlists	2	1.414

Categorization Plane

Let

- A. Plan a family activity
- B. Coordinate use of shared resources
- C. Collaborate on shared media playlists
- D. Connect with family members to keep up to date
- E. Monitor digital shared subscriptions



- A. Plan a family activity
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Note: Point B and C are completely overlapping. Our standard deviations were too big to fit in the plot, so all standard deviations are 1/4 of actual standard deviations.

Kano Evaluation Table

	Young Adult A	Young Adult B	Young Adult C	Young Adult D	Busy Parent A
Plan a family activity	Basic	Excitement	Basic	Indifferent	Indifferent
Coordinate the usage of shared resources	Indifferent	Performance	Performance	Indifferent	Excitement
Connect with family members to keep up-to-date	Performance	Indifferent	Indifferent	Indifferent	Performance
Monitor shared digital subscriptions	Indifferent	Indifferent	Indifferent	Performance	Indifferent
Collaborate on shared media playlists	Performance	Excitement	Excitement	Indifferent	Indifferent

Relative Priority

Young Adult B, and Young Adult C both have the top 3 most valuable cases to be A, B, and C. The only difference between how they rated the cases was that Young Adult C (“basic” rating) gave more value to A compared to that of Young Adult B (“excitement” rating). Everyone else had different top 3 valuable use cases. Young Adult A has given the most value, out of all other interviewees, to A (“basic” rating), and D (“performance” rating). Young Adult A gave C a “performance” rating, which is less value than what Young Adult B and Young Adult C had given C (both “excitement” rating). Unfortunately, Young Adult D was indifferent to all use cases except E, while all other interviewees were indifferent to E. Busy Parent A rated D to be “performance”, and it was the most valuable out of all the other ratings of D by other interviewees. Busy Parent A was the only interviewee who rated B as “excitement”, while Young Adult A and Young Adult D rated B as “indifferent”, and Young Adult B and Young Adult C rated B as “performance”.

Total Ordering

Based on our categorization plane and the Kano evaluation table, our prioritization is:

1. Plan a family activity
2. Coordinate use of shared resources
3. Collaborate on shared media playlists
4. Connect with family members to keep up to date
5. Monitor digital shared subscriptions

The total ordering of our use cases are determined based on the evaluation table and the categorization plane. We used the evaluation table when deciding the prioritization for 4 of the use cases because it was not very clear which section of the categorization plane each data point belongs to. The categorization plane gives us an idea of how to prioritize E. From the categorization plane, it is clear that E has less value to the interviewees than the other four use cases from the dysfunctional questions axis. Use cases A, B, C, D all lined up on 2 for the dysfunctional questions axis. The data points for use cases B and C are completely overlapping with slight differences in standard deviations. Hence, it appears that interviewees had put the same value on both of these use cases. From the functional questions, A has less value compared to B and C. Finally, from the functional questions, the use case D was given the least value compared to A, B, and C. However, we needed more information on how to prioritize the A, B, C, and D.

The evaluation labels from the Kano evaluation table provides us with additional information on how each of the individuals felt about the use cases. It is clear that A is prioritized as number 1 because it is the only use case with “basic” ratings. B is prioritized as number 2 because it is rated “performance” for 2 interviewees, and rated “excitement” for 1 other interviewee. D (2 “performance” ratings) and C (1 “performance” plus 2 “excitement” ratings) have overlapping data points in the categorization plane. We decided to prioritize C as number 3. This is because the dysfunctional values of the two use cases are both 2, while there is a big difference in value between the two data points of the two use cases on the categorization plane on the functional questions axis. We decided to put more importance on the functional questions, which gave higher priority to C.