

Assessing Choice Task Presentation Formats for SF-6Dv2 Valuation: A Qualitative Think-Aloud Study

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Abstract

Objectives

This study aims to derive optimal choice task presentation for SF-6Dv2 health states indiscrete choice experiments(DCEs).

Methods

Forty Korean adults participated in qualitative cognitive interviews conducted online, employing a think-aloud technique supplemented by retrospective probing. Respondents assessed five different visual presentations of DCE choice sets: non-highlight, underline + bold, yellow highlight, graphic added, and color shaded. The interview scripts were analyzed with a focus on the reasons why certain presentation methods were more preferred or disliked.

Results

Participants, balanced in gender with an average age of 44.4 years, engaged in interviews that lasted an average of 58 minutes. Preferences for the method of presenting choice tasks were influenced by how quickly and well each method enabled understanding of each health state, and how easily it facilitated comparisons between health states. The underline + bold design was preferred by many as it supported comprehensive understanding of given health states, quick selection, and overall comparison. There were few negative opinions about this design. The yellow highlight and graphic added designs received mixed responses. The design highlighted in yellow was preferred as it helped quick selection by emphasizing key words. However, some respondents expressed critical opinions, noting that it might cause users to miss other background information besides the emphasized words. The graphic added design was appreciated for its use of scales that facilitated understanding; however, some found the scale direction confusing, reducing overall comprehension.

Conclusion

Considering aspects of promptness, accuracy, and comprehensiveness of the choice task, the underline + bold design was chosen as the best design for use in future SF-6Dv2 valuation studies.

Objectives

- to explore the presentation style of DCE survey that best enables respondents to understand the health status of SF-6Dv2.

Methods

Study Design

- This qualitative, cross-sectional, non-interventional study consisted of 1:1 cognitive interview. We followed the COnsolidated criteria for REporting Qualitative research (COREQ) to describe the core elements of a qualitative study. The 60-min video-recorded interviews were conducted by 2 experienced qualitative researchers.
- The cognitive interviews were conducted using a combination of think-aloud and retrospective probing.

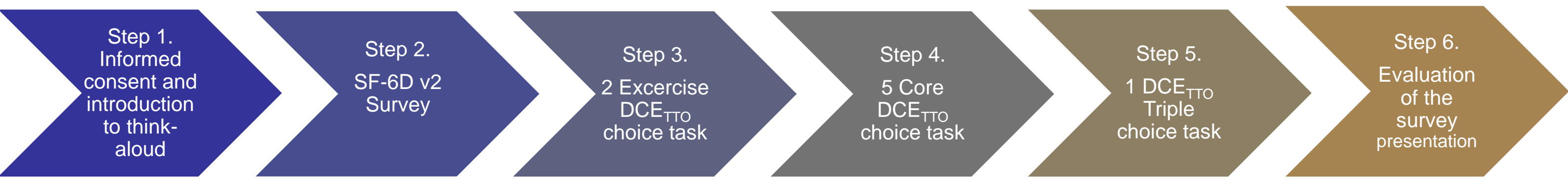
Study Sample

- Participants were 40 adults aged 18 and older living in South Korea. Participant recruitment was conducted by a third-party research organization (Gallup Korea) using proportional allocation by gender, age, and region.
- Duration of interview: Aug. 2023. – Sep. 2023

Study Procedure

- This cognitive interview is divided into six parts: 1) Informed consent and introduction to study; 2) SF-6Dv2 health status assessment questionnaire; 3) practice session; 4) five binary choice sets; 5) one DCE choice task including peaceful immediate death; and 6) evaluation of the survey presentation (Figure 1).

Figure 1. Cognitive interview procedure



Coding and Anaylsis

- Coding of interview data began immediately after each interview. The interviewers populated a spreadsheet with any notable issues that arose during the interview.
- The full transcripts of the recorded interviews were then transcribed into the Taguette program for coding and content analysis for each presentation.
- All coded data about presentation were reviewed and analysed by the study team. JC and EB developed and upgraded the codebook and coded each interview independently. The entire research team came together to conduct content analysis.

IRB Approval and Others

- This study was approved by the IRB of Gyeongsang National University (No. GIRB-G23-NY-0036) and supported by National Research Foundation of Korea (Project no. 2022R1A2C1012252).

Results

Participants

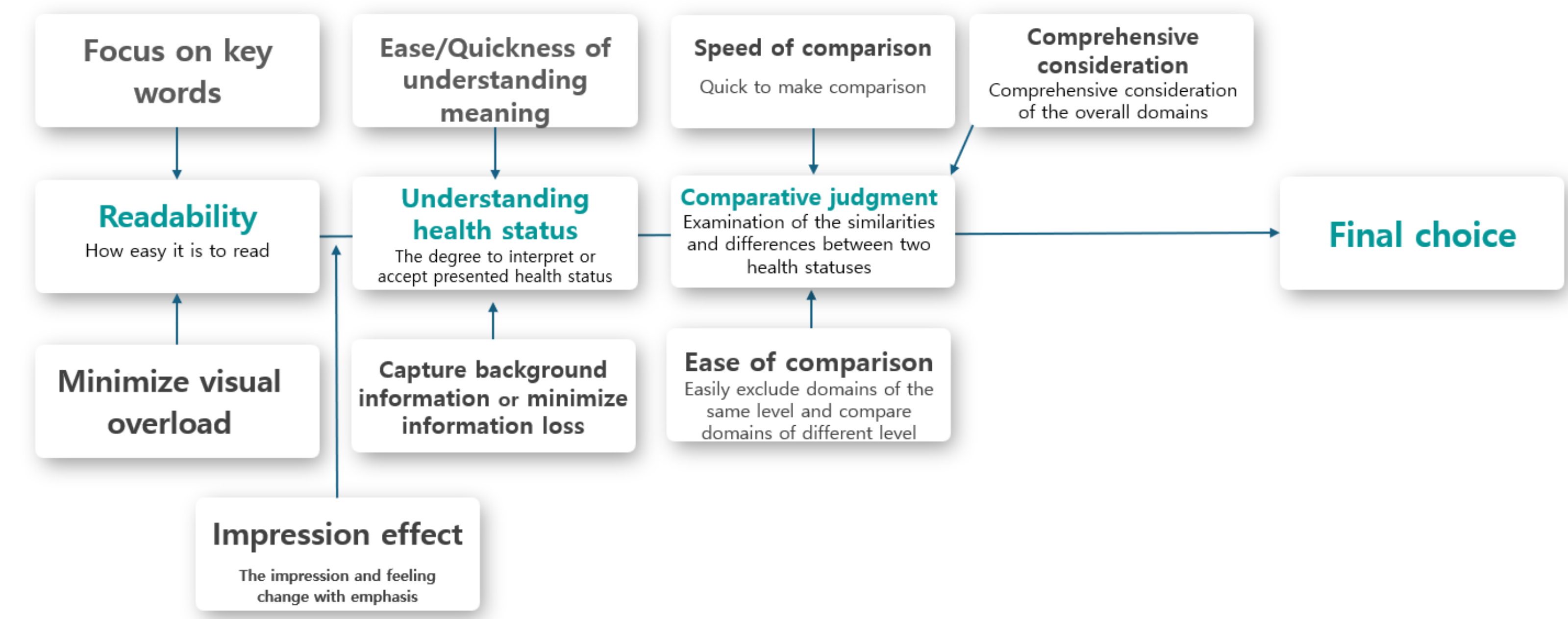
Table 1. Demographic characteristic of respondents (n=40, %)

| | Total |
|------------------------|-----------|
| Sex | |
| Male | 20(50%) |
| Female | 20(50%) |
| Age (years) | 44.4±14.1 |
| Marital Status | |
| Married | 24(60%) |
| Single | 14(35%) |
| Others | 2(5%) |
| High school | 3(7.5%) |
| College degree | 31(77.5) |
| College degree course | 6(15%) |
| Health Status | |
| Very good | 1(2.5%) |
| Good | 17(42.5%) |
| Fair | 18(45%) |
| Bad | 3(7.5%) |
| Very Bad | 1(2.5%) |
| Chronic disease | |
| Yes | 13(32.5%) |
| No | 27(67.5%) |

How the Presentation Influences DCE selection

- We extracted meaningful concepts and categorized them into three major categories: readability, understanding of health status, and comparative judgment. These categories reflect the key points at which presentation influences the selection process (Figure 2).

Figure 2. How to presentation influences DCE selection



Presentation Formats Evaluation

- When 40 participants were asked to choose their favorite of the five different presentations, the highest percentage of participants preferred the yellow highlight presentation (n=20), followed by the underline+bold presentation (n=15), and the graphic (circle) presentation (n=10). Purple shaded and non-emphasized presentations were less preferred.
- Overall, we found that the yellow highlight presentation, underline+bold presentation, and graphic presentation were the most preferred presentations.
- However, the yellow highlight presentation had a small number of participants who felt it was visually overwhelming, which impacted their readability, and the graphic presentation had a small number of participants who misunderstood the level because they were confused about the direction of the scale.
 - "The highlight design makes the yellow-highlighted parts stand out too much. In sentences, the ending words can change the meaning entirely, like 'is' or 'is not'... but when just one or two words are highlighted, it draws attention only to those parts. This makes it harder to understand the whole context and doesn't really help improve the comprehension of the overall state." (ID 30, female, 41 y/o)
 - "I didn't immediately understand the graphic design. I spent quite a while trying to figure out what the circle indicators meant, and only then did I grasp the direction of the scale (ID 21, male, 54 y/o)."

The position of duration attribute

- This study also evaluated the position of the duration within the presented options. The results showed that out of 40 participants, more participants preferred to have the duration presented at the beginning rather than at the end (26 vs. 12).
- Participants who preferred the context up front reported that it improved comprehension, focus, and readability. Participants who preferred to see the duration upfront also tended to value life duration the most among all attributes.
- Participants who preferred the duration to be positioned last highlighted efficiency, noting that it led to shorter decision-making times. Participants who preferred to be presented with the duration last tended to think it was more important how they lived than how much they lived.

Conclusion & Discussion

- After analyzing the opinions about the presentations, we found that presentation style can affect readability and overall understanding of the health statuses, as well as the comparisons between the two health statuses.
- The yellow highlight presentation, the underline+bold presentation, and the graphic presentation were the best presentations for understanding the health status of the SF-6Dv2. However, the yellow highlight presentation and the graphic presentation were evaluated to be confusing to some people.