## A APPENDICES

## A. 1 Digital Skills

## A.1. 1 Digital Literacy Global Framework (DLGF)

Table 1: Digital Literacy Global Framework (DLGF) [11]

| Digital Competence Area | Digital Competences |
| :--- | :--- |
| 1. Information and Data Literacy | 1.1 Browsing, Searching and Filtering Data, Information and Digital <br> Content |
|  | 1.2 Evaluating Data, Information and Digital Content |
|  | 1.3 Managing Data, Information and Digital Content |
| 2. Communication and Collaboration | 2.1 Interacting through Digital Technologies |
|  | 2.2 Sharing through Digital Technologies |
| 3. Digital Content Creation | 2.6 Managing Digital Identity |
| 4. Safety | 3.1 Developing Digital Content |
| 5. Problem-Solving | 4.2 Protecting Personal Data and Privacy |

Note: The table shows only the digital competencies relevant to this study.

## A.1.2 Tasks assigned to users, mapped out to the Digital Literacy Global Framework (DLGF)

Table 2: Tasks assigned to users, mapped out to the Digital Literacy Global Framework (DLGF)

| Assigned Tasks | Digital Literacy Competences |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1.1 | 1.2 | 1.3 | 2.1 | 2.2 | 2.6 | 3.1 | 4.2 | 5.2 |
| Banking Application |  |  |  |  |  |  |  |  |  |
| B1 Transfer to another account | $\checkmark$ |  | $\checkmark$ |  |  |  | $\checkmark$ | $\checkmark$ |  |
| B2 Buy airtime for a phone number | $\checkmark$ |  | $\checkmark$ |  |  |  |  | $\checkmark$ | $\checkmark$ |
| B3 Display transactions history | $\checkmark$ | $\checkmark$ | $\checkmark$ |  |  |  |  |  | $\checkmark$ |
| B4 Find an option to log a complaint | $\checkmark$ |  |  | $\checkmark$ |  |  |  |  |  |
| Shopping Application |  |  |  |  |  |  |  |  |  |
| S1 Edit the name on the account |  |  | $\checkmark$ |  |  | $\checkmark$ | $\checkmark$ |  |  |
| S2 Add a new address |  |  | $\checkmark$ |  |  | $\checkmark$ | $\checkmark$ |  |  |
| S3 Search for a product | $\checkmark$ |  |  |  |  |  |  |  |  |
| S4 Filter search results | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| S5 Add products to the cart |  | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |
| S6 Sort search results | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  |  |
| S7 Add to wish list |  |  | $\checkmark$ |  |  |  |  |  |  |
| S8 Locate the wish list | $\checkmark$ |  |  |  |  |  |  |  |  |
| S9 Share products with a saved contact |  |  |  |  | $\checkmark$ |  |  |  |  |
| S10 Locate the cart | $\checkmark$ |  |  |  |  |  |  |  | $\checkmark$ |
| S11 Checkout | $\checkmark$ | $\checkmark$ |  |  |  |  |  |  | $\checkmark$ |

## A. 2 Rank Analysis for Banking UI

A.2.1 Summary of Rank Analysis for Banking UI

| Difficulty Measures | Task IDs |  | B3 | B4 |
| :--- | :--- | :--- | :--- | :--- |
|  | B1 | B2 | 3 | 4 |
| Error Occurrence | 2 | 1 | 4 | 2.5 |
| Task Completion | 2.5 | 1 | 2 | 3 |
| Taps | 4 | 1 | 2 | 3 |
| Time Elapsed | 4 | 1 | 2.8 | 3.1 |
| Average [Rank] | 3.1 | 1.0 |  |  |

Note that the Average [rank] column shows an average based on 4 tasks. Hence 3.1 refers to 3.1/4. The higher the rank, the higher the score for difficulty based on the difficulty measures.
A.2.2 Summary of Rank Analysis for Shopping UI

| Difficulty Measures | Task IDs |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | S1 | S2 | S3 | S4 | S5 | S6 | S7 | S8 | S9 | S10 | S11 |  |
| Error Occurrence | 7 | 4 | 3 | 8 | 2 | 10 | 11 | 12 | 6 | 5 | 8 |  |
| Task Completion | 6 | 7 | 3 | 7 | 2 | 7 | 13 | 11 | 5 | 4 | 10 |  |
| Taps | 7 | 5 | 12 | 9 | 11 | 4 | 3 | 1 | 8 | 13 | 6 |  |
| Time Elapsed | 7 | 12 | 4 | 11 | 3 | 9 | 1 | 5 | 6 | 10 | 13 |  |
| AVERAGE [Rank] | 7 | 7 | 6 | 9 | 5 | 8 | 7 | 7 | 6 | 8 | 9 | 8 |

Note that the Average [rank] column shows an average based on 11 tasks. Hence 9.25 refers to $9.25 / 11$. The higher the rank, the higher the score for difficulty based on the difficulty measures.

