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A

Questionnaire: Preference Expression

This appendix presents the questionnaire used in our study. The participant had the option of answering it either in English or in Portuguese. If participants tried to go back in the questionnaire, they were notified that changes would not be stored.

A.1

Introduction: Survey about User Preferences

The purpose of this survey is to collect data that helps in understanding the user preferences expression. The survey is completely anonymous and all information collected will be used solely for statistical analysis within the context of this study. The survey has four steps and the estimated time for answering the survey is around 20 minutes.

Please, click on the image below to start the survey in English:

A.2

Part I: User Data

- Age: a positive integer;
- Gender: a value from {Male, Female};
- Country: a value from a provided list of countries;
- City: a string;
- Working/Studying Field: a string;
- How many laptops have you already had (including current ones)? a value from {0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10+};
- If you had(have) at least one laptop, did you yourself choose it(them)? a value from {All of them, Most of Them, Some of them, A few, No one};
- How do you rate your knowledge about which computer features to consider when buying a laptop? a value from {Expert, Advanced, Intermediate, Beginner, No knowledge};

A.3**Part II: Preference Specification**

Suppose that you want to **buy a new laptop** and somebody is going to buy it for you. You are going to specify all preferences and restrictions of this person, who will buy the laptop for you with no further communication after the initial specification.

We present below a simple example of a preference specification on the flight domain.

Example

1. I like to minimize the price, I always pay promotional fares.
2. I don't like making connections.
3. I prefer the shortest flying time as possible, as long as I have at least one hour to make connections.
4. Flying time and number of connections are more important to me than the price.

Please, write down below the specification that you would provide to this person so he/she can buy the **laptop** for you.

[text area in which participants write their specification]

A.4**Part III: Options Selection**

Now, let's assume that all laptops available for you are the ones listed below. Please, indicate which laptop you would choose. You can rank up to five options (at least one is required).

If you notice, during this selection process, that your previously specified preferences are incomplete, please do not go back. You will have the chance to review your preferences in the next (and last) step.

1. Option 1: {laptop list};
2. Option 2: {laptop list};
3. Option 3: {laptop list};
4. Option 4: {laptop list};
5. Option 5: {laptop list}.

Laptop Catalog

Use the catalog below to choose your laptop options. In the selection boxes above, laptops are identified by their SKU number. In addition, laptop names are also displayed. Instead of selecting a laptop manually, you may also click on the select button of the chosen laptop, which will be selected in the first empty select box.

The following actions can be performed in the catalog:

- *Sort*: laptops can be ordered according to the value selected in the box “Sort by;”
- *Filter*: different filters (price range, brand, ...) can be added or removed, when the filter links are clicked;
- *Show laptop details*: by clicking on the laptop name, a new window is opened with the specification of the selected laptop; and
- *Compare laptops*: you can selected 2 or 3 laptops to be compared. After selecting the laptops, click on the “Compare” button, and a new window will be opened with a comparison table.

Obs. All prices are in American dollars.

Available options were given as shown in Figure A.1.

A.5

Part IV: Preference Specification Review

After choosing the laptops from the previous page, would you have specified your preferences and restrictions in a different way? If so, please make the necessary modifications in your specification. Please, note that you do not know about the available laptop options while making this specification.

Initial Preference Specification

[initial preference specification provided by the participant]

Chosen Laptops

You may click on the name of the laptops to see their details.

[the up to five laptops chosen by the participant]

Reviewed Preference Specification

[text area in which participants write their reviews specification – it is initialised with the initial specification]

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B

Z Specification

In this appendix, we present a formal specification of our preference model presented in Chapter 3, using the Z notation (Wordsworth 1992).

B.1

Ontology Metamodel

$$\textit{Boolean} ::= \textit{TRUE} \mid \textit{FALSE}$$

$$[\textit{Number}, \textit{Character}, \textit{String}, \textit{Date}]$$

$$\textit{EnumerationValue}$$

$$\textit{name} : \textit{String}$$

$$\textit{Enumeration}$$

$$\textit{name} : \textit{String}$$

$$\textit{values} : \mathbb{P} \textit{EnumerationValue}$$

$$\textit{PrimitiveType} ::= \textit{booleanT} \mid \textit{characterT} \mid \textit{stringT}$$

$$\mid \textit{numericT} \langle \langle \textit{Boolean} \times \textit{Number} \times \textit{Number} \rangle \rangle$$

$$\mid \textit{dateT} \mid \textit{enumeration} \langle \langle \textit{Enumeration} \rangle \rangle$$

B.1.1

Concept and Attributes

$$[\textit{Adjective}, \textit{ScaleValue}]$$

$$\textit{Scale}$$

$$\textit{name} : \textit{String}$$

$$\textit{values} : \textit{seq}_1 \textit{ScaleValue}$$

AttributeT

name : *String*
scales : $\mathbb{P}$ *Scale*

ConcreteAttribute ::= *naturalAttribute*⟨⟨*AttributeT*⟩⟩
| *constructedAttribute*⟨⟨*AttributeT*⟩⟩

ProxyAttribute

AttributeT
contreteAttributes : $\mathbb{P}_1$ *ConcreteAttribute*

Attribute ::= *proxyAttribute*⟨⟨*ProxyAttribute*⟩⟩
| *concreteAttribute*⟨⟨*ConcreteAttribute*⟩⟩

Concept

name : *String*
attributes : $\mathbb{P}$ *Attribute*
adjectives : $\mathbb{P}$ *Adjective*

($\forall pa : \text{ProxyAttribute} \mid \text{proxyAttribute } pa \in \text{attributes} \bullet$
 $(\forall ca : \text{ConcreteAttribute} \mid ca \in pa.\text{contreteAttributes} \bullet$
 $\text{concreteAttribute } ca \in \text{attributes}))$

$\forall \text{concept}, \text{other} : \text{Concept} \bullet$
 $\text{concept.attributes} \cap \text{other.attributes} = \emptyset$

Type ::= *primitive*⟨⟨*PrimitiveType*⟩⟩ | *composite*⟨⟨*Concept*⟩⟩

| *superConcept* : *Concept* $\rightarrow$ *Concept*

$$\text{conceptAttributes} : \text{Concept} \rightarrow \mathbb{P} \text{Attribute}$$

$$\begin{aligned} &\forall \text{concept} : \text{Concept} \bullet \\ &\quad (\neg (\exists \text{super} : \text{Concept} \bullet \\ &\quad \quad \text{super} = \text{superConcept}(\text{concept})) \wedge \\ &\quad \quad (\text{conceptAttributes}(\text{concept}) = \text{concept.attributes})) \vee \\ &\quad ((\exists \text{super} : \text{Concept} \bullet \\ &\quad \quad \text{super} = \text{superConcept}(\text{concept})) \wedge \\ &\quad \quad (\text{conceptAttributes}(\text{concept}) = \\ &\quad \quad \quad \text{concept.attributes} \cup \\ &\quad \quad \quad \text{conceptAttributes}(\text{superConcept}(\text{concept})))) \end{aligned}$$

$$\text{attType} : \text{Attribute} \rightarrow \text{Type}$$

$$\text{validAttRef} : \text{seq Attribute} \times \text{Attribute} \rightarrow \text{Boolean}$$

$$\begin{aligned} &\forall \text{attSeq} : \text{seq Attribute} \bullet \\ &\quad \forall \text{att} : \text{Attribute} \bullet \\ &\quad \quad ((\# \text{attSeq} = 0) \wedge \\ &\quad \quad \quad (\text{validAttRef}(\text{attSeq}, \text{att}) = \text{TRUE})) \vee \\ &\quad \quad ((\# \text{attSeq} \neq 0) \wedge \\ &\quad \quad \quad (\exists_1 c : \text{Concept} \bullet \\ &\quad \quad \quad \quad \text{att} \in \text{conceptAttributes}(c) \wedge \\ &\quad \quad \quad \quad \text{attType}(\text{last attSeq}) = \text{composite } c) \wedge \\ &\quad \quad \quad (\text{validAttRef}(\text{front attSeq}, \text{last attSeq}) = \text{TRUE}))) \end{aligned}$$

$$\text{AttRef}$$

$$\text{attribute} : \text{Attribute}$$

$$\text{context} : \text{seq Attribute}$$

$$\text{validAttRef}(\text{context}, \text{attribute}) = \text{TRUE}$$

B.1.2

Instantiation

$$\begin{aligned} \text{Literal} ::= & \text{bool}\langle\langle \text{Boolean} \rangle\rangle \mid \text{numeric}\langle\langle \text{Number} \rangle\rangle \\ & \mid \text{char}\langle\langle \text{Character} \rangle\rangle \mid \text{string}\langle\langle \text{String} \rangle\rangle \\ & \mid \text{date}\langle\langle \text{Date} \rangle\rangle \mid \text{enum}\langle\langle \text{Enumeration Value} \rangle\rangle \end{aligned}$$

ConceptInstance

name : *String*

concept : *Concept*

$\forall \text{conceptInstance}, \text{other} : \text{ConceptInstance} \bullet$

$\text{conceptInstance.name} \neq \text{other.name} \vee$

$\text{conceptInstance} = \text{other}$

$\text{Instance} ::= \text{literal}\langle\text{Literal}\rangle \mid \text{conceptInstance}\langle\text{ConceptInstance}\rangle$

$\text{validAttType} : \text{Attribute} \times \text{Instance} \rightarrow \text{Boolean}$

$\forall \text{att} : \text{Attribute} \bullet$

$(\forall \text{instance} : \text{Instance} \bullet$

$(\forall \text{ci} : \text{ConceptInstance} \mid \text{instance} = \text{conceptInstance ci} \bullet$

$\text{attType}(\text{att}) = \text{composite ci.concept}) \vee$

$(\forall \text{lit} : \text{Literal} \mid \text{instance} = \text{literal lit} \bullet$

$(\forall b : \text{Boolean} \mid \text{lit} = \text{bool } b \bullet$

$\text{attType}(\text{att}) = \text{primitive booleanT}) \vee$

$(\forall n : \text{Number} \mid \text{lit} = \text{numeric } n \bullet$

$(\forall b : \text{Boolean} \bullet (\forall lb, ub : \text{Number} \bullet$

$\text{attType}(\text{att}) =$

$\text{primitive (numericT (b, lb, ub))})) \vee$

$(\forall c : \text{Character} \mid \text{lit} = \text{char } c \bullet$

$\text{attType}(\text{att}) = \text{primitive characterT}) \vee$

$(\forall s : \text{String} \mid \text{lit} = \text{string } s \bullet$

$\text{attType}(\text{att}) = \text{primitive stringT}) \vee$

$(\forall d : \text{Date} \mid \text{lit} = \text{date } d \bullet$

$\text{attType}(\text{att}) = \text{primitive dateT}) \vee$

$(\forall \text{ev} : \text{EnumerationValue} \mid \text{lit} = \text{enum ev} \bullet$

$(\forall e : \text{Enumeration} \bullet$

$\text{attType}(\text{att}) = \text{primitive (enumeration e)} \wedge$

$\text{ev} \in \text{e.values}))$

ConceptState

ConceptInstance

slots : *Attribute* $\rightarrow$ *Instance*

$\text{dom } \textit{slots} = \textit{conceptAttributes}(\textit{concept}) \wedge$
 $(\forall \textit{att} : \textit{Attribute} \mid \textit{att} \in \text{dom } \textit{slots} \bullet$
 $\quad \textit{validAttType}(\textit{att}, \textit{slots}(\textit{att})) = \textit{TRUE})$

B.2

Propositional Formulae

ComparisonOperator ::= *equal* | *not_equal* | *less* | *less_equal*
 | *greater* | *greater_equal*

QualifiedConcept

concept : *Concept*

adjective : *Adjective*

$\textit{adjective} \in \textit{concept.adjectives}$

inSeq : *ScaleValue* $\times$ *seq ScaleValue* $\rightarrow$ *Boolean*

$\forall \textit{sv} : \textit{ScaleValue} \bullet$
 $(\forall \textit{seqSv} : \textit{seq ScaleValue} \bullet$
 $\quad (\# \textit{seqSv} = 0 \Leftrightarrow \textit{inSeq}(\textit{sv}, \textit{seqSv}) = \textit{FALSE}) \vee$
 $\quad (\# \textit{seqSv} \neq 0 \wedge$
 $\quad \quad ((\textit{sv} = \textit{head seqSv} \Leftrightarrow \textit{inSeq}(\textit{sv}, \textit{seqSv}) = \textit{TRUE})$
 $\quad \quad \vee (\textit{inSeq}(\textit{sv}, \textit{seqSv}) = \textit{inSeq}(\textit{sv}, \textit{tail seqSv}))))))$

*AttributeScaleSpecification**attRef* : *AttRef**scaleValue* : *ScaleValue*

$$\begin{aligned}
& (\forall \text{ attT} : \text{AttributeT} \mid \\
& \quad \text{concreteAttribute}(\text{naturalAttribute attT}) = \\
& \quad \quad \text{attRef.attribute} \vee \\
& \quad \text{concreteAttribute}(\text{constructedAttribute attT}) = \\
& \quad \quad \text{attRef.attribute} \bullet \\
& \quad (\exists \text{ scale} : \text{Scale} \mid \text{scale} \in \text{attT.scales} \bullet \\
& \quad \quad \text{inSeq}(\text{scaleValue}, \text{scale.values}) = \text{TRUE})) \vee \\
& (\forall \text{ pa} : \text{ProxyAttribute} \mid \\
& \quad \text{proxyAttribute pa} = \text{attRef.attribute} \bullet \\
& \quad (\exists \text{ scale} : \text{Scale} \mid \text{scale} \in \text{pa.scales} \bullet \\
& \quad \quad \text{inSeq}(\text{scaleValue}, \text{scale.values}) = \text{TRUE}))
\end{aligned}$$
*AttributeValueSpecification**attRef* : *AttRef**op* : *ComparisonOperator**instance* : *Instance*

$$\text{validAttType}(\text{attRef.attribute}, \text{instance}) = \text{TRUE}$$

$$\begin{aligned}
\text{AtomicFormula} ::= & \text{qualifiedConcept} \langle \langle \text{QualifiedConcept} \rangle \rangle \\
& \mid \text{attributeScale} \langle \langle \text{AttributeScaleSpecification} \rangle \rangle \\
& \mid \text{attributeValue} \langle \langle \text{AttributeValueSpecification} \rangle \rangle
\end{aligned}$$

$$\begin{aligned}
\text{PropForm} ::= & \text{atomic} \langle \langle \text{AtomicFormula} \rangle \rangle \\
& \mid \text{not} \langle \langle \text{PropForm} \rangle \rangle \\
& \mid \text{or} \langle \langle \text{PropForm} \times \text{PropForm} \rangle \rangle \\
& \mid \text{and} \langle \langle \text{PropForm} \times \text{PropForm} \rangle \rangle
\end{aligned}$$
B.3**Preference Metamodel**

B.3.1 Preference

$OptimizationType ::= minimization \mid maximization$

$Goal ::= attributeGoal\langle\langle AttRef \times OptimizationType \rangle\rangle$

$Constraint ::= constraintPreference\langle\langle PropForm \rangle\rangle$
 $\mid intervalPreference\langle\langle PropForm \rangle\rangle$
 $\mid aroundPreference\langle\langle PropForm \rangle\rangle$

$\forall intPref : Constraint \bullet$
 $(\forall pa : PropForm \mid$
 $intPref = intervalPreference\ pa \bullet$
 $(\forall avs1, avs2 : AttributeValueSpecification \bullet$
 $pa = and(atomic(attributeValue\ avs1),$
 $atomic(attributeValue\ avs2)) \wedge$
 $avs1.attRef = avs2.attRef \wedge$
 $((avs1.op = less) \vee (avs1.op = less_equal)) \wedge$
 $((avs2.op = greater) \vee (avs2.op = greater_equal))))$

$\forall aroPref : Constraint \bullet$
 $(\forall pa : PropForm \mid$
 $aroPref = aroundPreference\ pa \bullet$
 $(\forall avs : AttributeValueSpecification \bullet$
 $pa = atomic(attributeValue\ avs) \wedge$
 $avs.op = equal))$

$DontCare ::= dontCareAttribute\langle\langle AttRef \rangle\rangle$

PrefTarget ::= *enumValue*⟨⟨*EnumerationValue*⟩⟩
 | *concept*⟨⟨*Concept*⟩⟩ | *instance*⟨⟨*Instance*⟩⟩
 | *constraintTarget*⟨⟨*Constraint*⟩⟩
 | *value*⟨⟨*Value*⟩⟩

LikertScale ::= *best* | *very_good* | *good* | *neutral* | *bad*
 | *very_bad* | *worst*

ExpressiveSpeechAct ::= *prefer* | *need* | *desire* | *avoid* | *like*
 | *want* | *accept* | *require* | *love* | *hate*

ClassificatoryStat ::= *ratingStat*⟨⟨*PrefTarget* × *LikertScale*⟩⟩
 | *qualifyingStat*⟨⟨*PrefTarget* × *ExpressiveSpeechAct*
 × *Boolean*⟩⟩

ComparativeStat ::= *orderStat*⟨⟨*PrefTarget* × *PrefTarget* × *Boolean*⟩⟩
 | *indifferentStat*⟨⟨ $\mathbb{P}$ *PrefTarget*⟩⟩

PreferenceStat ::= *classificatoryStat*⟨⟨*ClassificatoryStat*⟩⟩
 | *comparativeStat*⟨⟨*ComparativeStat*⟩⟩

PreferenceT ::= *statement*⟨⟨*PreferenceStat*⟩⟩
 | *goal*⟨⟨*Goal*⟩⟩
 | *constraint*⟨⟨*Constraint*⟩⟩
 | *dontCare*⟨⟨*DontCare*⟩⟩

Preference _____

condition : *PropForm*
decisionContext : *PropForm*
preference : *PreferenceT*

B.3.2 Priority

PriorityT ::= *attributePriority*⟨⟨*AttRef* × *AttRef* × *Boolean*⟩⟩
 | *attributeIndifference*⟨⟨ $\mathbb{P}$ *AttRef*⟩⟩
 | *preferencePriority*⟨⟨*Preference* × $\mathbb{Z}$ ⟩⟩

Priority _____

condition : *PropForm*

decisionContext : *PropForm*

priority : *PriorityT*

C

Questionnaire: Survey on Reasons for Choice

This appendix presents the questionnaire used in our study of arguments adopted by people to justify a decision (Chapter 8). Participants had the option of answering it either in English or in Portuguese. If participants tried to go back in the questionnaire, they were notified that changes would not be stored.

C.1

Introduction: Survey on Reasons for Choice

The purpose of this survey is to collect data that helps in understanding the **reasons for a choice**. The survey is completely anonymous and all information collected will be used solely for analysis within the context of this study. The survey has three steps and the estimated time for answering the survey is around 10 minutes.

Please, click on the image below to start the survey in English:

C.2

Part I: User Data

- Age: a positive integer;
- Gender: a value from {Male, Female};
- Country: a value from a provided list of countries;
- City: a string;
- Working/Studying Field: a string.

*All fields are mandatory.

C.3

Part II: Option Selection

Assume you are going to spend holidays in New York with a close friend (you do not mind sharing a bed with him/her). You were given the following hotel options, from which you have to choose one. Which would you choose?

NB1. Prices are in American dollars.

NB2. Provided options are based in real data, but details were changed for the purposes of this study.

- *Chosen Option*: {Hotel 91, Econo Lodge Times Square, The Hotel at Times Square, Comfort Inn Times Square, Renaissance New York Hotel 57};

Available options were given as shown in Figure C.1.

C.4

Part III: Reasons for your Choice

Could you please tell us why you chose “*chosen hotel*”, and why you rejected the other options? Assume that this **justification must be good enough so that it can be used to convince your friend that your choice is the best one**. Please, use full sentences.

- Why did you [accept/reject] “Hotel 91”?
[text area in which participants write their explanation]
- Why did you [accept/reject] “Econo Lodge Times Square”?
[text area in which participants write their explanation]
- Why did you [accept/reject] “The Hotel at Times Square”?
[text area in which participants write their explanation]
- Why did you [accept/reject] “Comfort Inn Times Square”?
[text area in which participants write their explanation]
- Why did you [accept/reject] “Renaissance New York Hotel 57”?
[text area in which participants write their explanation]

Available options are presented again (Figure C.1).

	Hotel 91	Econo Lodge Times Square	The Hotel at Times Square	Comfort Inn Times Square	Renaissance New York Hotel 57
	2 Stars	3 Stars	3 Stars	3 Stars	4 Stars
	91 East Broadway, Lower East Side, NY 10002 New York	302 West 47th Street, Midtown, NY 10036 New York	59 West 46th Street, Midtown, NY 10036 New York	129 West 46th St, Midtown, NY 10036 New York	130 East 57th Street, Midtown, NY 10022 New York
Distance from Times Square	Map	Map	Map	Map	Map
Price (per night)	\$97.3	\$129.99	\$134.99	\$144.99	\$219.0
Check-in	From 15:00	15:00 - 23:30	15:00 - 00:00 hours	15:00 - 00:00 hours	From 15:00 hours
Check-out	Until 11:00	Until 12:00	Until 12:00 hours	Until 12:00 hours	Until 12:00 hours
Internet	Wired internet is available in the entire hotel and is free of charge.	Wi-fi is available in the entire hotel and is free of charge. Wired internet is available in the hotel rooms and is free of charge.	Wi-fi is available in the entire hotel and is free of charge.	Wi-fi is available in the entire hotel and is free of charge.	Wired internet is available in public areas and is free of charge. Wired internet is available in the hotel rooms and costs USD 16.95 per 24 hours
Parking	Public parking is possible at a location nearby (reservation is not needed) and costs USD 32 per day.	Public parking is possible at a location nearby (reservation is not needed) and costs USD 30 per day.	Public parking is possible at a location nearby (reservation is not needed) and costs USD 35 per day.	Public parking is possible at a location nearby (reservation is not needed) and costs USD 23 per day.	Private parking is possible on site (reservation is not needed) and costs USD 55 per day. Public parking is possible at a location nearby (reservation is not needed) and costs USD 55 per day.
24-hour Front Desk	X	X	X	X	X
Express Check-in/Check-out		X	X		X
Luggage Storage	X	X	X	X	X
Elevator	X	X	X	X	X
Bar			X		X
Restaurant					X
Laundry	X		X	X	X
Fitness Center			X	X	X
Business Center		X	X	X	X
Room Service					X
Breakfast in the Room					X
Room Type	Queen Room	Superior Queen Room	Queen Room	Queen Room	Queen Room
Breakfast Included		X	X	X	X
Safety Deposit Box		X	X	X	X
Air Conditioning	X	X	X	X	X
Heating	X	X	X	X	X
Iron		X	X	X	X
Hairdryer	X	X	X	X	X
Bath or Shower	X	X	X	X	X
Toilet	X	X	X	X	X
Alarm Clock or Wake up Service	X	X	X	X	X
Telephone	X	X	X	X	X
TV	X	X	X	X	X
Cable TV	X	X	X	X	X
Radio	X	X	X	X	X
Tea/Coffee Maker		X	X	X	X
Seating Area			X		X
Work Desk	X	X	X	X	X
Refrigerator		X			
Room size	19.0	21.0	21.0	22.0	24.0

Figure C.1: Hotel Options.

D

Application for Evaluating our Proposed Approach

This appendix presents the application used in our study to evaluate our approach and compare explanation generation techniques (Chapter 10).

The screenshot shows a window titled "UCPB Evaluation" with a menu bar containing "File", "View", and "Help". Below the menu bar is a "Progress" section with a progress bar at 0%. The main section is titled "Participant Data" and contains the following fields:

- Age: 30 (dropdown menu)
- Gender: ☐ Male ☐ Female
- Country: Brazil (dropdown menu)
- City: (text input field)
- Working/Studying Field: (text input field)

At the bottom of the window, there are three buttons: "Save and Finish Later", "Cancel", and "Next".

Figure D.1: Participant Data.

D.2(b): Preference Language Evaluation.

UCPB Evaluation

FileViewHelp

Progress

43%

Choice Analysis and Evaluation

Besides presenting selected options, you are now provided with explanations that justify the choice made. Does your evaluation of the choice made changed because these explanations? With respect to this issue, please answer the questions below.

Chosen Option

Rank	Name	battery type	bluetooth	brand	built-in camera	built-in GPS	changeable faceplate
1	Samsung - Galaxy S II 4G - White	Lithium	true	Samsung	true	true	false

Options close to the chosen option

Rank	Name	battery type	bluetooth	brand	built-in camera	built-in GPS	changeable faceplate
2	ZTE - Adamant - Black	Lithium	true	ZTE	true	false	false
3	Samsung - Focus S 4G - Black	Lithium	true	Samsung	true	true	false
4	Panther - Ink II - Blue	Lithium	true	Padtech	true	false	false

Show all

I understand why the products were returned through the explanations in the application.

☐ Strongly Agree ☐ Agree ☐ Agree Somewhat ☐ Neutral ☐ Disagree Somewhat ☐ Disagree ☐ Strongly Disagree

This application made really good choices.

☐ Strongly Agree ☒ Agree ☐ Agree Somewhat ☐ Neutral ☐ Disagree Somewhat ☐ Disagree ☐ Strongly Disagree

I feel that this application is trustworthy.

☐ Strongly Agree ☒ Agree ☐ Agree Somewhat ☐ Neutral ☐ Disagree Somewhat ☐ Disagree ☐ Strongly Disagree

I am confident that the choice made is really the best choice for me.

☐ Strongly Agree ☒ Agree ☐ Agree Somewhat ☐ Neutral ☐ Disagree Somewhat ☐ Disagree ☐ Strongly Disagree

Do you have further comments?

Alcatel - 665 - Indigo Blue

Save and Finish Later

Cancel

Next

D.2(c): Choice Analysis and Evaluation.

UCPB Evaluation

FileViewHelp

Progress

57%

Explanation Impact

Besides presenting selected options, you are now provided with explanations that justify the choice made. Does your evaluation of the choice made changed because these explanations? With respect to this issue, please answer the questions below.

Chosen Option

Rank	Name	Explanation
1	Samsung - Galaxy S II 4G - White	Option Samsung - Galaxy S II 4G - White was chosen because of its camera resolution (MP), and talk time (min).

Options close to the chosen option

Rank	Name	Explanation
2	ZTE - Adamant - Black	Option ZTE - Adamant - Black was rejected because of its talk time (min).
3	Samsung - Focus S 4G - Black	Even though option Samsung - Focus S 4G - Black provides better weight (g), customer rate, and price (US\$) than the

Show all

I understand why the products were returned through the explanations in the application.

☐ Strongly Agree ☐ Agree ☐ Agree Somewhat ☐ Neutral ☐ Disagree Somewhat ☐ Disagree ☐ Strongly Disagree

This application made really good choices.

☐ Strongly Agree ☒ Agree ☐ Agree Somewhat ☐ Neutral ☐ Disagree Somewhat ☐ Disagree ☐ Strongly Disagree

I feel that this application is trustworthy.

☐ Strongly Agree ☒ Agree ☐ Agree Somewhat ☐ Neutral ☐ Disagree Somewhat ☐ Disagree ☐ Strongly Disagree

I am confident that the choice made is really the best choice for me.

☐ Strongly Agree ☒ Agree ☐ Agree Somewhat ☐ Neutral ☐ Disagree Somewhat ☐ Disagree ☐ Strongly Disagree

Do you have further comments?

Save and Finish Later

Cancel

Next

D.2(d): Explanation Impact.

UCPB Evaluation

File View Help

Progress

71%

Explanation Comparison

Now, we present three different possible explanations for the choice. How do you evaluate each of them? Please, answer the questions below. Note that we already initialized the answers of one of the columns, which are associated with the same explanation of the previous step. You can modify them. In case you changed your mind after seeing other explanations.

Chosen Option	Explanation 1	Explanation 2
1 Samsung - Galaxy S II 4G - White	Option Samsung - Galaxy S II 4G - White was chosen	

Options close to the chosen option

Rank	Name	Explanation 1	Explanation 2
2	ZTE - Adamant - Black	Option ZTE - Adamant - Black was rejected because of its talk time (min).	While price (US\$) is a compelling reason, ZTE - Adamant - Black over Samsung - Galaxy S II 4G - White, camera resolution (MP), and are compelling reasons for not choosing Samsung - Galaxy S II 4G - White.
3	Samsung - Focus S 4G - Black	Even though option Samsung - Focus S 4G - Black provides better weight (g), customer rate, and price (US\$) than the chosen option, it has worse talk time (min).	The attribute talk time (min) provides a compelling reason to prefer Samsung - Galaxy S II 4G - White over Samsung - Focus S 4G - Black.

UCPB Evaluation

File View Help

Progress

85%

Approach and Application Evaluation

With respect to your experience with this application, including the way of providing preferences, choices made and explanations given, please answer the questions below.

This application is competent to help me effectively make choices I really like.

☐ Strongly Agree

☐ Agree

☐ Agree Somewhat

☐ Neutral

☐ Disagree Somewhat

☐ Disagree

☐ Strongly Disagree

I would accept this choice if given the opportunity.

☐ Strongly Agree

☐ Agree

☐ Agree Somewhat

☐ Neutral

☐ Disagree Somewhat

☐ Disagree

☐ Strongly Disagree

If I had to search for a product online in the future and an application like this was available, I would be very likely to use it.

☐ Strongly Agree

☐ Agree

☐ Agree Somewhat

☐ Neutral

☐ Disagree Somewhat

☐ Disagree

☐ Strongly Disagree

If I had a chance to use this application again, I would likely make my choice more quickly.

☐ Strongly Agree

☐ Agree

☐ Agree Somewhat

☐ Neutral

☐ Disagree Somewhat

☐ Disagree

☐ Strongly Disagree

I found my visit to this application enjoyable.

☐ Strongly Agree

☐ Agree

☐ Agree Somewhat

☐ Neutral

☐ Disagree Somewhat

☐ Disagree

☐ Strongly Disagree

My overall satisfaction with the application is high.

☐ Strongly Agree

☐ Agree

☐ Agree Somewhat

☐ Neutral

☐ Disagree Somewhat

☐ Disagree

☐ Strongly Disagree

Do you have further comments?

Save and Finish Later

Cancel

Finish

D.2(e): Explanation Comparison.

D.2(f): Approach Evaluation.