

Comments indicating misalignments on different levels.

PX. Refers to participant numbers. Same numbers are used for both experiments, but P1 and P1 in experiment 1 is not the same person as in experiment 1.

1. User does not understand the dialogue flow/model

- **Experiment 1:**
 - *"I understood it after some time, it is only about to understand the structure of the system - P7*
 - *Understood but was not sure if the system want to hear only one or more activities. - P4*
 - *Participant mentioned that the idealization of the tree structure is not possible in real, because in real situation there can be cycles. - P6*
 - *did not understand the question, because it uses plural. She then named other activities which were parts of the activity in array. She then wanted to say "with no activities", system forces her to choose the activity. The activity was "with assistance" which does not make sense if participant says she need help with. - P4*
 - *Furthermore the influence on values is conditional (activity "finding out the type of the crossroad" is influencing the value "fear" only if he does not know the type) - P5*
 - *Losing context (assist scales) - Participant lost context, he asked "What does it relate to? Still to the activity search for the station?" - P7*
 - *He mentioned that he is lost in the tree structure, if the system give him the context, i.e. what is the parent node, it would be easier to understand it. - P6*
- **Experiment 2:**
 - *Can we go back to previous questions - P4,*
 - *"It is connected to restaurant, is it possible to say that it is the same as in route to restaurant" P1*
 - *I was not feeling comfortable. I was afraid the system would be looped by my fault P2 (probably also related to STT)*
 - *Only one route instead of multiple options P4, P6, P8*
 - *"Socializing" - grounding: Only if I go with somebody" - P4*
 - *"I do not know the system, so I cannot imagine it in the real world" P7*

2. User does not understand the concepts

- **Experiment 1:**
 - **Values:**
 - *Values - Participants answered "don't understand" - P1*
 - *Values - He said he was very confused, he thought it will be number values. - P1*
 - *Participant did not know what the values means - P2*
 - *Participant said that the question about the values was difficult to understand. - P3*
 - *At first participant did not understand what the values are - P4*
 - *He did not understand it at all, - P5*
 - *Participant did not understand the values, - P6*
 - *Participant did not understand the values at first - P7*
 - *Participant is now frustrated and tired with the question about the values - P7*
 - *When system checks if the value is influenced negatively/positively he did not know what the answer would mean (value - fear). - P5*
 - *Afterward he was confused in the next question about the value (promotes or demotes) because of the opposite relation in the question then he understood it. - P6*

- Participant then did not know what to answer about the value “assertiveness”, if it is promoted or demoted, afterwards he chose promoted. - P7
 - that it is really complicated to talk about the promoting and demoting the values because it is dependent on the situation and there are many nuances. - P4
 - participant understood the relation value - activity contrary. - P3
 - Participant combined both relations value – activity - P4
 - Participant used the values in both relations to activity (he said values “financial availability, coverage” for activity “using application” as the way of doing “finding out the type of the crossroad - P5
 - Moreover he understood the relation value-action contrarily - P6
 - Parts of & ways of
 - participant thought he understand, but was not completely sure. He said the difficulty of concretization depends on the activity. - P1
 - first did not understand, the explanation from system helped him - P2
 - Did not know what the ways of doing activities means at first. - P2
 - she did not understand. She had problem with the concretization, when she said way of activity “with assistant”, it was “irrelevant” - P4
 - Participant did not understand the ways and parts of doing activities, because he did comprehend the tree structure correctly. - P6
- **Experiment 2:**
 - Values:
 - “is it possible that these value will be in contradiction?” P1
 - “I felt kind of lost.”, P2
 - Explanations useful, mainly for the values, P2
 - “Wealth is like price, or what should I imagine? P3
 - “Can they have the same number? P3 (rating)
 - “I understood” P3
 - At the end I think I understood P4
 - “I do not get what is meant by ‘negatively supported’”, P5
 - User seemed not to get the concept of values P6 (“Values are chosen right, but my problem was with the concept of values.”)
 - “It is complicated because I have never thought about it in this way P6
 - “I don’t understand the question” P7 (support)
 - “I have never thought about values in this way. When I said comfort for underground it is because I can read there, but I don’t know if I understood it correctly P7
 - “That is a weird question, what is positive about asking someone for help? P8 (support)
 - Parts of & Ways of
 - “Please tell me example” - Asking for help somebody” - P4
 - “I do not understand what is meant by “when it is helpful” - P4
 - I felt kind of lost, it was hard P2
 - User starts with location of the restaurant P3
 - Started with the name of the restaurant P6
 - I don’t understand what you need from me P8

3. User does not know how to answer the system

- **Experiment 1:**
 - Assist array check - When system checked the assist activities, participant wanted to add one activity. He answered “no” and tried to enumerate activities once again, but it was difficult to repeat all of them. - P3

- *difficult to repeat previous activities if one was missing - P3*
- *The system should also say how many values it wants, or if it is ok to say no values. - P4*
- *Participant missed the impossibility to answer neutral when system asks about promoting/demoting values. - P4*
- *Assist scale - participant asked what 1 means and what 5 means, - P6*
- *By the second activity he asks: "is 1 the least and 5 the most?". - P7*
- *Assist array question - Participant answered with part of activity "find the door", he was supposed to repeat the activity in the array - P2*
- *then said "Both the same". But the system forced participant to choose only one activity. - P4*
- *Participant wanted to repeat the question, instead the system wanted to name parts of the activity once again. Participant was frustrated. - P3*
- *Participant wanted only to repeat the question a did not want to hear the examples again. - P7*
- **Experiment 2:**
 - *Give answers all at once - system not accepts - moderator explains - next answer much shorter than original P5. - So leads to shortened answer and info being left out*
 - *"Not possible to stop the system utterance" P1*
 - *"I don't know what to choose from the list and honestly I did not catch all" Knowing that you can ask for repetition - P6 (values), P8*
 - *"I did not know what exactly to say and how briefly or not" P6 (app4)*

4. System misunderstands the User:

- **Experiment 1:** n.a.
- **Experiment 2:**
 - STT, limitations with the system not recognizing the words, basic input fail
 - *'on foot' - 'on food' -> led to wrongly confirmed P1*
 - *'by foot - buy food' - user accepted still - P2*
 - *'price' - system correctly recognized wealth P4*
 - *Values were recognized quite well*
 - *"Well maybe crossing on a busy road" - recognized as 'well maybe' - P7*
 - Watson, not recognizing intent
 - *e.g. 'first route is by tram' - not recognized as possible way of P1*
 - *e.g. 'by tram or walking to.... station" - P3*
 - *Too long answers for ways of lead to not being recognized (ways of)*
 - *"When I am looking for fee seats" - not recognized as activity P8*
 - *Activities which are not in the 'shortlist' not recognized (parts of)*
 - *'Repeat values' led to repetition of the question, not the value list P8*
 - *Part of utterance wrongly interpreted*

Examples of one understanding leading to another.

Experiment 1 - combined examples:

- *2-3: At first participant did not understand what the values are (3), after the explanation from system, participant answered the values in the long sentences together with the positively/negatively (promoting/demoting) (2)." P4*
- *1-2: Participant was not sure if he is supposed to say one or more values. (4) Moreover he understood the relation value-action contrarily (3), afterward he was confused in the next question about the value (promotes or demotes) because of the opposite relation in the question but then he understood it. P6*

- 2-3: Assist array question - Participant said "it is a nonsense question" (3) and then answers "with all" (2) P7
- 2-3: participant understood the relation value - activity contrary. (3) (activity - "travel to shop", values - "noise in environment, environmental complexity, number of passers-by") afterward participant had problem to say if it is positively or negatively influenced (promotes/demotes), he did not understand the question. (2 or 4?) P3
- 2-3: Participant did not know what the values means. He said 2x "don't understand" and the explanation from system was insufficient, after further explanation from experimenter he said "no values". P2
- 1-(2?)-3: Participant was not sure how to end the deepening of the tree (4), when it stopped making sense. Instead he named the activity "by car" again which was already in the tree, so he would get in the loop (3?/2). Experimenter explained how to end. P3

Experiment 2 - combined examples:

- 4 - Misinformation - 'first route on foot' not accepted 'well then' , accepted, not confirmed, 'by bus, by tram, underground' (so on foot missing) P7
- 4 - Misinformation 0 "First travel to restaurant is by walk around department store and then go next to park, second travel is that you can go by bus 330 and then you can go on metro and thats all"-System did not accept-Moderator explained what is on by one -But then participant said: by bus 20 only!! P5
- 4 - Misinformation - 'by foot' recognized as 'buy food', confirmed by user P2
- 4 - Misinformation - "Well, time management", recognized as 'Wealth", confirmed by participant".
- 3-4 : e.g. 'well, time-management' -> recognized as 'wealth' - confirmed P8
- 3-4: "from masarykova train station I can go either by tram or by walking to Wenceslas Square" -> not accepted by system P3 (answer too long)
- 2-3: "So first I must leave my home and then will go to the right" - system not understand as way of - P8
- 2-3-4: "I don't get it at all" (3), "It is not positive because it is more expensive" (2)- recognized as 'not positive' (1) P5
- 1-3: "Should I choose from the list again?", P5 (Not understanding the values are from a set)
- 1-2: User starts with the location of the restaurant P3+6 (Misunderstanding of the structure leads to misunderstanding the concept of ways of)
- 1-(2)-3: "I did not know how to answer, because the system needs something, some code that I do not know" P6 (not understanding the whole model leads to not knowing how to answer (possibly via not understanding the concepts))
- 1-2-3-4 - "I don't understand what you need from me" (4), I don't understand the question (3), "So first blabla too long" (2), System did not understand as possible way of (1) P8

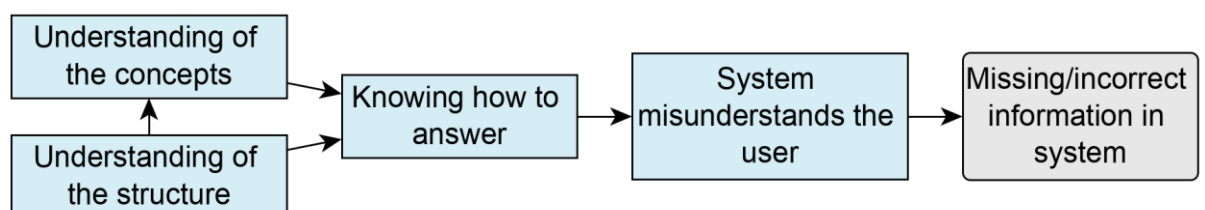


Figure 1. Visual representation relationships between categories