

# How to achieve applicable user responses? - The design of feedback dialogues in the context of usability engineering

Hochstein, S./ Goy, A./ Dittrich, F./ Dettmann, A./ Scherer, S.



## Motivation

- User feedback is crucial for software development as bugs or usability problems arise by using software over time. Hence, user feedback is an important factor for enhancements in function and usability.
- The quality of the feedback is essential for a successful user-centered development as software creators need to understand the intention of the users for implementing changes in the software<sup>1</sup>.
- A sufficient quantity is also necessary to estimate the demand and priority of the reported aspects.

## Method

- Within a research project a booking app of an in-house mobility concept was investigated regarding the feedback behavior of users. The project was conducted between September 2015 and August 2018<sup>2</sup>.
- The study focused on the intended and the actual use of feedback functions as well as on the specific requirements.
- The data acquisition involved 200 participants. Standardized questionnaires including open, closed, and multiple-choice questions were used.
- Furthermore, subjective expectations of users were opposed with their subjective feedback behavior.

## Key findings

### Feedback involvement

- The feedback involvement of all users raised from 11% to 46% over two years.
- Average user responses: 2.1 messages per user
- Only 8% of all reports addressed usability issues.

The more frequent the app and the system was used over time, the more feedback was given.

### Usage of feedback types

- Responses by phone: almost exclusively used for critical failures restraining functionalities
- Responses by text message: booking of vehicles, questions on utilization, not critical failures, usability

The more critical the concern the more a personal and contemporary feedback channel was used.

### Subjective vs. objective

- Subjective requirements: Users prefer text messages and rankings, i.e. star ratings; voice messages and screenshots were rejected
- Objective data: most frequent feedback was reported by phone and text messages, no voice messages, only few screenshots

Subjective requirements of users corresponded to objective data.  
Even if feedback design corresponded with user expectations just a fraction of users gave feedback.

### feedback behavior

- No further feedback channels were proposed.
- Clear user expectations on design of feedback functions:  
**users demand quantitative feedback channels as well as qualitative**

## Conclusions

### How to design feedback dialogues?

- Feedback should be easy and fast to fill in.
- Feedback functions should be presented obviously but not intrusively.
- Offering different qualitative and quantitative feedback channels are raising the chances of more feedback

## Literature

1: Bittenbinder, S./ Winter, D. (2015): Kontextspezifisches Nutzerfeedback in einer Desktop-Anwendung. In: S. Diefenbach/ N. Henze/ M. Pielot (Hrsg.): Mensch und Computer 2015 Tagungsband, Stuttgart: Oldenburg Wissenschaftsverlag, 2015, S. 327-330.  
2: Born, B. et al. (2016): Connected Electromobility – Between CO2 optimized energy management, user-centered design and cost effectiveness. Tagungsband Conference on Future Automotive Technology (CoFAT). 03.05.2016 bis 04.05.2016, Fürstfeldbruck.

## Further research

- Examination the reasons for not-giving feedback although user expectations were met
- Further investigation of the use of feedback types in different situations
- More detailed research on relation between subjective and objective feedback behavior



ARBEITSWISSENSCHAFT  
UND INNOVATIONSMANAGEMENT

www.awi.institute



M. Sc. Synnöve Hochstein  
synnoeve.hochstein@mb.tu-chemnitz.de



M. Sc. Anne Goy  
anne.goy@mb.tu-chemnitz.de



Dr.-Ing. Frank Dittrich  
frank.dittrich@mb.tu-chemnitz.de



Dipl.-Ing. André Dettmann  
andre.dettmann@mb.tu-chemnitz.de



M. Sc. Svenja Scherer  
svenja.scherer@mb.tu-chemnitz.de



TECHNISCHE UNIVERSITÄT  
CHEMNITZ