

# Reasons to Be Satisfied or Dissatisfied With a Virtual Coach for Quitting Smoking and Becoming More Physically Active: A Mixed-Methods Analysis

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## 1. INTRODUCTION

- Sam is a virtual agent created by the Perfect Fit project
- Sam helps people be more physically active in order to stop smoking
- Data collected from pre-screening until post-questionnaire phase
- 500 users' responses and characteristics were analysed

## 2. OBJECTIVE

Determining the reasons users are satisfied or dissatisfied when using the virtual coach through the means of three different ways of analysis

## 3. METHODOLOGY

### Thematic analysis (qualitative)

- Free-text responses analysed to obtain themes



### Quantitative analysis

- Obtain Pearson correlations in users' data as well as with themes



### Literature study

- Utilise outcomes of other eHealth applications



## 4. RESULTS

### 1. Thematic analysis

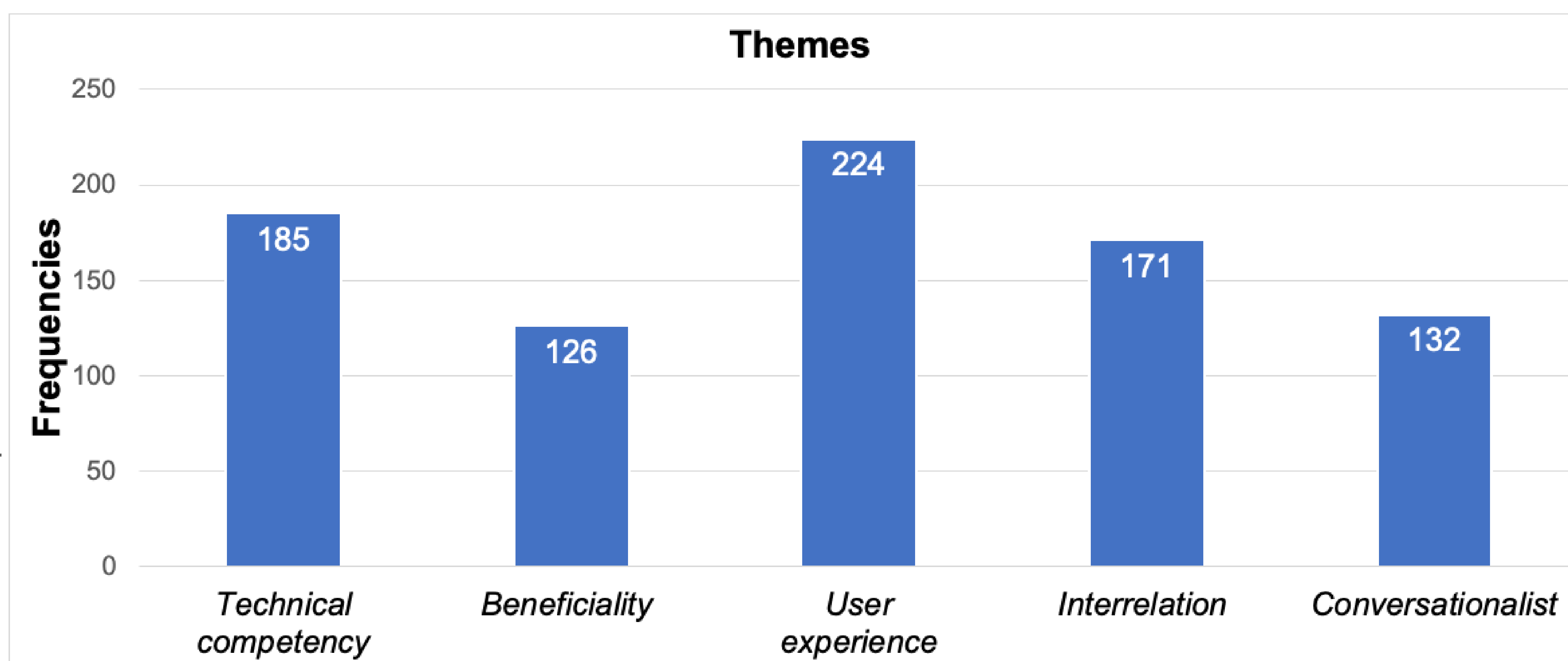


Figure 1. Frequencies of themes across all 500 free-text responses.

### 2. Quantitative analysis (p-value ≤ 0.05)

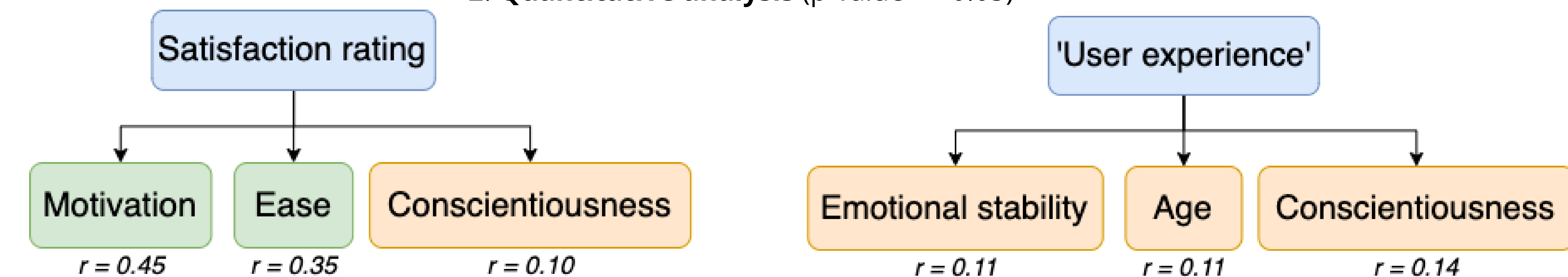


Figure 2. Pearson correlations with user provided satisfaction ratings.

Figure 3. Pearson correlations with the theme 'User experience'.

## 5. RECOMMENDATIONS

- Ensure conversation is not robotic
- Establish friendly relationship
- Helpful information that is also personalised to user's case
- Create engaging and interactive experience

## 6. FUTURE WORK

- Larger sample size to accentuate correlations
- Wider literature study
- Investigate causal relationships

## REFERENCES

- **Perfect-fit project:** Albers, N., & Brinkman, W. (2021, May 19). Perfect Fit - Experiment to Gather Data for and Test a Reinforcement Learning-Approach for Motivating People. <https://doi.org/10.17605/OSF.IO/K2UAC>
- **Sam:** Albers, N. Reinforcement Learning-based Persuasion for a Conversational Agent to Support Behavior Change: Code (Version 1.0) [Computer software]. <https://doi.org/10.5281/zenodo.6319356>