The Goal Characteristics (GC) questionnaire:  
A comprehensive measure for goals content, attainability, interestingness, and usefulness

Gabriela Iwama, Maria Wirzberger, Falk Lieder  
Max Planck Institute for Intelligent Systems, Tübingen

Introduction

• Some characteristics of goals help people achieve them¹.
• Previous studies had focused on the influence of specific, challenging and approach goals.
• Existing measures are usually context specific².
• The aim of this study is to develop and evaluate the psychometric properties for a comprehensive and general measure for goal's characteristics.

Method

Characteristics from Literature  
Item Pool Generation  
Item-Sort Task with Psychometricians  
Data Collection

Item Refinement

Prompt Validation (N = 85)  
Online Data Collection (N = 590)

Exploratory Graph Analysis

Questionnaire Refinement  
Confirmatory Factor Analysis (WLSMV estimator)

Data Collection

In an online survey, 590 participants (52.6% female; average age = 40 years, SD = 12 years) rate their agreement with 171 statements using a 5-point scale regarding a self-generated goal. To avoid memory bias and ensure variability in the goals, participants were prompted to report goals with different time horizons, difficulties, and progress in a between-subjects design. Example:

Think about a goal that you intended to achieve today that you are already gave up and you thought it would be hard to complete it.

Prompt Validation

Progress  
Difficulty  
Time Perspective

Exploratory Graph Analysis

EGA is a dimensional analysis based on Graphical LASSO regression and a walktrap algorithm to identify the factors. It was showed that EGA has a better accuracy compared to Parallel Analysis³.

Final Structure Evaluation

Content  
CFI = .96;  
TLI = .96;  
RMSEA = .038;  
SRMR = .052

Attainability  
CFI = .97;  
TLI = .96;  
RMSEA = .038;  
SRMR = .052

Interest  
CFI = .97;  
TLI = .97;  
RMSEA = .038;  
SRMR = .052

Utility  
CFI = .99;  
TLI = .98;  
RMSEA = .038;  
SRMR = .052

Overall Fit  
27 factors measured by 105 items  
CFI = .93;  
TLI = .93;  
RMSEA = .046;  
SRMR = .059

Conclusion and Future Directions

• The final structure showed a good fit and reliability indices. Few characteristics showed an unexpected structured (e.g., Self-Congruence and Hierarchy).
• The GC questionnaire can be used to assess characteristics of any goal, such as educational, organizational or personal goals.
• Future studies can investigate interaction effects between characteristics on goal achievement and measurement invariance.

See the full questionnaire:  
http://re.is.mpg.de/osf.io/qfhup/

References

1. Milyavskaya & Werner (2018)  