

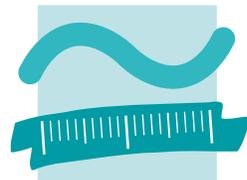
# APPLICATION OF THE OCTALYSIS FRAMEWORK TO GAMIFICATION DESIGNS FOR THE ELDERLY

*Development of a senior-friendly gamification approach for e-learning  
based on the Octalysis framework, literature review, and an experts' survey*

15th European Conference on Games Based Learning (ECGBL 2021)

23.09.2021

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and Research

# ePA-Coach project (2020 – 2023)

- **e-learning** platform for **seniors**
- digital literacy
- electronic health record (EHR) in Germany
- **gamification approach** to enhance seniors' motivation to use the environment

# Hypothesis

*Gamification can overcome motivational psychological barriers among seniors regarding the use of an eLearning program.*

# Research plan



1<sup>st</sup> project year  
Conception of an initial  
gamification approach

Literature research and  
survey of the experts of  
the project consortium;  
evaluation with target  
group



2<sup>nd</sup> project year  
Adaptation and  
extension

Involvement of user types;  
technical implementations;  
evaluation with target group



3<sup>rd</sup> project year  
Finalization

Technical implementation;  
final evaluation esp.  
perception and effects

# Octalysis framework and research design



octagon with **eight core drives**

(intrinsic, extrinsic, positive, negative motivated)

several **gamification techniques** per core drive

individual expression of each core drive within **score** between 0 and 10

Research Design:

**Literature review**  
preferences and  
recommendations



**Experts' survey**  
quantitative with  
online-questionnaire

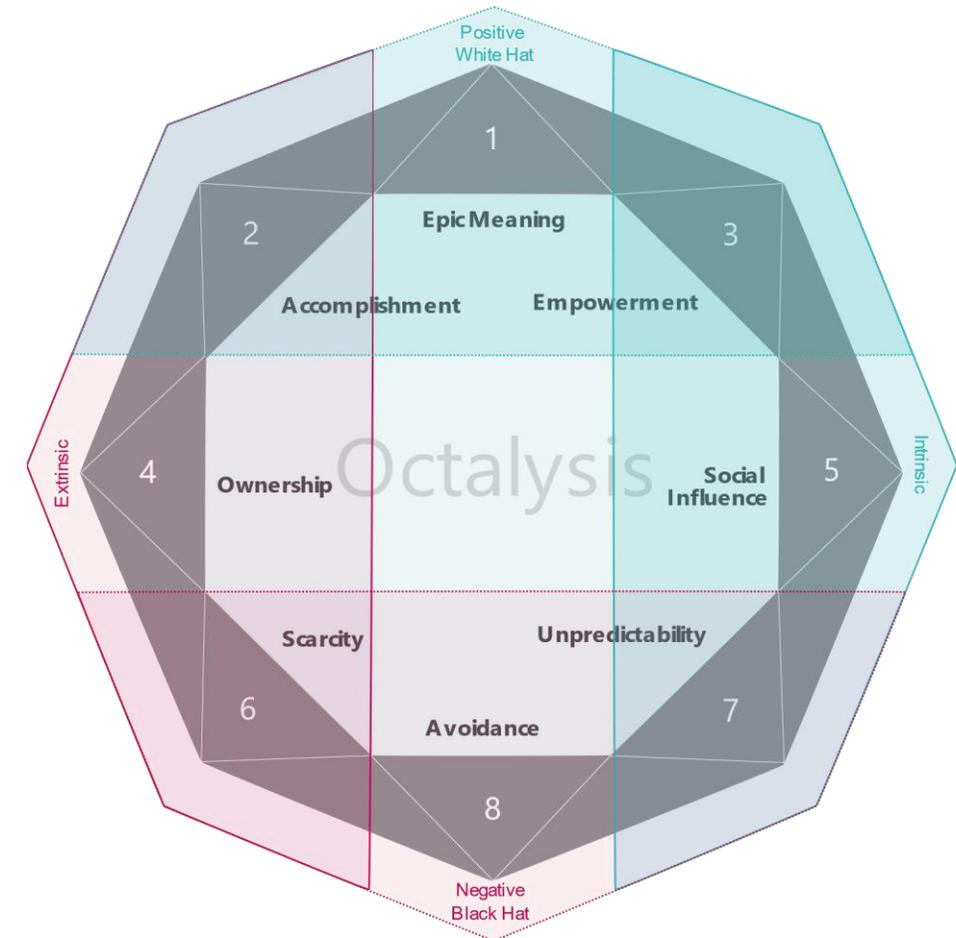


Figure 1: Octalysis framework according to Chou (2021)

# Literature review



RQ: *What **preferences** and **recommendations** are described in the literature regarding games and gamification for the elderly?*

Social interaction and  
cognitive challenges

Simple mechanisms  
and customization

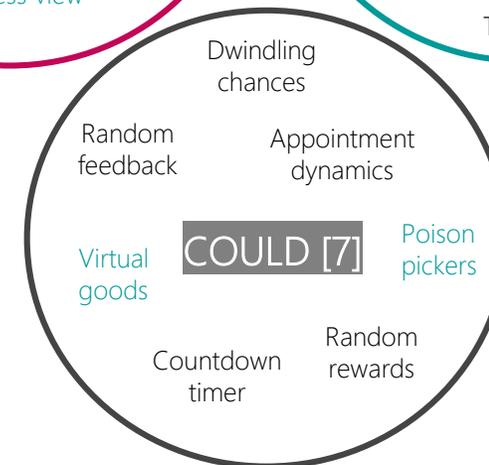
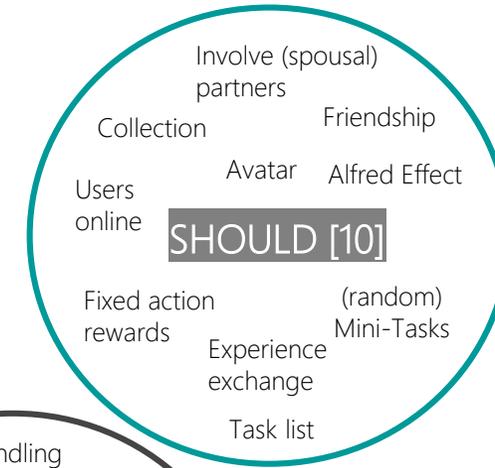
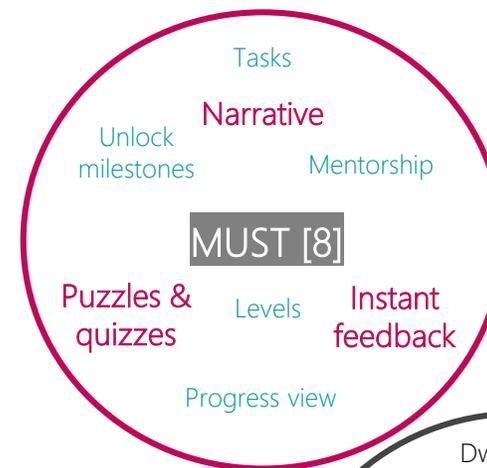
Deviate from classic  
gamification techniques  
(e.g. points, badges)

Use less used  
gamification techniques

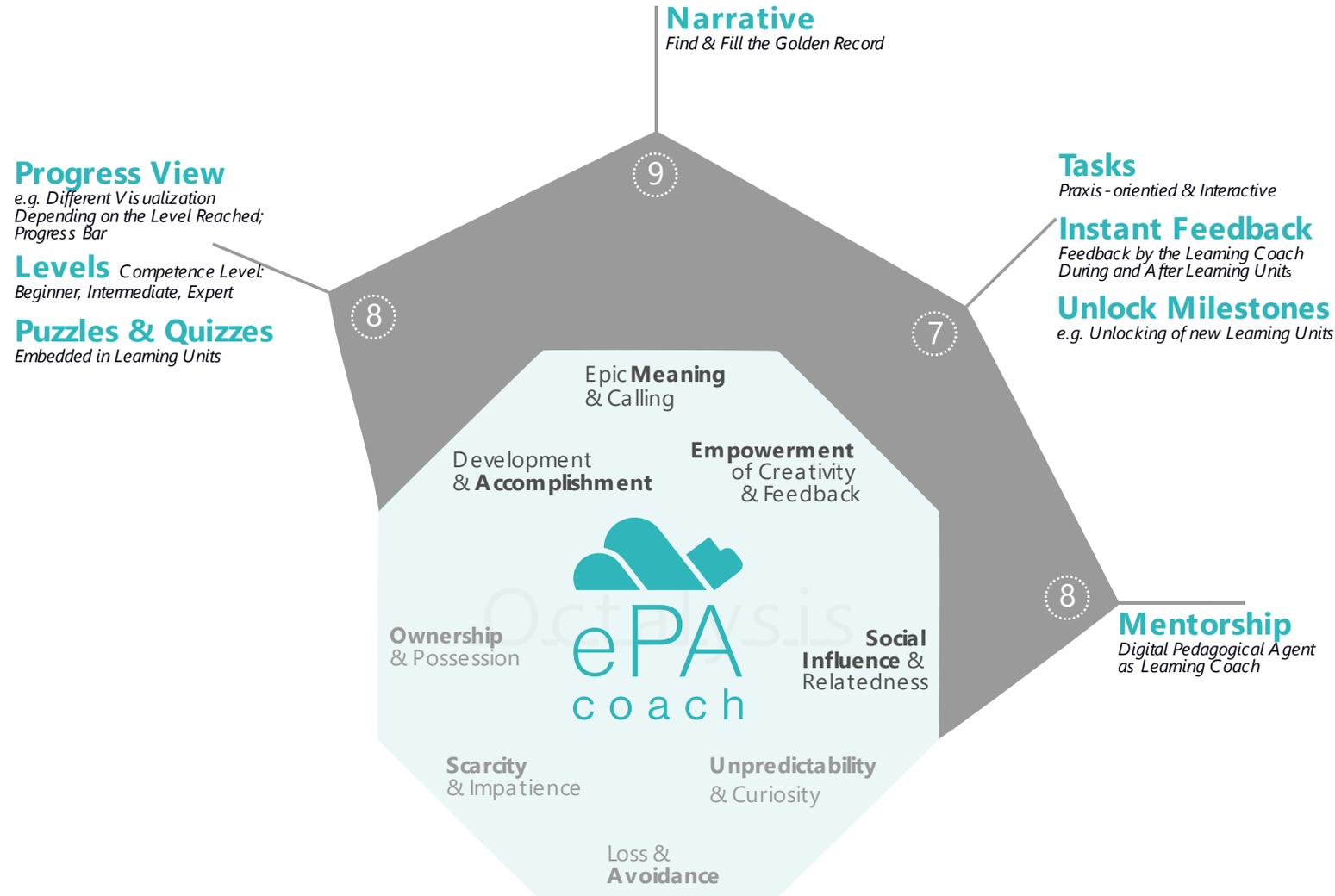
# Experts' survey



RQ: How do *experts rate* the *Octalysis core drives* and selected *gamification techniques* in terms of relevance and motivational ability with the elderly?

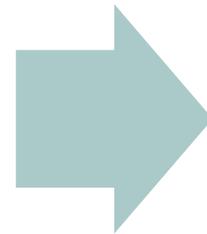


# Gamification base model



# Next steps

Evaluation  
with target group



Adaptation and  
extension, technical  
implementation and  
renewed evaluations



*Gamified systems for seniors are still rare and more specified research is necessary for developing and designing gamified (learning) applications for the elderly*

Thank you for your attention.  
Are there **any questions?**

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This presentation and the associated publication were produced as part of the project ePA-Coach: Digital sovereignty in context of the electronic health record, founded by the Federal Ministry of Education and Research under the program Human-technology interaction for digital sovereignty. For more information please visit: <https://technik-zum-menschen-bringen.de/projekte/epa-coach>