JPI Urban EUROPE : Playing with Urban Complexity

Lessons Learned from Testing Mobility Safari

REAL CORP 2017 | 12. – 14. September | Vienna (AT)

Why are planners interested in games?

Planning as Social Learning

(John Friedman, 1981)
paradigm shift: from planning as the making of plans → to an act of mutual learning based on dialogue and transactions between individuals

Constructivist Learning: exploratory and discovery learning (see i.e. Piaget, Papert)

Serious Games

\# Environments to trigger Social & Constructivist/Discovery Learning

\# Mirror or simulate complex real-world matters

\# Artificial Systems that are immediately responding to in-game decision making

Expectations

\# Improving participation (e.g. Thiel et al 2017)

\# Games as media to engage hard to reach groups

Constructivist Learning Theory

Learners construct new knowledge by applying old understandings to new experiences and ideas.
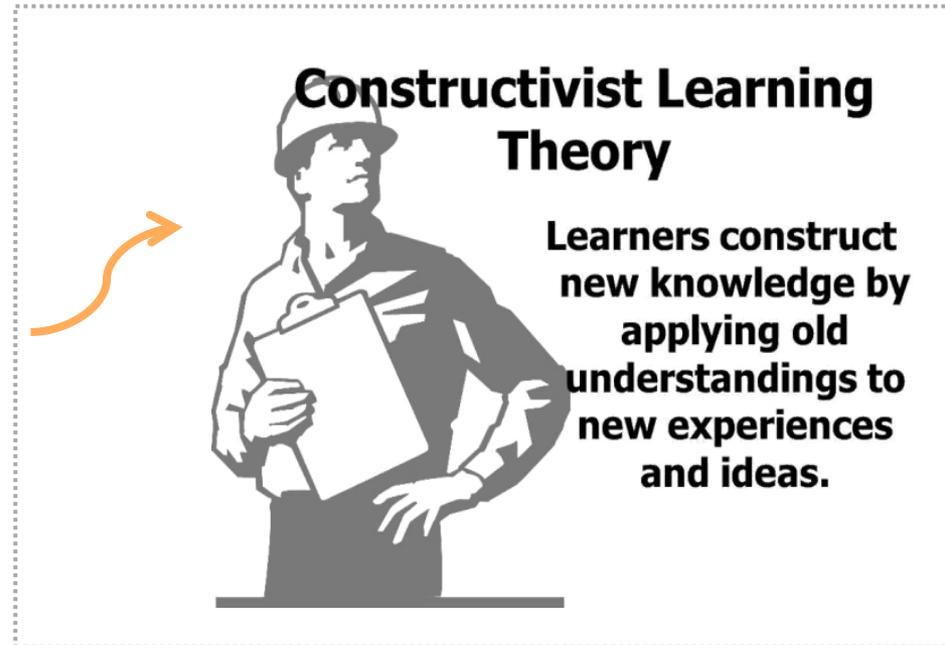
LIVING LABS: 3 locations – 3 themes

*Priority Themes in
the Urban Agenda*

Groningen

ENERGY TRANSITION

Genk

INTEGRATION of MIGRANTS
in the CITIES

Vienna

URBAN MOBILITY
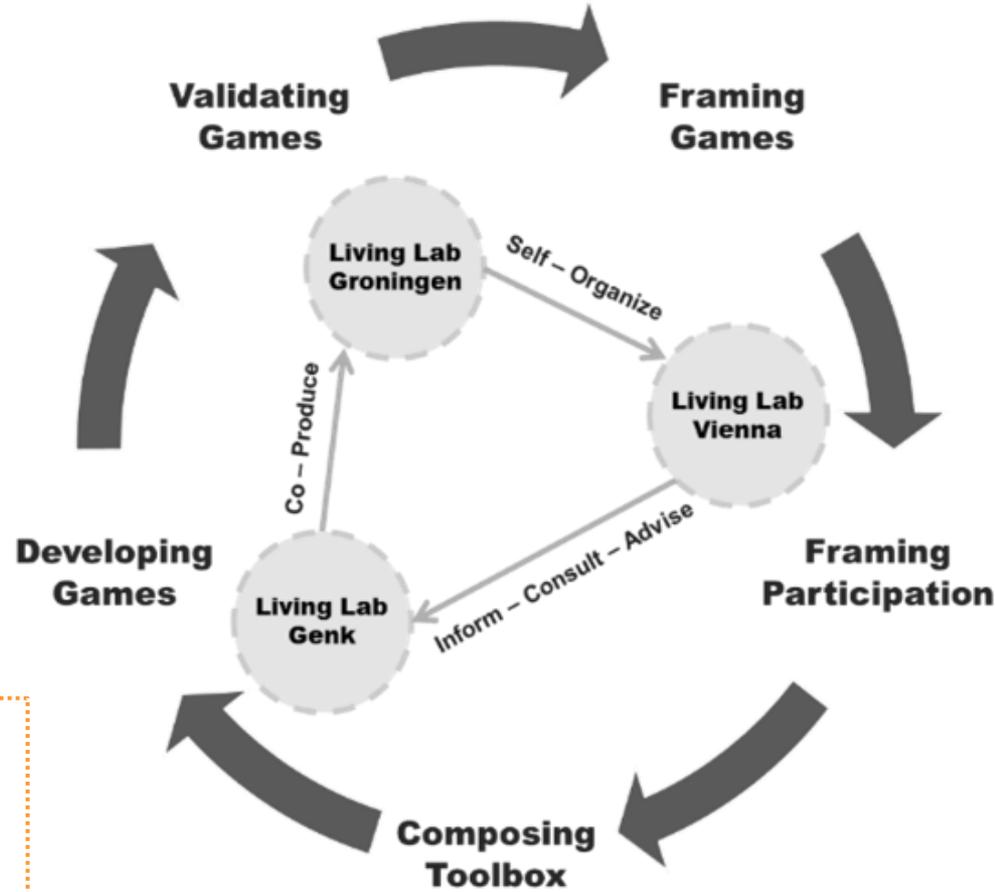
MOBILITY SAFARI – how is it played?

JOKER – EVENT – QUESTION CARDS

PROJECT CARDS:

based on contents of the Vienna mobility concept, with the categories:

Fair and safe
Active and healthy
Flexible and connected
Innovative and educating

GAMEBOARD
Based on the City Plan of Vienna

PAWNS IN THE GAME
Different characters (like biker, pedestrian, e-car, weelchair user, tram)

PROJECT FIELDS
in the corresponding colors

MOBILITY SAFARI – how is it played?

Goal

is to realise or collaborate in many projects in order to gain **money**, **CO$_2$-saving** and **community points** (there's a winner for each category)

Game rules

5 rounds (=5 years) are played; each year you have to pay increasing mobility costs

players roll a dice and move to a free project field

to realise a project players have to find **partners**, to get the **permission** and to **finance** the project

for a successfully realised project players gain points/coins

additionally every project surprises with positive or negative effects
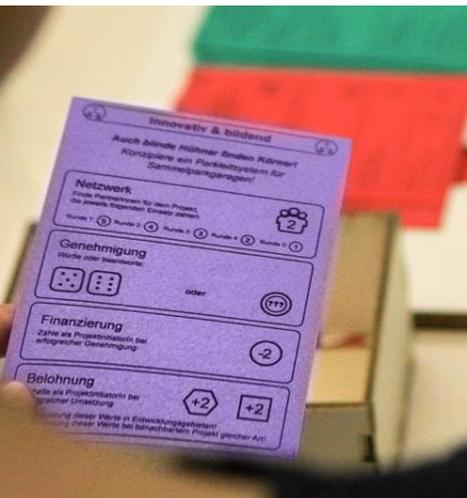
EVALUATION

Mixed Methods

Participatory Observation during gameplay

Debrief Focus Groups at the end of each playing session

Standardized Questionnaire

Questionnaire

72 filled in questionnaires

information about fact based and social learning as well as learning for new social practices of the players, i.e.:

→more than half of the players learned something new
→82 % actively considered themselves as a team member
→half of the players stated that they have learned more about other players

+ transferring information, rising awareness

- Triggering active participation and behavioural change

	Statement	strongly disagree	disagree	neither	agree	strongly agree
Specific Learning	I was curious to learn something new from the game.	6	8	29	33	24
	Through the game, I am inspired to learn more about the mobility transition in my region.	10	26	29	28	7
	Through the game, I understand more about realizing urban development projects.	14	18	37	28	3
	I obtain and explore new perspectives on the topic of mobility.	6	37	31	22	4
	Through the game, I learned something new about the mobility transition in my town.	18	30	31	18	3
Social Learning	I felt like a part of a team.	8	17	20	35	20
	Through the game, I learned more about other players.	7	14	31	34	14
	Watching the strategies of other players help me to understand the game better.	7	24	36	22	11
	I learned things I didn't know about the mobility transition from other players.	23	28	29	14	6
	The game offered me a new perspective on the interests and concerns of other players.	17	31	34	14	4
Participation	Playing demonstrated to me that only through cooperation with others environmental problems could be solved.	8	17	31	32	12
	The game shows different option for participation and civic involvement.	10	20	36	27	7
	Playing the game raise my interest and awareness for mobility projects.	12	21	32	24	11
	Through the game, I have a better understanding of participation possibilities in my city that contribute to the mobility transition.	13	19	33	32	3
	After playing the mobility safari I would like to engage and be more involved in mobility initiatives.	19	28	31	19	3

relative Frequency in %

■ strongly disagree ☐ disagree ☐ neither ☐ agree ■ strongly agree

Top 5

research driven

Lessons Learned

from playing and testing Mobility Safari

1 Players learn without noticing it

Factual learning (single loop) is existing but to a modest extend – hard facts:

capacity building and cooperation (experimenting for sustainability transitions)

improved understanding of the game better – understanding real life context better, because game mimics real life context (Gugerell, Platzer et al., forthcoming)

Self reporting on learning: questionnaire – low perception that the players learned something!

"Negotiating and cooperating with other players"

The game shows that every project has an influence on its environment.

I learned about sustainable projects / ideas I had no idea about yet

The best elements are questions, project effects, taking part in projects and cooperation.

2 Debriefing as crucial part of the game-experience

Debriefing:

→ transferring the gaming into a deeper learning experience

→ Exploring the meaning of the game play and discussing decision making – linking it to real world experience

→ Needs sufficient time and preparation, already to be considered in the design

 # Game itself should be fun and triggering experiences – debriefing for reflecting on the experiences

2 Debriefing as crucial part of the game-experience

Highly **descriptive** observations
- encouraging players to describe what happened in the particular situations during the game play

Meaning of the observations in the game & linking to the real-world
- encourage players to interpret what they have observed & what happened and put it in context to the real world

Anticipatory application for the real-world context
- encourage players to take the learning experience to behaviours and lessons that have not happened yet
- translation into actionable/transformative knowledge

3 Normative narratives?

Normative Narratives: indeed there is an undercurrent in the narrative of the game

i.e.

Environmental friendly behaviour
Rewards for environmental friendly behaviour
Rewards for social behaviour

Awareness in the design process that there is indeed a normative undercurrent in such games
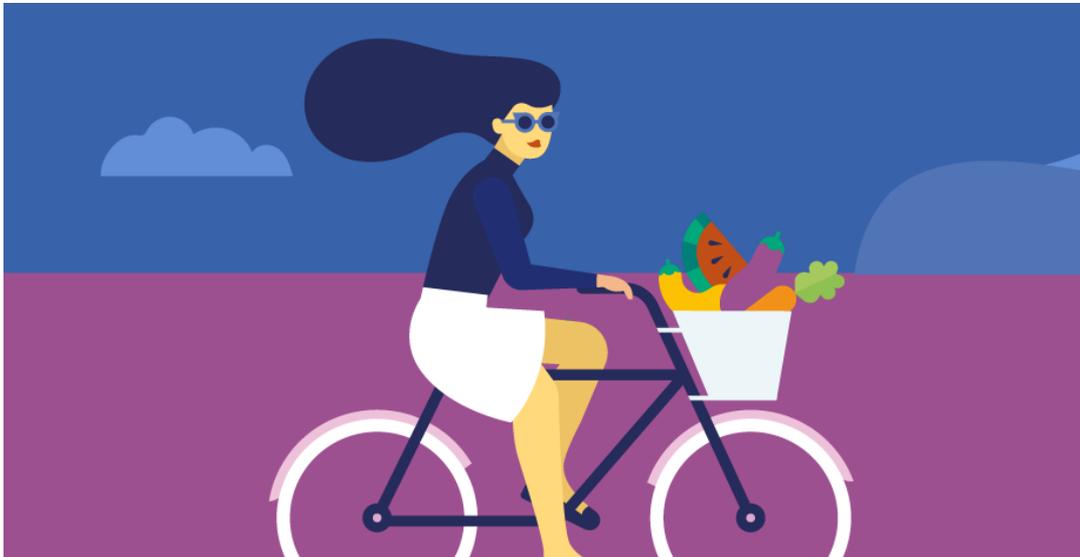
4 Co-Creation/co-design of serious games for planning is crucial

Co-Design/co-creation as method to create embedded and meaningful narratives (Gugerell & Zuidema 2017)

→Game prototyping as means for individual and collective practises of exploring, discovery, learning, searching and creating novel e.g. institutional & spatial arrangements

Time, resources and willingness to engage in such a process

Informant participatory design / transformative approach:
Literacy and skills necessary: Stakeholder → Game Design, Game Designers → planning content

Game design mainly following DPE (Winn, 2009) and SGDA model (Migutsch & Alvarado, 2012)

Based on Winn 2009

Migutsch & Alvarado 2012
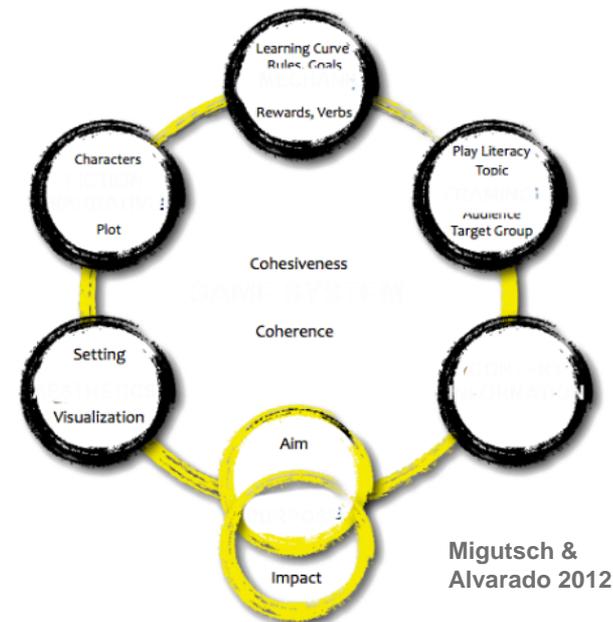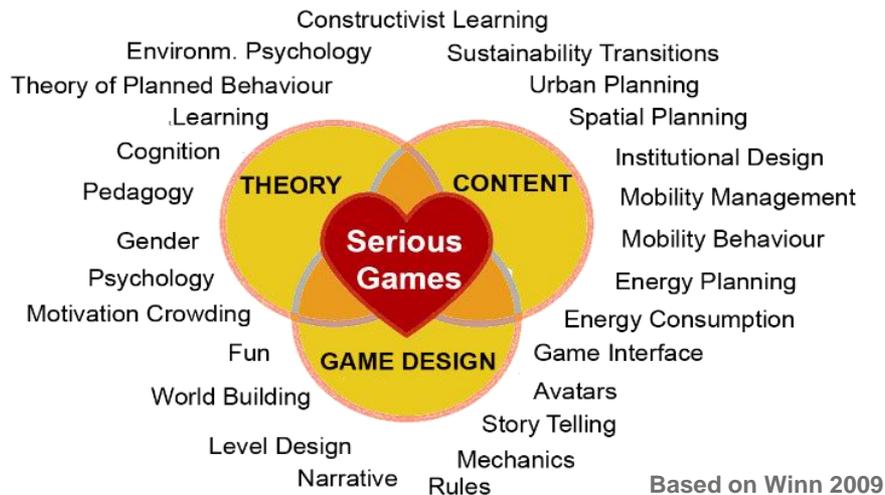
5 Players play for fun!

Players play for fun: thus also serious games need to work as a game!

Replayability good to very good

positive: rich variety, partnering up and exploring different options

„It was great fun playing it and the game is well constructed. "

"The game is interesting and rich in variety"

"Partnering up in a joint venture and not realizing projects on my own and seeing a common benefit from realizing projects."

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