



Bridging the gap between location-based games and teaching

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Agenda

1. Goals and definitions
2. The 6-step framework
3. The framework in the context of LBML
4. Discussion

Who are we?

- Martin Raubal
- Joram Schito
- Christian Sailer
- Peter Kiefer



What are our goals?

- Provide methods for successful learning.
- Provide location-based mobile learning (LBML) as sustainable method to learn location-based contents in a funny, competitive or either collaborative ambience.
- Foster student's motivation and spatial cognition.
- Propagate LBML as easy to use method.
- Motivate teachers to be innovative.

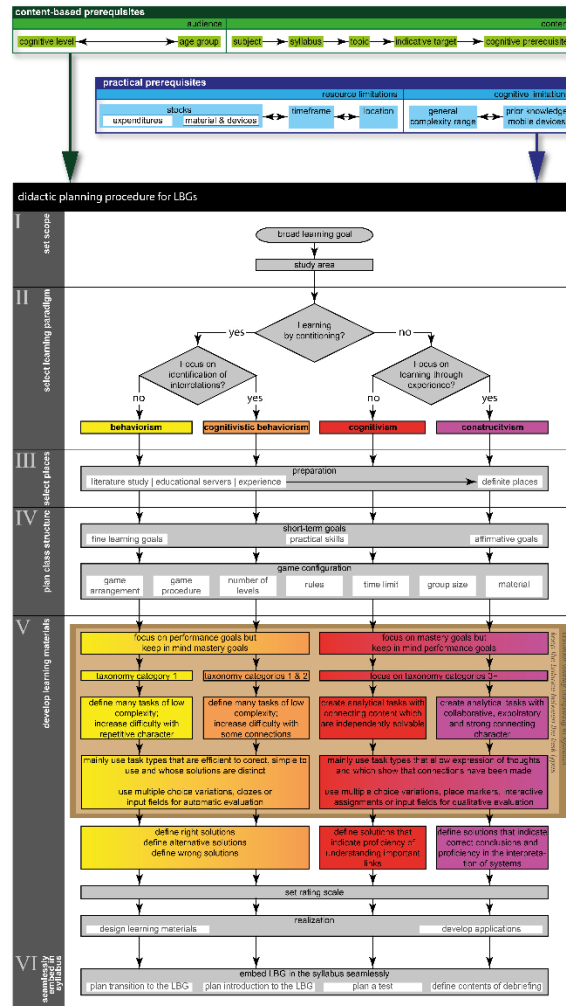
What is successful learning?

- Learning is active.
- Learning is constructive.
- Learning is self-directed.
- Learning is emotional.
- Learning is social.
- Learning is usable.

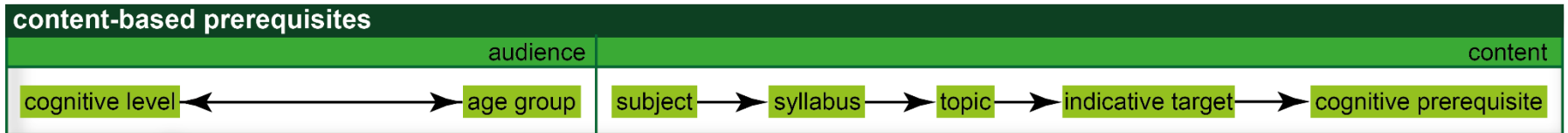
LBML has the potential to have a positive effect on all these features.

6-step framework

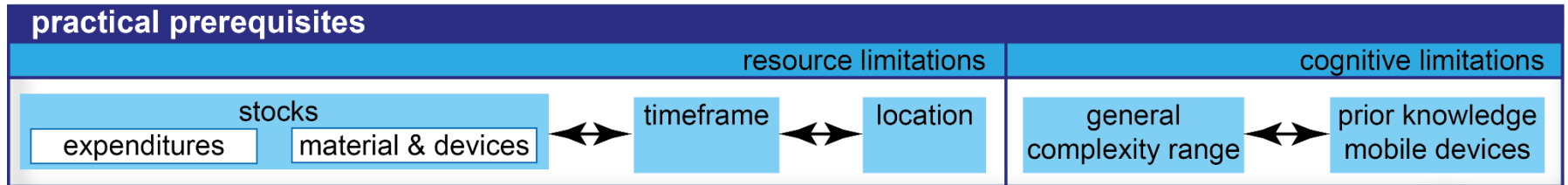
The whole framework



Content-based prerequisites



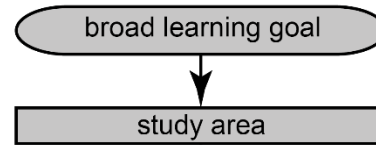
Practical prerequisites



Step 1: set scope

didactic planning procedure for LBGs

I
set scope

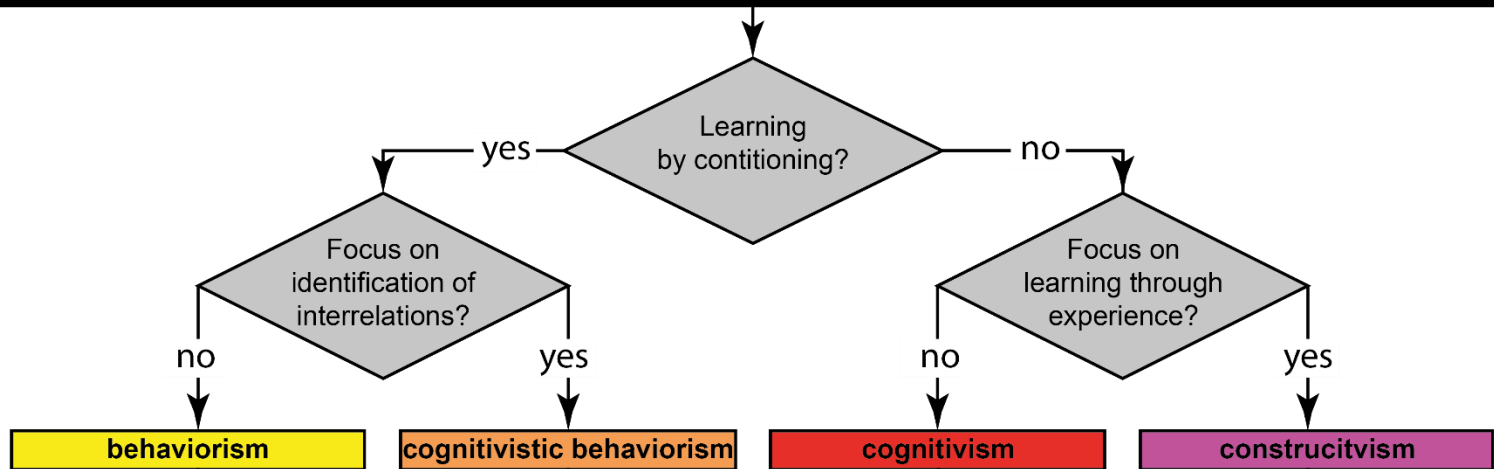


Step 2: select learning paradigm

didactic planning procedure for LBGs

II

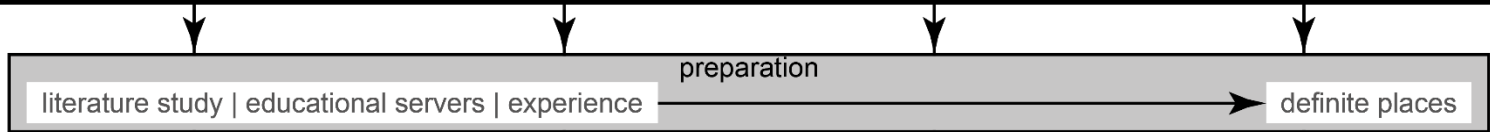
select learning paradigm



Step 3: select places

didactic planning procedure for LBGs

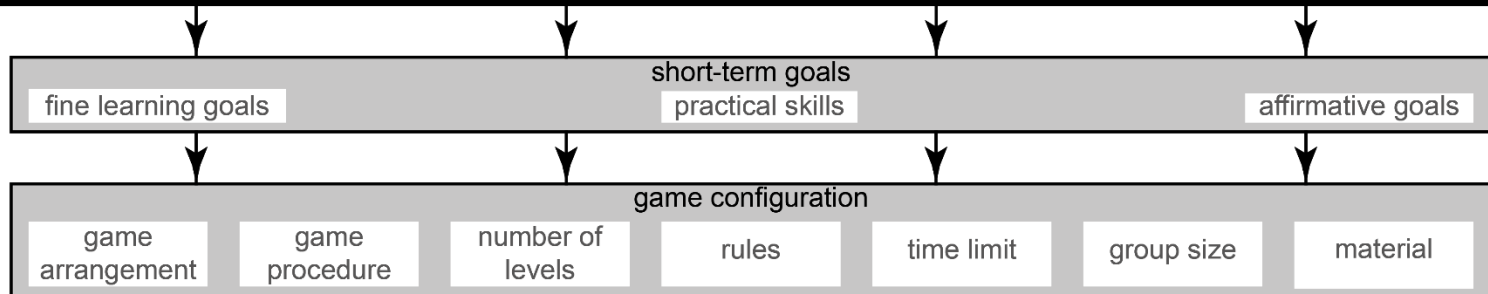
III
select places



Step 4: plan class structure

didactic planning procedure for LBGs

IV
plan class structure

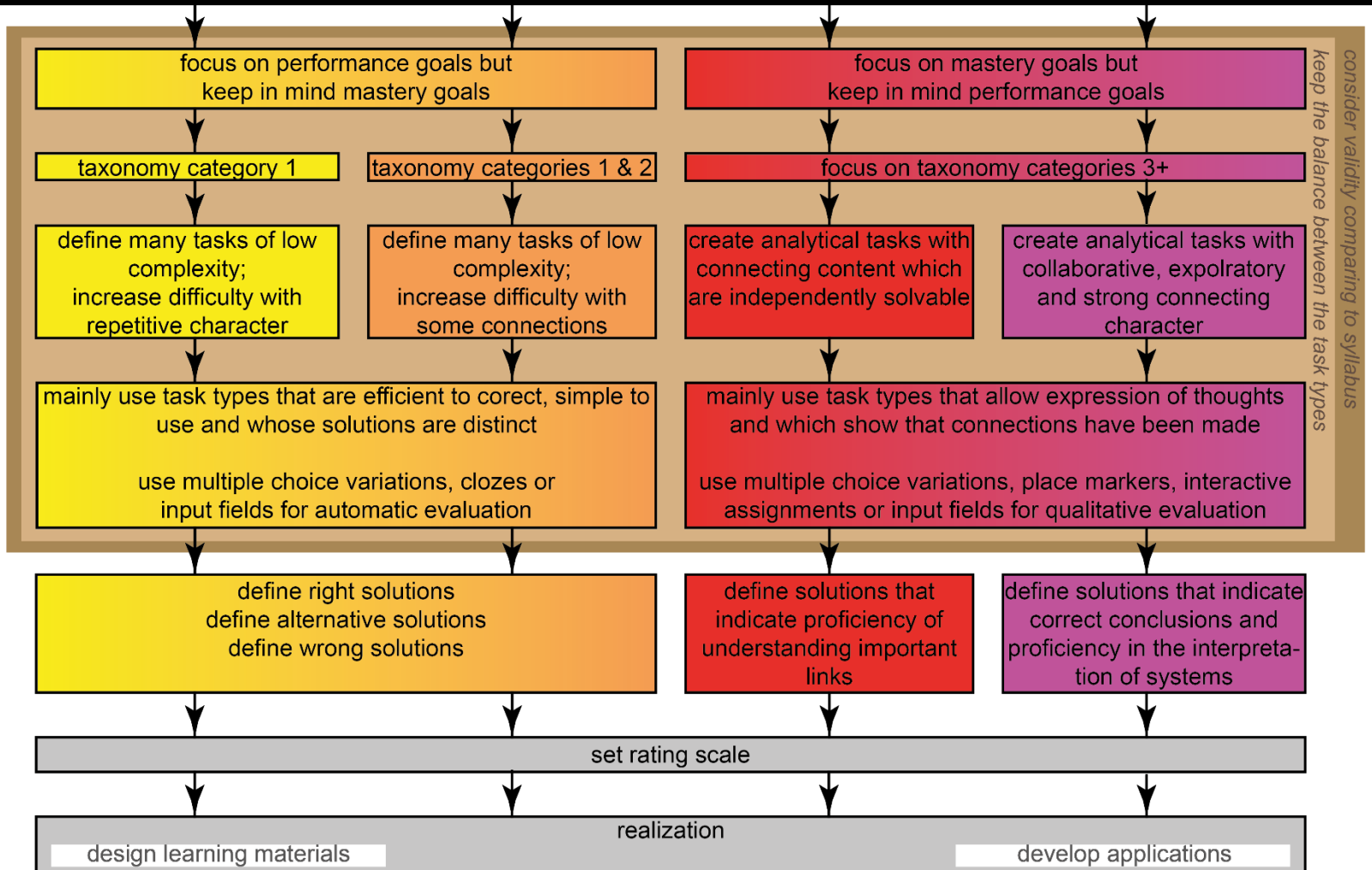


Step 5: develop learning materials

didactic planning procedure for LBGs

V

develop learning materials



Step 6: seamlessly embed in syllabus

didactic planning procedure for LBGs

VI
seamlessly
embed in
syllabus

embed LBG in the syllabus seamlessly

plan transition to the LBG plan introduction to the LBG plan a test define contents of debriefing

the framework in the context of LBML

Why a new framework for geogames?

- Teachers are mostly unfamiliar with the realization of geogames.
- Teachers need hands-on approaches to integrate learning media or GIS in their classes.
- Teachers want to foster successful learning. The framework helps them to
 - refer back to learning paradigms
 - seamlessly embed geogame in syllabus
 - reflect the geogame's design process

What are the differences to Lude et al. (2013)?

- Tasks and taxonomy categories are dependent on the chosen learning paradigm.
- The seamless embedding of the geogame into a syllabus is considered.

What do we expect from the framework?

- That teachers use it to design and conduct geogames.
- That teachers provide the research group with data and findings about conducted geogames to improve the LBML unit.
- That the framework becomes a prototype for an interactive tool in which a user can define all parameters and get a suggestion, which kinds of tasks and software should preferably be used.

What challenges do we encounter in LBML?

- Time pressure: good or bad?
 - Bad: participant's risk more under time pressure → safety issue
 - Bad: the goal to win a competition can be counterproductive for weak students → motivation loss
- Geoprivacy / legal aspects
 - Can a student be forced to share his position either when he doesn't want to reveal his behavior to Google, Esri, etc.?
- Geography teachers
 - still hesitate to embed GIS and LBML in their classes
 - need easy access to geogames or to ideas to create them

What are future research questions?

- How can the framework be improved to ensure successful learning?
- What must teachers consider to implement didactic approaches in LBML task types? *Paper in progress*
- How can a LBML unit be improved based on the tracking analysis? *Paper in progress*
- How should a specific track correctly be interpreted and rated? *Paper under review*



Thank you for your attention.

Any questions?