



digital kompetent im Lehramt



Kick-Off Meeting DiCoTe

Game-Based Learning Design:

Concepts and Impressions from Project
Seminars in German Teacher Education

12.01.21 | René Barth, DikoLa | Benjamin Eugster, [D-3]

GAME-BASED LEARNING DESIGN

Summer semester 2020: On the didactics of video games

- Four perspectives on video games in the classroom

- The *Player Journey* by Pfeffermind

Winter semester 2020/2021: Designing learning in a gameful way

- How to introduce instructional design in a gameful way

- Gamification and game-based learning as rapprochement

- Work in progress: Examples from the course

- Potential of game-based learning design

GAME-BASED LEARNING DESIGN

Summer semester 2020: On the didactics of video games

Summer semester 2020

On the didactics of video games:

Digital games as learning occasion,
carrier, motivation and subject in
German lessons



- 5th semester and above
- Teaching students of all school types except elementary school

Dr. Gunhild Berg, Institute of German Studies
René Barth, DikoLa

GAME-BASED LEARNING DESIGN

Summer semester 2020: On the didactics of video games

Course Structure

Theoretical basics



Transfer model by Jürgen Fritz

Motivator

Carrier



Input-oriented approach

Subject matter

Occasion



Learning through teaching

GAME-BASED LEARNING DESIGN

Four perspectives on video games in the classroom

Motivator

Subject matter

Carrier

Occasion

GAME-BASED LEARNING DESIGN

Four perspectives on video games in the classroom: Motivator

Gamification

Game

Elements and mechanisms



„Non-game“ / purpose

Context / situation / application software

GAME-BASED LEARNING DESIGN

Four perspectives on video games in the classroom: Carrier

Serious Games

„Non-game“ / Purpose

(Learning-)Content



Game

Game structure

GAME-BASED LEARNING DESIGN

Four perspectives on video games in the classroom: Subject matter

- Games as „literature“
- How do games narrate?
- (Inter-)Action vs. storytelling
- Conclusions about literature

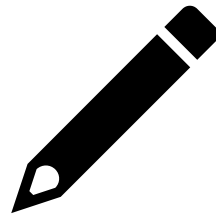


GAME-BASED LEARNING DESIGN

Four perspectives on video games in the classroom: Occasion



e.g. Ursula Poznanski: Erebos (2010)
Ernest Cline: Ready Player One (2011)



My best holiday
experience



My best gaming
experience



- self-created let's plays/
commented tutorials
- self-made game content
- video comments
- audiovisual realizations
of "scripts,"
- ...

Activity- and production-oriented teaching

GAME-BASED LEARNING DESIGN

Four perspectives on video games in the classroom

Motivator

Carrier

Products



WS 20/21

Subject matter

Occasion

Concepts



SoSe 2020

GAME-BASED LEARNING DESIGN

The *Player Journey* by Pfeffermind

- pfeffermind.de
- pfeffermind.de/gamification-tools/
- toolkit (set of cards) to support game thinking (analogous to design thinking)
- 5 main categories of game elements: challenges, missions, tools, feedback, actions
- other cards: basics (basic characteristics of the game) and how?-cards (modifying the elements cards)

Game-Based Learning Design

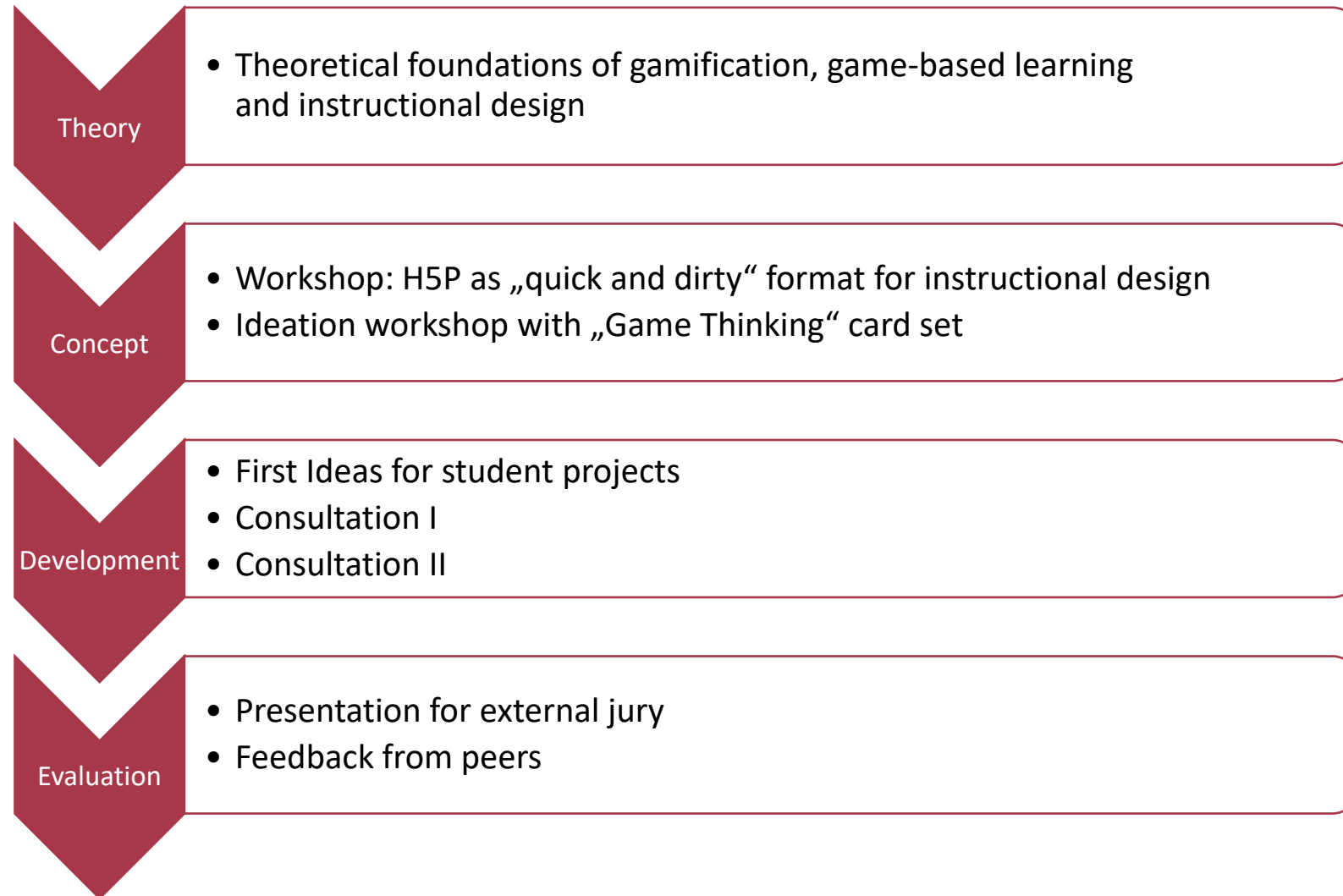
Concepts and Impressions from Project Seminars
in German Teacher Education

DiCoTe-exchange, January 2021



Course structure of the project seminar

Winter semester 2020/2021: Designing Learning in a gameful way



How to introduce instructional design in a gameful way?

Interactive workshops and production-oriented approach as framework

- Creativity- and production-focused setup of participatory workshops
- «Gamefulness» and «fun» as objectives, instructional design as methodological approach

Clearly defined objectives for the projects

- Learning objectives and scope (time, space)
- Target group
- Game genre, game world, core story
- Media format
- Game elements and mechanisms
- Implementation in instruction and learning process

How to introduce instructional design in a gameful way?

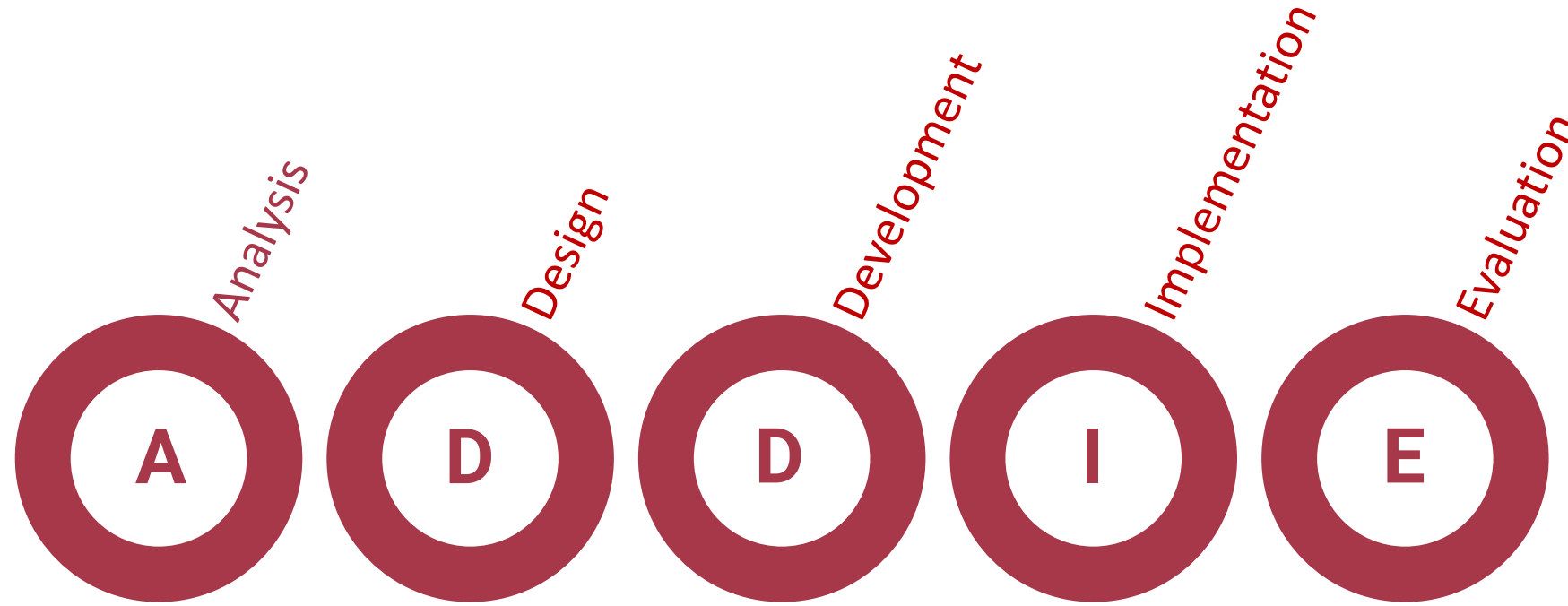
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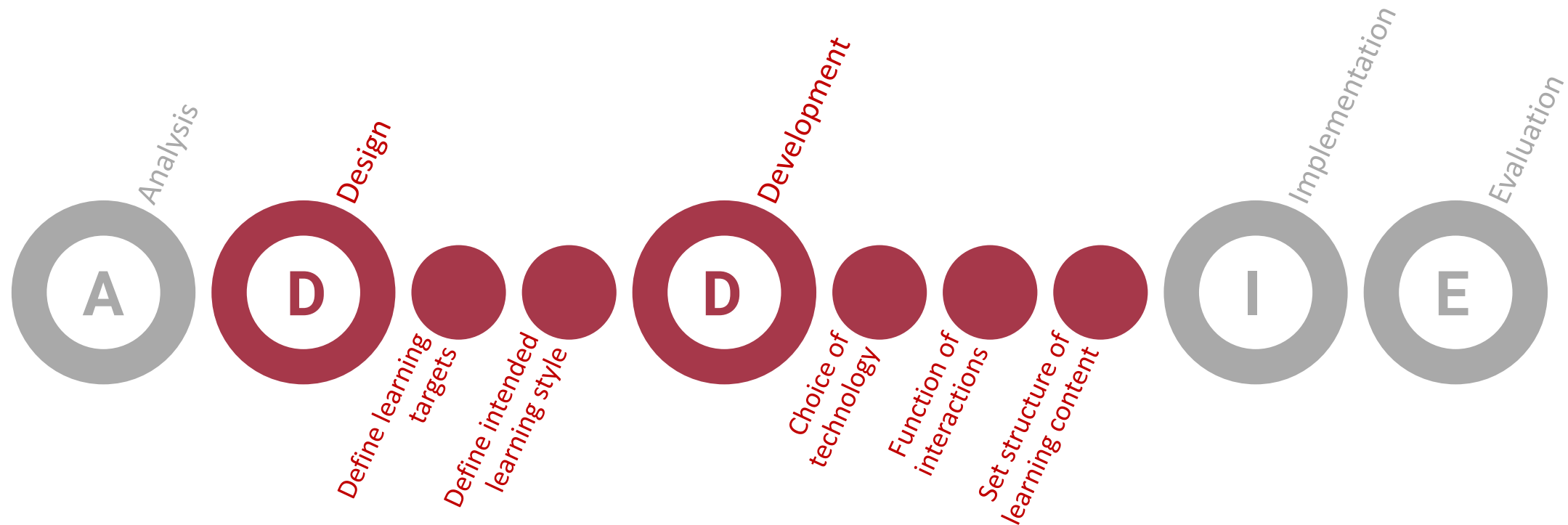
Instructional Design support from Project «[D-3] Deutsch Didaktik Digital»

- Expertise about technological solutions for individual consultation
- Introduction to mindset and methods of agile product development
- H5P as example to illustrate different stages of Instructional Design

Gamification and game-based learning as rapprochement to Instructional Design



Gamification and game-based learning as rapprochement to Instructional Design



Work in progress: Examples from the course

Board Game about
Goethe's „Faust“

Moodle-based Online-
Course about «Pippi
Langstrumpf» with level
progression

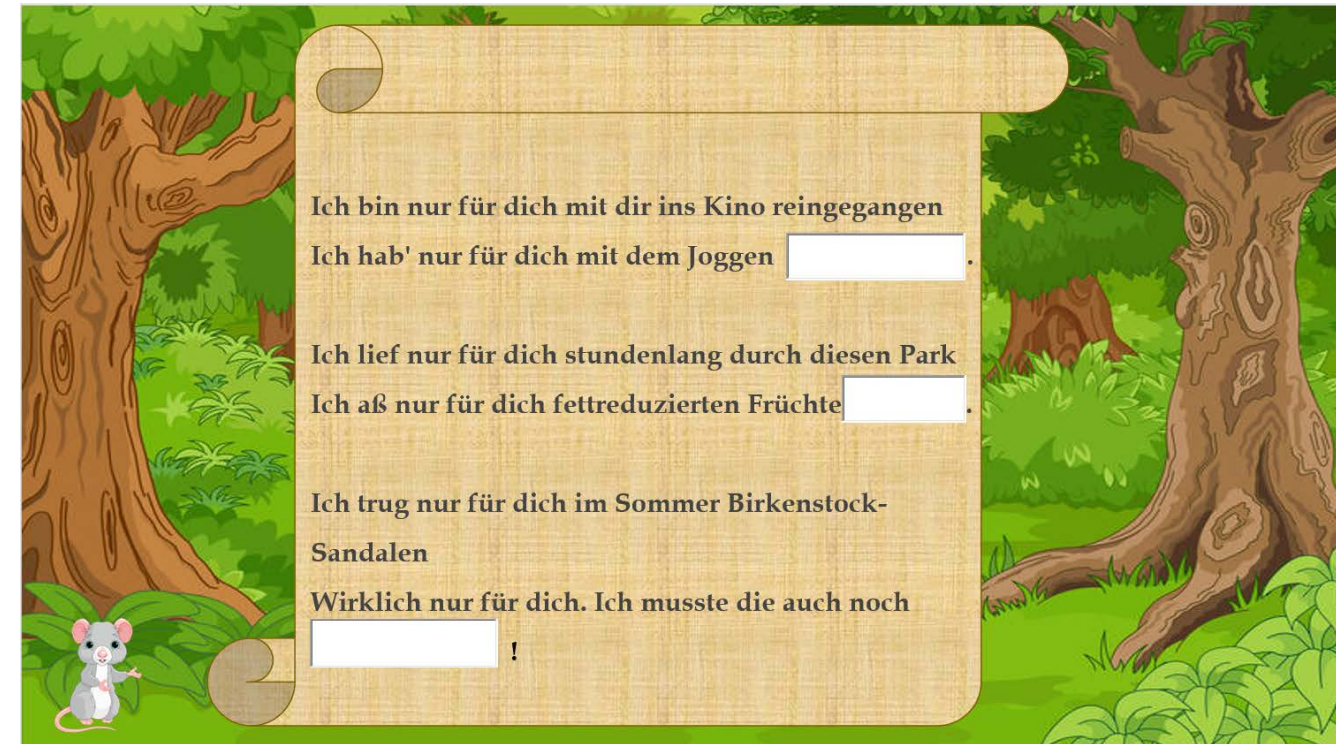
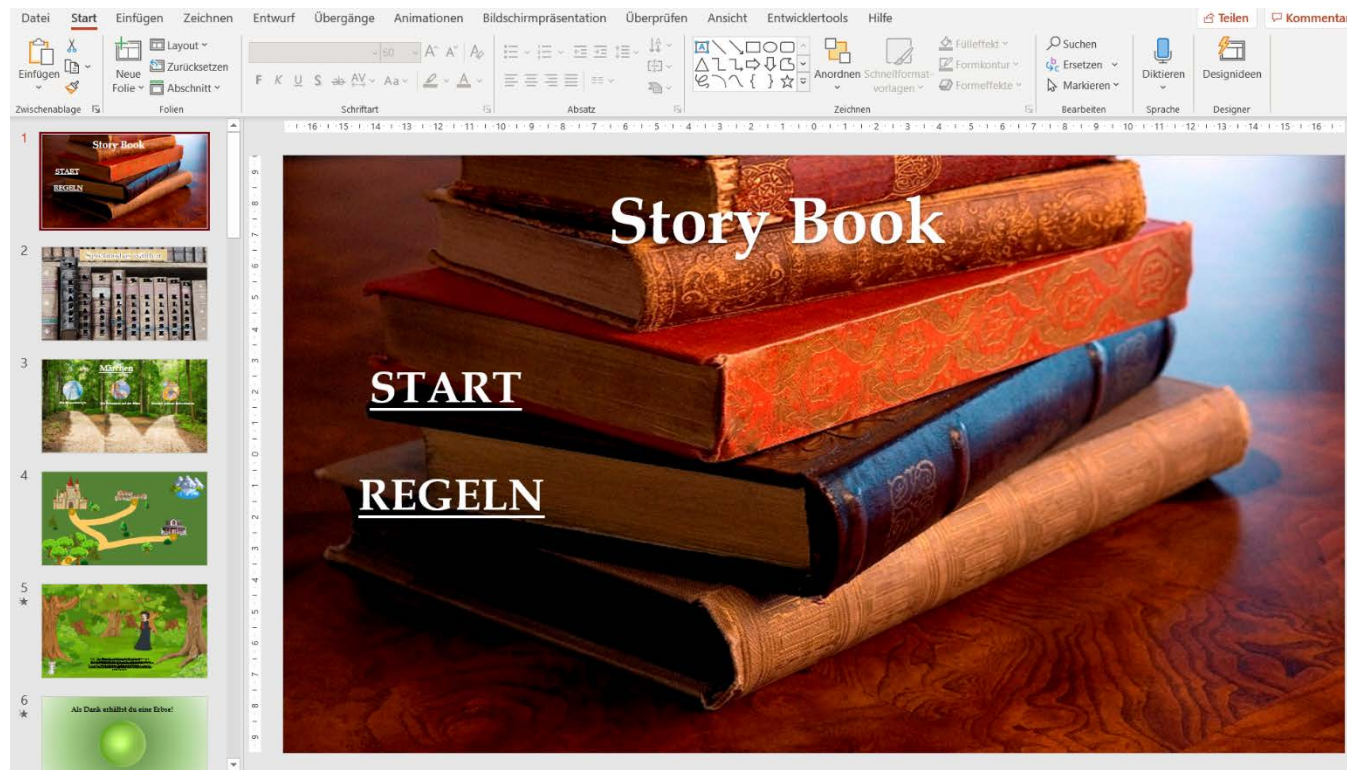
Powerpoint-based «point
and click adventure»
about fairy tales

Escape Game with H5P:
Based on orthography
challenges

Minecraft-based setting
for the evaluation of job
application letters

«Point and click
adventure» about fairy
tales with H5P

Works in progress: Examples from the course



Story Book: Powerpoint-based «point and click adventure» about fairy tales
(Mareike Holzinger, Robin Jenzora, Swenja Schüler und Elen Worm)

Works in progress: Examples from the course

START - Pippi in der Villa Kunterbunt







 ANLEITUNG - Leseabenteuer mit Pippi Langstrumpf

 Pippi Langstrumpf - Übung






11 - Pippi feiert Geburtstag



-  Info
-  Das Pippi-Geburtstags-Quiz
-  Was war deine schönste Geburtstagsfeier?
-  Was darf auf einem Geburtstag nicht fehlen?

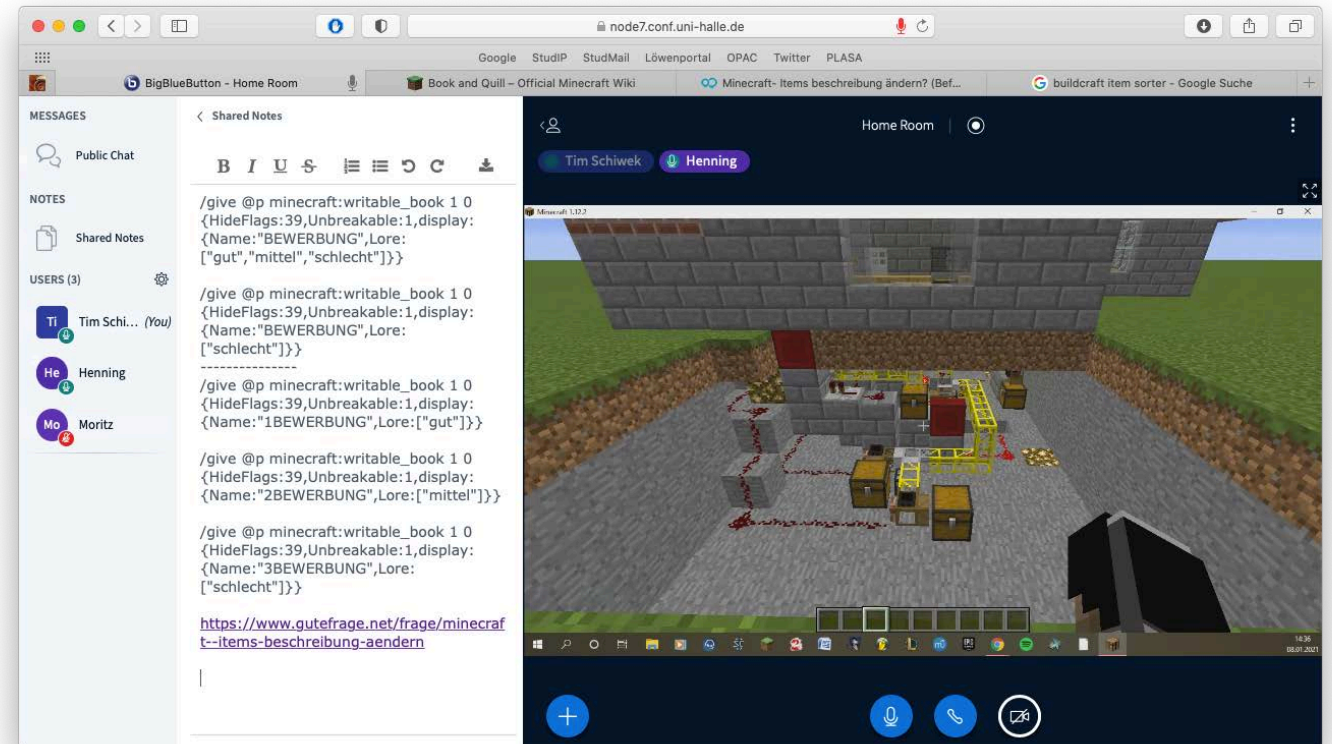
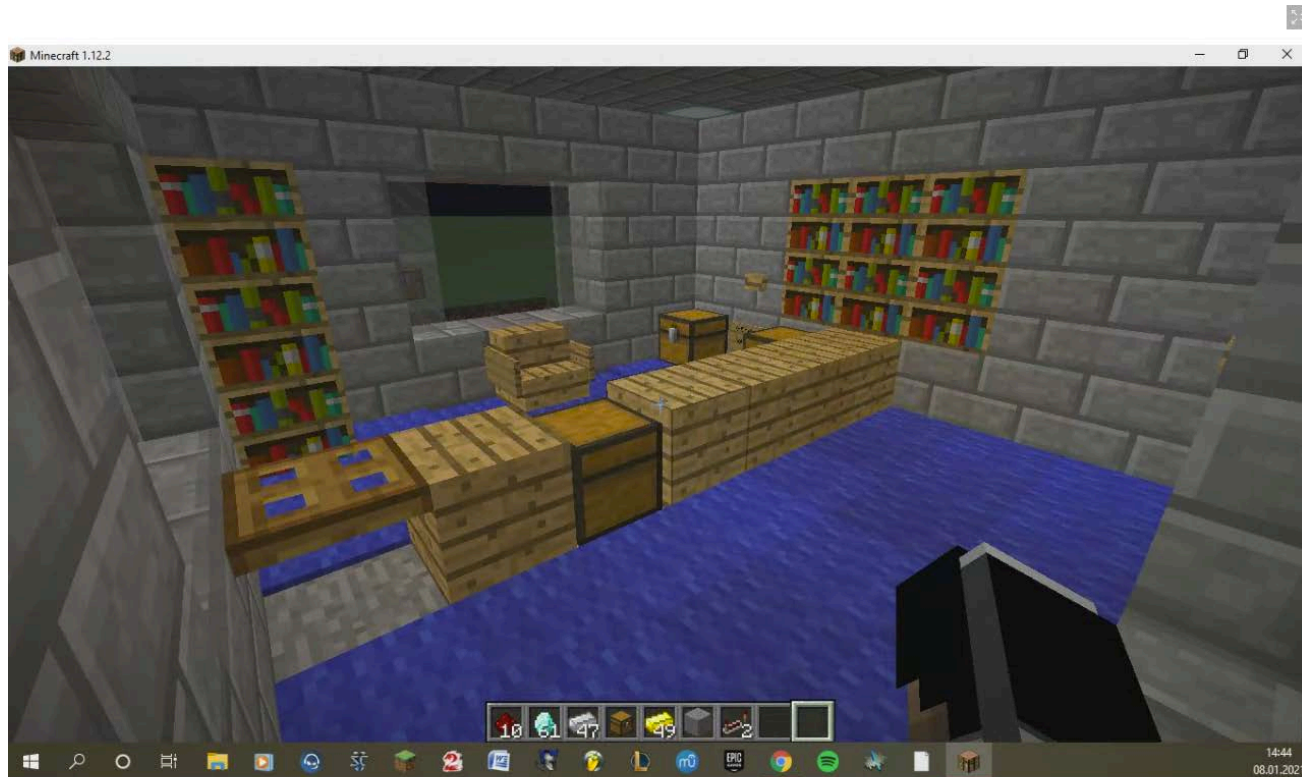
ENDBOSS



-  Kurzumfrage
-  Deine eigene Meinung
-  Rezensionen
-  Aufgabe Rezension
-  Wie geht es weiter?

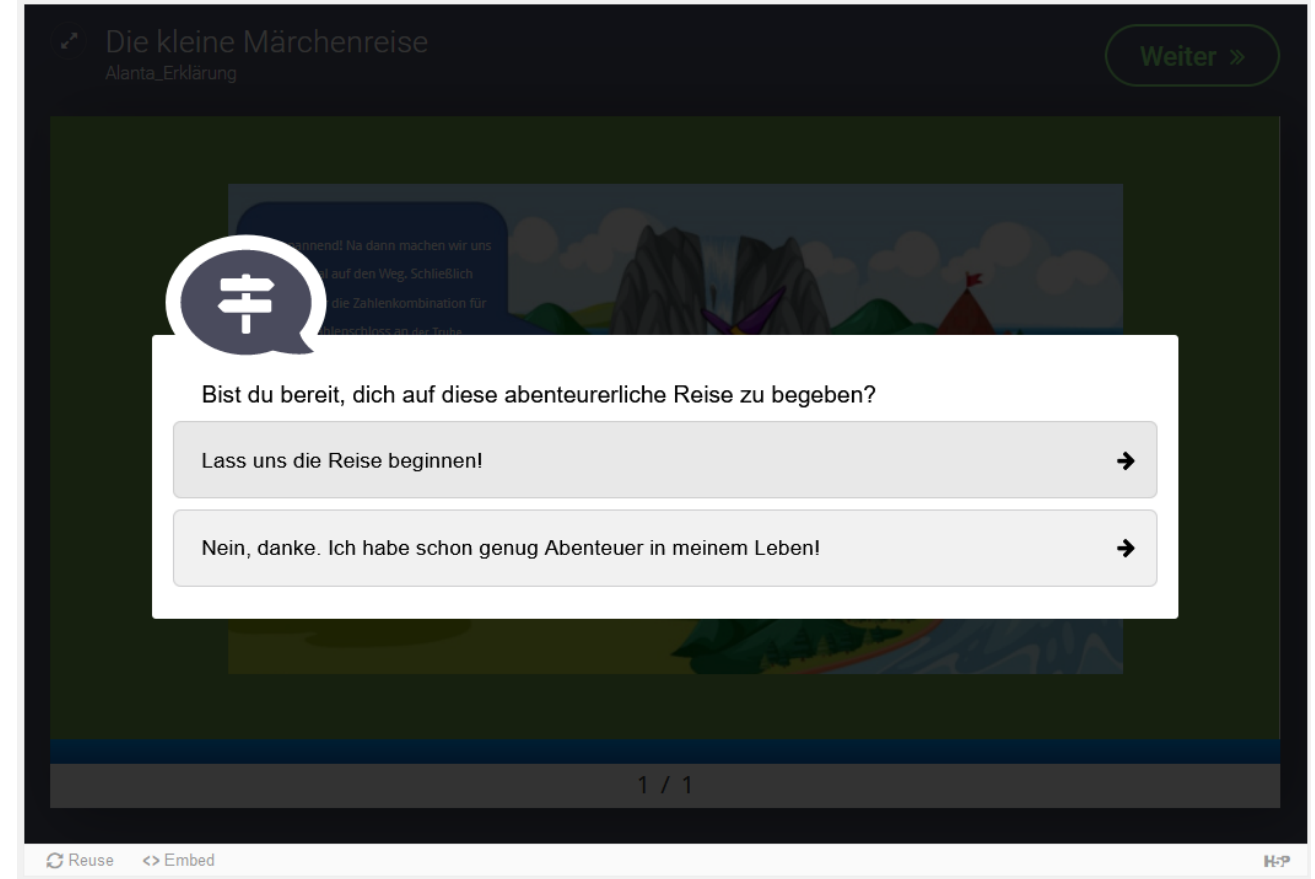
Moodle-based Online-Course about «Pippi Langstrumpf» with level progression
(Tabea Gibbert, Michelle Müller, Adrian Schlitt, Lilly Marie Stegmeyer)

Works in progress: Examples from the course



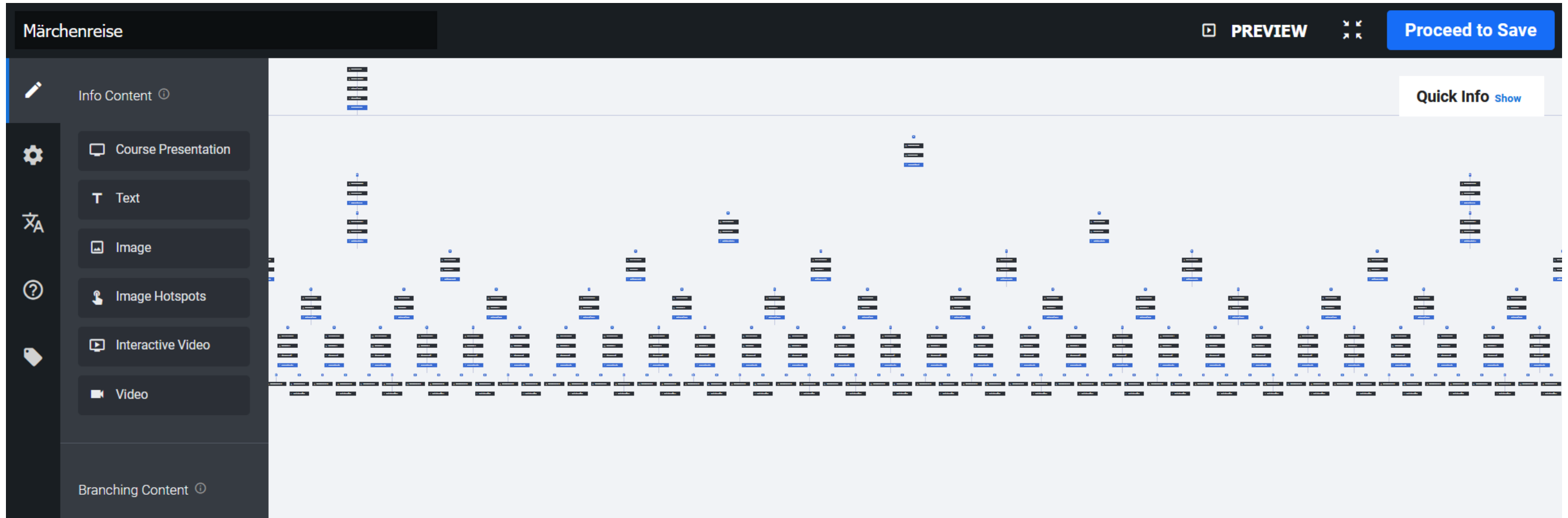
Minecraft-based setting for the evaluation of job application letters
(Lukas Hahn, Leopold Moritz Löbel, Tobias Neumann, Tim Schiwek)

Works in progress: Examples from the course



«Point and click adventure» about fairy tales with H5P
(Lea Eimler, Anna-Maria Hoke, Flora Linstedt, Victoria Spilner)

Works in progress: Examples from the course



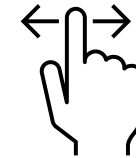
«Point and click adventure» about fairy tales with H5P
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Potential of Game-Based Learning Design

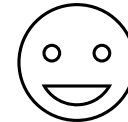
- **Diversity** of learning material



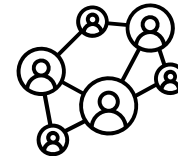
- **Interaction** with complex material (more than merely watching)



- **Motivation** for learners through active engagement



- **Personalisation** by individual learning paths

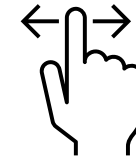


Potential of Game-Based Learning Design

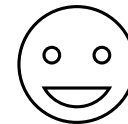
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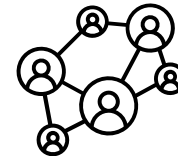
- **Interaction** with complex material (more than merely watching)



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- **Personalisation** by individual learning paths



→ Use positive aspects and effects of game-based learning to enrich the design of instructional content, situations and settings

Open discussion

- **Role of instructional design in teacher education:**

- Teachers as creators vs. Teachers as users of existing material: How much „production“ is needed/realistic?
- Understanding instructional design as basic quality feature of both digital learning content and platforms.

- **Potential, limits and risks of game-based learning in education:**

- How can we show realistic potential and possibilities of game-based learning without reverting to behaviourist clichés?
- How to sensitize students for risks (e.g. surveillance) and unwanted side-effects of gamification(e.g. limiting creativity instead of stimulating it)?