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Human-Centered-Design Methodology Quick Guide



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This Quick Guide is intended to serve as an assistance for the development of AR/VR learning content. It is designed for users who are already familiar with the HCD methodology and have internalized the principles of Human-Centered Design. Furthermore, we recommend that all users familiarize themselves with learners on the autism spectrum and understand their needs and potentials before creating learning content.







2. Design

- Development of concrete content
- A lot of space for creativity and inventiveness
- •4 phases that build upon each other

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·Iterativ approach



Stage 1: Ideate

- Transformation of discovered learning potential into an idea
 - Setting, Story, Action,...
- Involvement of learners intended
 - Respect the learner'spossibilities
 - Use of ideation tools provided by Luovi
- Stage result: Considered idea for the learning environment





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Stage 2: Develop

- Transformation of previously gathered idea into storyline/learning unit
- Done solely by educational staff
- 2 approaches included: Flowchart (VR), Lesson plan template (AR)
- Consideration of learners needs:
 - Make boring content interesting
 - •Make it easy to use

(gamification)

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- (simplification)
- ·Stage result: concrete idea of learning application with actions and

storyline



Stage 3: Prototype

- Realise your unit on a technical level
- No full learning unit required, but enough for a usable and coherent environment
- •Both storyline and technical implementation need to be tested sufficiently

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•Stage result: Functional Prototype ready to be tested



Stage 4: Test

- Test of all previous stages and their results
- Test environment requirements
 - 2-4 students
 - ·Timeframe of an hour
 - If possible, involve additional staff
- Gather Feedback from learners
 - Short feedback questionnaires
 Relevant Criteria: Usability, Enjoyment, Well-Being
- Stage result: Fully tested Prototype ready for finalisation and implementation





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3. Implementation

- Transfer of finalised prototype results to education environment
- Two main stages
 - ·1. System setup (Hardware, Software, Environment)
 - 2. Test run
- Goal: Utilisable learning application in real-world environment



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4. Validation

 Mid to long-term evaluation phase to address the specific needs of the educational context

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- Educator self-evaluation questionnaire
- Learners questionnaire
- Criteria: Motivation, Involvement, Skillset, Applicability,

Understanding

•Final possibility for adjustments





Enjoy Creating!

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