# Designing Learning Processes

with digital media

2024-11 DSJ

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# Who am I?
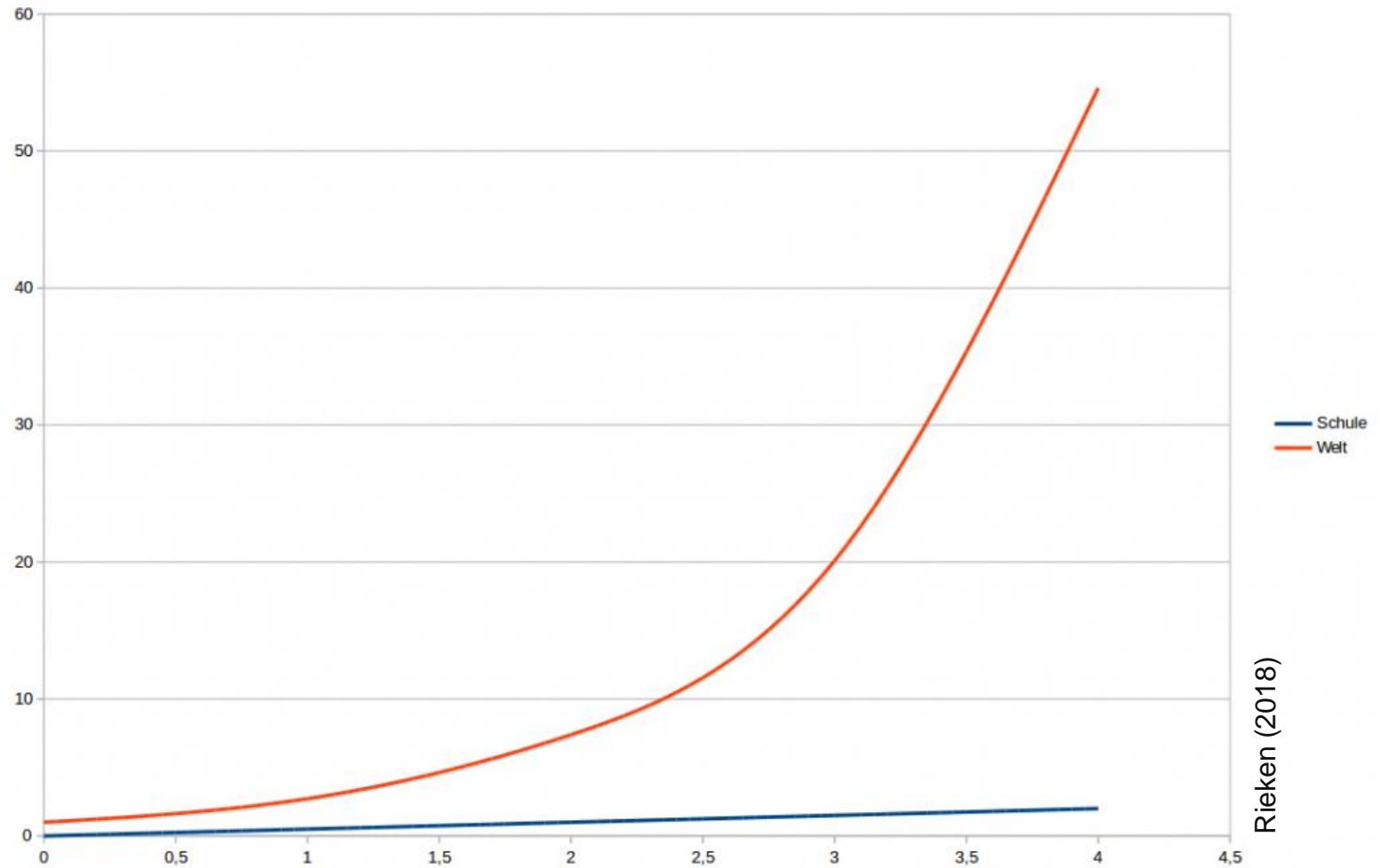
Christian Haake

Department 53 Media Education at NLQ

Training and product manager for the following focus areas:

- school development
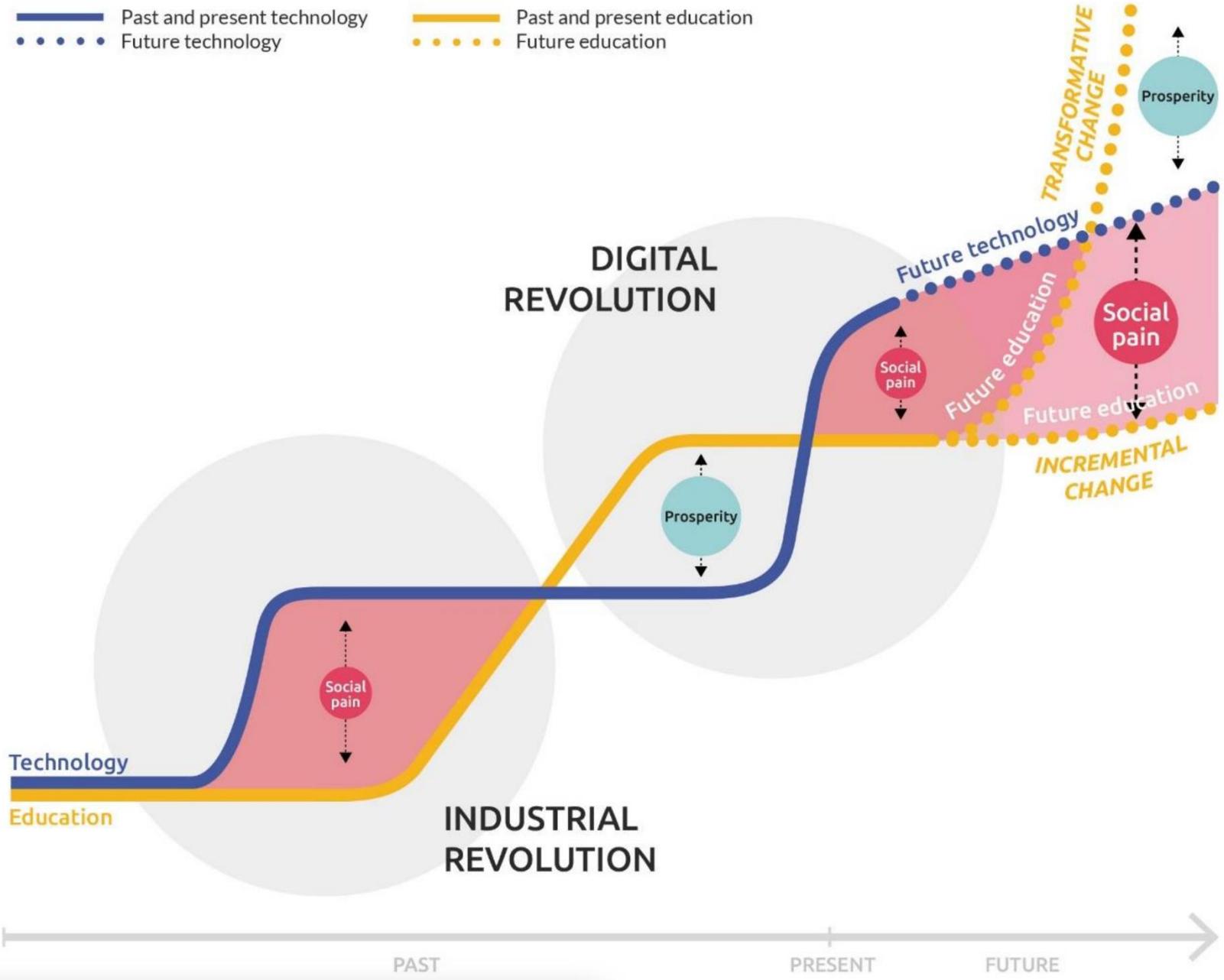    - digital education concepts
- digital education in teaching

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# What needs to happen?

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# School vs. World



Rieken (2018)

Figure 2. The race between technology and education

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OECD FUTURE OF EDUCATION AND SKILLS 20

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# Relevance?

- Digitalization affects **all** areas of life, including learning.
- Society changed. We changed. Economy changed. Did we?


- Digital media offer flexible, individualized, and motivating learning processes.
- Learners work at their own pace and design learning processes independently.

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# SAMR-Model for media in school?

**Substitution**: Replacing analog materials.

**Augmentation**: Enhancing the learning process.
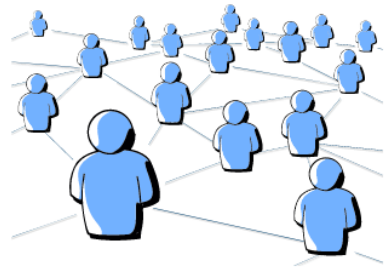
**Modification**: Changing tasks.

**Redefinition**: Creating completely new forms of learning.

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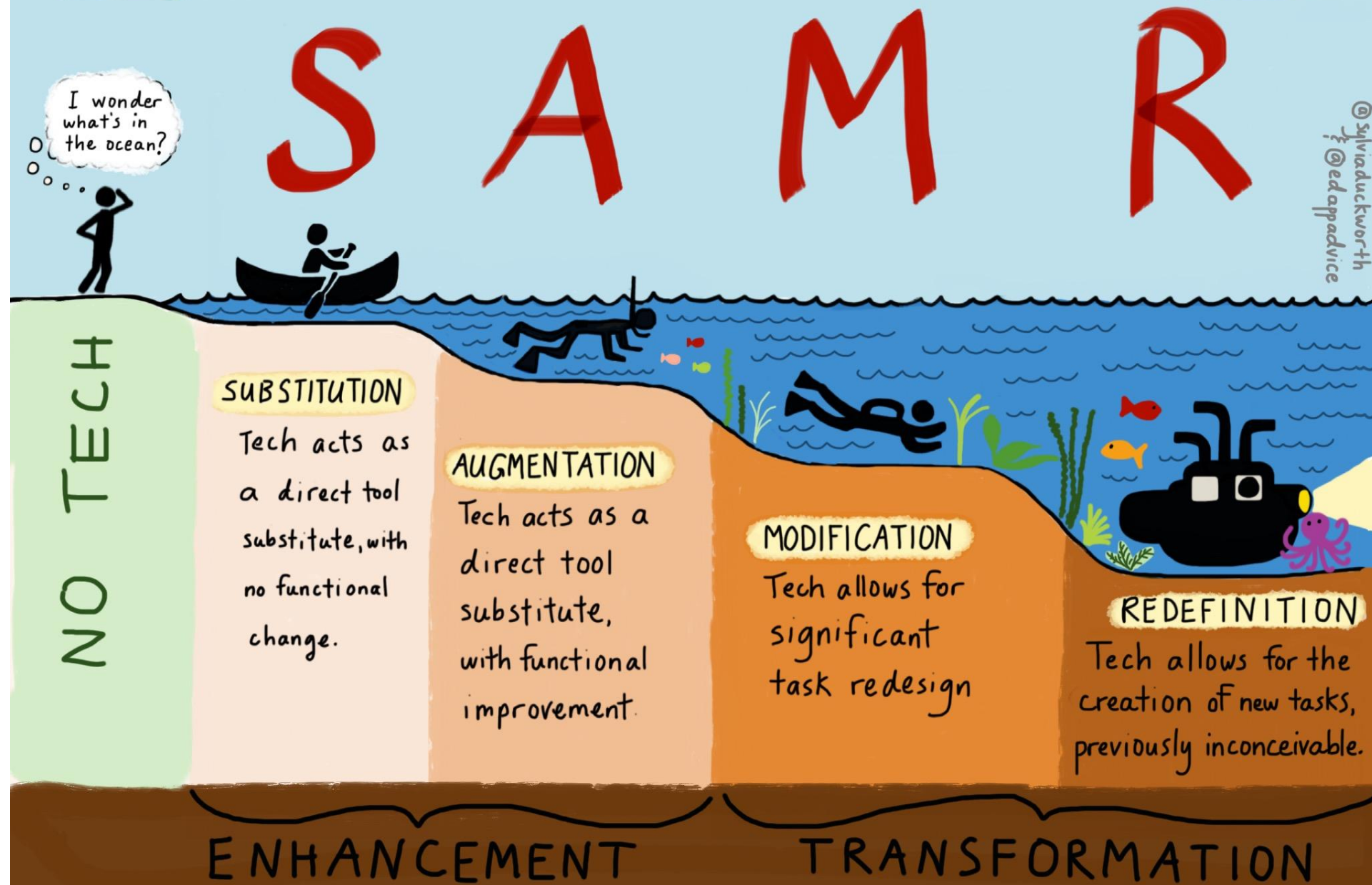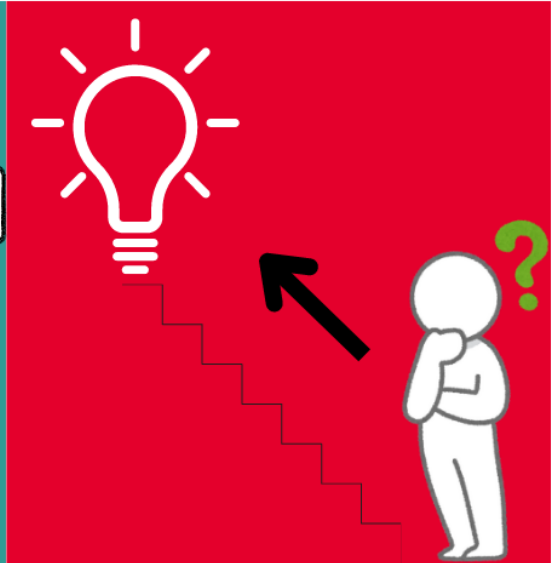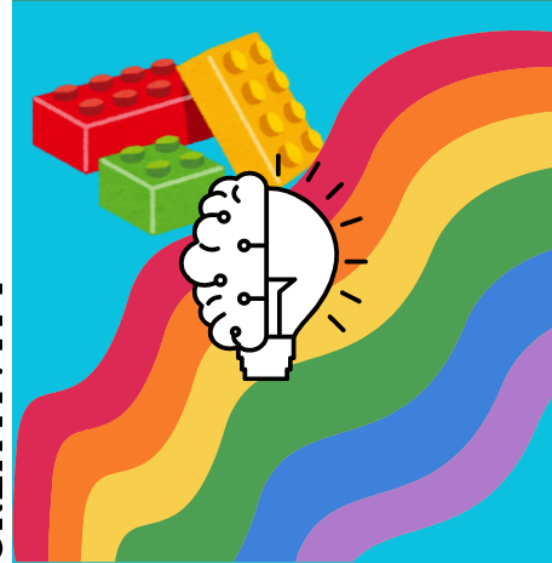
# 21st Century Skills: 4k

**Communication:** Exchange through chat/forums.

**Collaboration:** Joint projects using tools like online documents.

**Critical Thinking:** Reflecting on sources/content.

**Creativity:** Developing digital products (e.g., videos, blogs).

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# Lesson Design (Traditional/Digital)

| Traditional Method | Digital Alternative |
| --- | --- |
| Lecture | Instructional videos, short presentations (+ inserted questions) |
| Socratic Method | Interactive learning platforms, OpenCanvas |
| Group Work | Collaborative online platforms with clear role assignment and feedback opportunities |
| Individual Work | Self-learning apps, LMS, classical individual work, adaptive learning paths, and individualized learning offers |
| Partner Work | Collaborative asynchronous or synchronous partner |
| Project Work | Collaborative work and ePortfolios (multimodal), documented learning, work, reflection |
| Experimental Teaching | Virtual labs and simulations enabling safe experiments |
| Role Play and Simulations | Role plays with avatars, digital recordings, and AR/VR |
| Discussion and Debate | Online discussion forums and video conferencing, targeted asynchronous discussions and feedback |
| Field Trips and Excursions | Virtual excursions and AR/VR experiences providing access to otherwise hard-to-reach resources |
| Station Learning | Interactive learning stations on digital platforms, combining individual and collaborative tasks |
| Instructional Dialogue | Asynchronous or synchronous discussions in online environments using video conferences with whiteboards and screen sharing |
| Checklists/Weekly Planning | Digital checklists, interactive weekly plans with feedback, digital exercises organized in a column board (Kanban) |

This is a selection of methods

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# Unterrichtsgestaltung (klassisch / digital)

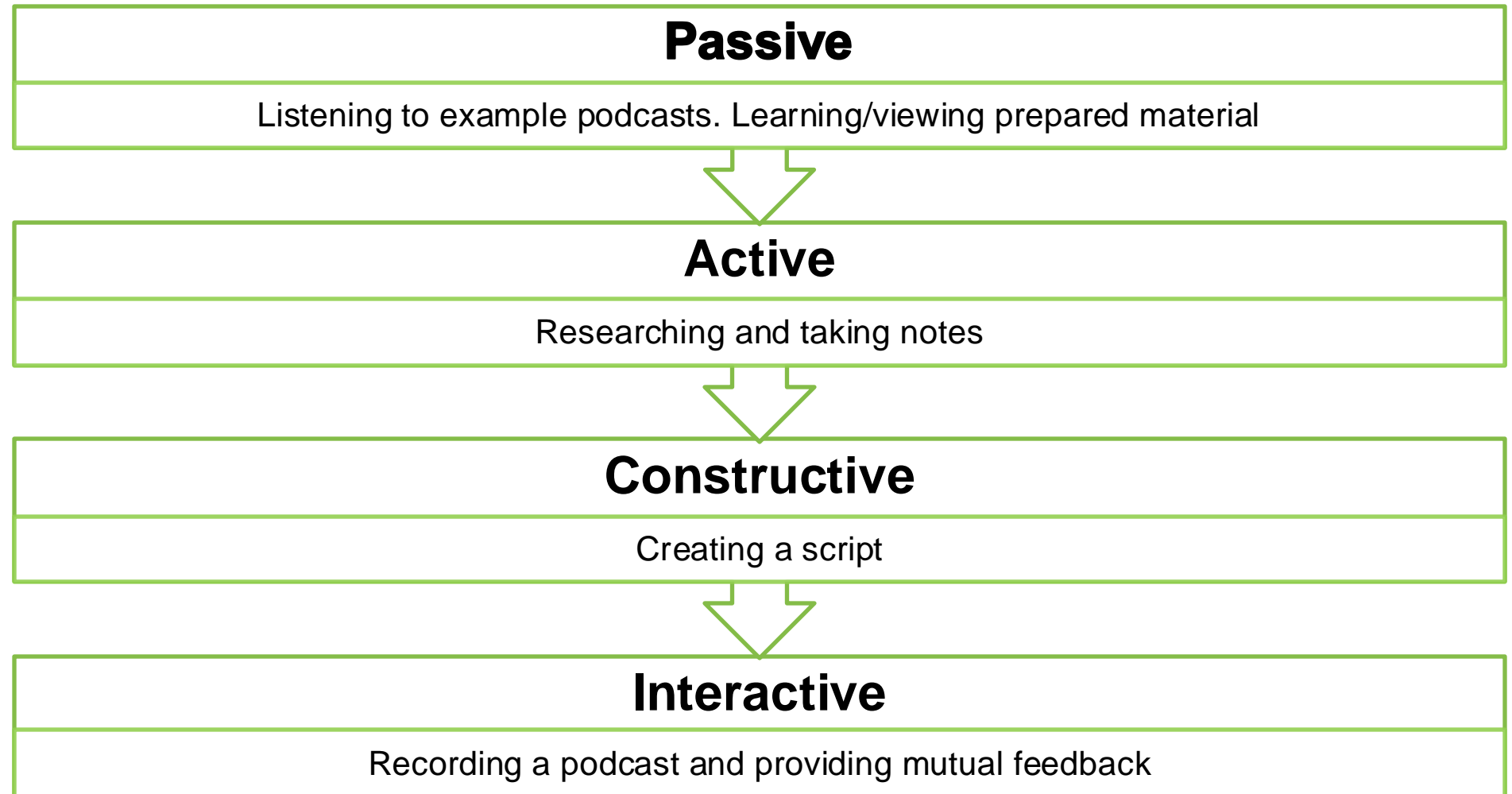| Traditional Method | Digital Alternative | SAMR-Modell Ebene |
|---|---|---|
| Lecture | Instructional videos, short presentations (+ inserted questions) | Substitution/Augmentation |
| Socratic Method | Interactive learning platforms, OpenCanvas | Augmentation/Modification |
| Group Work | Collaborative online platforms with clear role assignment and feedback opportunities | Modification |
| Individual Work | Self-learning apps, LMS, classical individual work, adaptive learning paths, and individualized learning offers | Augmentation/Modification |
| Partner Work | Collaborative asynchronous or synchronous partner | Modification |
| Project Work | Collaborative work and ePortfolios (multimodal), documented learning, work, reflection | Redefinition |
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# Learners at the Center of Planning



Learning activities of learners

are at the core of negotiating the learning design.

# Practical Example: Multimodal Product Design

| Passive |
|---|
| Listening to example podcasts. Learning/viewing prepared material |

⬇

| Active |
|---|
| Researching and taking notes |

⬇

| Constructive |
|---|
| Creating a script |

⬇

| Interactive |
|---|
| Recording a podcast and providing mutual feedback |

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**Practical Example: Directions**

NLQ **DIA:LOG**
ein Rahmen für Gespräche über Unterricht
auf Basis des ABC Lerndesign Workshops

**Digitales Planungsboard**

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# Kernfragen

- What are learners really doing?

- What is their learning process?

- Is it relevant to them?

- Can learners design their own learning process?

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# Thank you!

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# How can you reach me?

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# Quellen

- Icons Designed by Flaticon, Freepik, Vectors Tank, Muhammad_Usman

- OECD Learning Compass 2030

- Ruben R. Puentedura: Transformation, Technology, and Education (2006)
  http://www.hippasus.com/resources/tte/

- SAMR graphic by @Sylviaduckworth @edappadvive

- 4K Grafik von Nicole Steiner