

The Design of a Learning App in Entrepreneurship Education to foster Self-Directed Learning

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Current phase: Application / exposé
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Research Approach

“Most educational research describes or evaluates education as it currently is. Some educational research analyzes education as it was. **Design research**, however, is about education as it could be or even as it should be.” Bakker 2018, p. 3

“Educational design research is the **systematic study of designing, developing and evaluating educational interventions**, – such as programs, teaching-learning strategies and materials, products and systems – as solutions to such problems, which also aims at advancing our knowledge about the characteristics of these interventions and the processes to design and develop them.” Plomp 2009, p. 9

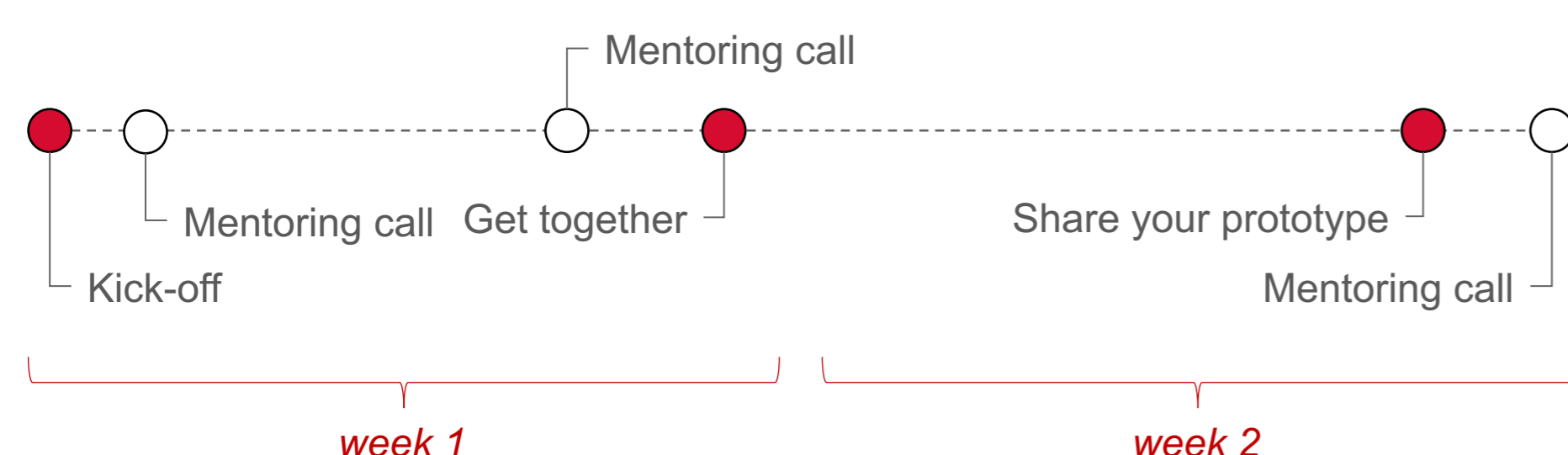
Design Problem

Previous solutions in entrepreneurship education are e.g.

- Using Lean Canvas or Business Model Canvas
- Teaching methods (prototyping, testing, MVP)
- Recommending success stories (e.g. blogs, videos)
- Setting grading or application criteria
- Offering consultation hours (mentoring/coaching)
- Connect teams to experts or other startups to exchange ideas

The design problem is, for every new entrepreneur, the **need for guidance and support is different** because their startup ideas, industries and personal backgrounds differ. Especially individual questions can usually not be answered by a formal education program.

Design Solution



Kerstin Buschbeck
Startup Coach



Christian Klang
Entrepreneurship Education



Mara Milena Suter
Startup and Innovation Coach

A 2-week **mentoring program** (called „Lean Startup Sprint“) aims to clarify the teams’ main assumptions and next steps to validate them – how to build a prototype and test their idea.

New entrepreneurs need to know how to recognize and act upon opportunities (Stevenson), transform them into value for others (EU commission), develop customers (Blank) and a Minimum Viable Product (Ries).

The specific problem, what new entrepreneurs are not learning as well as they should, is to collect evidence for main assumptions as early as possible: Listen to users, develop a prototype, do tests, ask experts, sell an MVP to customers (lean startup methodology).

A typical example is a startup team who develops a software for several months, but never validated their main assumptions nor defined the problem from a customer perspective. As a result, they do not know how to set priorities and what their next step could be.

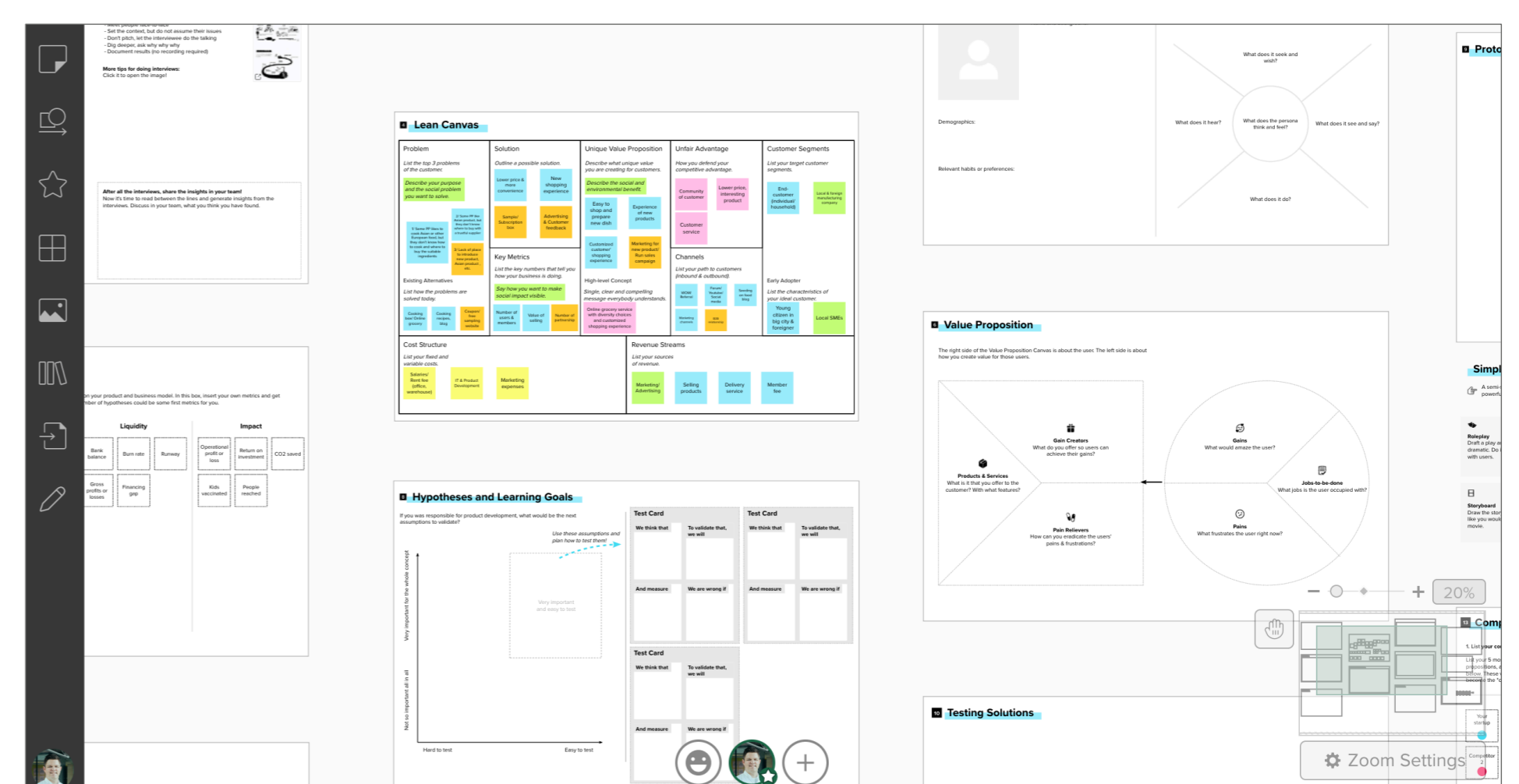
Cognitive Domain Analysis

The theory of Self-Directed Learning (SDL) can help us to understand the problem and explain gaps in previous solutions.

“In its broadest meaning, SDL describes a process in which individuals **take the initiative**, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes.” Knowles et al 2011

Here, a teacher or mentor could offer guidance for typical tasks and methods such as prototyping and testing. A coach could help to reflect upon individual progress and set appropriate goals by working with the entrepreneur’s main assumptions.

Hypothesis: A balanced combination of guidance (teaching / mentoring) and coaching is required.



Teams receive a link to their **digital whiteboard** which helps to visualize their main assumptions through frameworks. It also shows inspiration (testing methods etc.), hints and helps to structure and follow-up the mentoring calls.