

Designing Intelligence Amplification: Organizing a Design Canvas Workshop

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ABSTRACT

Based on the related chapter regarding the design of Intelligence Amplification (IA) applications, in which the IA design canvas and design principles are introduced, a poster is created to visualize the process of organizing a design workshop. Building on the experience and evaluations from several design workshops with practitioners, this chapter presents the poster and describes a step-by-step approach for facilitators and/or trainers to prepare, deliver, and evaluate a design workshop using the IA design canvas. The poster and this chapter complement the related chapter with a blended workshop design and supplementary material.

Keywords: Design workshop, Intelligence amplification, Design canvas

POSTER: ORGANIZING A DESIGN WORKSHOP

This section contains the poster, as shown in Figure 1, that visualizes the process to organize a design workshop using the intelligence amplification canvas.

STEP-BY-STEP APPROACH

This section describes the step-by-step approach to organize an online blended design workshop using the IA design canvas and design principles as described in the related chapter of Piest, J.P.S. Iacob, M.E., Wouterse, M.J.T. (2022).

Learning Design

The online application Learning Designer of the UCL Knowledge Lab (UCL Institute of Education, 2022) is used design an online blended workshop of approximately 12 hours of learning time for participants, as shown in Figure 2. Ideally the design workshop is organized by a facilitator, that focuses on the learning process, and a trainer, that focuses on the contents of the workshop. Both roles can also be fulfilled by one person when working in smaller groups. The size of the group is set to 10 people and workshop participation in pairs. Pairs are ideally formed by someone with a business role (e.g. CEO or business manager) and someone with a technical background (e.g. IT or data). This ensures incorporation of multiple perspectives

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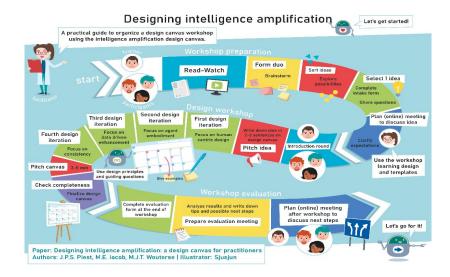


Figure 1: Poster with practical guidance to organize a design workshop.

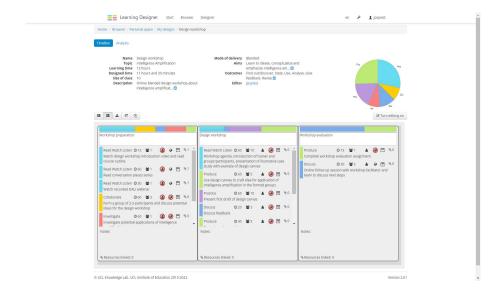


Figure 2: Screenshot of online blended workshop design in Learning Designer.

and learning from peers while maintaining sufficient time and attention for the facilitator and/or trainer to complete multiple design iterations using the IA design canvas.

The main aim of the design workshop is to learn how to ideate, conceptualize, and emphasize ideas for applications based on the concepts of IA using the IA design canvas and design principles. The intended outcomes are:

- Find out/discover: potential applications of IA;
- State: (at least) one idea that utilizes IA using the intake form;
- Use: the IA design canvas to craft the idea using the 12 building blocks;
- Analyse: the IA design canvas using the 4 design principles;
- Give feedback: regarding IA design canvases of fellow participants;
- Revise: the IA design canvas based on feedback received.

Activity	Duration	Mode	Who
Watch workshop introduction video and read syllabus	15 min.	Online	Participants
Read supplied papers and/or illustrative case studies	1 hour	Online	Participants
Form a pair of 2 participants and discuss potential ideas for the design workshop	1 hour	Meeting	Participants
Investigate potential applications of IA	1 hour	Meeting and/or individually	Participants
Craft (at least) 1 idea and complete intake form	30 min.	Meeting	Participants
Online intake with workshop facilitator and participants	30 min.	Online meeting	Participants, facilitator and trainer

Table 1. Activities during the workshop preparation stage.

The process of organizing a design workshop comprises three stages: workshop preparation, design workshop, and workshop evaluation. Next, each stage will be briefly discussed.

Stage 1: Workshop Preparation

During the workshop preparation stage the trainer and facilitator create an online learning environment and make learning materials available for participants. Table 1 provides an overview of the learning activities that are covered during the workshop preparation stage.

Ideally the participants are provided access to the learning environment 2-3 weeks prior the design workshop. The intake can take place 1 week before the design workshop. This activates the learning process and provides the trainer and/or facilitator flexibility to tailor the design workshop to expectations of participants.

Stage 2: Design Workshop

Based on the experience and evaluations of multiple design workshops, a design workshop can best be delivered as a one-day event. Table 2 provides an overview of the learning activities that are covered during the design workshop stage.

Organizing the design workshop requires a meeting room for 12 people and supporting facilities (e.g. TV or presentation screen, catering, printed IA design canvases, pens). Depending on the preferences of the trainer and/or facilitator, a U-shape or informal set-up can be selected for the design workshop.

Stage 3: Workshop Evaluation

Table 3 provides an overview of the learning activities that are covered during the design workshop stage.

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Table 2. Activities during the design workshop preparation stage.

Activity	Duration	Mode	Who
Highlight workshop agenda	15 min.	Presentation	Trainer
Introduction of trainer, facilitator and participants	30 min.	Introduction round	All
Presentation of illustrative case study with example of IA design canvas	15 min.	Presentation	Trainer
Use IA design canvas to craft idea for application of IA	15 min.	Assignment	Pairs
Short break	10 min.	-	All
Present first draft of IA design canvas (5-10 min.)	60 min.	Pitches	Pairs
Discuss feedback and revise IA design canvas	15 min.	Assignment	Pairs
Apply design principle human centric design	30 min.	Assignment	Pairs
Apply design principle data driven enhancement	30 min.	Assignment	Pairs
Lunch	60 min.	_	All
Apply design principle human in the loop	30 min.	Assignment	Pairs
Prepare pitch	30 min.	Assignment	Pairs
Short break	10 min.	-	All
Present final version of the IA design canvas (5-10 min.)	60 min.	Pitches	Pairs
Finalize IA design canvas based on feedback	15 min.	Assignment	Pairs
Conclude design workshop	10 min.	Presentation	Trainer

Table 3. Activities during the workshop evaluation stage.

Activity	Duration	Mode	Who
Complete evaluation form Analyze evaluation forms Discuss next steps	1 hour	Meeting	Participants Trainer and/or facilitator Pairs, trainer and/or facilitator

The trainer and/or facilitator can decide whether (not) to make the design workshop evaluation anonymous. It is recommended to plan a follow-up session online or a physical meeting within 1-2 weeks after the design workshop. This allows participants to reflect on the design workshop and evaluate the outcomes.

PRACTICAL SUPPLEMENTS

This section contains practical supplements to support the process of organizing a design workshop.

Learning Design and Syllabus

The learning design created in Learning Designer is made available for re-use via the following short link: https://v.gd/rv5lac. The learning design contains links to: (1) an introduction video, (2) the conversation pieces blog series with

8 research posters and illustrative case studies, and (3) a recorded webinar with examples from the DALI learning community, (4) an intake form, (5) the IA design canvas, (6) a slide deck to guide the design workshop, and (7) an evaluation form. The learning design can be customized in Learning Designer and exported as a syllabus as a Microsoft Word file or for the Moodle LMS.

Intake Form and Questions

In order to support the workshop preparation stage, the intake form, available for download in Learning Designer, can be re-used and/or customized. The facilitator and/or trainer can use the intake form to obtain information about the participant's educational background, working experience, and prior knowledge. The intake form mainly focuses on the following main question: Which idea(s) for IA application(s) do you want to bring to the design workshop? Additionally, it is recommended to ask participants about their expectations for the design workshop, clarify the learning goal if needs, and offer the possibility to ask questions prior the design workshop. The trainer can use the information to incorporate illustrative case studies and additional learning materials to tailor the design workshop to the needs of participants.

Evaluation Form

Additionally, an evaluation form, which is also available for download in Learning Designer, can be re-used and/or customized. Based on preferences of the trainer and/or facilitator, the participants can complete the design workshop evaluation form at the end of the design workshop or afterwards.

CONCLUSION

The poster provides trainers, facilitators, and practitioners guidance to organize a design workshop using the IA design canvas. This chapter complements the related chapter regarding the design of IA applications with a practical step-by-step approach to prepare, deliver, and evaluate the design workshop using the IA design canvas. The blended learning design digitally enhances the one-day design workshop with approximately 4 hours of online learning activities and supplementary materials.

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REFERENCES

Piest, J.P.S., Iacob, M.E. and Wouterse, M.J.T. Designing intelligence amplification: a design canvas for practitioners. In review for 8th International Conference on Human Interaction and Emerging Technologies (IHIET 2022).

UCL Institute of Education. (2022). Learning Designer [online]. Available from: ht tps://www.ucl.ac.uk/learning-designer/index.php [accessed 24 June 2022].