

Your Challenge: guide your students through the DT process

Preparation

Making groups & getting into the domain

Moment: 5 November afternoon

Step 1: Have the students share what they know about their domain. Write down keywords, ideas, interests. Also have them establish what information they are missing / what they would like to know / learn. Make a mindmap, wordweb or poster of this.

Moment: 6 November after the DT introduction

Step 2: Build your team, by really getting to know each other. Follow the instructions of the moderators in the first DT Challenge.

Moment: 6 November after the first DT Challenge

Step 3: Use the learning skills game to establish everyone's qualities. Then decide on the roles every member will focus on. Don't tell them in advance what roles are needed!!!

These roles are needed: chairman/woman; writer; analyst; creator; communicator; planner; presenter; observer. Divide roles according to everyone's qualities.

NB: you have to be able to play more than one role, because you are in this process as a team. So, you will participate in every step of the process. But in your role you will have more responsibility in some of the steps.

Chairman/woman: leads the process during the week

Writer: writes the important pieces, like the HMW question and the final research plan

Analyst: has a leading role in the define space and between ideating and prototyping

Creator: has a leading role in the ideating and prototyping space

Communicator: has a leading role in the empathizing and prototyping space

Planner: in charge of time-management during the whole process

Presenter: has a leading role in the testing space

Observer: has a leading role during the empathizing and testing space

Empathizing

Moment: 8 November afternoon, after the introduction into the domain

Step 4: Define your audience! Who are your users and what are their needs?

You can find out in four different ways:

1. **Research:** find information about possible users and about the subject. Which users can you identify? There may be several groups of users.
2. **Observe:** go to a place where possible users are. Observe what they do, what the environment looks like, ...
3. **Immerse:** go to a place where possible users are. Do what the users do. What do you experience?

4. Engage: go to a place where possible users are. Interview them, but prepare your interview first! What would you like to know?

Step 5: discuss the information all members of the team have gathered. Try to find out which users you have identified. Is there only one group of users? Or are there more? If you have more than one user-group, split up and work out every group: who are they, what are their needs? Be as extensive as you can!

NB: if the team has identified more than one user-group, you have to discuss with them if it will be possible to work for all user-groups. Maybe they go too widely and they need to be more specific. It is possible to have this discussion after the defining space and even after the ideating space.

Defining

Moment: 9 November morning

Step 6: Formulate your users' needs.

How might we

Here are some examples:

- How might we promote bigger biodiversity in our own city, so teenagers grow up in a healthier environment?
- How might we use embryology to predict hereditary diseases, so babies of parents with ALS will not get the same disease?
- How might we help babies in Nepal mountain areas to survive the first months of their lives?

NB: the User – Need – Insight worksheet may help you here!

Ideating

Moment: 9 November morning

Tip: before starting the ideating process, you may want to do this exercise to get creativity going:

Tell the students: Your challenge is to design the best amusement park for 16/17 year olds.

First round: Stand up and mention one idea per person. The next person starts his/her sentence using: yes, but...

Second round: do the same, but change the sentence into: yes, and...

Looking back: ask which group came up with the best amusement park. Then ask about the difference between the first and the second round.

[Using Yes, and.. will bring more interesting and extreme ideas than using yes, but.]

Step 7: think of as many ideas as you can! Start this session by brainstorming on your own for 10 minutes. After that come together and share everyone's ideas in your team. Add to each other's ideas, combine ideas that are similar or that can go together well. Take at least 30 minutes to discuss all options.

NB: check the brainstorm rules



Don't Judge	Encourage wild ideas
Build on the ideas of others	Stay focused on the topic
One conversation at a time	Write and draw pictures
Go for quantity: more is good!	Give every team-member time to express their ideas

NB: feeling stuck?

Add Constraints: what if we had to do this in space? What if we had infinite funding? What if we had a very small budget? What if we had to use bricks? Etcetera	Use inspiring people/brands: what would Apple/Google/Microsoft/Bill Gates/Nelson Mandela/Hillary Clinton do in this case?
Make it time or place specific? What if we had to use it in the morning/at night/in 2050? What if we had to use it in space / the USA / Asia?	Make the user group smaller: what if we had to design this for teenagers / elderly people / environmentalists?

Moment: 9 November afternoon

Step 8: select promising ideas. Cluster any related ideas and as a team pick your two favourite ones. Collect the post-its of these favourites. If necessary vote to get the two best ideas.

Step 9: divide the two best ideas among your team members and work these out to a concept.

Step 10: discuss both ideas and decide on the one you are going to work out. Then describe your idea more thoroughly.

Prototyping

Moment: 9 November afternoon

Step 11: create a prototype of your DT Challenge. You can do this by making a poster, a mindmap, do an activity, act a play, make a storyboard or script, make photos, make a clip or a podcast,

NB: You only have 15 minutes.

Testing

Moment: 10 November morning

Step 12: present your prototype and collect as much feedback as possible. Make a grid to do this.

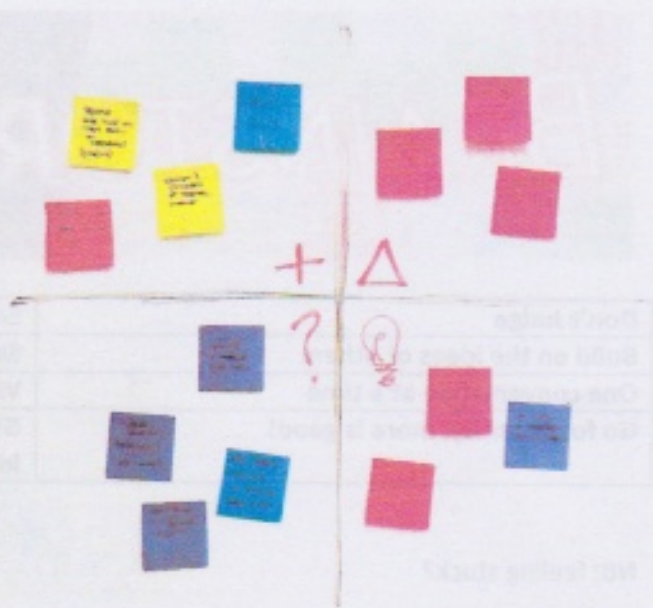
+ good point

Δ improvement point

? question



new idea



NB: criticism is free feedback!

Prototyping & Testing

Moment: 10 November afternoon

Step 13: improve your prototype and test it again if possible.

Step 14: Make a list of what you need to do when you're back home.

Step 15: agree on what, when, who, where and how! Make sure all agreements are clear to every team member. Hand in your project plan with the description of your Research Question and the agreements you made.

What are you going to do?

Who is your user- group / are your user-groups?

When are you going to do what?

Who is responsible for what?

Where are you going to do it?

How are you going to do it?

What do you need to do this DT Challenge?

When will what be finished?

When will you be in touch with the other group members?