

Designing for professional development in a networked world

Pfd of keynote presentation from the conference:
Designing for learning in a networked world
@SDU, Kolding, 24-25 September 2018

Please note: Interpretations and points drawn directly from the presentation may not necessarily represent my perspectives. I.e. the visual material and text of the presentation may be interpreted in other ways than was the intention of the actual presentation, which can only be fully understood in context of my oral presentation, where I try to apply humor etc. The conference setting was the publication of a book. During my presentation there was a dialogue with the authors of three of the papers in the book and with the audience.

Facilitating
participation:
redefinition of
library
competence in a
networked world

BO SKØTT

(chapter 7)

Guidance
practices for
citizens'
interactions with
e-government
solutions

MARGRETHE
HANSEN MØLLER

(chapter 13)

Intermediaries
and
intermediating
tools as
instruments for
digital literacy in
Bangladesh

FARZANA AKTHER

(chapter 14)

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Facilitating participation: redefinition of library competence in a networked world

BO SKØTT - (chapter 7)

scandinavian public libraries → transformation in the relation between the public and the libraries.

- dialogical approach to negotiating the functions and services needed in a modern networked society
- changes the praxis of the professional librarian
- redefines the librarian competences

Through a review investigate

- social conditions under change
- Cultural dissemination strategies over time

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Facilitating participation: redefinition of library competence in a networked world

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Competencies needed for increased user-participation and even co-creation

- the general vs. specialist, the prof. vs. the personal skills
- up-to-date knowledge of local communities and project skills to be able to collaborate with volunteers – external partners
- academic knowledge and methods in analyzing and desciding upon user input, also practical performative skills → to surprise the user / expand the user experience, also online

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Intermediaries and intermediating tools as instruments for digital literacy in Bangladesh

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Facilitate participation, reduce digital divide, libraries, community networks

Guidance practices for citizens' interactions with e-government solutions

MARGRETHE HANSEN MØLLER (chapter 13)

Public libraries and thus librarians which haven't any formal pedagogical education involved guiding citizens

- communicating with public authorities
- Public sector digital solutions.

BO S

Empirical study: 18 guidance sessions observed + semi-structured (video) interview citizen + often librarian

Theories of instructional design, mentoring and motivation
→ describe observed designs from practice in theoretical terms, including strategies for guiding citizens

(chapter 14)

International and international tools, instructional design, digital Bangladesh

FARZA

(chapter 15)

Guidance practices for citizens' interactions with e-government solutions

MARGRETHE HANSEN MØLLER (chapter 13)

Analysis results in

- an abstracted process: – clarify task and the user/citizen experience, explaining the digital solution, login in, doing the task, summing up and next step, and log out
- Use-scenarios at play: – self-service, co-service and librarian operated service - The users span a broad spectra of ICT skills
- pedagogical process – as the instructional design (ADDIE), and how transcribed guidance sessions shows signs of three different mentoring models

Skills required from the librarians.

→ Librarian as a Citizen guide → an explorative generalist, who does not have to know everything, but learn-by-doing

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(chapter 14)

Bo (ch 7) and Magrethe (ch 13)

Points to a number of competencies

- but how do you design for these
- how to implement and even evaluate

A simple interaction design lifecycle model

Exemplifies a user-centered design approach

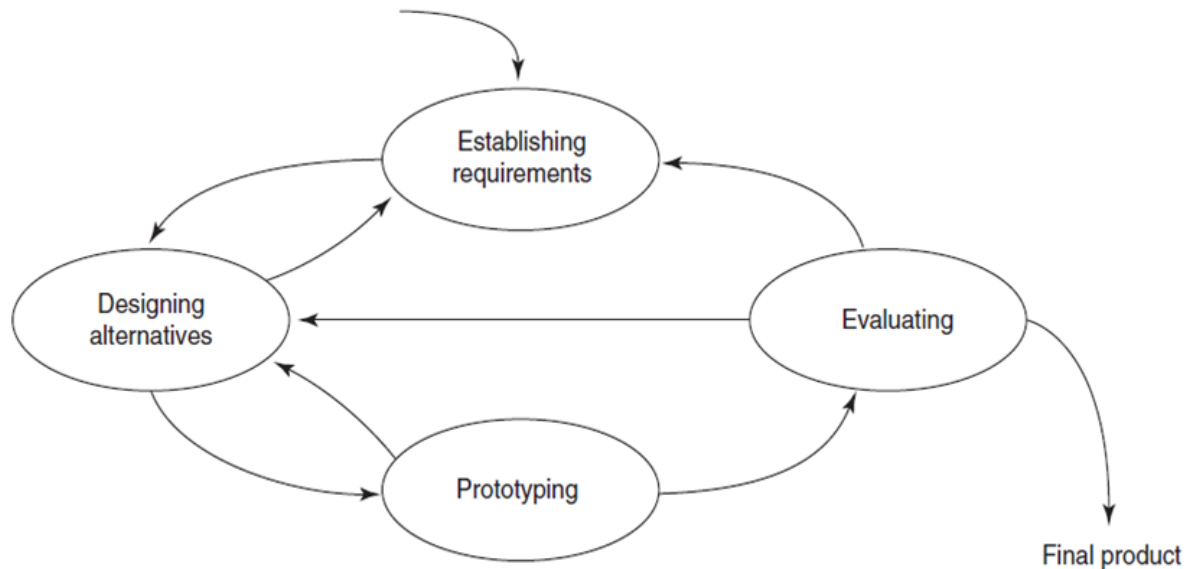


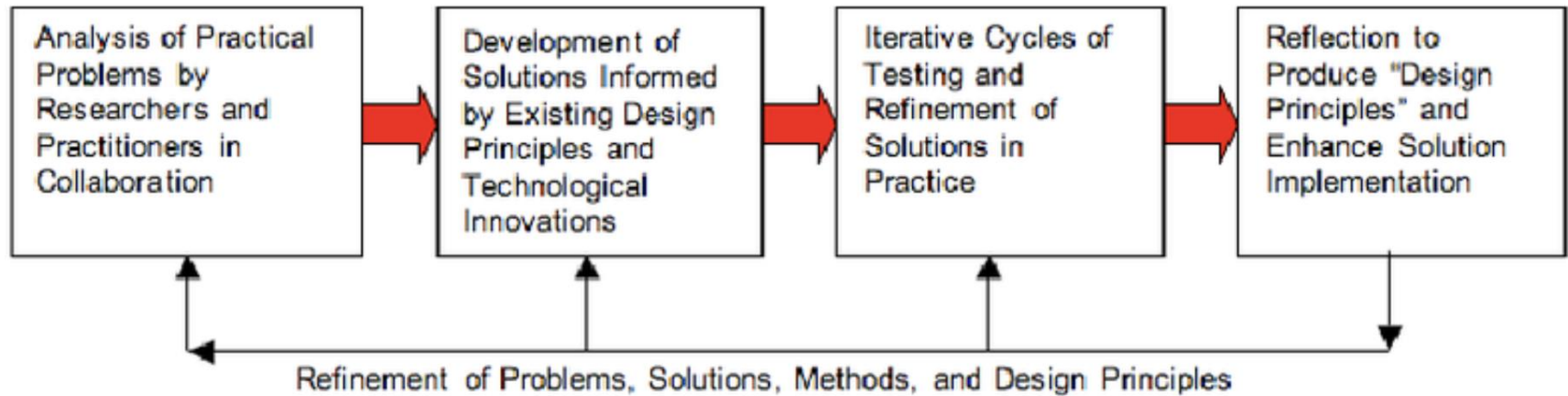
Figure 9.3 A simple interaction design lifecycle model

www.id-book.com

8

Preece, Rogers and Sharp

Design-Based Research



Reeves 2006

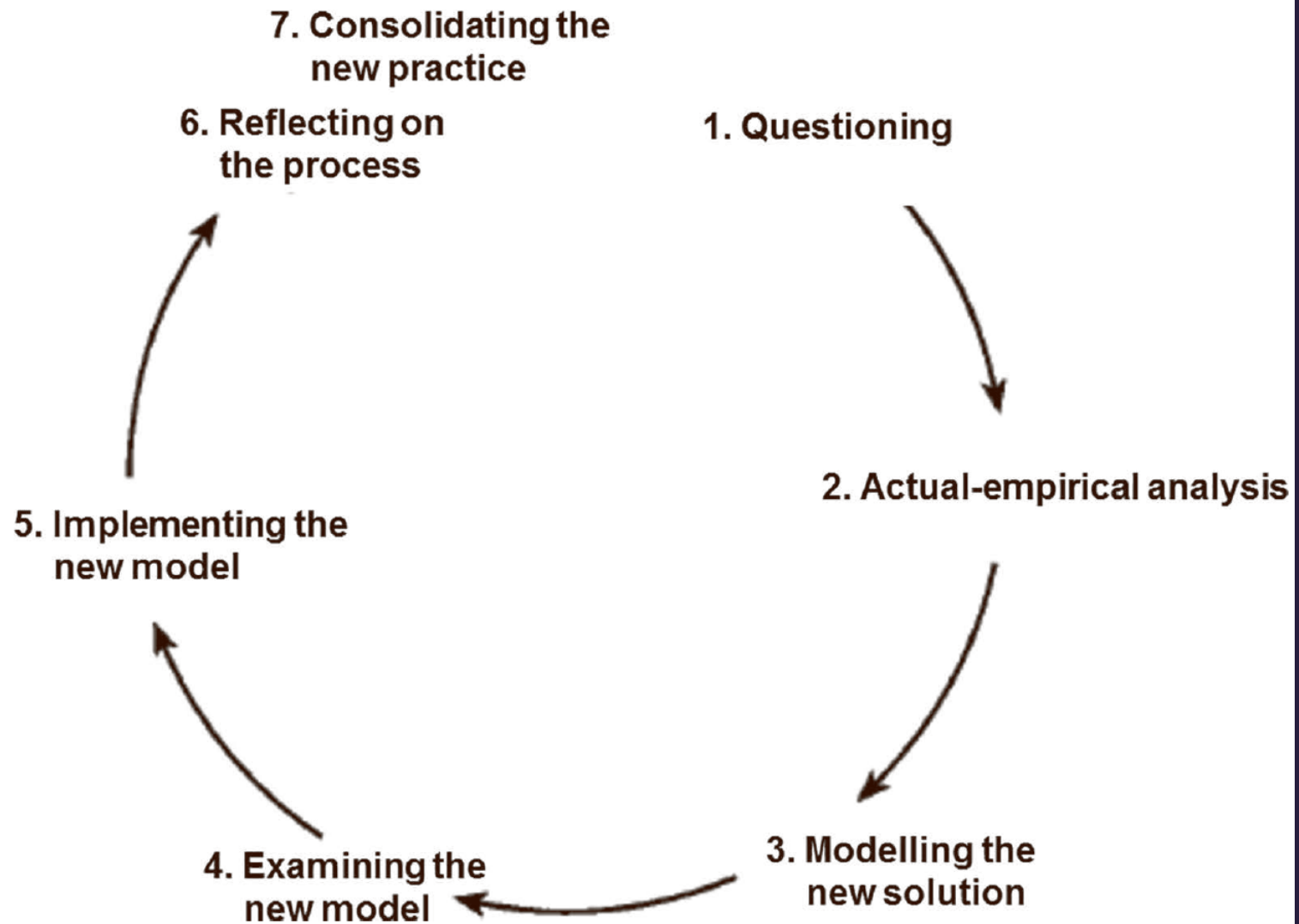


Figure 14.2 Sequence of epistemic actions in an expansive learning cycle
Adopted from Engeström, 1999.

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Intermediaries and intermediating tools as instruments for digital literacy in Bangladesh

FARZANA AKTHER (chapter 14)

Government wanted to disseminate knowledge of ICT benefits. In rural Bangladesh, ICT is not seen by the local population as a benefit in relation to interaction with governmental bodies.

An NGO, BRAC (Bangladesh Rural Advancement Committee) wanted to engage their Field Facilitators, mostly young women with Bachelor degree. Carry a basic mobile phone on travels between villages. In rural Bangladesh it is difficult for humans to cross the established social boundaries, whereas intermediaries' tools or instruments can conceptually cross social borders at work at the local level.

Theoretical grounded in :

- Engeström's theory of expansive learning and
- Suchman's boundary crossing concept

Facilitator
participatory
redefine citizen
library interaction
e-governance
network solutions
BOSS
MARCUS
HANS
(chapter 14)

Intermediaries and intermediating tools as instruments for digital literacy in Bangladesh

FARZANA AKTHER (chapter 14)

A small-scale expansive learning cycle

- Four phases: two exploring the situation and two design phases.
- Design phase changed authors role from observer to activist for staging and conducting digital literacy workshops – on office tools on social media

This collaboration invoked a situation, where Field Facilitators and ICT centre entrepreneurs stepped outside their usual method, while finding/learning new knowledge about ICT. At the same time, they tried to investigate how they could be sustainable by helping this rural community.

A noteworthy finding: Field Facilitators refuse to accept the shared ICT centres as independent systems for information finding,



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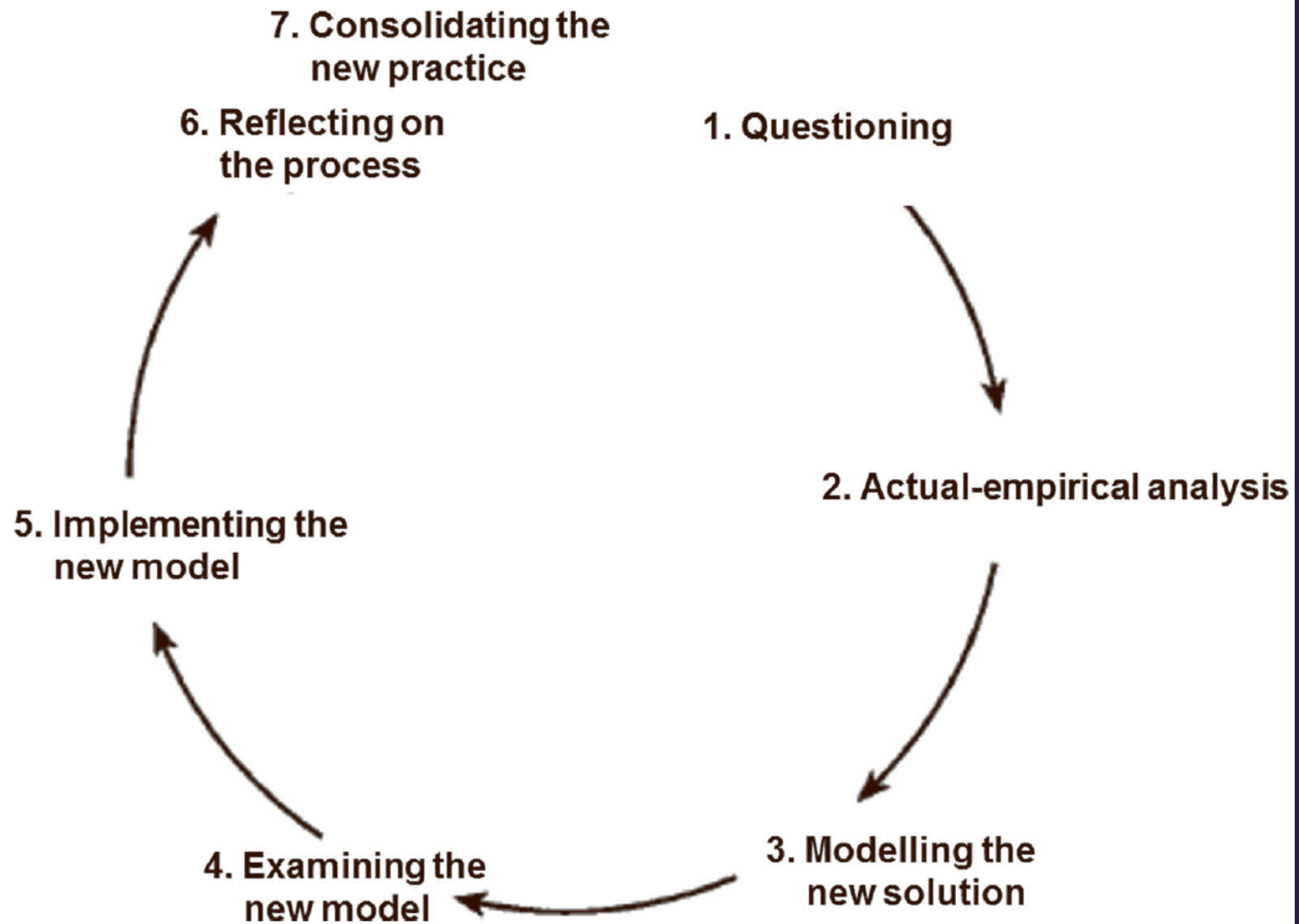


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Adopted from Engeström, 1999.

Farzana (ch 14)

- how much is the facilitator / the researcher and how much is the process....

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(chapter 14)

Specificly, but certainly also in general:

- how much is the facilitator / the researcher and how much is the process....

Specificly, but certainly also in general:

- how much is the facilitator / the researcher and how much is the process....

- Evolving the design to the everyday prof. life
- Scalability
- Reliability / Rigour needed

*Designing for
professional development
in a networked world*

With an organizational perspective in mind

VAAU – Video conference at AAU

- TECHNICAL improvements
- Qualify internal dissemination and competence development → students and teachers
- DEVELOP strategies for how the educational environment works with the video conference cultures

VAAU – Video

- TECHNICAL improvements
- Qualify internal dissemination and development → student
- DEVELOP strategies that work in the environment works with different cultures

Course

CAMPUS-TO-CAMPUS EDUCATIONAL ACTIVITIES



VAAU – Video

Course

- TECHNICAL
- Qualify inter
developme
- DEVELOP st
environme
cultures

A meeting
between
two groups

Teachers
and IT staff

The local
exchange

CAMPUS-TO-CAMPUS EDUCATIONAL ACTIVITIES



VAAU – Video

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CAMPUS-TO-CAMPUS EDUCATIONAL ACTIVITIES



Cultural change
through changing
the narrative

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Mixed method in design process –
The blessing and ...

- investigates the development and implementation of an online resource (OR) for teacher professional development

→ A specific aspect

the organisational issues that occur when the professional development intervention is a decision made by school management.

- investigates the development and implementation of an online resource (OR) for teacher professional development

→ A specific aspect

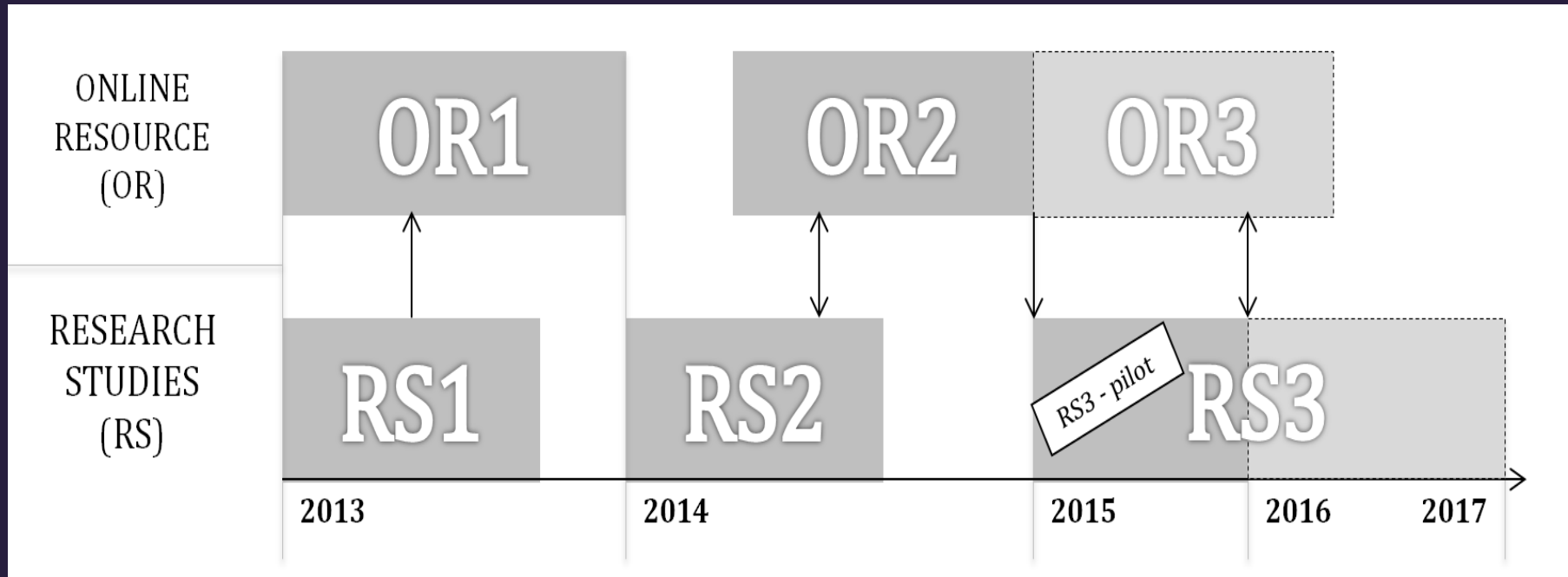
the organisational issues
the development
is a



A 3½ year project with the Kata Foundation (owner and developer) which also included an industrial PhD, and several research assistants:

- Anna Neustrup,
- Birgitte Henningsen
- Morten Wisbøl,
- Signe Schack Noesgaard
- Simon Birk Hartmann

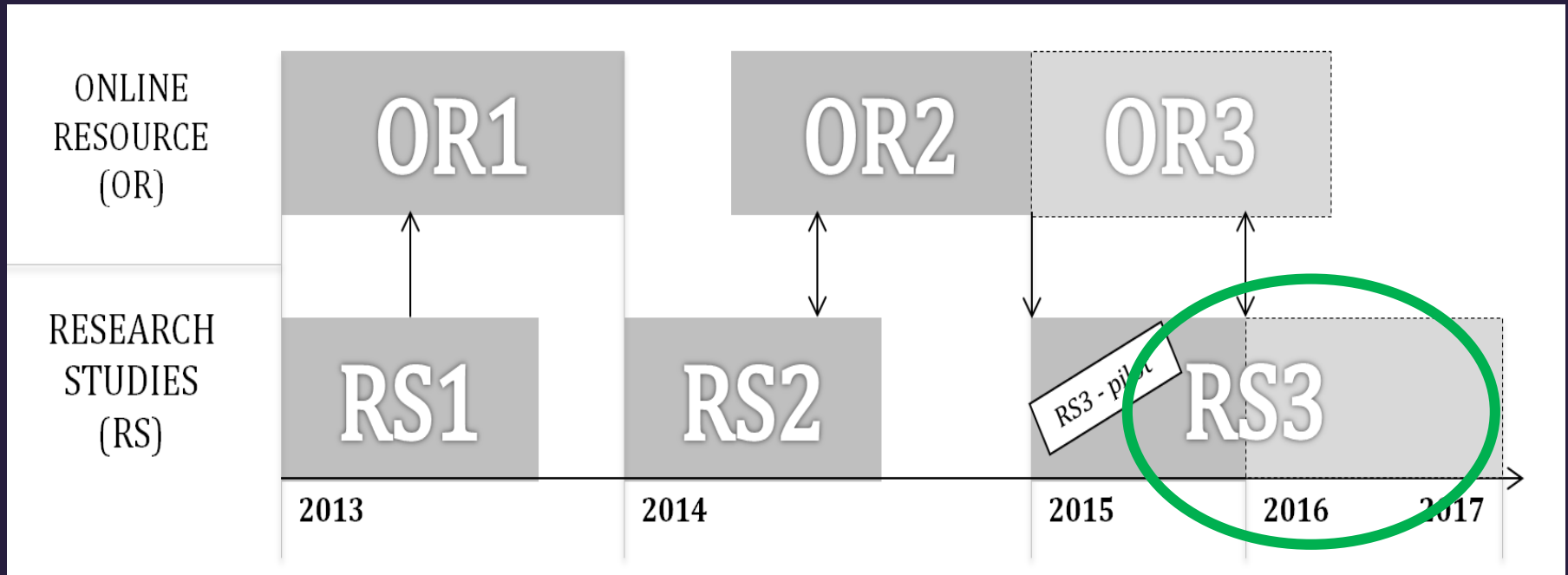
An iterative process



Source: Ørngreen, Jørgensen & Noesgaard (2016)

A view of the various versions of online resources and research studies in the project

An iterative process



Source: Ørngreen, Jørgensen & Noesgaard (2016)

A view of the various versions of online resources and research studies in the project

Source: Noesgaard 2016

KLOG PÅ NATURFAG

- Kom godt i gang
- Curriculum
- Handlingsplan
- Metode
- Sprog & Begreber
- Planlægning
- Læringsmiljøer

Kom godt i gang

Velkommen til Klog på Naturfag
Lorem ipsum dolor sit amet, consectetur adipiscing elit. Vivamus vel mauris quis tortor scelerisque rutrum. Aenean nec purus tristique sapien fringilla sagittis vel sit amet nisi. Donec viverra tellus eu orci dignissim elementum. Pellentesque elementum ullamcorper tempus.

Sed egestas libero at est tristique gravida. Nunc euismod mauris sed tellus suscipit posuere. Phasellus ornare sem ut nibh ultricies, porttitor malesuada erat tempus. Donec eleifend elementum porttitor. Aliquam id arcu tristique, vestibulum augue sit amet, euismod metus.

Praktisk arbejde 7 moduler | Metode

- Hvorfor arbejde med praktiske aktiviteter? Case 10 min. ★★★★★
- Åbenhed i forsøg Test 4 min. ★★★★★
- Planlæg en praktisk aktivitet Præsentation 5 min. ★★★★★

Skab undren og engagement 4 moduler | Sprog & Begreber

- Engagerede ramme Præsentation
- Engagerede ramme Praksisøvelse
- Produktive undervisningsramme Præsentation

CATEGORY

MODULE

COURSE

L. At etablere engagerende rammer

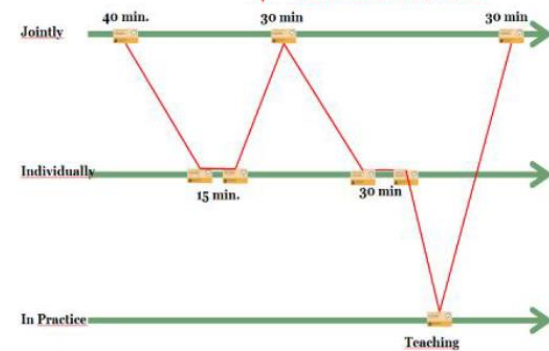
Feedback

Udfordring: Tilbyde materiale

Læringsmål:

Kvalitet:

COURSE STRUCTURE

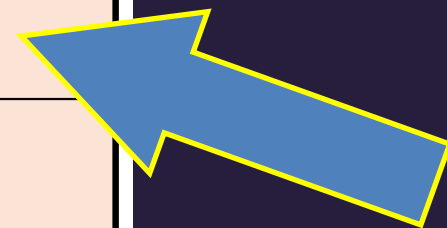


When do TPD work.

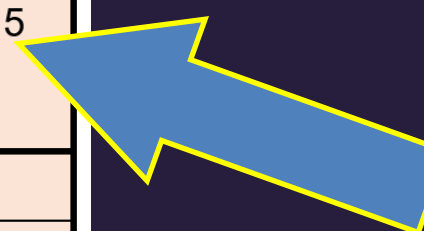
- many research studies find that TPD often does not aid in the development or transformation of their teaching practice (e.g. Borko, 2004).
- *Self-efficacy* directly influences whether the teacher feels competent and confident enough to get started or opts out beforehand. Hsu & Chiu (2004) and Smith & Sivo (2012)
- *confirmation* is about expectations and whether there is coherence between the actual experience and the prior expectations (Roca, Chiu, & Martínez, 2006).
- It is a natural force of learning to get frustrated, but where constructive frustration (Illeris, 2006) can further a learning process, too much frustration can mean the new gained practices are abandoned.
- A review of effectiveness of eLearning, found retention rather than changed work practices is often evaluated (Noesgaard & Orngreen, 2015)

		Status summer 2017		
Quantitative data	Back-end data	Log-information from the Online Resource	No. of unique users (logged in with their uni-login)	2.358
		Users who performed activities	1.075	
		How many of these are teachers	969	
		Number of activities, which teachers have made	4.264 total 4,4 avr. per teacher Where up to 25% used 5 or more	
	Survey	TOTAL	281	
		PRIOR-toTPD	183 157 fully answered 22 some answers 4 pilot	
		AFTER-toTPD	98 89 fully answered 5 some answers 4 pilot	

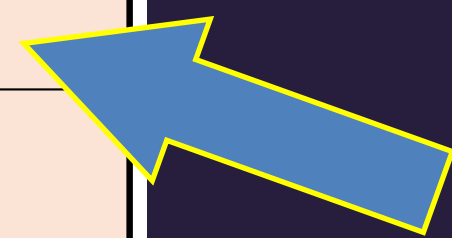
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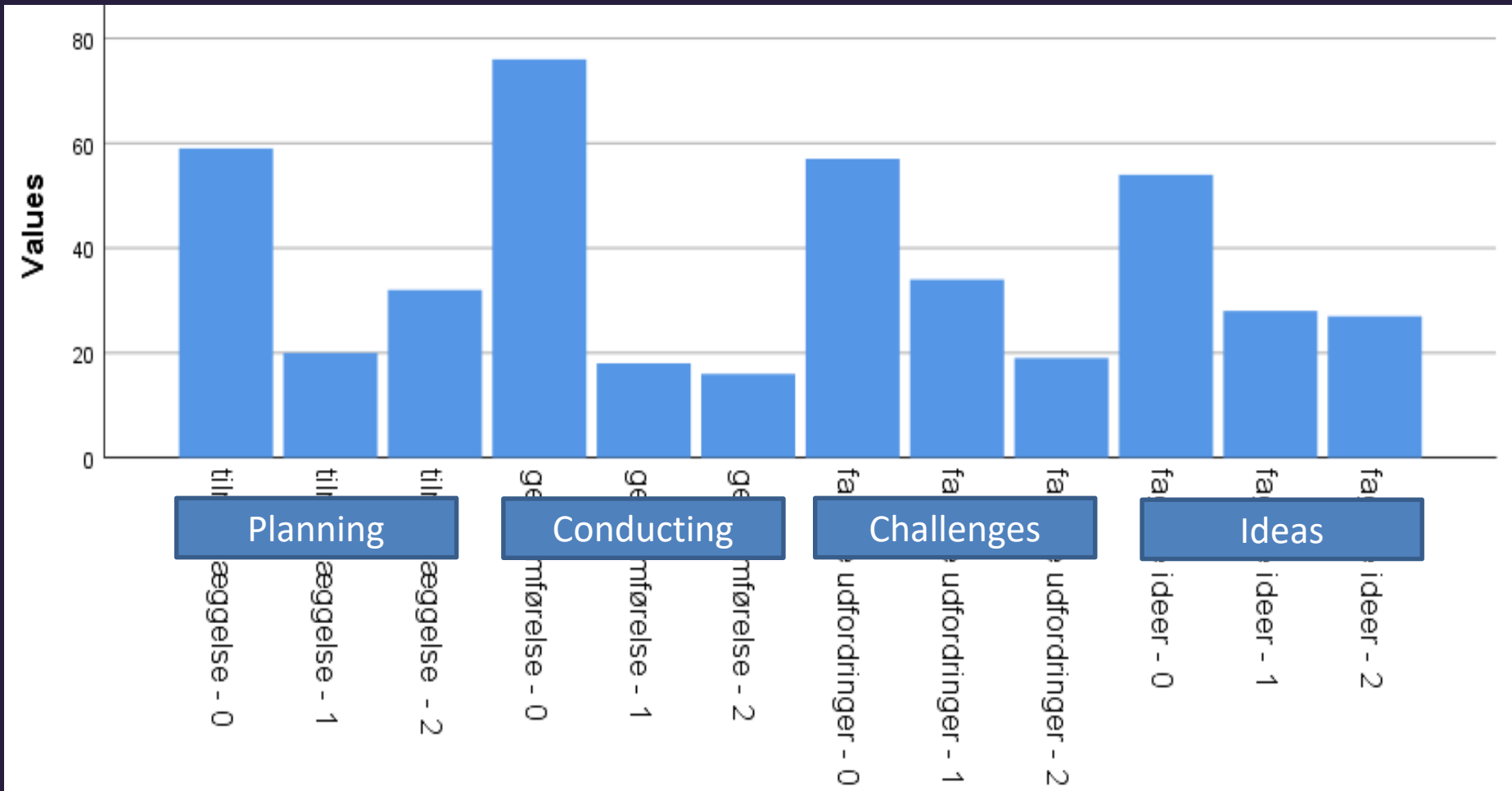


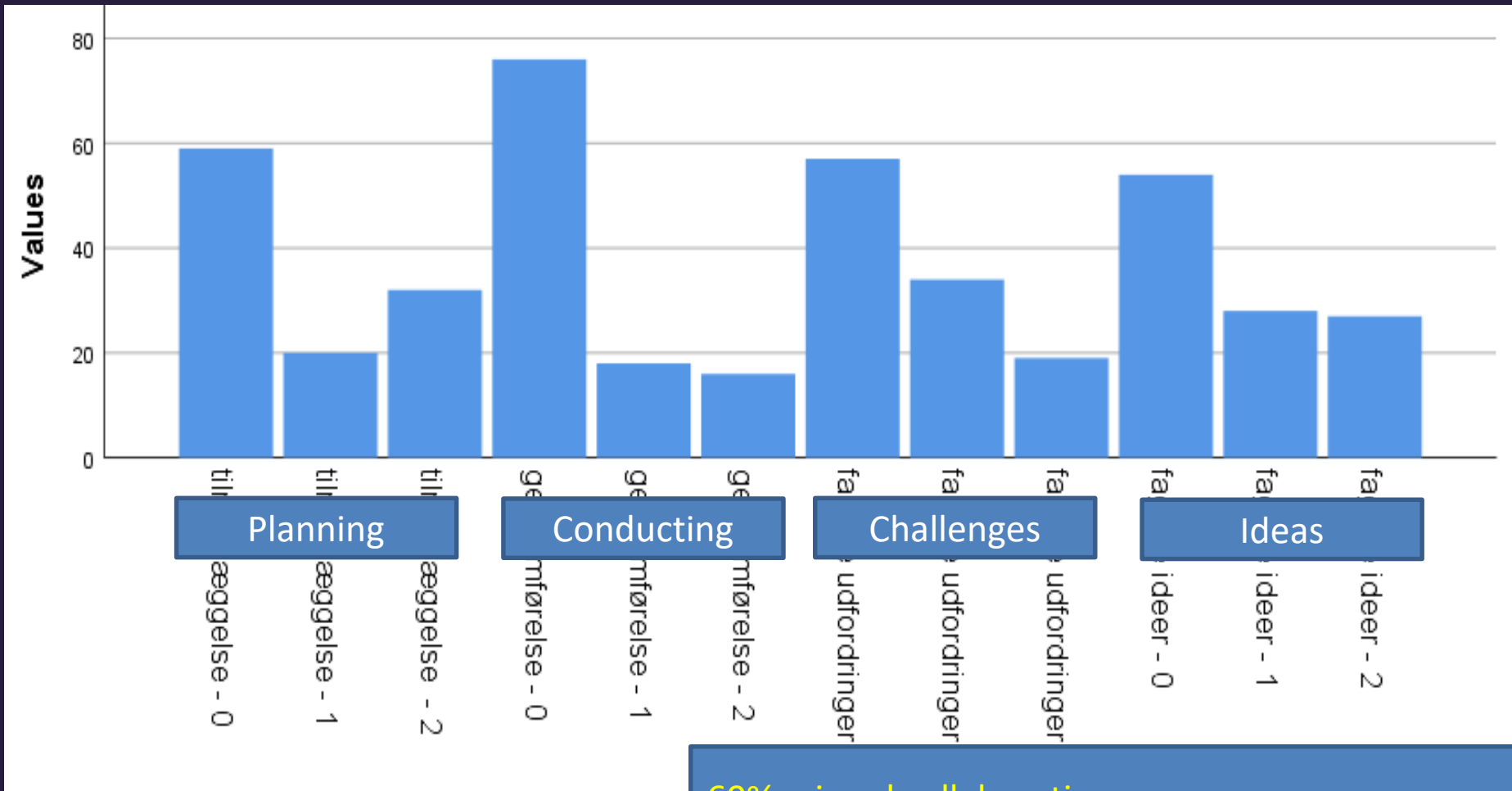
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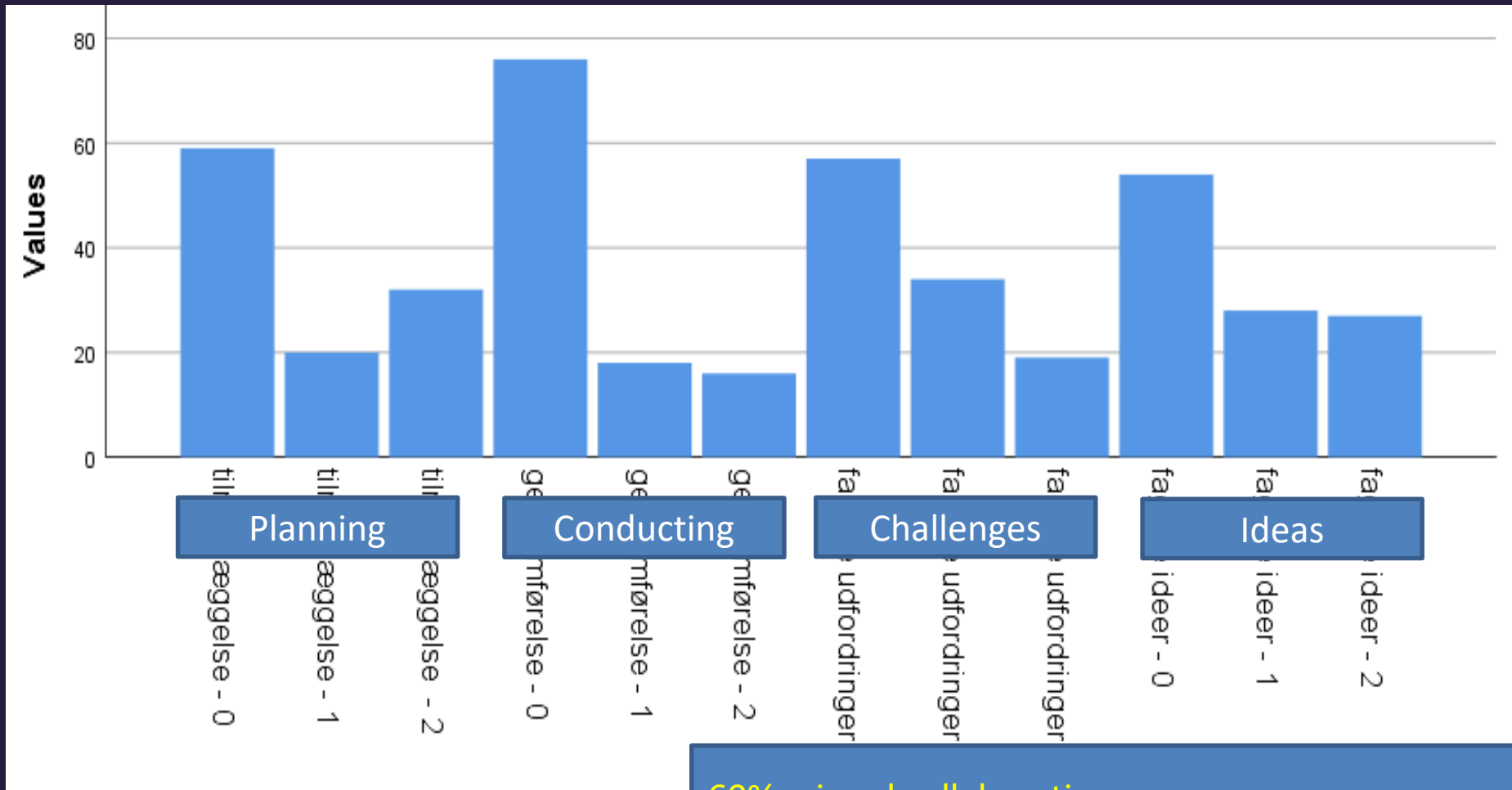
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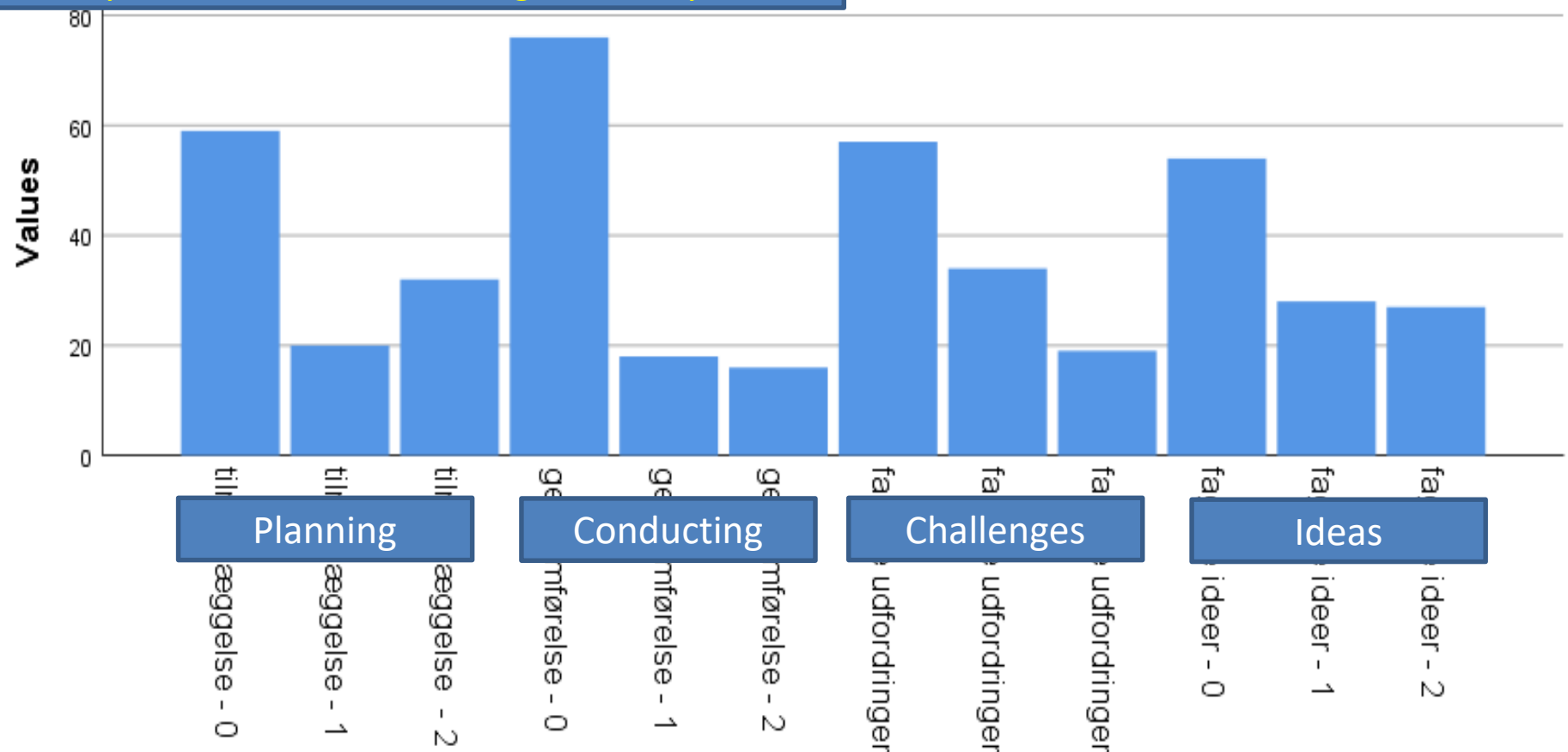
60% missed collaboration
 Often only 1-2 fellow Nat.Science co-teachers
 – many have none



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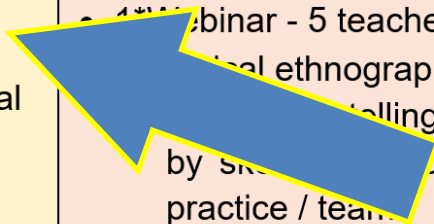
68% chose the subject – 20% havn't – 12 % would newer choose it again

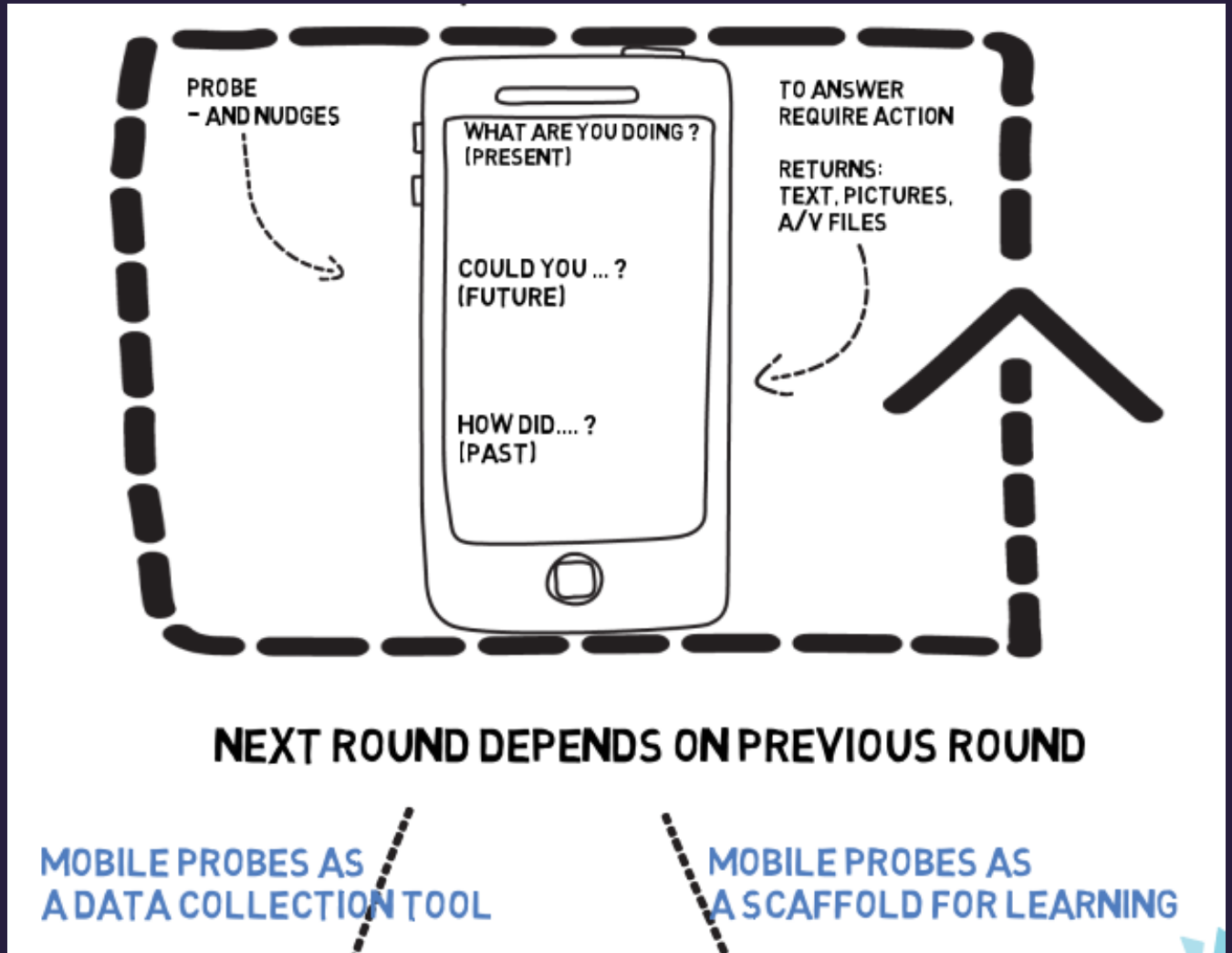
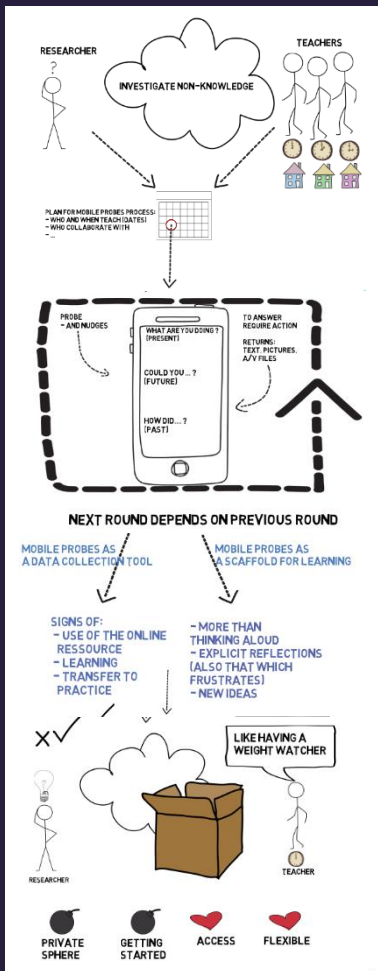
33% only one class, the following 35 % only two

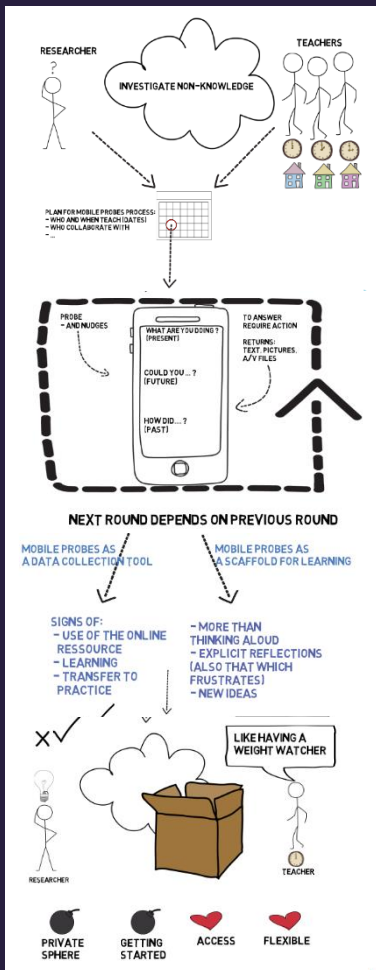


60% missed collaboration
Often only 1-2 fellow Nat.Science co-teachers
– many have none

Qualitative data	interviews	<ul style="list-style-type: none"> • 5-7* focus groups with 20 teachers (1 online / 4-6 F2F) – two was with the same group. • 19 Mobile probes in 5 municipalities • 2*Workshop – facilitating the pedagogical setup at the municipalities • Introductions at municipalities • 1*Webinar - 5 teachers • Digital ethnographic process - • 2-day-workshop with two teachers, who reflected on, aided by sketches and other tools, produced personal video narratives on own practice / teaching ○ In video, pictures, and audio - of own practice and interviews of their students.
	User oriented and participatory methods	
	Mobile Probes	
	Dialogical and digital ethnographic	
	Recordings of own teaching	





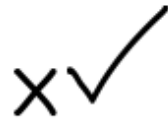


MOBILE PROBES AS A DATA COLLECTION TOOL

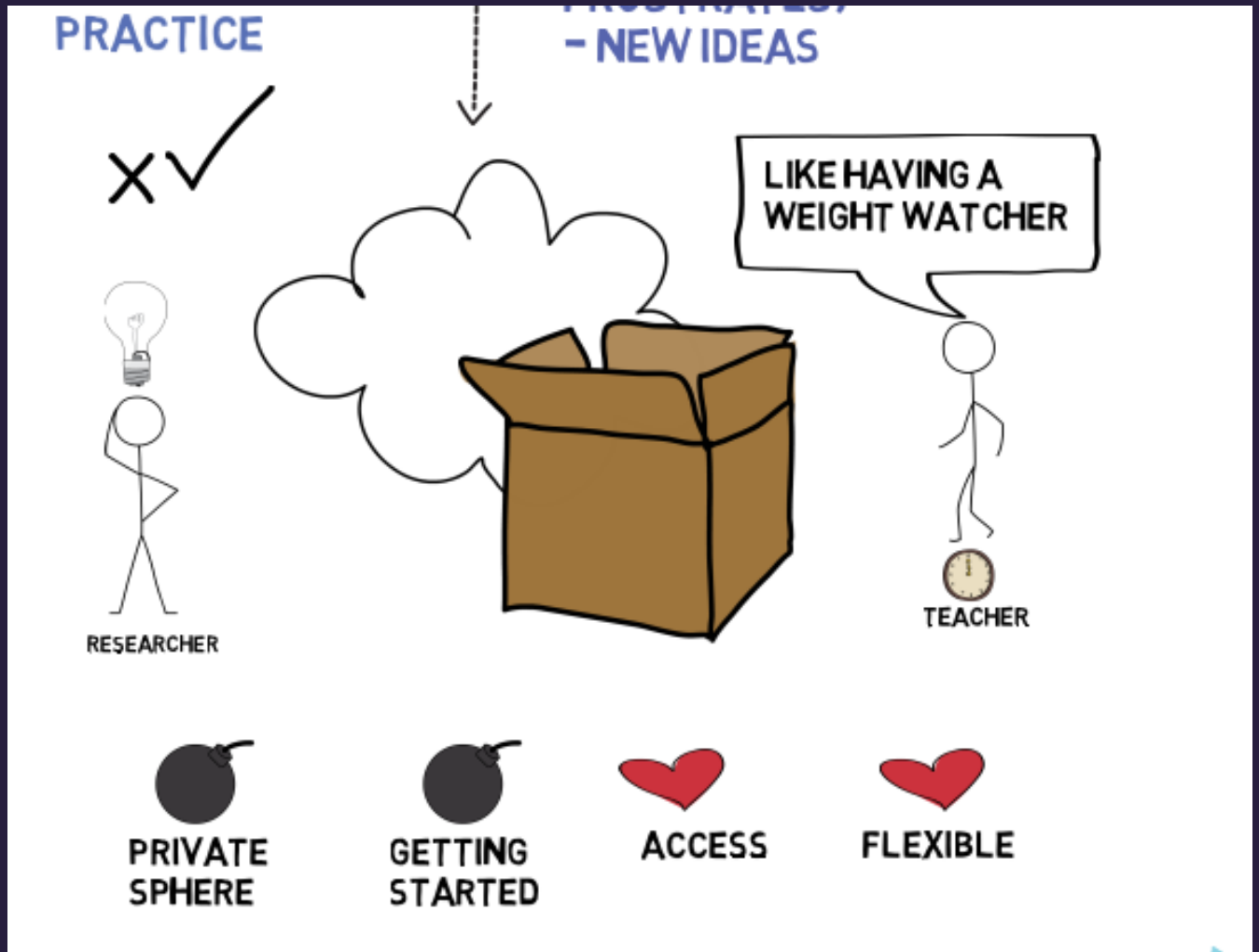
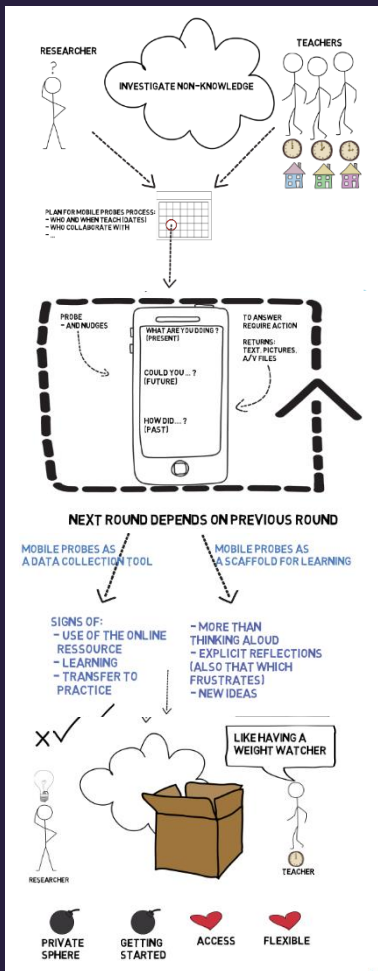
MOBILE PROBES AS A SCAFFOLD FOR LEARNING

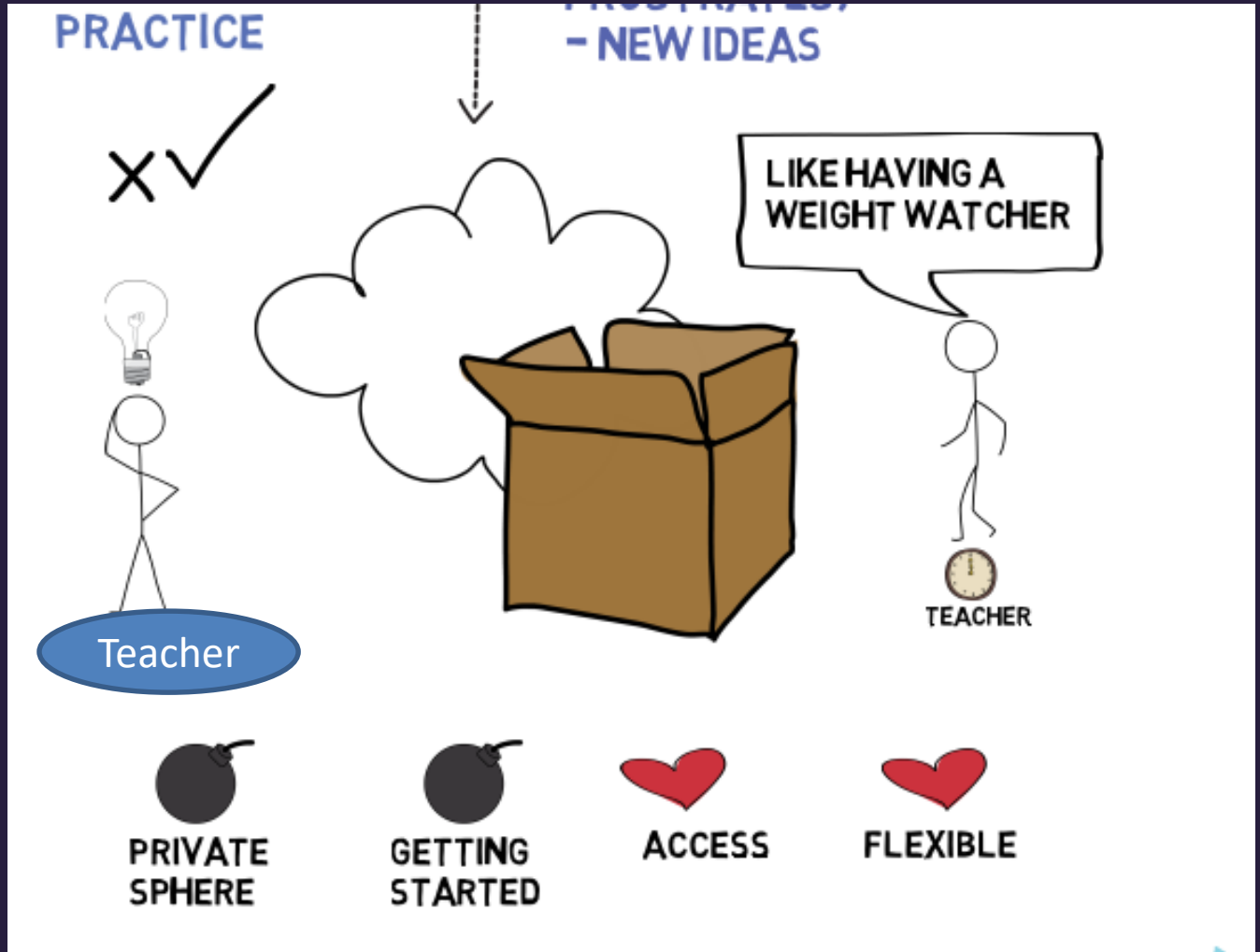
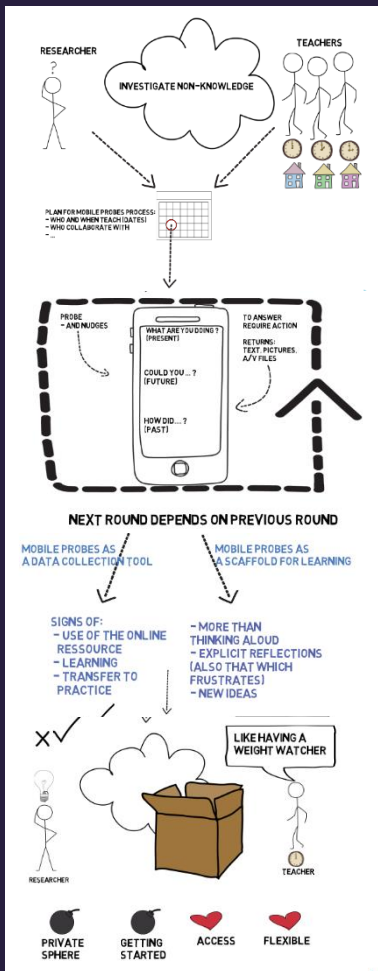
SIGNS OF:
- USE OF THE ONLINE RESSOURCE
- LEARNING
- TRANSFER TO PRACTICE

- MORE THAN THINKING ALOUD
- EXPLICIT REFLECTIONS (ALSO THAT WHICH FRUSTRATES)
- NEW IDEAS



LIKE HAVING A WEIGHT WATCHER







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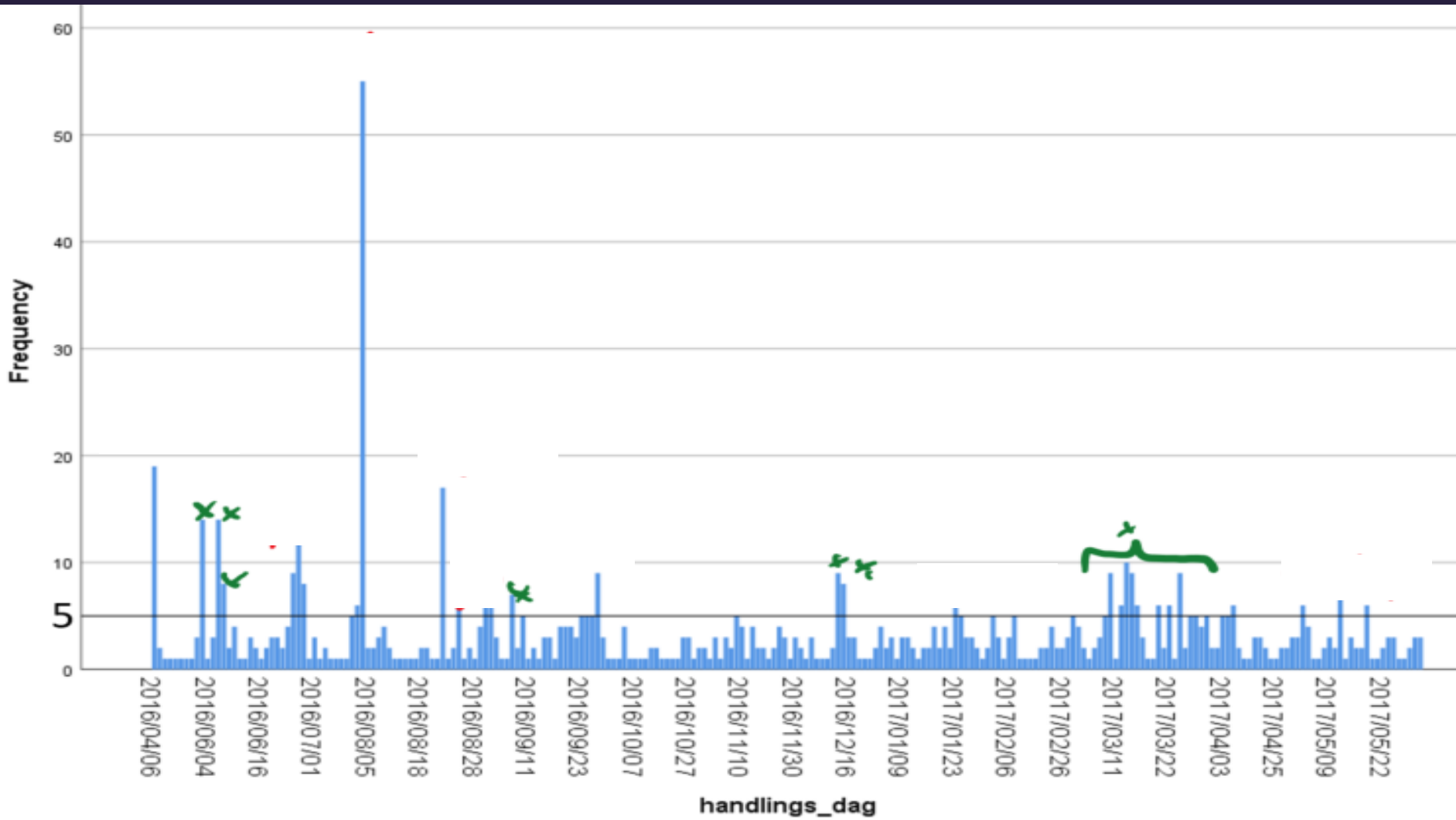
**What happens when
online Teacher Professional Development
becomes an organizational Issue?**

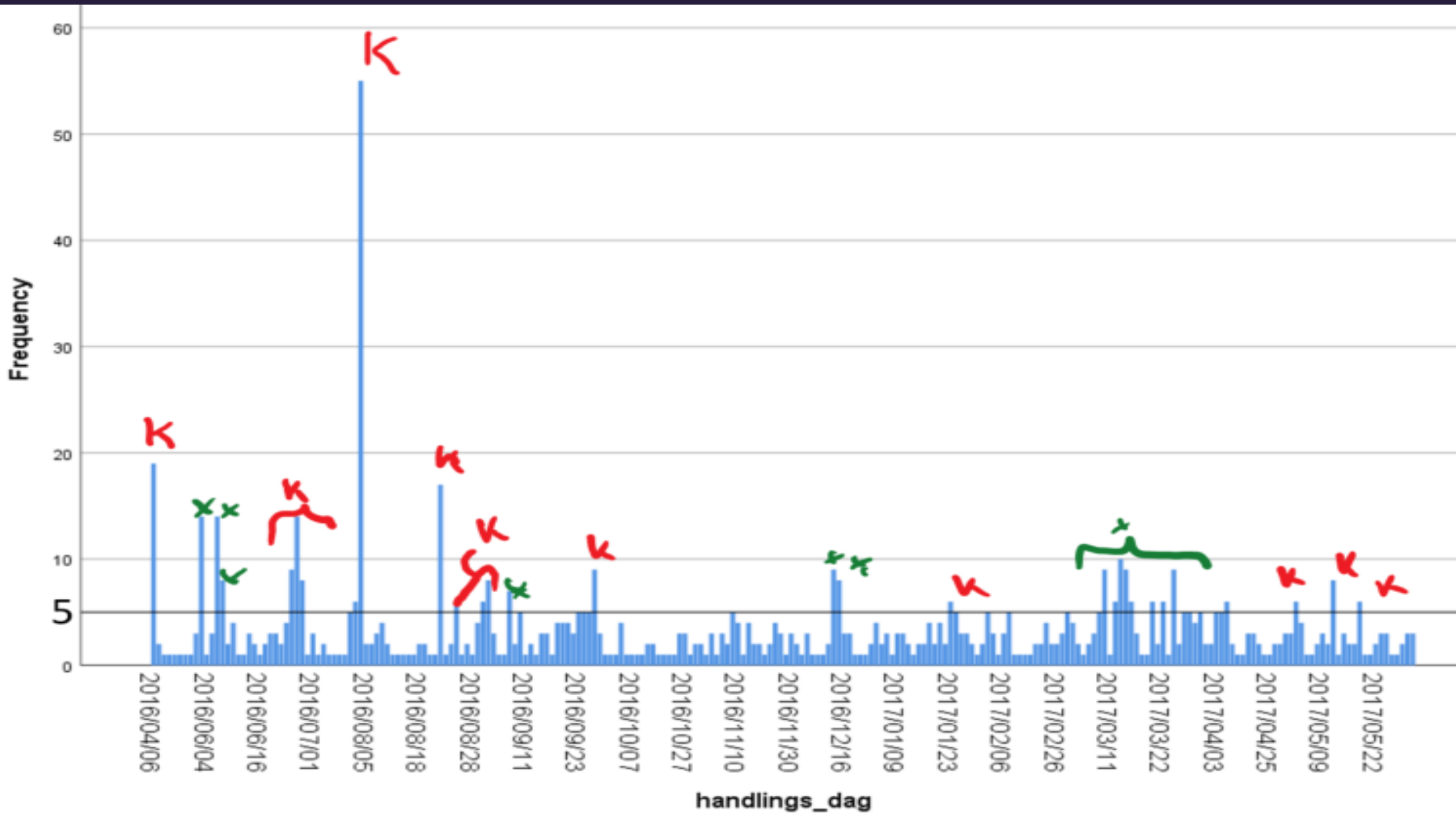
representation from:

- Direct contact to teachers from 16 schools / 9 municipalities
- + Kata foundation had contact to 36 municipalities

representation from:

- Direct contact to teachers from 16 schools / 9 municipalities
- Kata fonden had contact to 36 municipalities
- 92 of a total 98 municipalities represented in the log-file. With 563 schools (2.396 in total – according to uvm.dk)





- Reviews (as e.g. in Noesgaard (2014) found that management and collegial support are in the literature mentioned as a key issues, if learning is to transfer out into one's own practice.

Vs.

- Noesgaards 2014 ethnographic studies showed hardly any discussion took place among peers about their own teaching practices
- Did not mention management in their day-to-day whereabouts.
- What did stand out was the teachers focus on if a task was allocated time (no of hours allocated to a task)

Learning from the ... interesting ..case

- case study rest on empirical data from “another” target group – NOT PLANNED
 - School managers,
 - District managers
 - the project manager,
 - the programming company
- 6 schools with 51 science teachers were involved

Learning from the interesting org case

- The district administration decided to partake, the initiative was co-orchestrated with the school-management and the supplier of the online resource
- But was initiated as a space-shortage situation / redesign of space opportunity, due to school mergers
- From September to October 2015, three meetings between the Kata Foundation, local school managers and the district management were held, about the design of new science centers.
- In November the science teachers were to be involved in the interior design of science centers. In relation, it was decided to use the online TPD project

Learning from the

- the district initiative was a management and
- But was initially a space-shortage situation, due to school mergers



Figure 7. Contextual material returned by a participant (faces and names scratched out by researchers)



... 2015, three meetings
Foundation, local school managers
... were held, about the
... s.

... the school
... prior design
... decided to use

Plenty of management support – but for what purpose ?
Capabilities / willingness / motivation....

Not a-theoretical

Notable in our review, found that the literature remains mainly on a strategic level, there was next to nothing about how to on a concrete level operationalize these important factors in practice. But did find the following factors at play ...

COMMUNICATION & INFORMATION

COLLABORATIONS & INTERACTIONS

ACCOUNTABILITY & INVOLVEMENT

TECH-LEVEL & UNDERSTANDING

Themes

- There seems to be a greater need in professional development to real interaction between the research / design / implementation
- Mixed method yes, but also rely on rigourisly empirical data analysis....just in time
- In DBR there are much research inside classrooms at a more micro level, even when research is done in multi sites and over years, organisational issues other than "having management" on board seem to lack
- TPD could address the concept of the frustrated other