

# KlasCement

TEACHING RESOURCES NETWORK

UX Design techniques to encourage  
user engagement

Results from Erasmus+ project 'ExpLOERer



OER needs **generative behaviour**:  
commenting, evaluating, remixing,  
**contributing ...**


**How do you drive this kind of  
generative behavior when  
participation is free, open and not  
obligated?**


Approaching OER reuse  
from a design perspective  
Adding **social** and  
**gaming features**


A photograph of a sunset over the ocean, taken from the deck of a ship. The sun is low on the horizon, creating a bright lens flare and a long, shimmering reflection on the water. The sky is a mix of orange and blue. In the foreground, the dark silhouette of the ship's rigging, including ropes and a mast, is visible on the right side. The overall mood is serene and contemplative.


# SOCIAL FEATURES

Recente activiteit 🔒 Alle leden kunnen je activiteit bekijken. (Wijzig) **B** **A**

 Je downloadde: [Toets Vocabulaire actif 7](#)  
Geef een score: ☆☆☆☆☆ Reageer Voeg eigen versie toe

 Je bekeek: [Tekenen in roosters - Netwerk](#)  
Geef een score: ☆☆☆☆☆ Reageer Voeg eigen versie toe

 INTERACTIVE INTEGRATED INSPIRING Je las: [i3LEARNHUB-actie : Software voor samenwerkend leren](#)  
Geef een score: ☆☆☆☆☆ Reageer Voeg eigen versie toe

 Je downloadde: [Eerste wereldoorlog : toets](#)  
Geef een score: ☆☆☆☆☆ Reageer Voeg eigen versie toe

Showing and sharing recent activity with other users, on your personal profile page. Similar to social networking sites.

# SOCIAL FEATURES

## Awards en badges van Voornaam Naam

[Bekijk alle mogelijke badges](#)



Gaf nog geen score



Herwerkte nog geen leermiddel



Reageerde nog niet in het forum



Maakte nog geen favorieten

Badges & challenges, to entice users to use the features like giving scores, remixing resources, adding comments, using favourites, share with non members through mail or SNS...

# Needs analysis



# Method



# Selection of users based on following criteria

LOW	
500 lowest scores	next 1500 low scores
Active in last 3 months	Active in last 3 months
Teacher	Teacher
Flemish	Flemish

HIGH	
<del>previous 1500 scores</del>	500 highest scores*
<del>Active in last 3 months</del>	Active in last 3 months
<del>Teacher</del>	Teacher
<del>Flemish</del>	Flemish

\* excluding employees

**H: highly engaged users (n =500),**  
**L: frequent users but only receptive behavior (n=2000)**

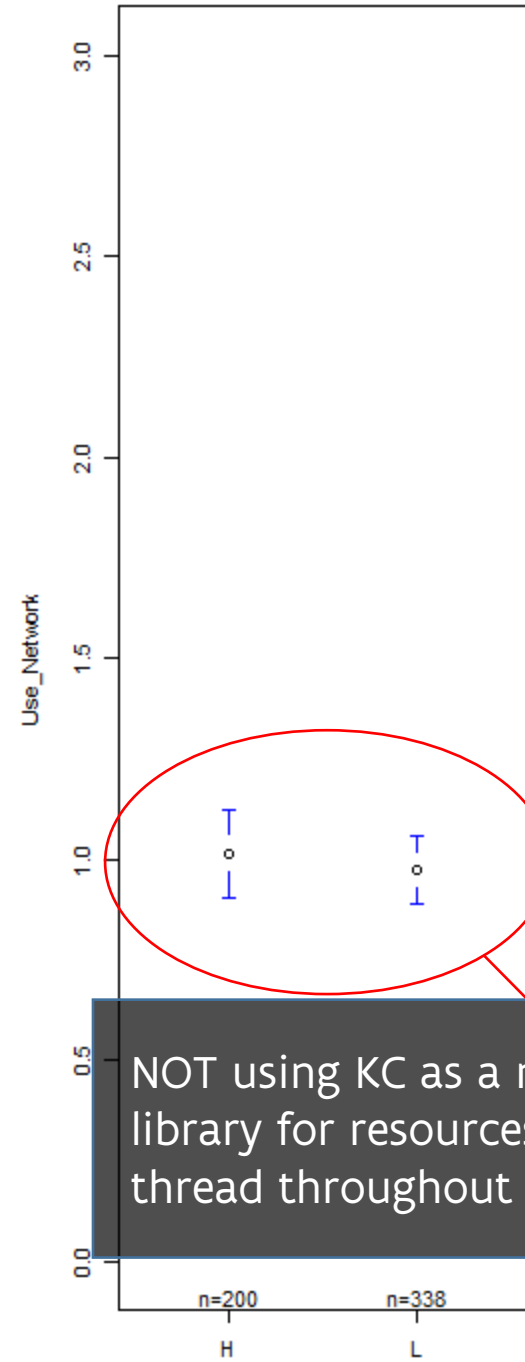
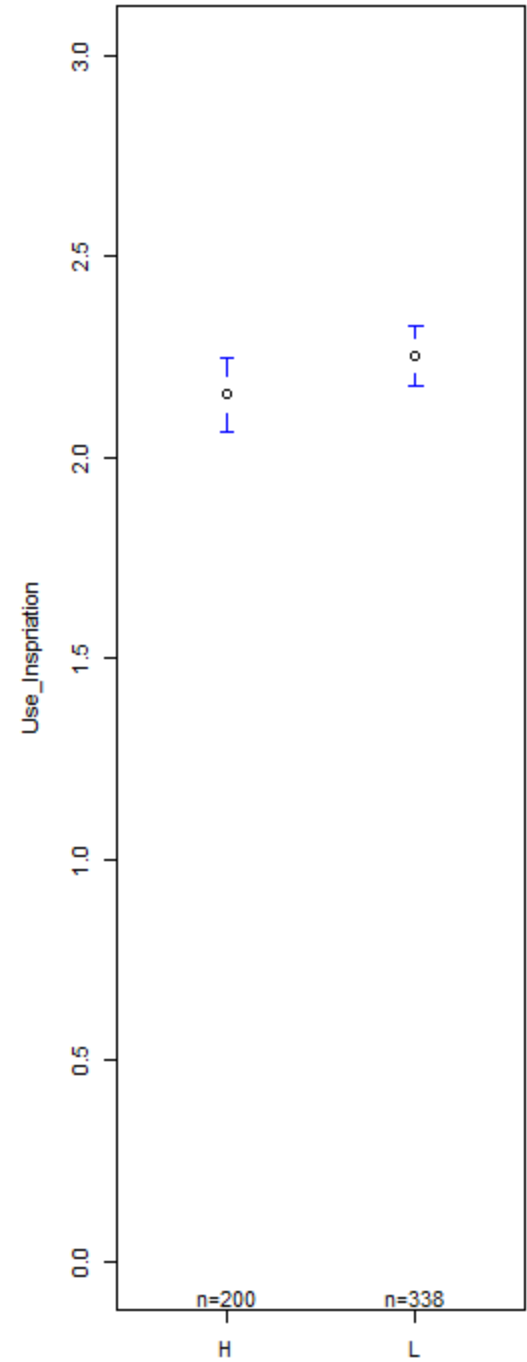
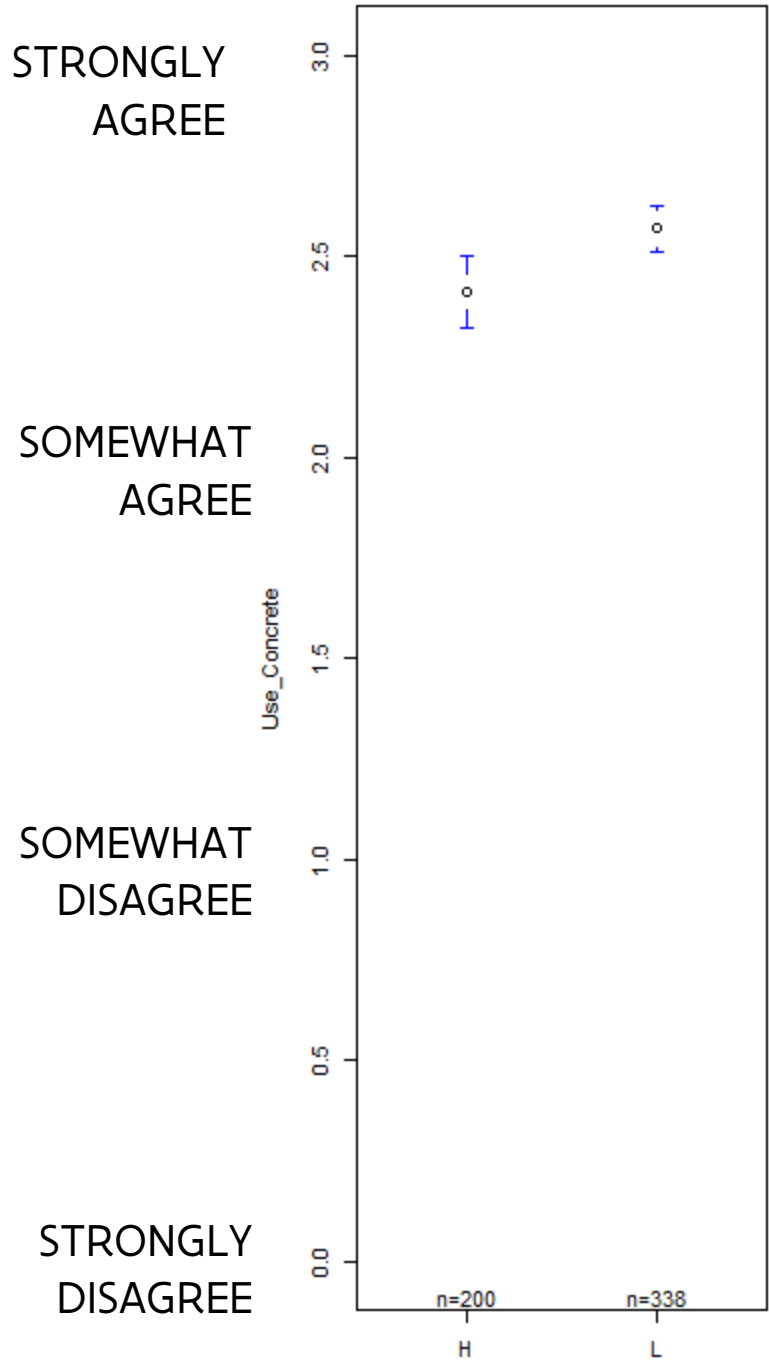
After review of the data it was clear that these users had high scores because of the points received for adding their children (200 points per child) to their profile. Not because they contribute more to the network. These responses were excluded for this reason.

0 : strongly disagree | 1: somewhat disagree | 2: somewhat agree |  
3: strongly agree

4. I use KlasCement **primarily to find materials to build my own lesson materials on.**

5. I use KlasCement primarily as **a source of inspiration** for new lesson ideas.

6. I use KlasCement to **interact with colleagues** and broaden my **professional network.**



NOT using KC as a network but as a library for resources is a common thread throughout the answers

## What do you do on KlasCement?

0 : strongly disagree | 1: somewhat disagree | 2: somewhat agree |  
3: strongly agree

9. I **look at** other users' **profiles**.

10. I **read** the **comments** below learning objects.

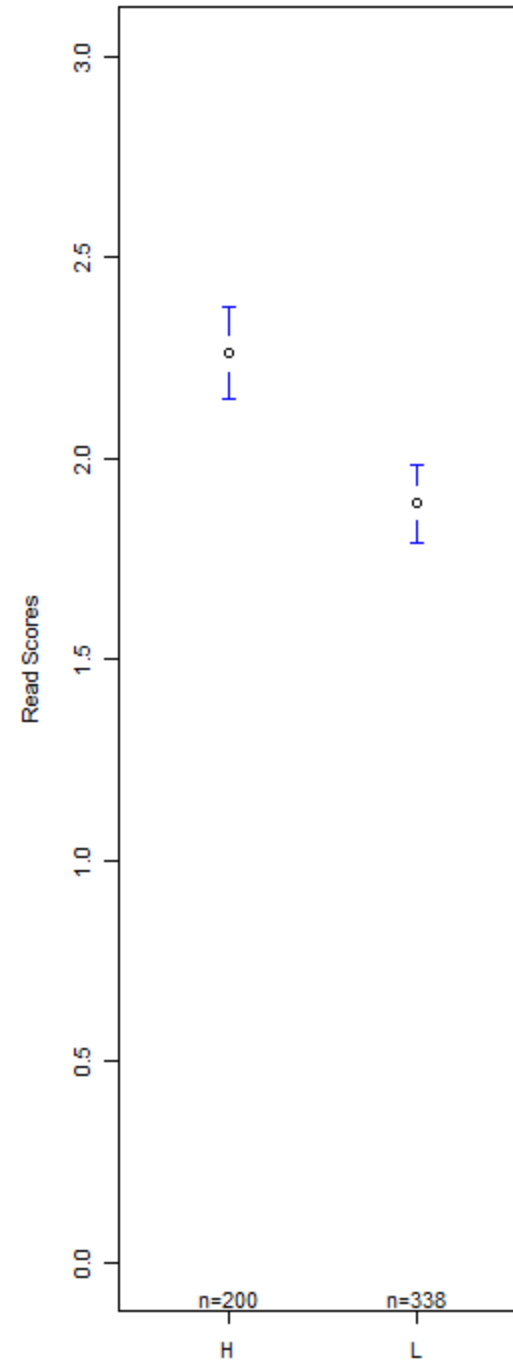
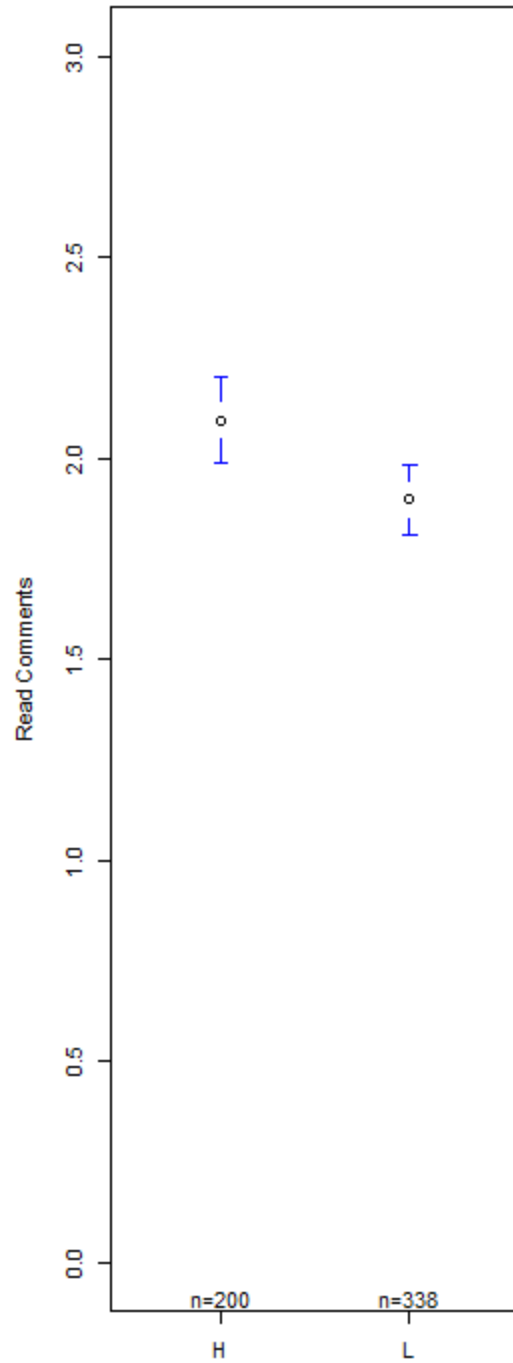
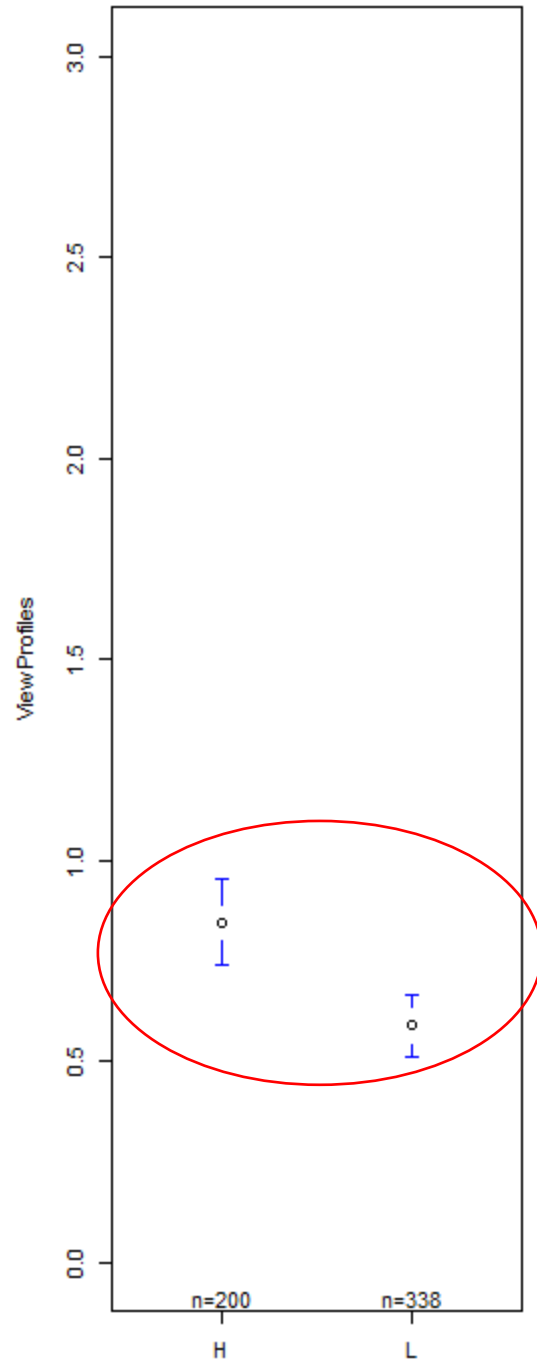
11. I **look at the score** of a learning object.

OFTEN

REGULARLY

HARDLY  
EVER

NEVER



What do think of the new proposed features?



**Voornaam Naam**

Verandert onderwijs van onder uit.

**Professionele gegevens** ✎

**Functie:** Leerkracht

**Onderwijsniveau:** Lager

**Vak:** Algemeen, Muzische vorming, Nederlands, Frans, ICT

**Contact**

Stuur Bram een bericht:

## Awards en badges van Voornaam Naam

[Bekijk alle mogelijke badges](#)



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INTEGRATED  
INSPIRING

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Geef een score: ☆☆☆☆☆ Reageer Voeg eigen versie toe

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13 (A) I would like to **see on a user's profile which learning objects a user has downloaded.**

14 (B) It is important for me to be **able to choose whether my profile shows the learning objects** I downloaded.

15 (C) I would like a **badge on my profile page** indicating that I share resources.

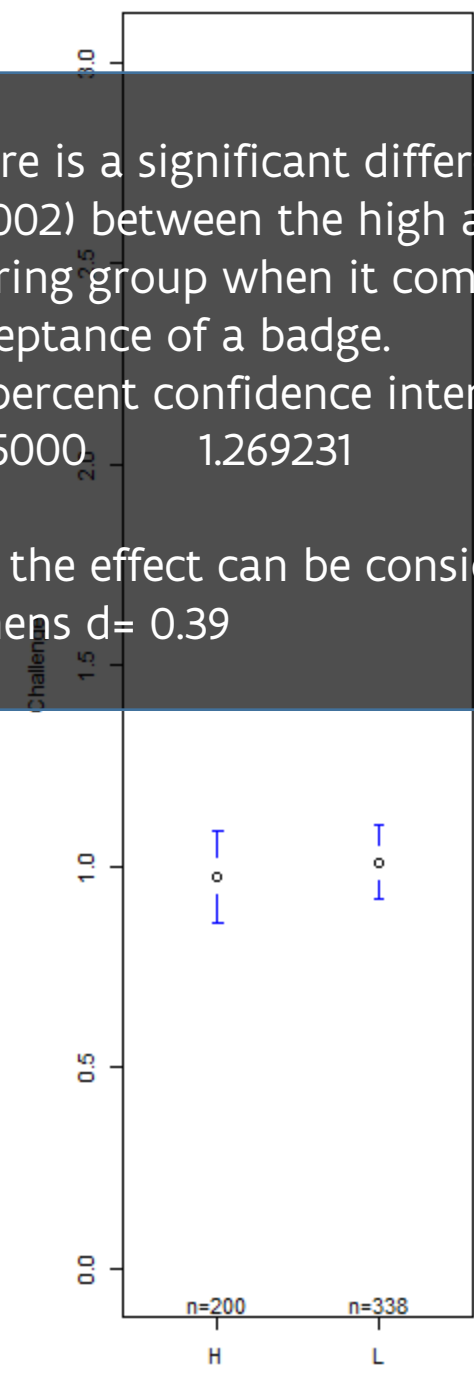
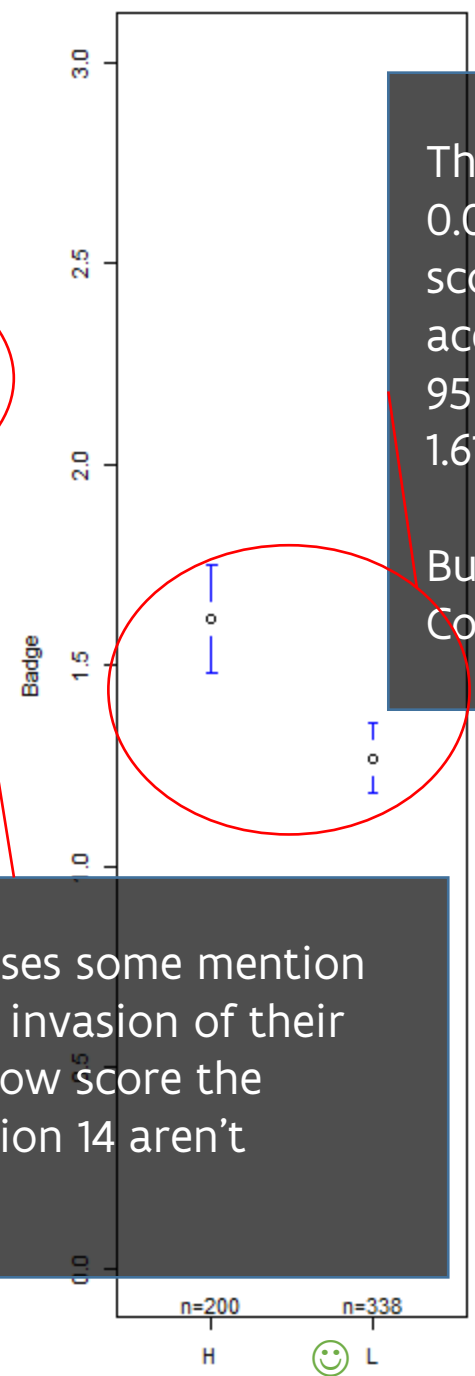
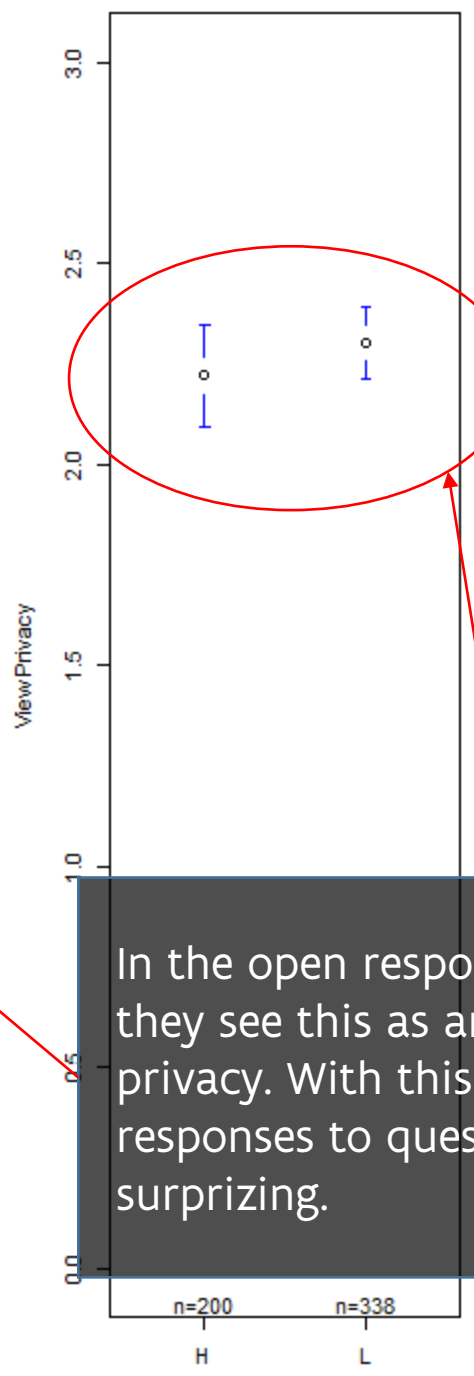
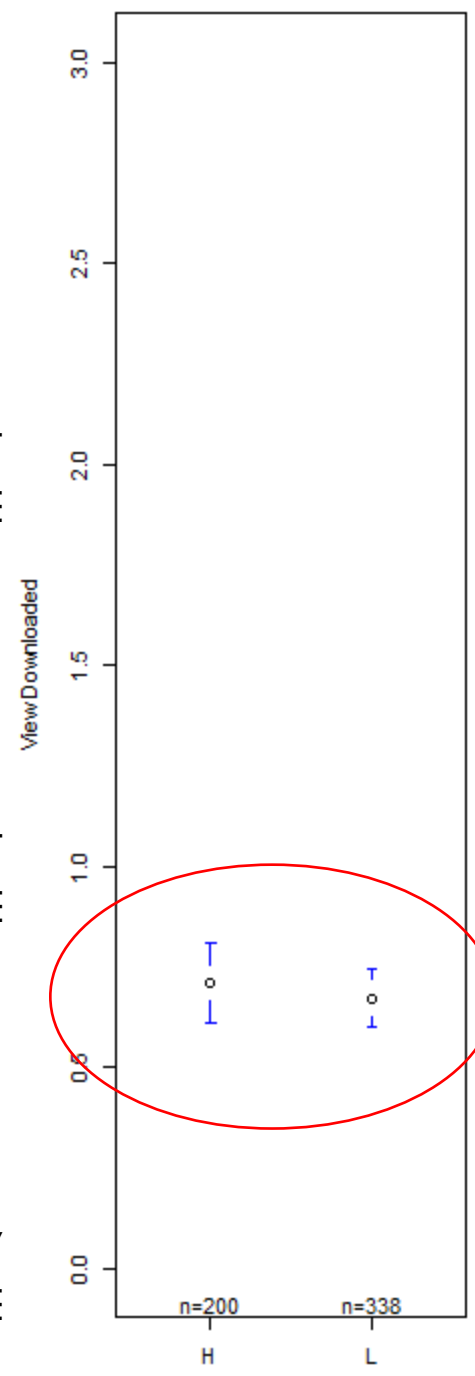
16 (D) **A challenge** like 'Give five comments to receive a commentator-badge' would stimulate me to do so.

STRONGLY AGREE

SOMEWHAT AGREE

SOMEWHAT DISAGREE

STRONGLY DISAGREE



There is a significant difference ( $p = 0.0002$ ) between the high and low scoring group when it comes to the acceptance of a badge.  
 95 percent confidence interval:  
 1.615000      1.269231

But the effect can be considered small:  
 Cohens  $d = 0.39$

In the open responses some mention they see this as an invasion of their privacy. With this low score the responses to question 14 aren't surprising.



Responses to questions about  
motivation to share



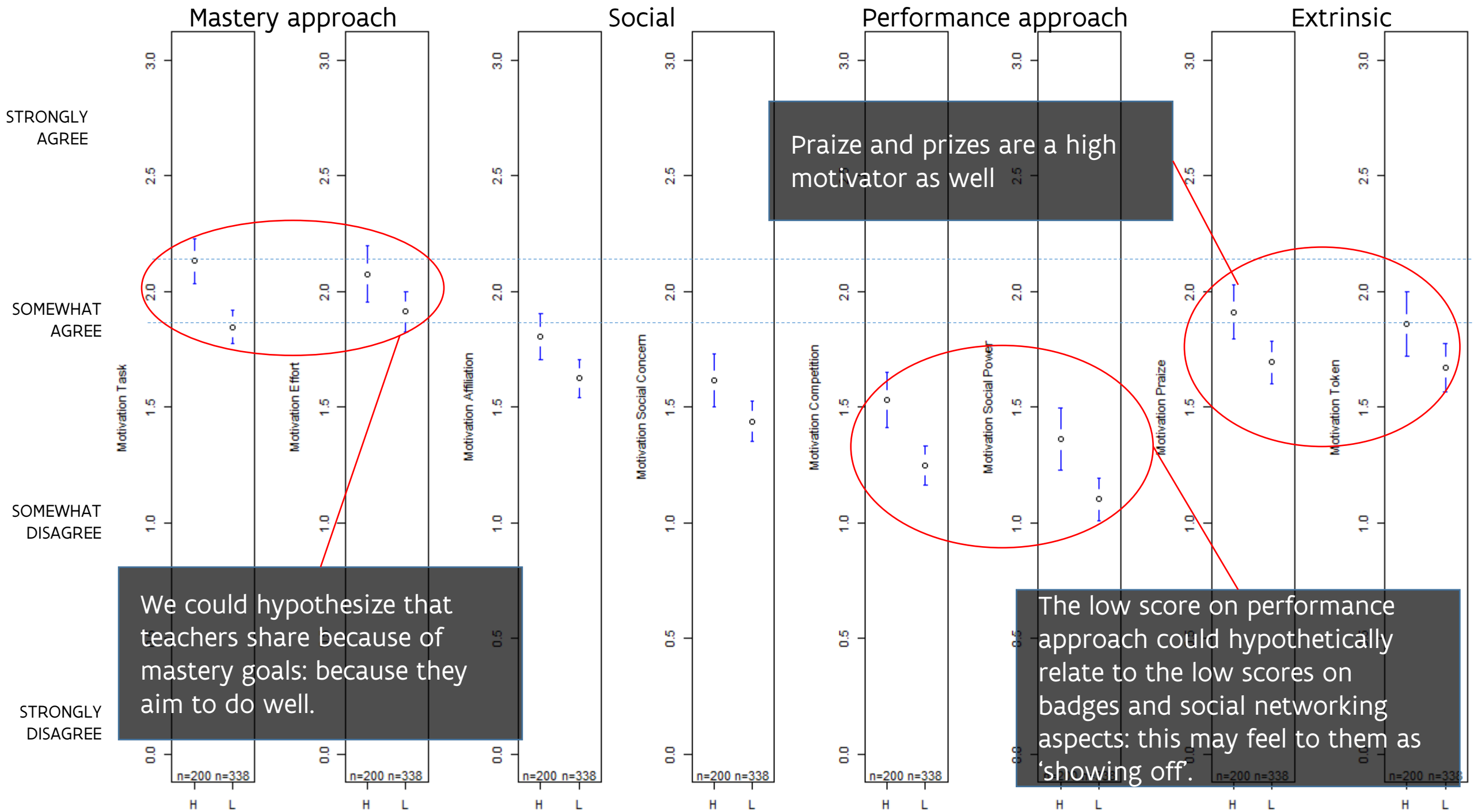
## I am **stimulated to share on KlasCement**

**Mastery** When I get **valuable feedback** on my resources to improve them. Task  
Because this extra effort makes me **feel a professional teacher**. Effort

**Social:** When I am able to **collaborate with other** teachers. Affiliation  
When I am well **informed about how many teachers I've helped** by sharing my  
resources Social concern

**Performance:** When I can **view the popularity** of my contributions in a  
leaderboard. Competition  
When it can lead to **interesting career opportunities** (such as giving  
workshops, having my resources published). Social Power

**Extrinsic:** When I get a lot of **likes and positive comments** by other users. Praise  
When I can exchange the KlasCement-points that I earn for an actual **prize**  
(books, cinema tickets, coupons). Token



Mastery approach

Social

Performance approach

Extrinsic

STRONGLY AGREE

SOMEWHAT AGREE

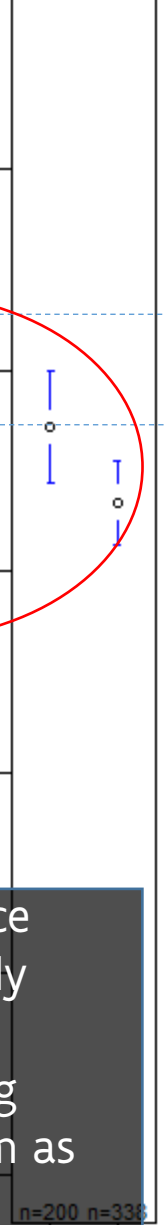
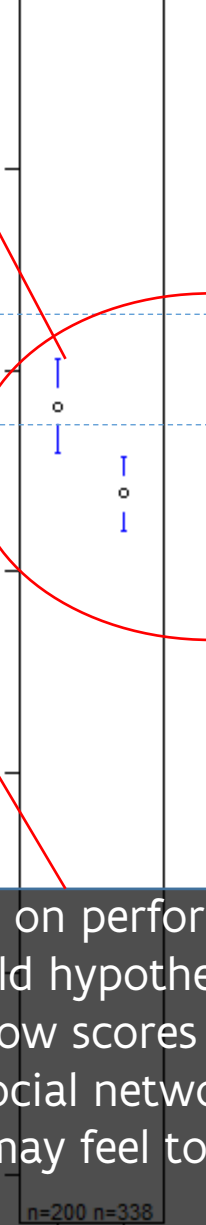
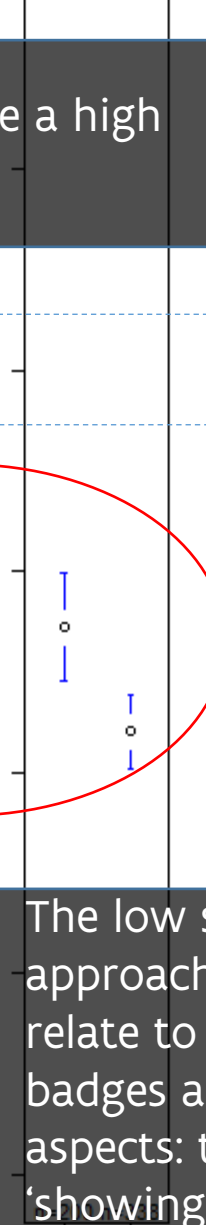
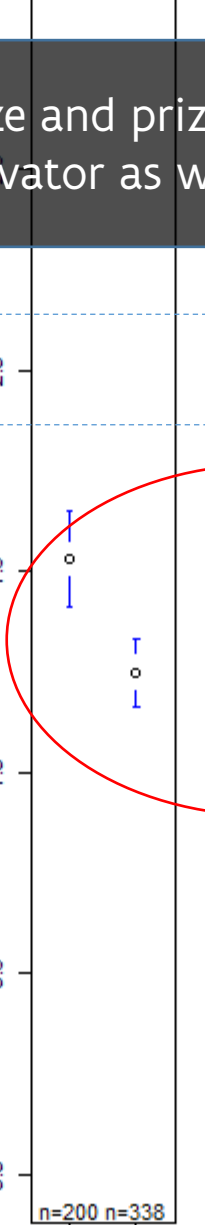
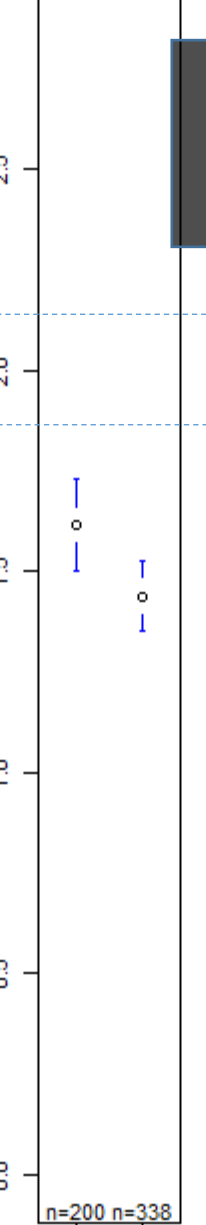
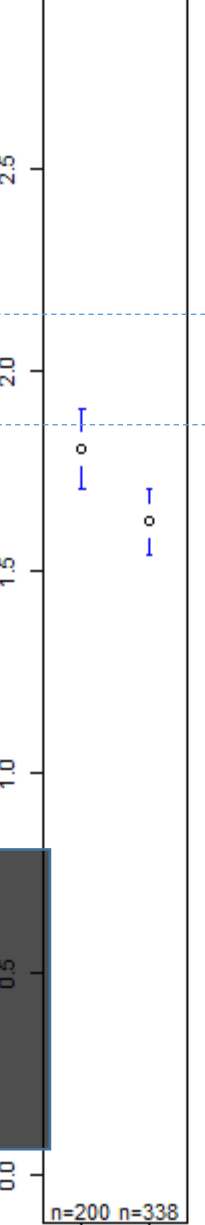
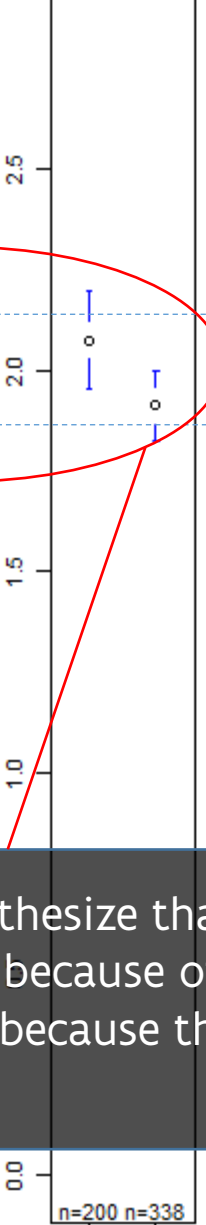
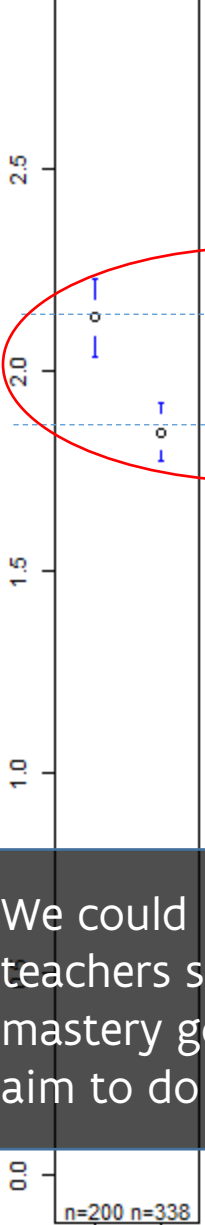
SOMEWHAT DISAGREE

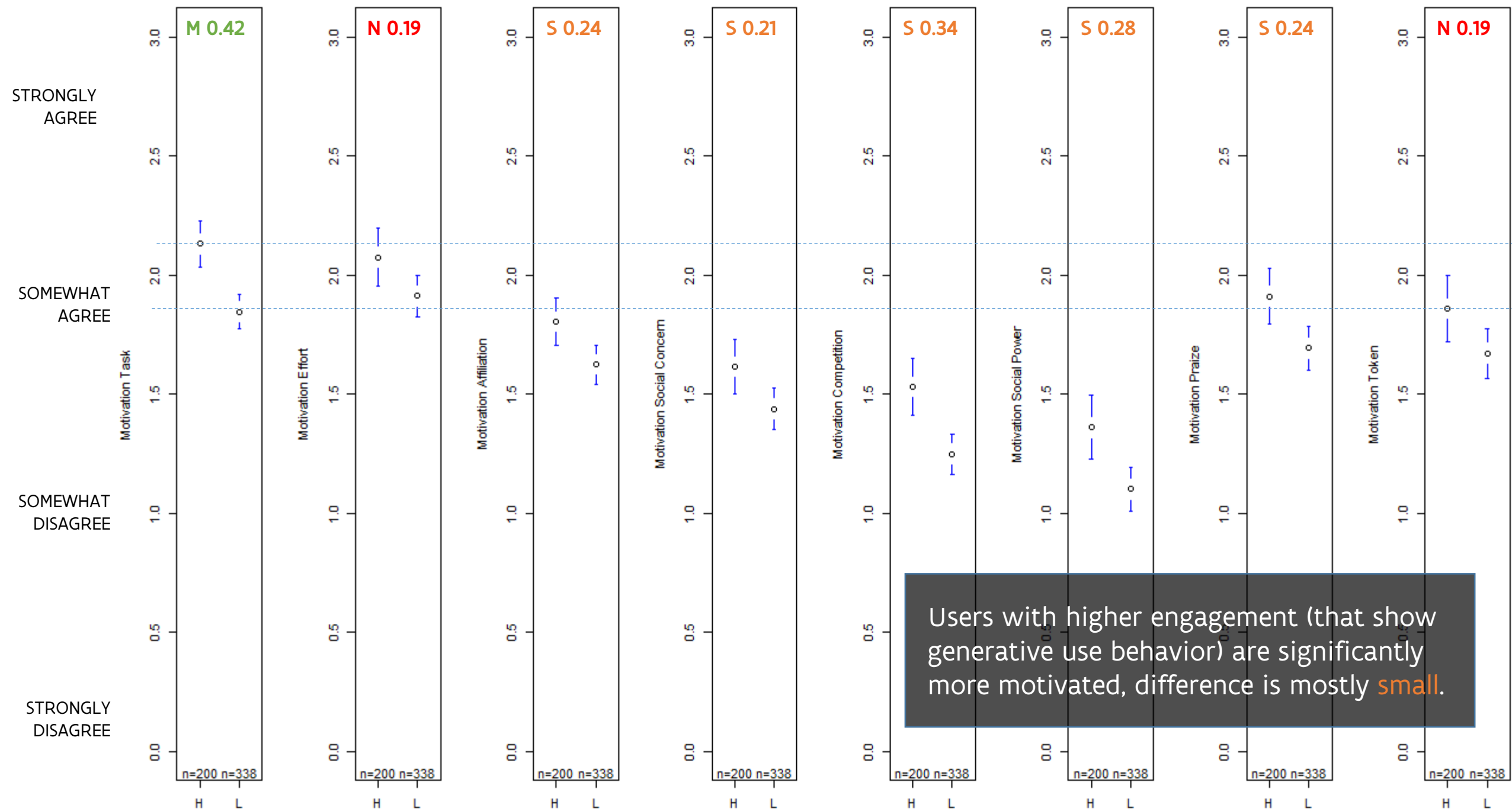
STRONGLY DISAGREE

We could hypothesize that teachers share because of mastery goals: because they aim to do well.

Praize and prizes are a high motivator as well

The low score on performance approach could hypothetically relate to the low scores on badges and social networking aspects: this may feel to them as 'showing off'.





# Conclusions

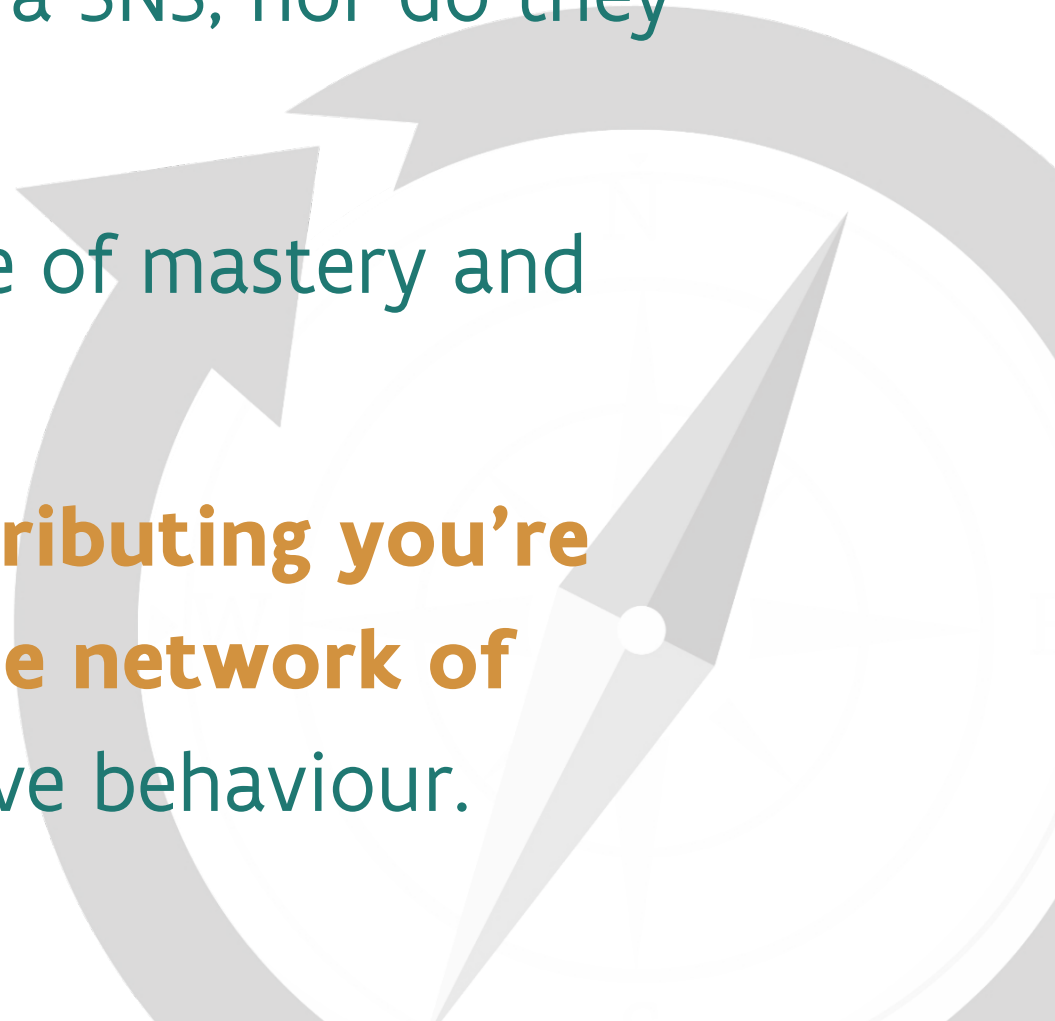


# Social networking: conclusion

Users don't perceive KlasCement as a SNS, nor do they want it to have more SNS features.

But their motivation to share is one of mastery and altruism.

Enhancing the feeling that **by contributing you're helping** others, by **emphasizing the network of teachers**, might stimulate generative behaviour.



# Social networking: conclusion

Use social networking as a *behavioral design tool*, not as a goal.



# Badges

The PBL (Points-Badges-Leaderboards)-approach to gamification does not convince our users based on (15) badges (H: 1.61, L: 1.27 : small but significant difference between high and low group))

(14) or challenges (1.00)

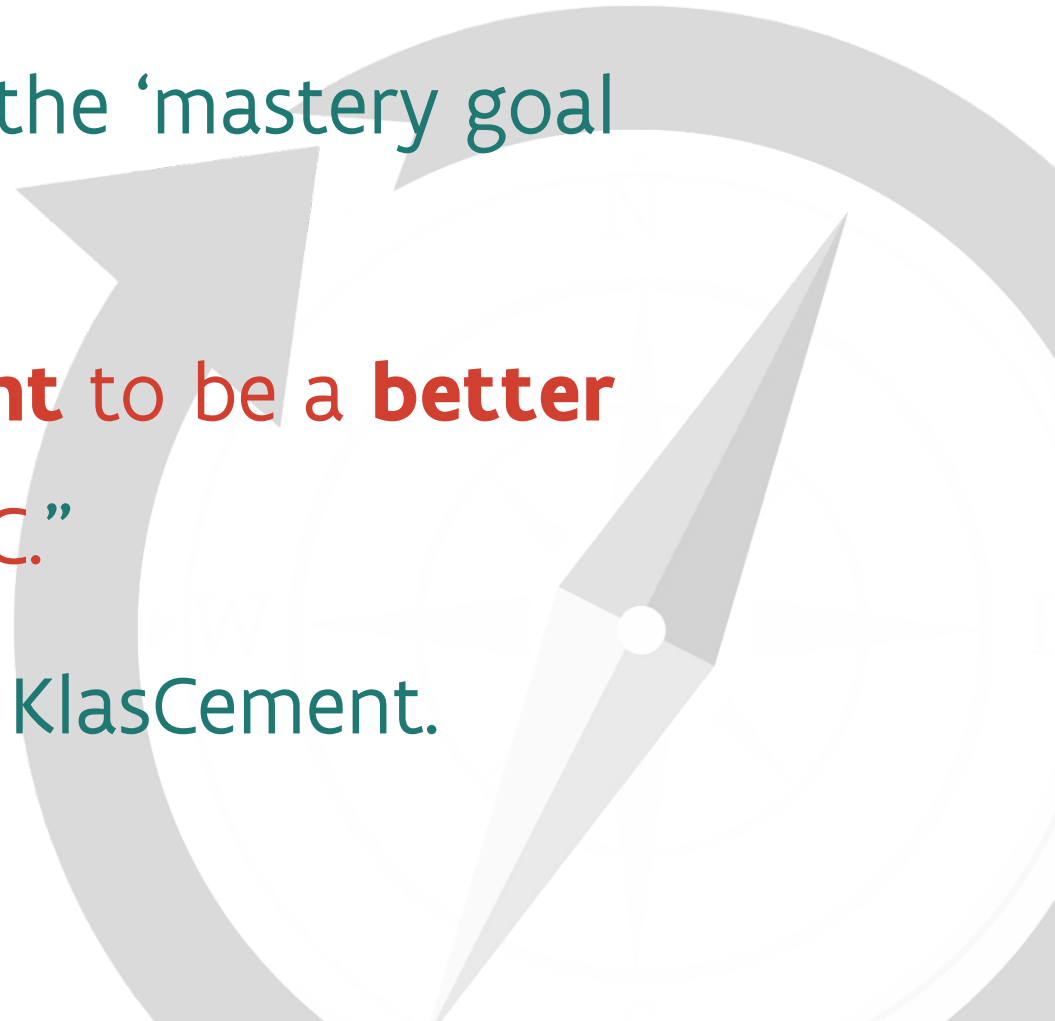
0 : strongly disagree 1: somewhat disagree 2: somewhat agree 3: strongly agree

# Badges: conclusion

A gamified system should relate to the ‘mastery goal orientation’: Users should think:

“I get **feedback** on my **commitment** to be a **better teacher** by using and sharing on KC.”

And not: I get a rewarded for using KlasCement.



No carrot and stick  
approach to  
increase engagement  
on KlasCement.



# OUR MISSION

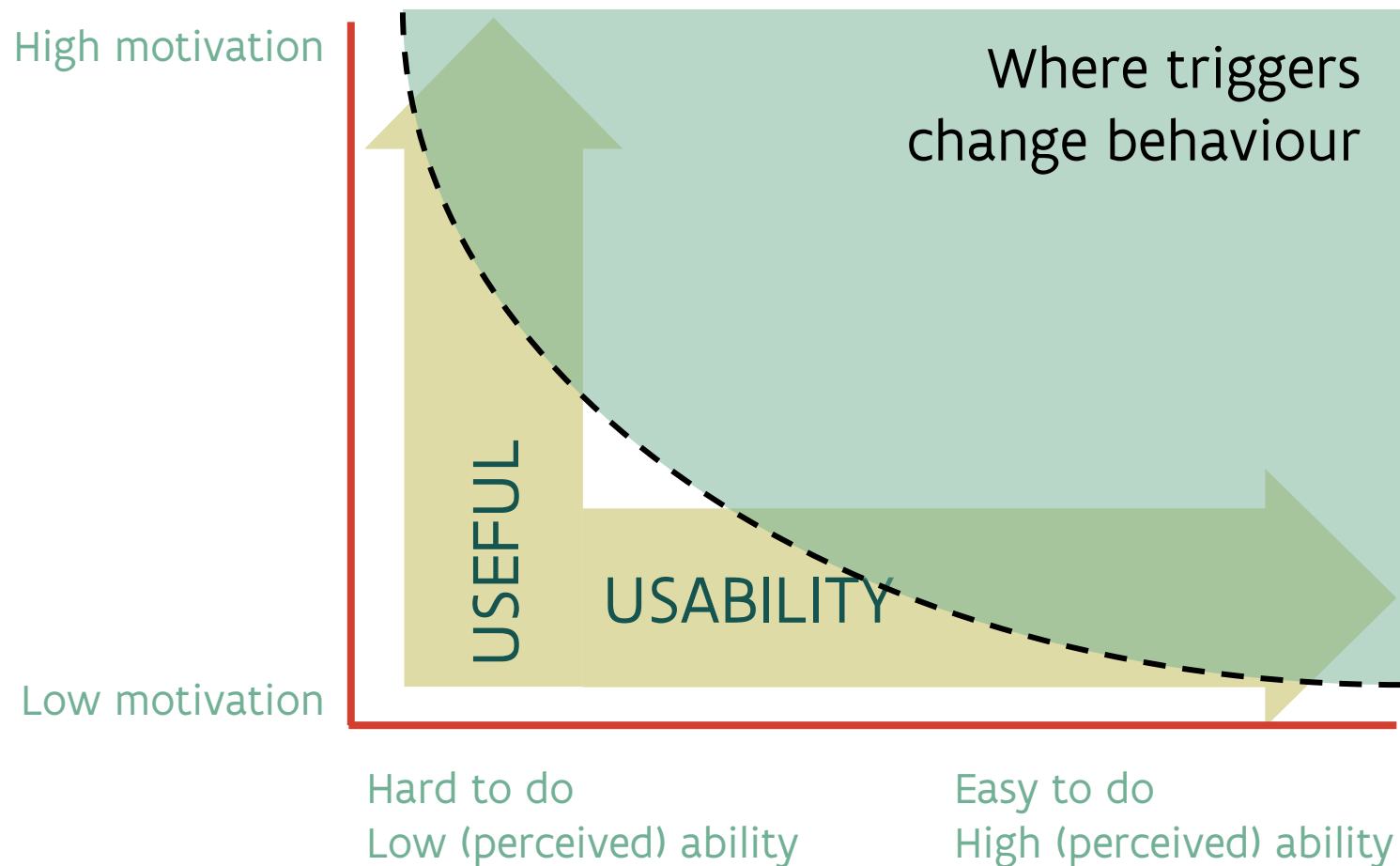
KlasCement enriches and simplifies educational practice of teachers through a network of interconnected teachers and their resources.

Redesign: a behavioral design approach to fit the users personal goals



# Fogg Behaviour Model

» learning how to use KlasCement



motivation

+ ability

+ trigger

= behaviour

# Make the OER experience:

fit to the personal goals (motivations) of a teachers

= a high quality and comprehensive library of OER

easy to use

= no technical barriers, complicated processes or scary juridical texts

+ provide triggers to engage users

= make triggers fit to personal goals (simplify the life of the teacher)

*This is where the 'network of teachers' is important!*

# PLANTS vs. ZOMBIES

The image is a promotional graphic for the game 'Plants vs. Zombies'. At the top, the title 'PLANTS vs. ZOMBIES' is written in a large, stylized font. 'PLANTS' is in green with a leaf-like texture, 'vs.' is in a grey stone font on a tombstone, and 'ZOMBIES' is in a grey, cracked stone font. Below the title, a cartoonish scene depicts a suburban street. On the left, various plants are shown: a large Sunflower, a Peashooter, a Cactus, and a purple Spikeweed. On the right, several zombies are walking towards the plants. One is a 'Gargantuar' (a large zombie with a smaller one on its back), another is a 'Conehead', and a third is a 'Zombie' with a briefcase. The background shows a house, trees, and a fence under a bright sky.

How do you learn Plants vs. Zombies?

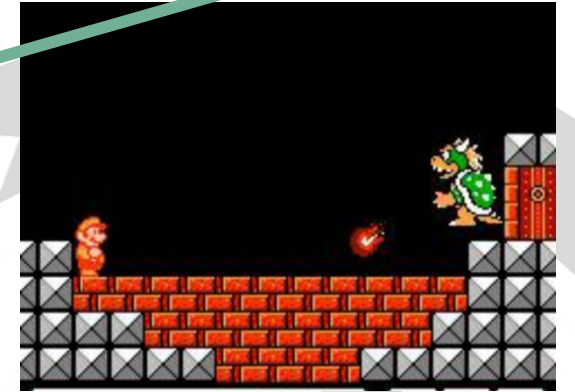
# How do we 'Super Mario' the use of KlasCement



Newbie: Onboarding



Regular: Enhancing skills



Expert: Contribute

# Create activity loop



Focus on :

- Competence
- Autonomy
- Relatedness

There's a new tip available for you: ×

Show the best resources first and quickly find what you are looking for.

[Discover how](#)

My search actions

You have no saved search actions.

Save current filter +

Level / Discipline

Themes

Category

Projects

Functions

Textbook / Teaching methc

Costs

Search in: KlasCement ×

Educational system

Company / Organisation

License

## 726 educational resources at KlasCement

Sort on: Relevance

### Logos of banks and financial institutions: Test your knowledge

Added by Ann De Volder - Downloadable resources  
Last edited on 05.03.2013



Translated by Google™

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★★★★☆ 5 4 1817

### Comparisons: Test

Added by Projectcoördinator eQnet - Downloadable resources  
Last edited on 19.10.2012



This contribution contains a test on equations with one unknown.

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★★★★☆ 4 0 5090

Contextual tips, based on the use behaviour (frequency and functions)

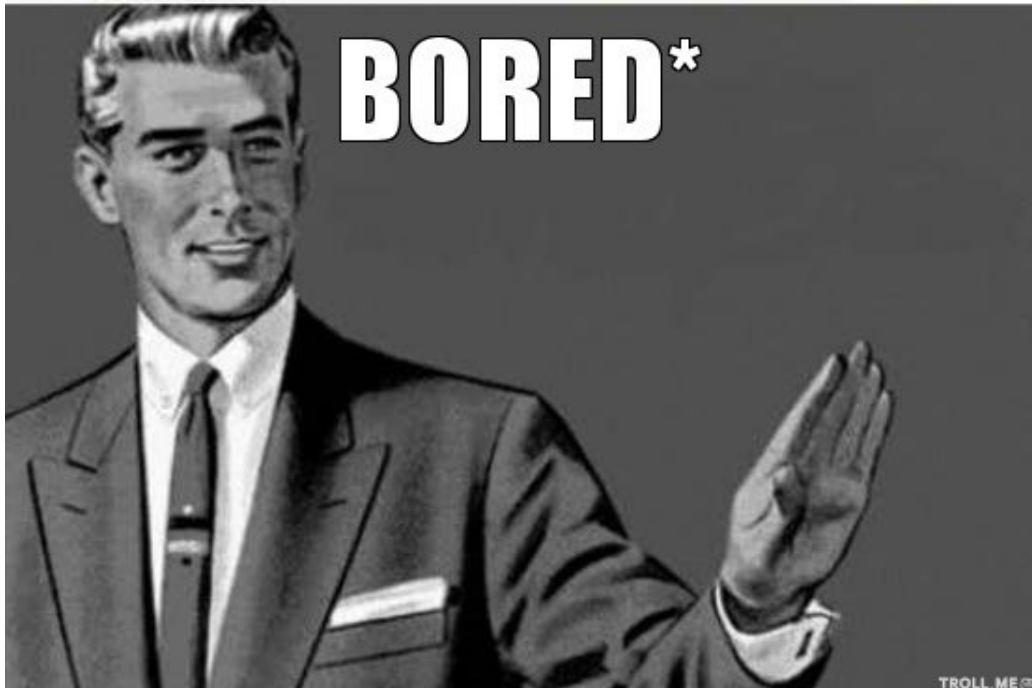
# Pitfalls

Sometimes I just popup for no particular reason, like now.



- How to overcome notification overload
- spread out and map it over a timeline (user cycle)
  - don't over do contextual help
  - don't send separate e-mails but use internal notifications and messages
  - let's go slow and do a data-driven effect analyses

# Pitfalls



- provide surprise-rewards (undocumented challenges) that trigger dopamine
- Make the communication FUN

For example: Congratulations, you've been a member for 100 days! You get 100 points. Redeem your code at your points page and find ways to use KlasCement even better.

# Does it 'work'?

- Hard to tell: UI-changes have a (much) bigger effect than adding a tip.
- 30% of the users actually visit their 'tips and tricks page'.
- We see an increase in the use of almost every function (when controlling for rise in general use)

**Next steps: behavioural triggers**



**My question for you: which behavioural design triggers would you include?**