

# Qualitative Learner Analytics

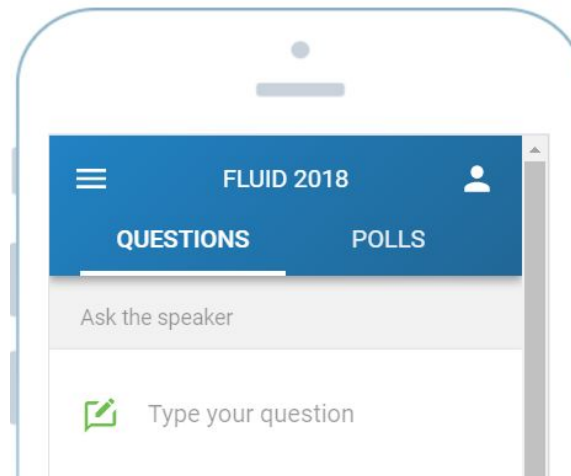
Screen Recordings and Learning Feedback

**Henrik Køhler Simonsen**  
**PhD, MA, MBA**

# Refleksionspitstop

Join at  
**slido.com**  
**#L400**

- Find din mobiltelefon eller laptop
- Brug mobilnet eller wifi
- Skriv slido.com i browser
- Indtast koden L400
- Vælg FLUID 2018
- Vær klar til at reflektere og svare



# Program

1. **Indledning og forskningsspørgsmål**
2. **Refleksionspitstop I**
3. **Teoretiske overvejelser**
4. **Refleksionspitstop II**
5. **Metodiske overvejelser**
6. **Refleksionspitstop III**
7. **Empiriske data**
8. **Udvalgte observationer**
9. **Refleksionspitstop IV**
10. **Konklusioner**

# Indledning

As HBR notes: "Data... reveals **what** people do, but not **why** they do it."

□ *"...data mining does not equate to developing "customer intelligence." Human behavior is nuanced and complex, and no matter how robust it is, data can provide only part of the story. Desire and motivation are influenced by psychological, social, and cultural factors that require context and conversation in order to decode.  
Data can reveal new patterns that point a firm in the right direction, but it can't indicate what to do once there."*

Despite the limitations of data, many organizations and program managers have developed a concerning level of hubris—basing significant business strategies solely on big data analytics **alone**, whilst blinded by what Gerardo Dada refers to as "The Mirage of Data".

# Forskningsspørgsmål

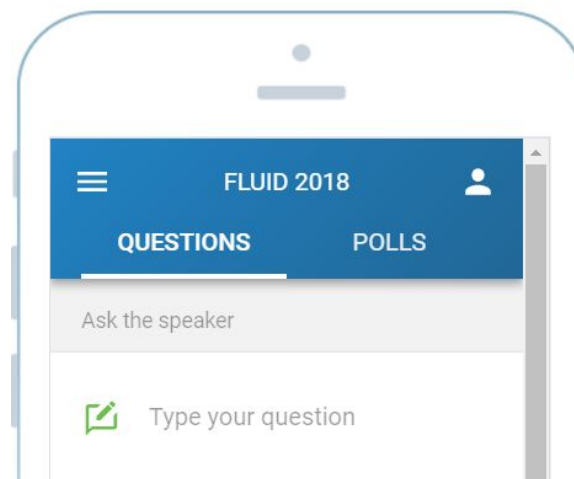
Hvordan kan der etableres et større læringsfokus i Learning Analytics?

I hvilket omfang kan rettevejledninger, skærmoptagelser, besvarelser og selv-evalueringer anvendes i Learning Analytics?

I hvilket omfang kan indsigterne fra kvalitativt orienterede data bidrage til bedre Learning Analytics?

# Refleksionspitstop I

- Find din mobiltelefon eller laptop
- Brug mobilnet eller wifi
- Skriv slido.com i browser
- Indtast koden L400
- Vælg FLUID 2018
- Svar på følgende spørgsmål:



**”Skriv tre ord, der bedst illustrerer din forståelse af Learning Analytics”**

# Teori

“Learning Analytics is the measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs” ([Siemens 2011](#)).

“Learning Analytics is about collecting traces that learners leave behind and using those traces to improve learning” ([Duval 2012](#)).

# Teori

In God we trust. All others must bring data!

Robert Hayden



# Teori

**SOME COMPANIES BELIEVE THAT DATA FROM A LARGE SAMPLE IS MORE RELIABLE THAN A SMALL SAMPLE**

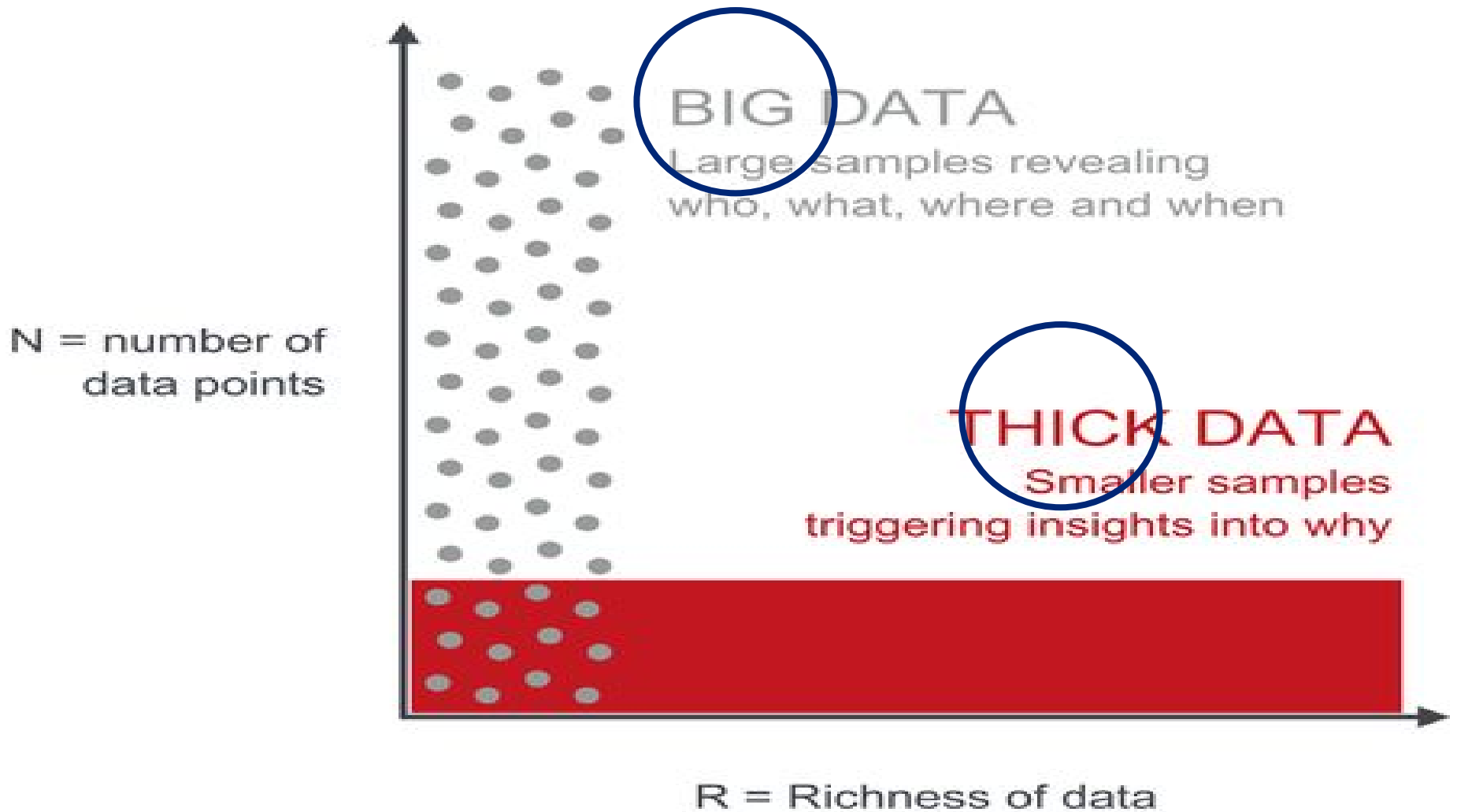
**N = 1,000,000**

**N = 10**



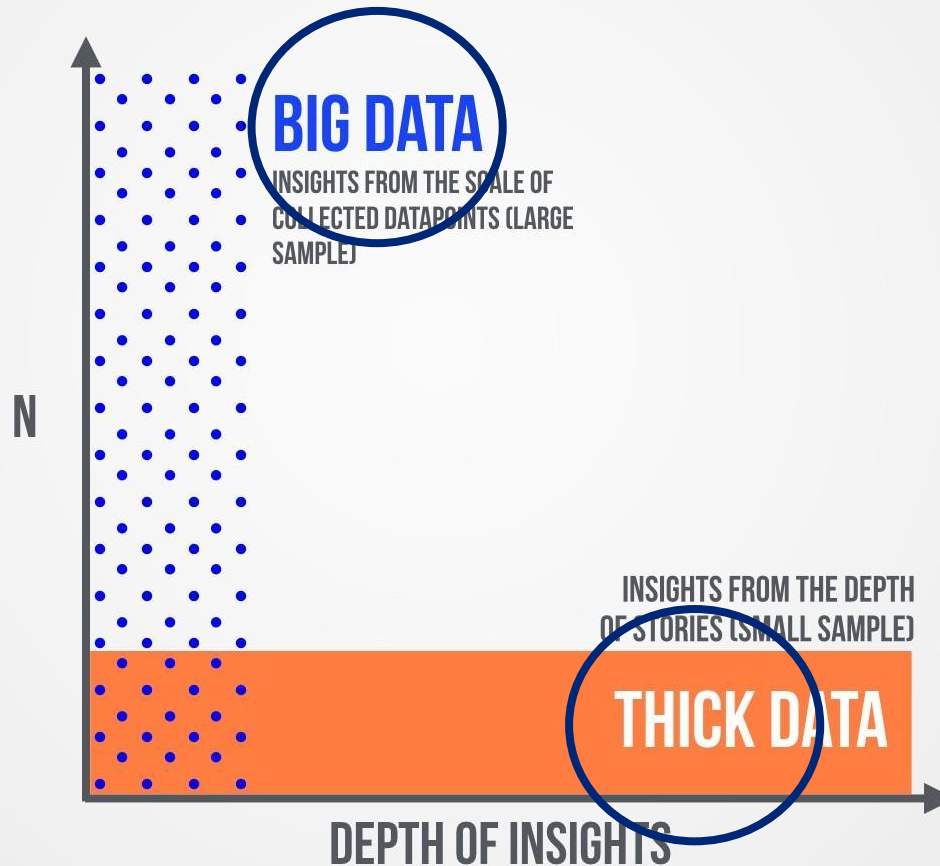
@TRICIAWANG

# Teori



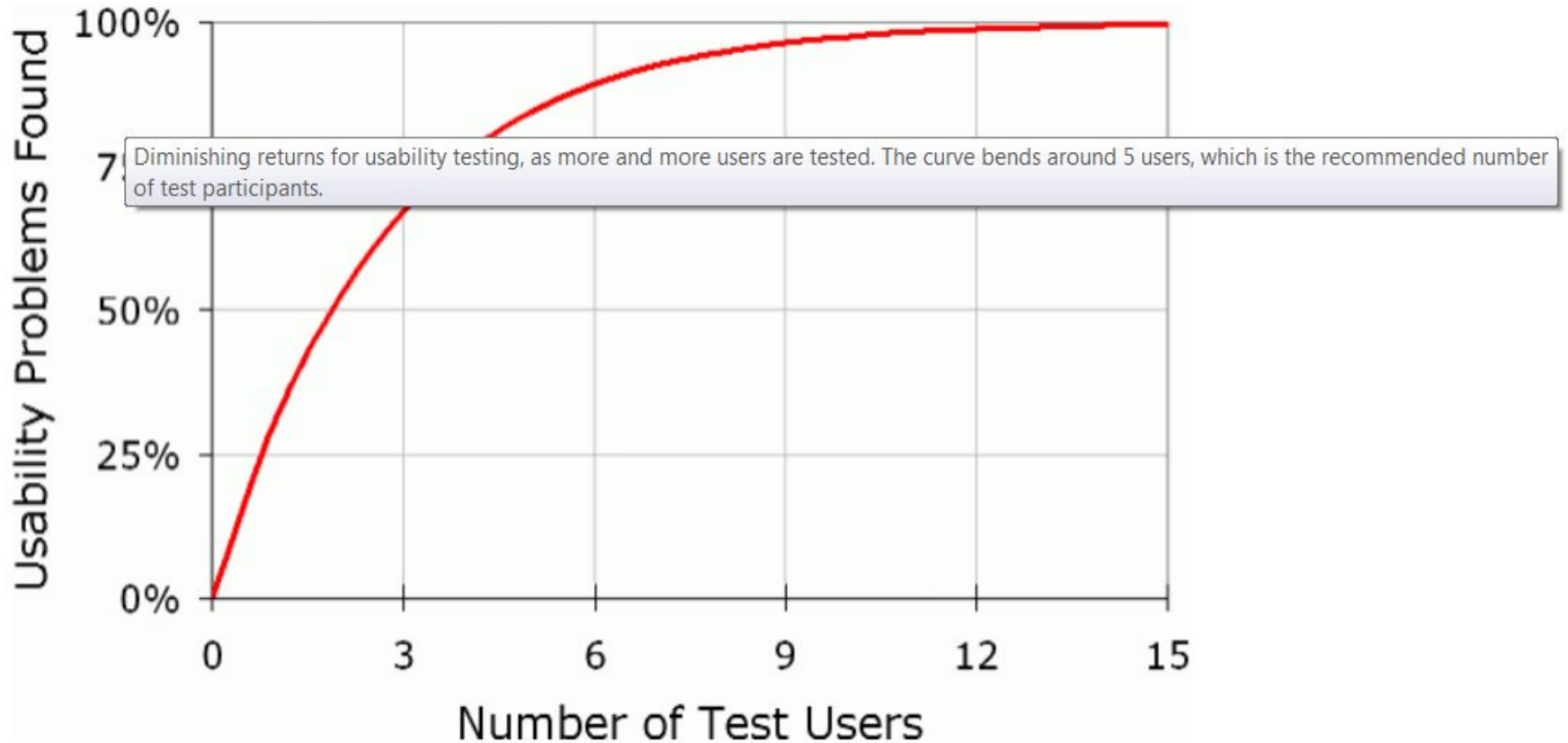
# Teori

TO FORM A COMPLETE PICTURE, BOTH BIG AND THICK DATA ARE CRITICAL BECAUSE THEY PRODUCE DIFFERENT TYPES OF INSIGHTS AT VARYING SCALES AND DEPTHS



@TRICIAWANG

# Teori



[Nielsen 2000](#)

# Teori

Tell me and I forget.  
Teach me and I remember.  
Involve me and I learn.

Benjamin Franklin



Men for mig handler det om at forstå hvorfor og hvordan!

Det handler om den lærende

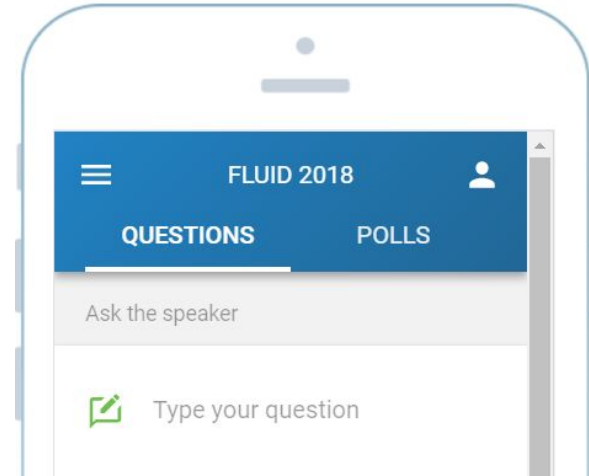
Det handler om læring

Det handler om læringsfeedback

Det handler om læringsprogression

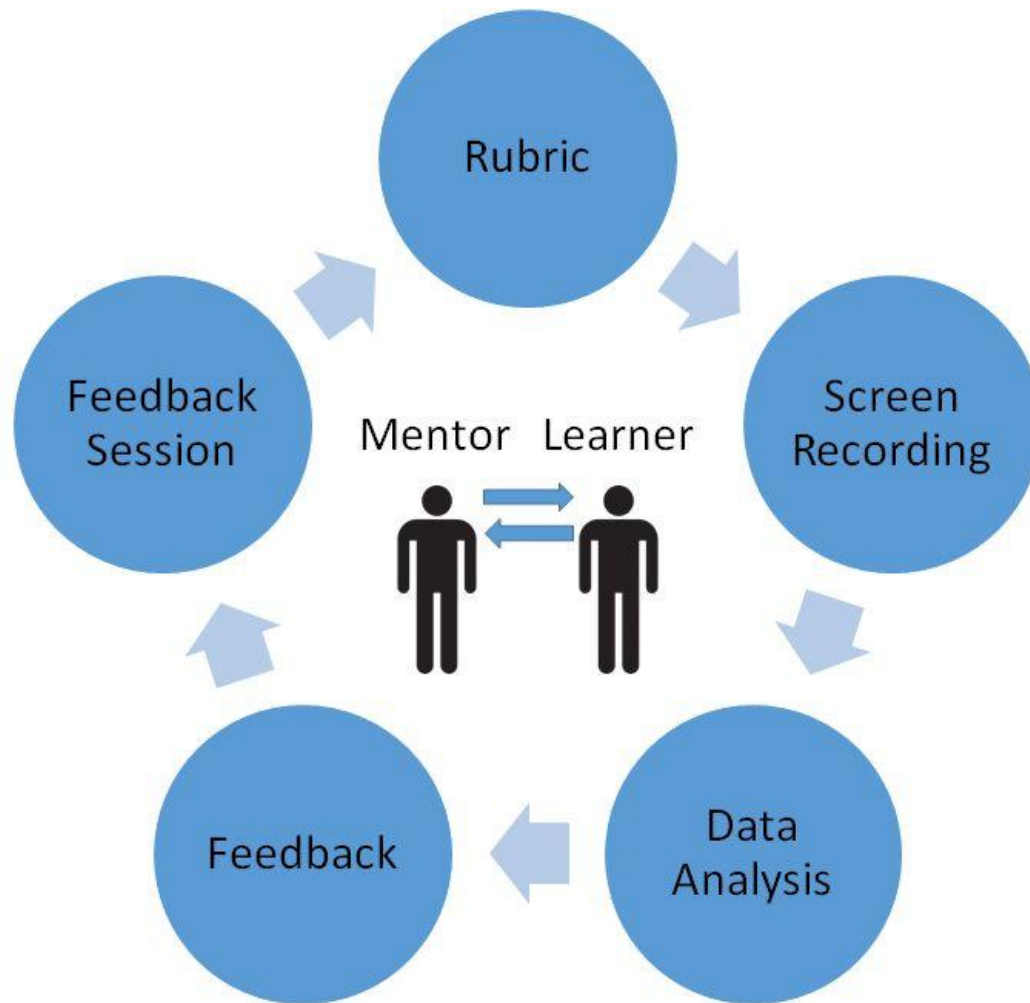
# Refleksionspitstop II

- Find din mobiltelefon eller laptop
- Brug mobilnet eller wifi
- Skriv slido.com i browser
- Indtast koden L400
- Vælg FLUID 2018
- Svar på følgende spørgsmål:



**”Skriv tre ord, der bedst illustrerer din mening om, hvad der mangler i Learning Analytics”**

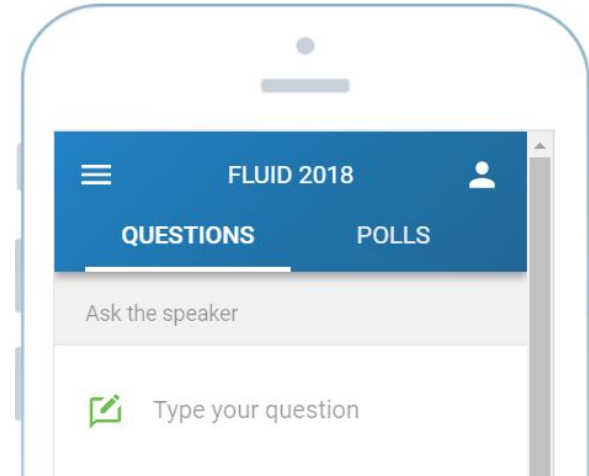
# Qualitative Learning Analytics





# Refleksionspitstop III

- Find din mobiltelefon eller laptop
- Brug mobilnet eller wifi
- Skriv slido.com i browser
- Indtast koden L400
- Vælg FLUID 2018
- Svar på følgende spørgsmål:



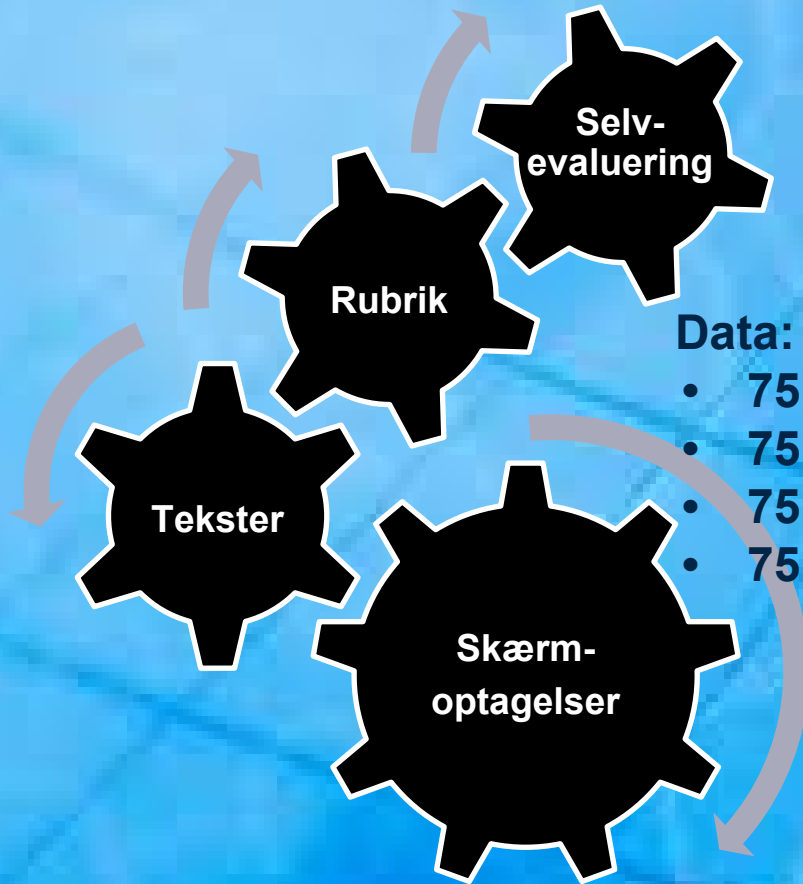
**”Skriv tre ord, der bedst illustrerer din mening om Qualitative Learner Analytics”**

# Metodiske overvejelser

## Proces:

- Givet forsøgspersoner instruktioner
- Givet dem en case
- Bedt dem tænde deres screen recorder
- Bedt dem lave casen
- Bedt dem uploade skærmoptagelse
- Bedt dem uploade besvarelse
- Bedt dem selvevaluere deres performans

# Empiri



## Data:

- 75 skærmoptagelser
- 75 besvarelser
- 75 selvevalueringer
- 75 feedback sheets

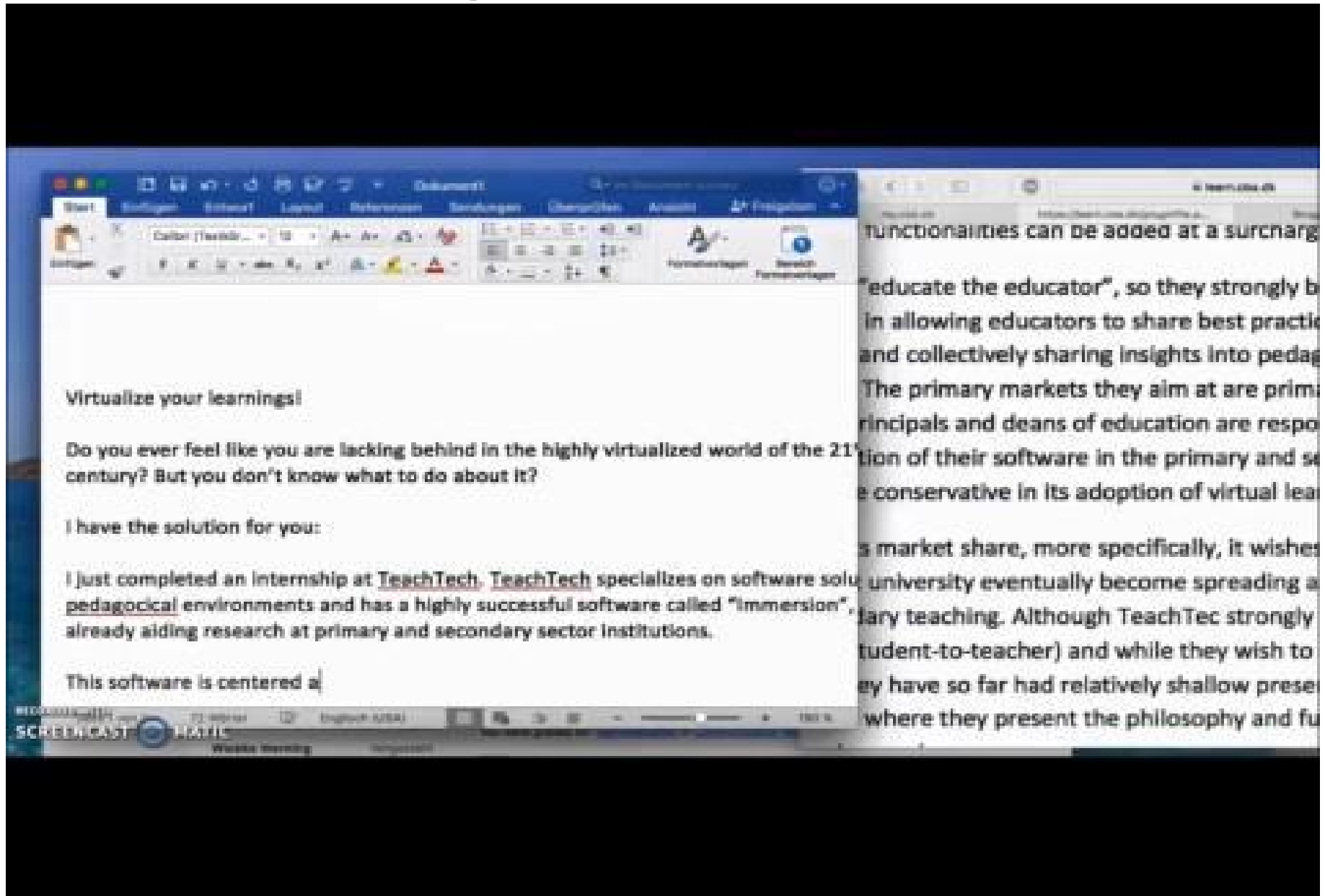
# Rubrik

## B L O G P O S T W R I T I N G R U B R I C

Communication Management 2017 - MSc - 1<sup>st</sup> semester

	Below Standard	Approaching Standard	At and Above Standard
To which extent was the overall message conveyed? (That <i>Immersion</i> is a fantastic tool for university teachers)			
To which extent was the overall message tailored for the segment? (That the message was targeted at university teachers etc.)			
To which extent did the message use the following items? (Headline, Introduction, Sub-Headlines, Body, Conclusion and Call-to-Action)			
To which extent was the article structured, coherent, cohesive and concise? (Cohesion and coherence)			
To which extent was the language used in the article correct? (Lexical, syntactical and textual correctness)			
To which extent did the author use copywriting techniques? (Such as tilting the perspective, using stunning leads or other methods)			

# Skærmoptagelse



# Tekst



## *Virtualize your learnings!*

Do you ever feel like you are lacking behind in the highly virtualized world of the 21<sup>st</sup> century? But you don't know what to do about it?

I have the solution for you: TeachTech's learning software "Immersion"

But what is TeachTech? TeachTech specializes on **software solutions for pedagogical environments** and has a highly successful software called "Immersion", who is already aiding research at primary and secondary sector institutions.

This software is centered around the idea of "**educating the educator**" and is designed to share best practices within the pedagogical practice, while simultaneously handling all file formats needed for your research.

If you want to get more familiarized with the software, visit the website:

<http://www.teachtechsolutions.co.uk>

or send me a message here on LinkedIn and I will be happy to reply!

Visit TeachTechs LinkedIn Page here: <https://www.linkedin.com/company/10659558/>

# Selv-evaluering

The screenshot shows a Chrome browser window with the URL <https://learn.cbs.dk/mod/quiz/attempt.php?attempt=49524>. The page is for a self-evaluation quiz. The header includes the CBS logo and navigation links for Home, Courses, and Tools. The main content area shows a question about mood, with a scale from 1 (Very bad) to 5 (Very good). A 'Next page' button is visible at the bottom of the question area. The right side of the page has a 'QUIZ NAVIGATION' section with buttons for questions 1 through 8, and a 'Finish attempt ...' link.

English (en) Welcome Johanna (116067) Log out

**CBS** COPENHAGEN BUSINESS SCHOOL  
HANDELSHØJSKOLEN

Home Courses Tools

Home ► CICO01008U.LA.E17 ► Text Production Experiment - Communication Management ► Self-evaluation

**Question 1**  
Not yet answered  
Marked out of 1.00  
Flag question

On a scale from 1-5, where 1 is Very bad and 5 is Very good, indicate your mood today.

Select one:

- 1. 1 - Very bad
- 2. 2 - Bad
- 3. 3 - OK
- 4. 4 - Good
- 5. 5 - Very good

Next page

**QUIZ NAVIGATION**

1 2 3 4 5 6  
7 8

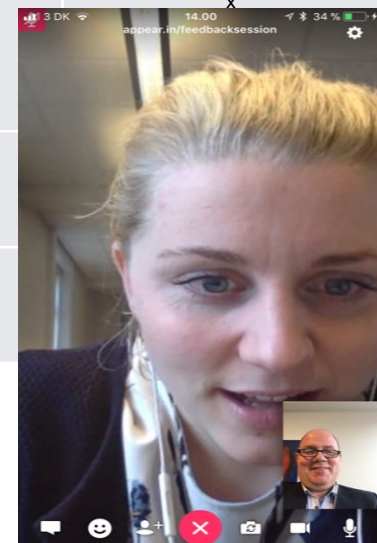
Finish attempt ...

# Learner Feedback Session

## RUBRIC FEEDBACK

Communication Management 2017 - MSc - 1<sup>st</sup> semester

	Below Standard	Approaching Standard	At and Above Standard
To which extent was the overall message conveyed? (That Immersion is a fantastic tool for university teachers)			X
To which extent was the overall message tailored for the segment? (That the message was targeted at university teachers etc.)			X
To which extent did the message use the following items? (Headline, Introduction, Sub-Headlines, Body, Conclusion and Call-to-Action)			X
To which extent was the article structured, coherent, cohesive and concise? (Cohesion and coherence)			X
To which extent was the language used in the article correct? (Lexical, syntactical and textual correctness)		X	
To which extent did the author use copywriting techniques? (Such as tilting the perspective, using stunning leads or other methods)		X	



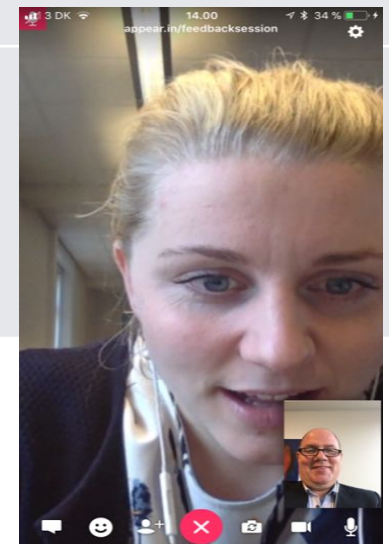


# Learner Feedback Session

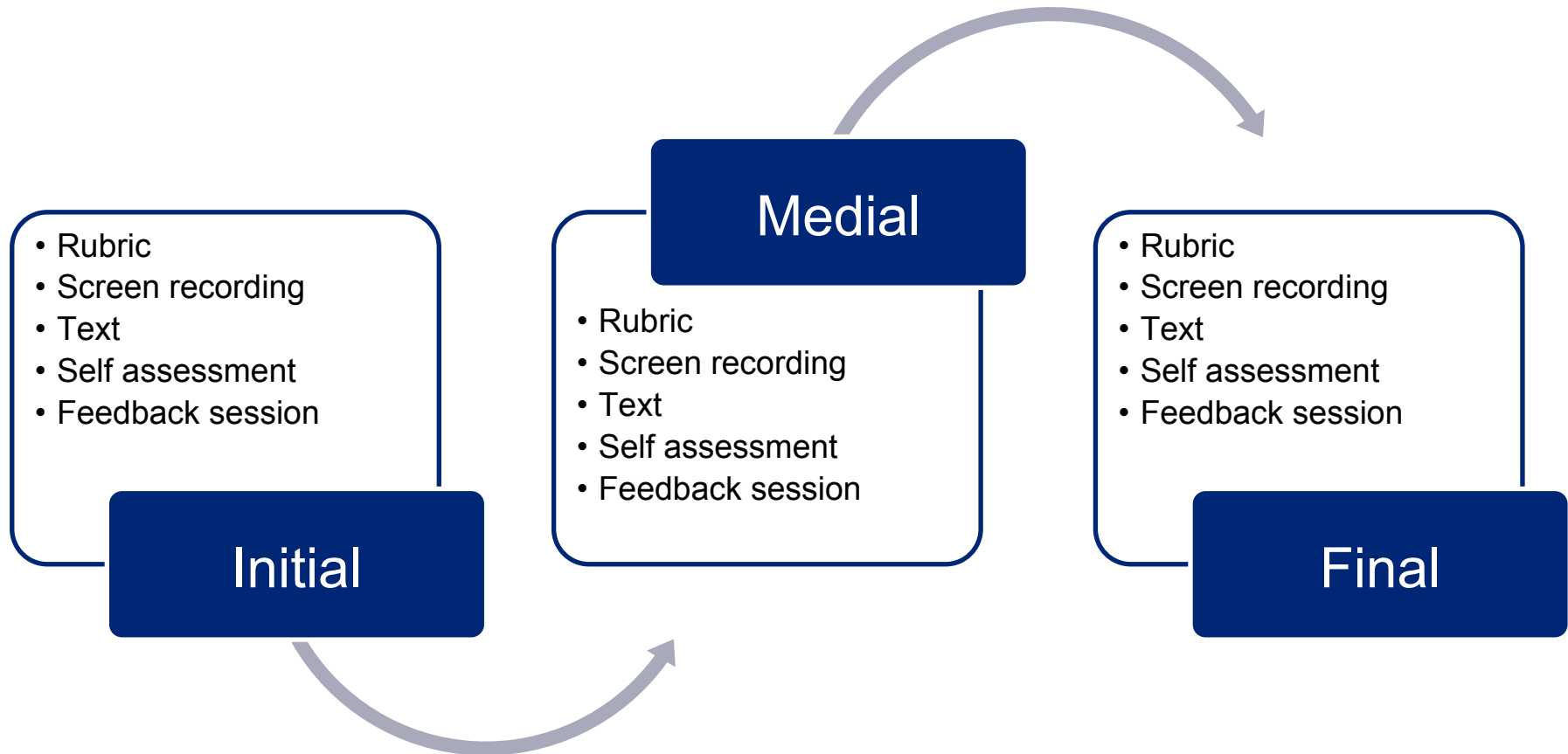
## DATA ANALYSIS FEEDBACK SHEET

Communication Management 2017 - MSc - 1<sup>st</sup> semester

Use of tools	<p>You seem to have a high command of different IT tools. You navigate effectively between and to and from Word, Internet sources and reference works. You arrange windows vertically, which allows you to concentrate on both assignment text and your text (2:58).</p> <p>Tip 1: You might consider arranging open windows horizontally.</p>
Writing process	<p>You seem to have a rather effective writing process, where you start from the top and you write in one consecutive sequence. You do not write, delete and write.</p> <p>Tip 2: You should use the automatic spellchecker when writing.</p>
Editing process	<p>You also seem to have a rather effective editing process. You start editing the text once you have completed the text and you bold relevant headlines (7:32). In your editing process, you add information and relevant icons etc.</p> <p>Tip 3: You should remember to spellcheck the document.</p>
Language (lexis and syntax)	<p>Your language is satisfactory, however, I would like to give you the following tips</p> <p>Tip 4: Check your use of prepositions (specialize in)</p> <p>Tip 5: Check your use of relative pronouns (Immersion, who)</p> <p>Tip 6: Check your use of formality level (if you want to get more familiarized with)</p> <p>Tip 7: Check your use of modality verbs, especially future tense "will" (I will be happy to)</p> <p>Tip 8: Check your use of apostrophes in possessives (Visit TeachTechs LinkedIn page)</p>

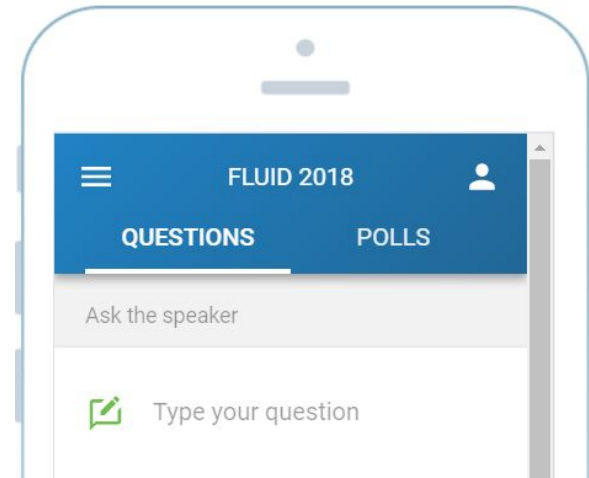


# Proces ift. studerende - semester



# Refleksionspitstop IV

- Find din mobiltelefon eller laptop
- Brug mobilnet eller wifi
- Skriv slido.com i browser
- Indtast koden L400
- Vælg FLUID 2018
- Svar på følgende spørgsmål:



**”Skriv tre ord, der bedst illustrerer din mening om den foreslåede metode i Qualitative Learner Analytics”**

# Indsigter og konklusioner

En kvalitativt orienteret tilgang til hvordan og hvorfor den lærende gør som han/hun gør er særdeles giver gode indsigter

En struktureret anvendelse af rettevejledninger, skærmoptagelser, case-besvarelser og selv-evalueringer giver gode indsigter

Indsigter fra kvalitativt orienterede forsøg kan kvalificere anvendelse af Learning Analytics

**På denne måde kan vi  
bruge Learning  
Analytics til noget**

**Spørgsmål?**

# Litteratur

- Azevedo, R., & Hadwin, A. F. (2005). Scaffolding self-regulated learning and metacognition: Implications for the design of computer-based scaffolds. *Instructional Science*, 33(5–6), 367–379.
- Bernhardt, R. K. & Simonsen, H. K. (2017). Learning Analytics: Good Cop versus Bad Cop. Presentation at OEB 2017.
- Daft, R.L., and Lengel, R.H. (1984) "Information Richness: A New Approach to Managerial Behavior and Organizational Design," in: *Research in Organizational Behavior*, L.L. Cummings and B. M. Staw (eds.), JAI Press, Homewood, IL, pp.191-233.
- Greller, W., & Drachsler, H. (2012). Translating Learning into Numbers: A Generic Framework for Learning Analytics. In: *Educational Technology & Society*, 15 (3), 42–57.
- Järvelä, S., Järvenoja, H., Veermans, M. (2008): Understanding the dynamics of motivation in socially shared learning. In: *International Journal of Educational Research*, Volume 47, Issue 2, 2008, Pages 122-135.
- Knight, David B., Brozina, Cory & Novoselich, Brian (2016). An investigation of first-year engineering student and instructor perspective of learning analytics approaches. In: *Journal of Learning Analytics*, 3(3), 215–238.
- Nielsen, J. (2000). Why You Only Need to Test with 5 Users. In: <https://www.nngroup.com/articles/why-you-only-need-to-test-with-5-users/>
- Nortvig, Anne-Mette (2016). Learning analytics som udgangspunkt for refleksion over didaktisk design i blended learning. In: *Læring & Medier (LOM) – nr. 16 – 2016*, 1-21.
- Sclater, Nial, Peasgood, Alice, & Mullan, Joel (2016). Learning Analytics in Higher Education. A review of UK and international practice. Full report. JISC.
- Siemens, G. (2011). Learning and Knowledge Analytics. In: <http://www.learninganalytics.net/?p=131>