

# Peer Review as a Quality Management Tool

Embedded in an Inquiry-based Learning Scenario

1. Background
2. Learning Setting
3. Research Design
4. Results and Discussion



# Background

Magdeburg-Stendal University

University of Linz



Linz

Magdeburg

Stendal





**JKU**

**JOHANNES KEPLER  
UNIVERSITY LINZ**







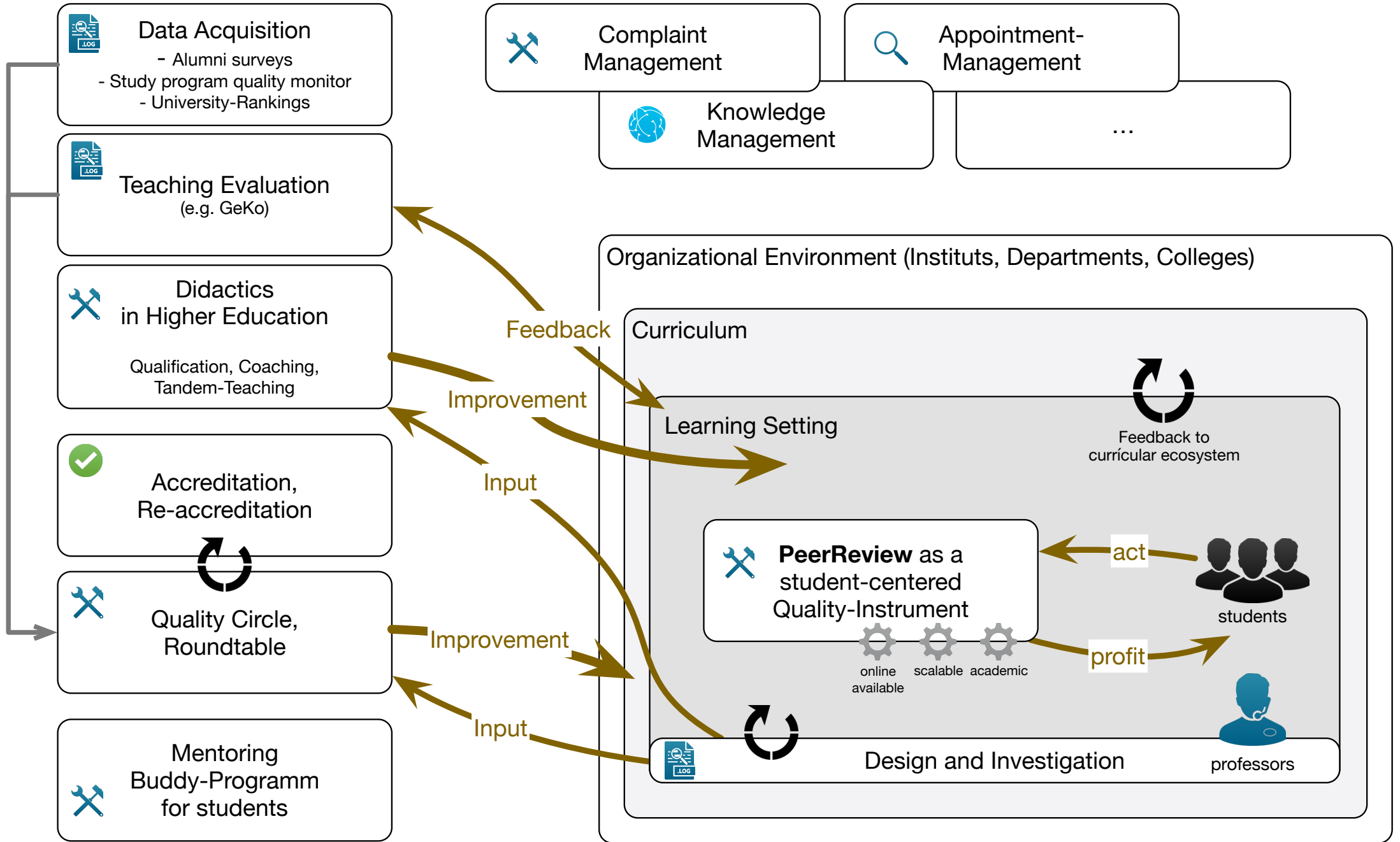
# Learning setting

Quality management system

Scientific Paper Writing Course

Research Process

# QM system in HE





# Scientific Paper Writing course

- 4 courses & 3 Master programs:



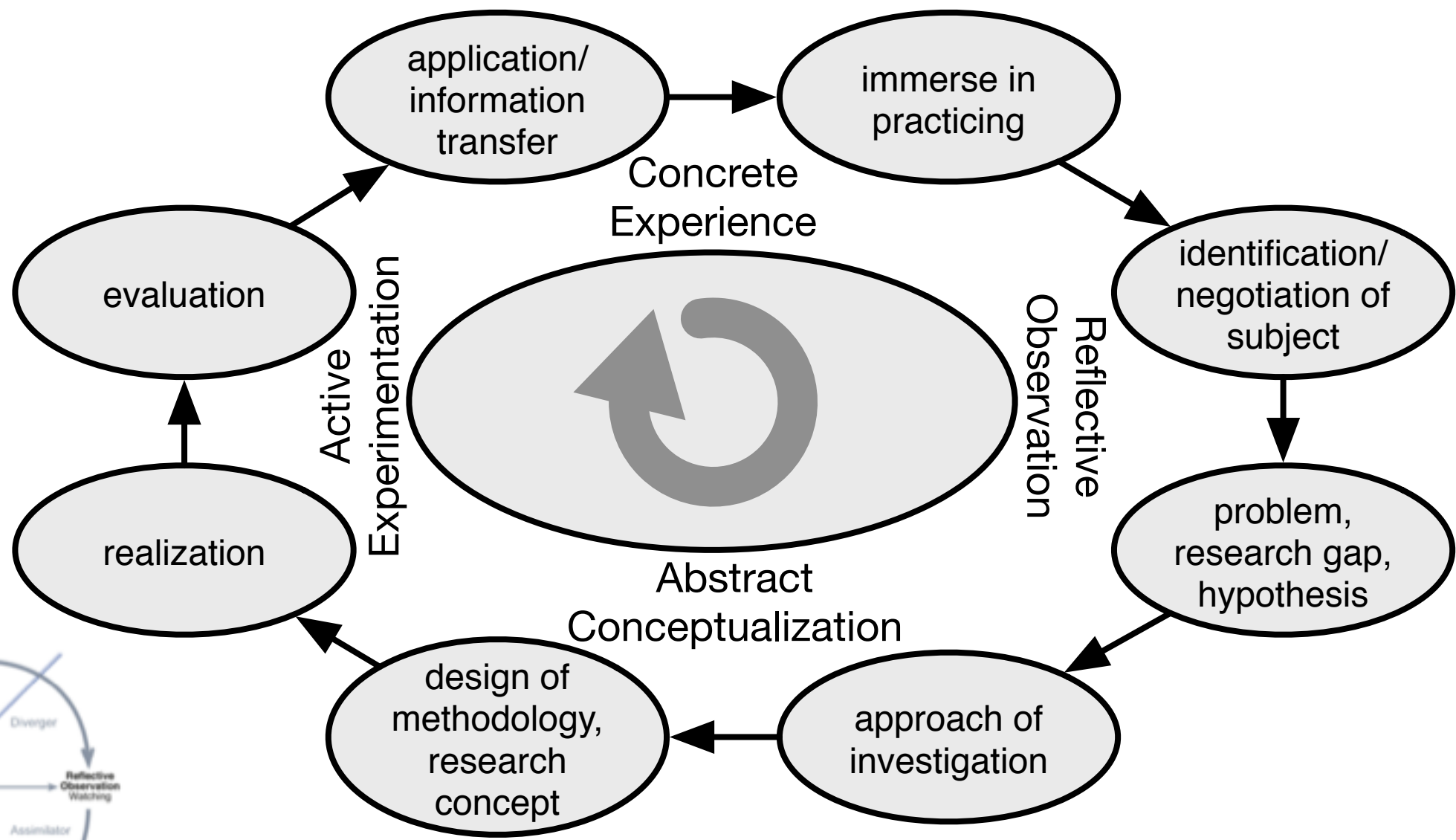
CROSS MEDIA



Designed for professionals, high technical affinity, media competency

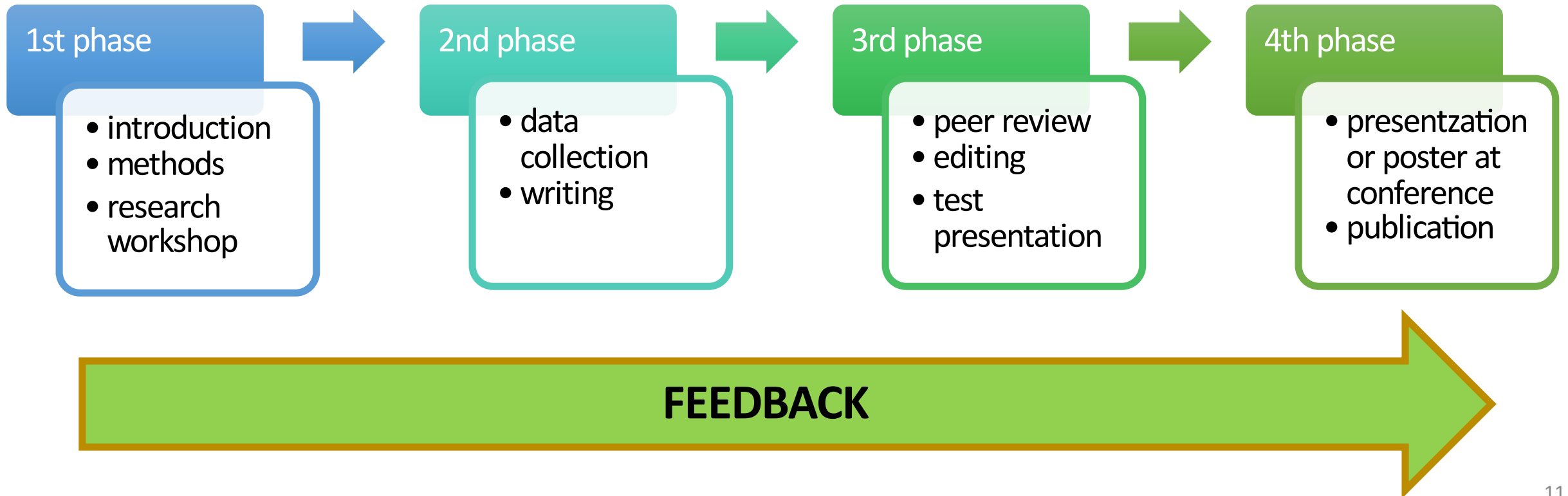
- 13 interuniversity learning groups
- Special incentive:  
Participation and presentation at CrossMedia Conference #TCCM,  
publication in conference proceedings

Wildt, J.:  
 Forschendes  
 Lernen: Lernen im  
 „Format“ der  
 Forschung. journal  
 hochschul-didaktik,  
 20(2), 2009, S 4-7



Kolb's Learning Cycle synchronised with Wildt's Research Cycle

# Research process





# 1st phase

MEd General Room - 2016 (Collaboration) - Adobe Connect

Meeting   Layouts   Pods   Audio

Video (3)   Start

Share 601 - chris   Request Control

RELATIVE COMPETENCY INDEX

10  
7.5  
5  
2.5

FOUR OR MORE COMPETENCE

- Technical Competence (Technical use) This represents simply operating a device.
- Social Competence (Communicational use) This represents better interaction online.
- Information Competence (Information use) This represents developing and managing information.
- Epistemological Competence (Computational use) This represents processing knowledge, often for some automatic information or artificial intelligence.

Frequency of use

I use a Computer	Never	Do
I use a Cell Phone or Smartphone	Never	Do
I use a Tablet (computer)	Never	Do
I use a Gaming console	Never	Do
I use a Wearable computer	Never	Do
I use a computer appliance	Never	Do

Technical use

Confidence   Frequency of Use

- Electronic Document
- Audio Recording
- Multimedia Photo / Video
- Accounts Services
- Manage Other Devices

Communicational use

Confidence   Frequency of Use

Chat (Everyone)

Judith Amesbury: Hi!

ULANA 3: Aha!

Judith Amesbury: Yes

Roland 3: <https://ictin.us>

Judith Amesbury: Yes

ULANA 3: echo

Judith Amesbury: Fantastic!

ULANA 3: Great for trend analysis

Judith Amesbury: Great!

Judith Amesbury: Great idea!

Attendees (6)

chris, Roland 3

Hosts (6)

- ULANA 3
- Roland 2
- Roland 3
- chris
- Judith Amesbury
- Michael A. Herzog

Presenters (0)

Participants (0)

Everyone

12



Research Workshop  
JKU Linz



**BEST PROPOSAL BEWERTUNG**

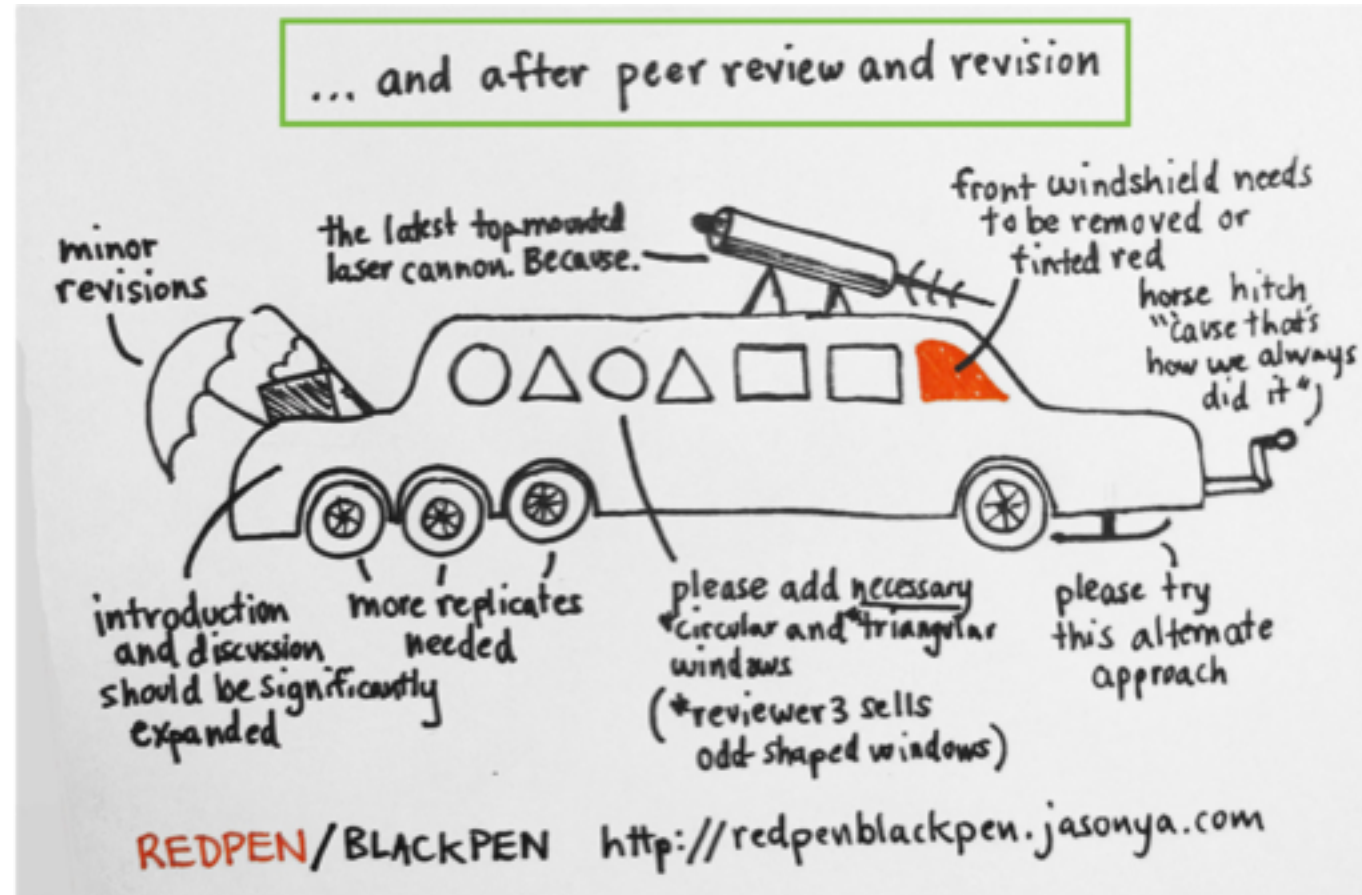
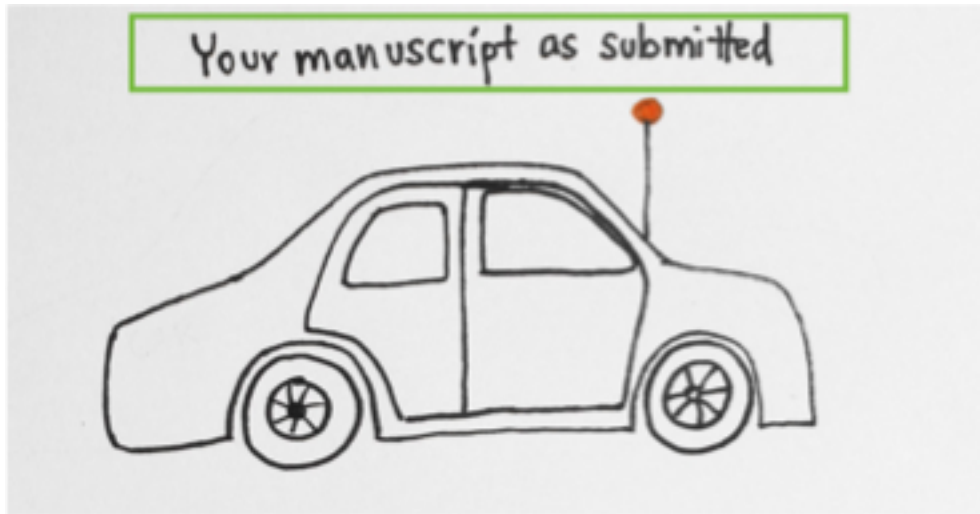
Thema, Innovationspotential (Sterne)	
Methodik, Forschungsdesign (grün)	
Organisation, Zeitplan, Durchführbarkeit (gelb)	

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# 2nd phase



# Peer Review























3rd phase














































# PeerReview (Online-Assessment)

## Closed

Setup phase 	Submission phase 	Assessment phase 	Grading evaluation phase 	Closed
<ul style="list-style-type: none"> <li> Set the workshop description</li> <li> Provide instructions for submission</li> <li> Edit assessment form</li> </ul>	<ul style="list-style-type: none"> <li> Provide instructions for assessment</li> <li> Allocate submissions                             <ul style="list-style-type: none"> <li>expected: 40</li> <li>submitted: 36</li> <li>to allocate: 2</li> </ul> </li> <li> There is at least one author who has not yet submitted their work</li> <li> Open for submissions from Monday, 19 December 2016, 1:00 PM (200 days ago)</li> <li> Submissions deadline: Monday, 9 January 2017, 9:00 AM (179 days ago)</li> <li> Late submissions are allowed</li> <li> Time restrictions do not apply to you</li> </ul>	<ul style="list-style-type: none"> <li> Open for assessment from Monday, 9 January 2017, 10:05 AM (179 days ago)</li> <li> Assessment deadline: Sunday, 22 January 2017, 11:55 PM (166 days ago)</li> <li> Time restrictions do not apply to you</li> </ul>	<ul style="list-style-type: none"> <li> Calculate submission grades                             <ul style="list-style-type: none"> <li>expected: 40</li> <li>calculated: 36</li> </ul> </li> <li> Calculate assessment grades                             <ul style="list-style-type: none"> <li>expected: 40</li> <li>calculated: 36</li> </ul> </li> <li> Provide a conclusion of the activity</li> </ul>	

## Workshop grades report

Visible groups All participants 

First name  / Surname 	Submission  / Last modified 	Grades received	Grade for submission (of 70) 	Grades given	Grade for assessment (of 30) 
	Mit welchen Methoden beeinflussen YouTuber der Beautybranche ihre Zielgruppe auf YouTube? modified on Sunday, 8 January 2017, 9:56 AM	53 (30)  55 (30) 	54 54	66 (30)  65 (30) 	30
	CodeofConduct AMT Peer Review modified on Monday, 9 January 2017, 8:59 AM	68 (30)  57 (30) 	63 56	52 (30)  57 (30) 	30
	Analyse der ethischen Grundsätze (Code of Conduct) der Crowdfunding-Plattform Amazon Mechanical Turk modified on Monday, 9 January 2017, 8:27 AM	47 (30)  53 (30) 	60 56	62 (30)  57 (27) 	28
	No submission found for this user	-	-	-	-
	Learning Analytics modified on Sunday, 8 January 2017, 2:24 PM	52 (30)  57 (27)  42 (24) 	60 51	30 (30)  57 (30) 	30
	Identitätsdiebstahl und Identitätsmissbrauch im Online-Handel modified on Sunday, 8 January 2017, 8:46 PM	30 (30)  30 (30) 	30 38	43 (30)  63 (30) 	30
	Mit welchen Methoden beeinflussen YouTuber der Beautybranche ihre Zielgruppe auf YouTube? modified on Sunday, 8 January 2017, 4:56 PM	62 (30)  37 (30) 	49 54	55 (30)  43 (29) 	30
	Anonymität im Internet modified on Monday, 9 January 2017, 1:16 AM	43 (30)  42 (30) 	43 51	67 (30)  68 (30) 	30

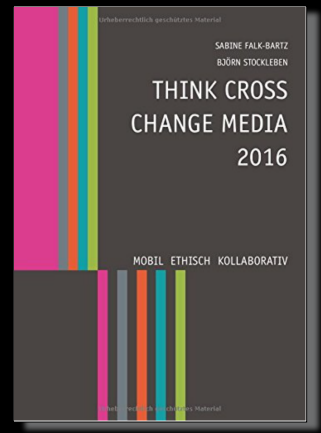
# 4th phase



#TCCM Conference, Magdeburg, Feb. 2017



© Kassra Adloo



# #TCCM Conference, Magdeburg, Feb. 2016

Research Design • Process Model • Conference

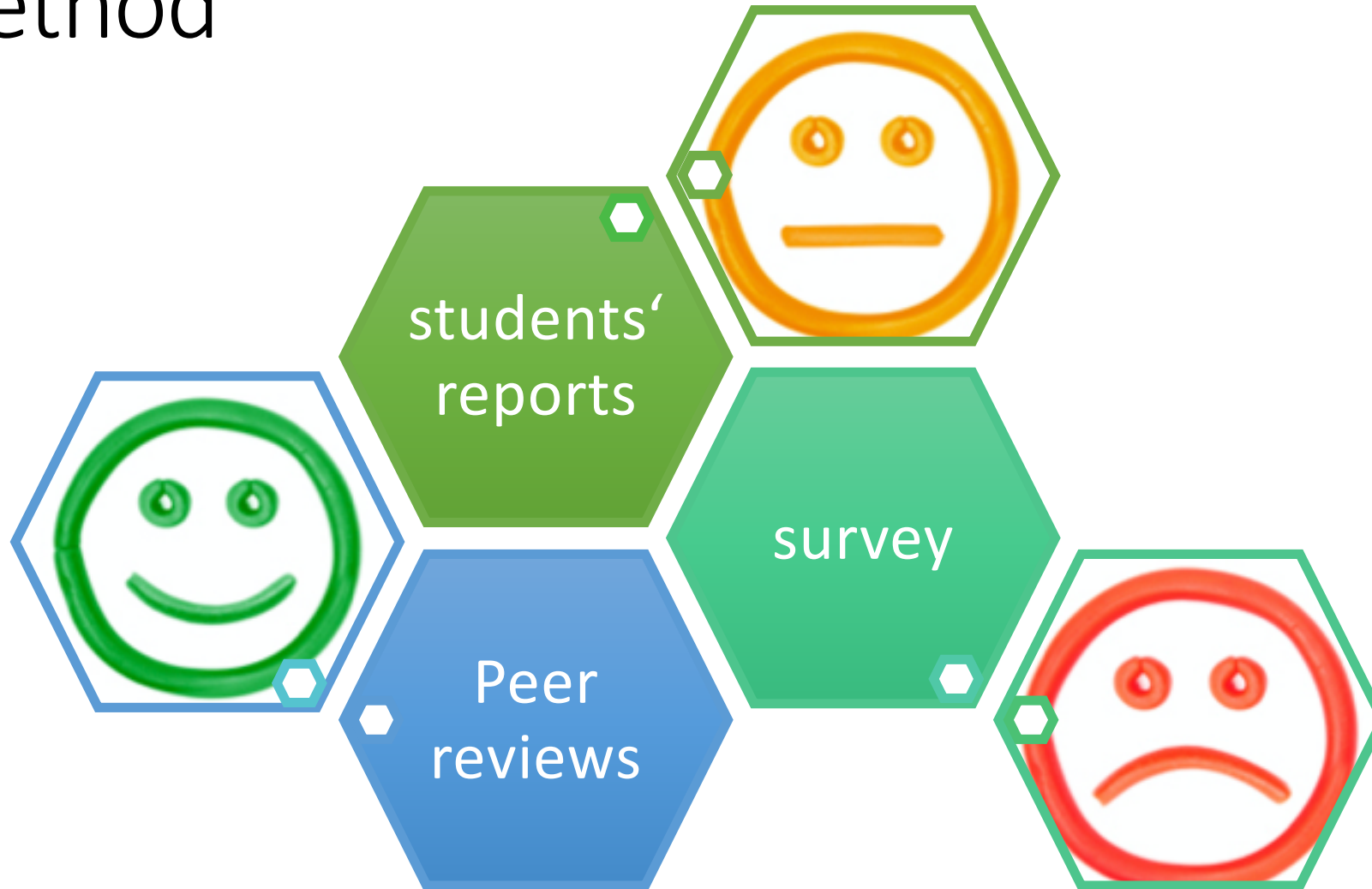
X

# RESEARCH DESIGN

Method



# Method



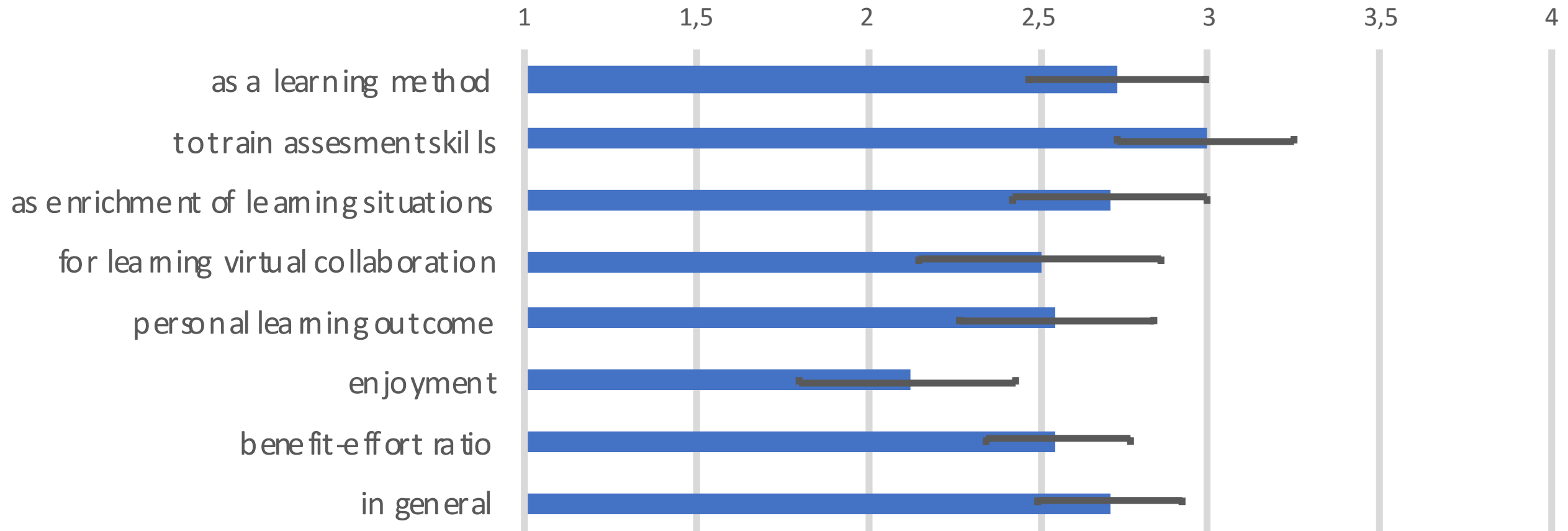


# Results & discussion

Students' feedback

Analysis of the Peer Reviews

# Students' rating of peer review



[1] poor, ... , [4] excellent

# Qualitative evaluation

*»Even though the development of this paper was **more demanding** than any other during my studies, I would recommend the cooperation with the university in Magdeburg for the coming years.*

*The chance to present our paper at the **Cross Media Conference** was great and will not repeat itself too quickly.*

*The **work in virtual teams** was rewarding, even though not always simple, and might turn out helpful in modern professional environments.«*

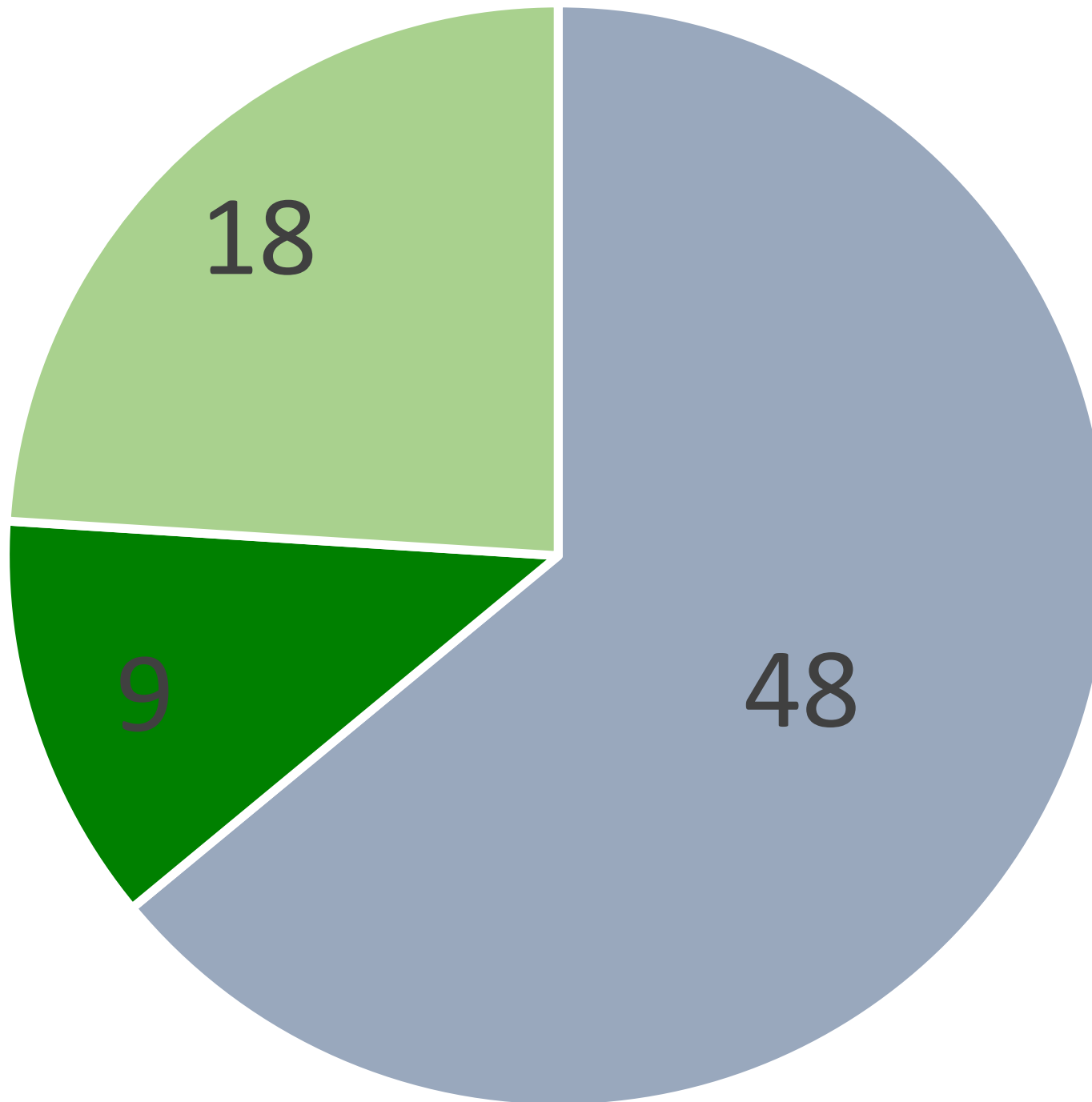


# Students' rating of peer review feedback



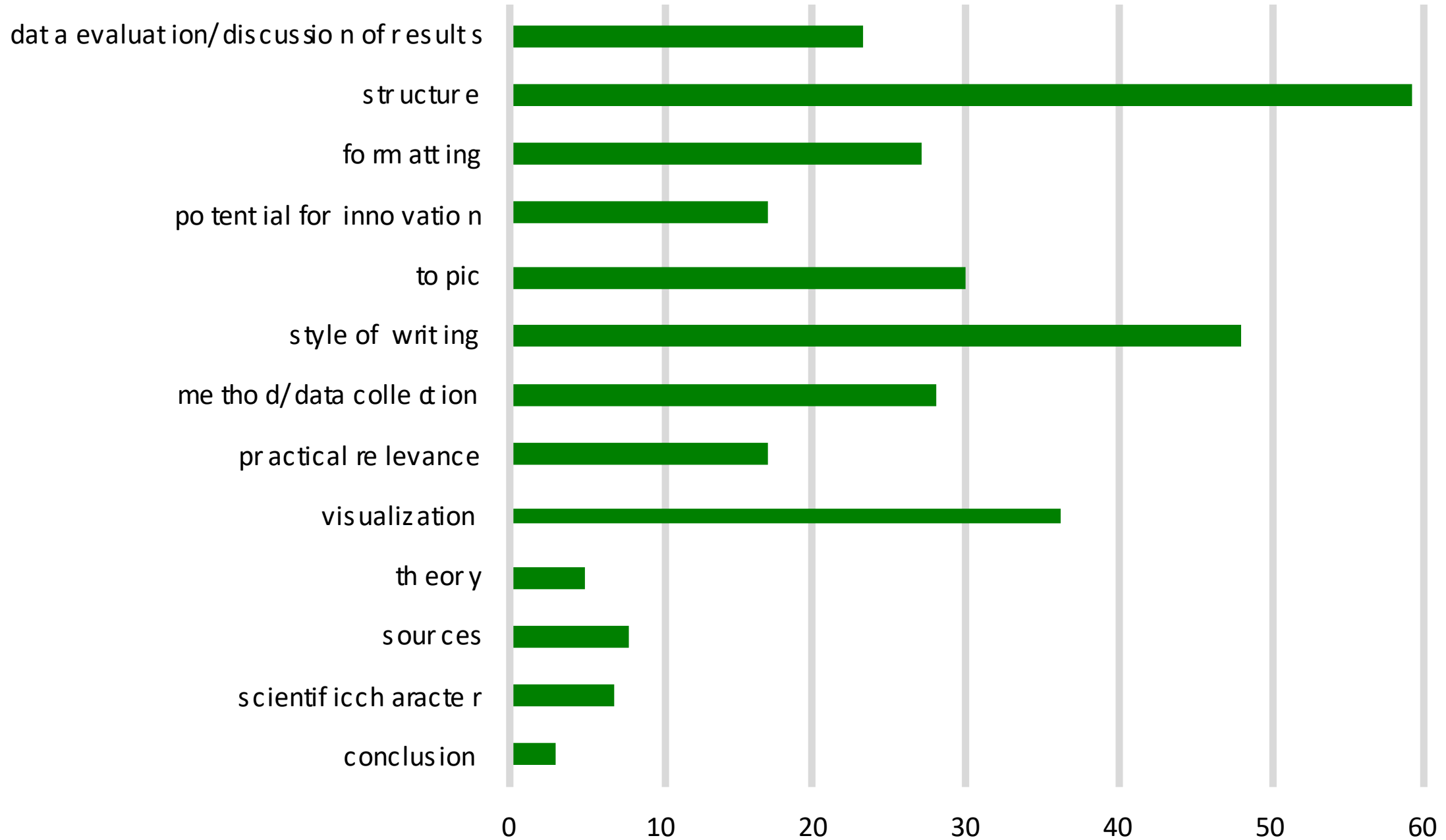
[1] do not agree, ... , [4] agree

# Quality of Peer Review feedback

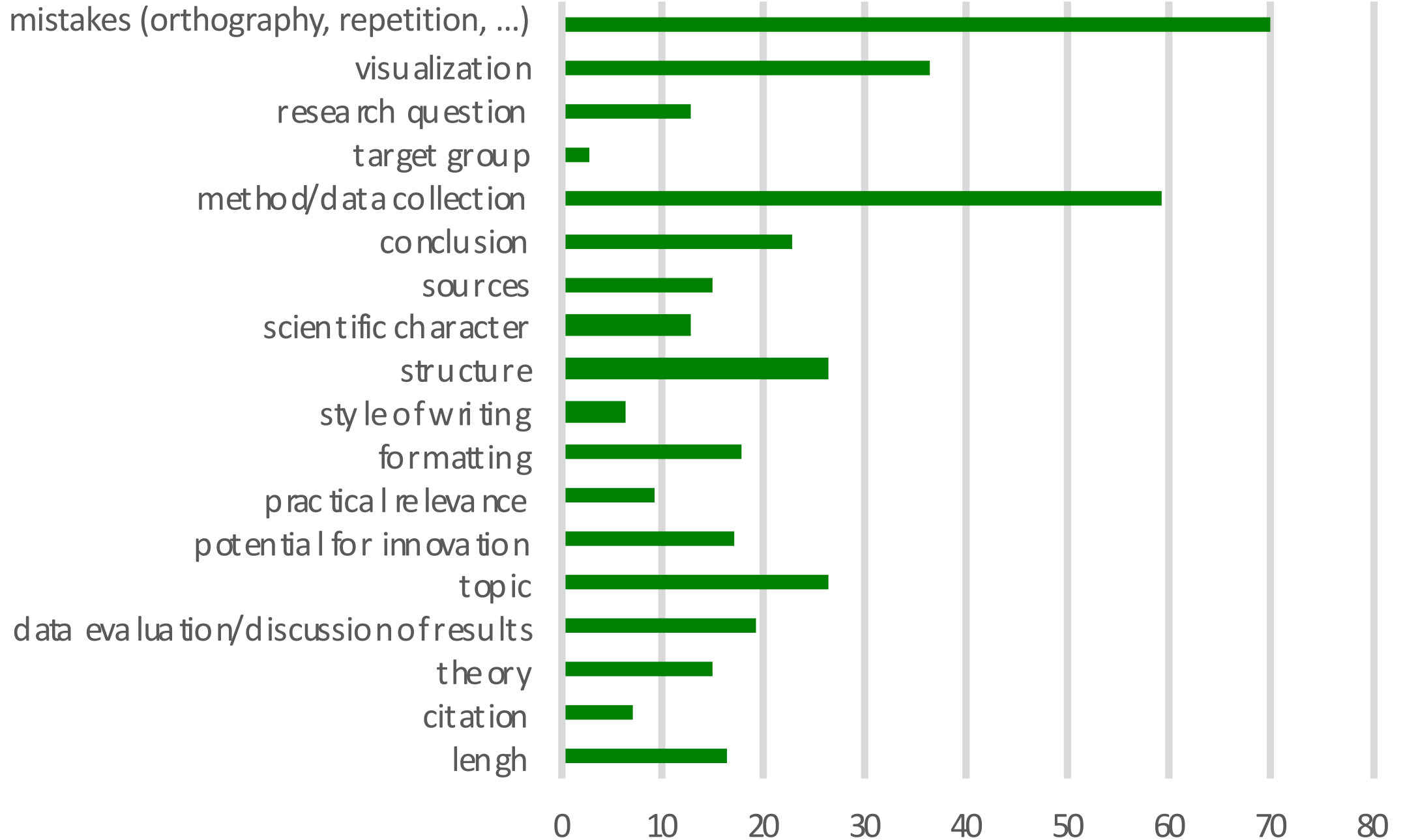


- adequately helpful
- very helpful
- not helpful

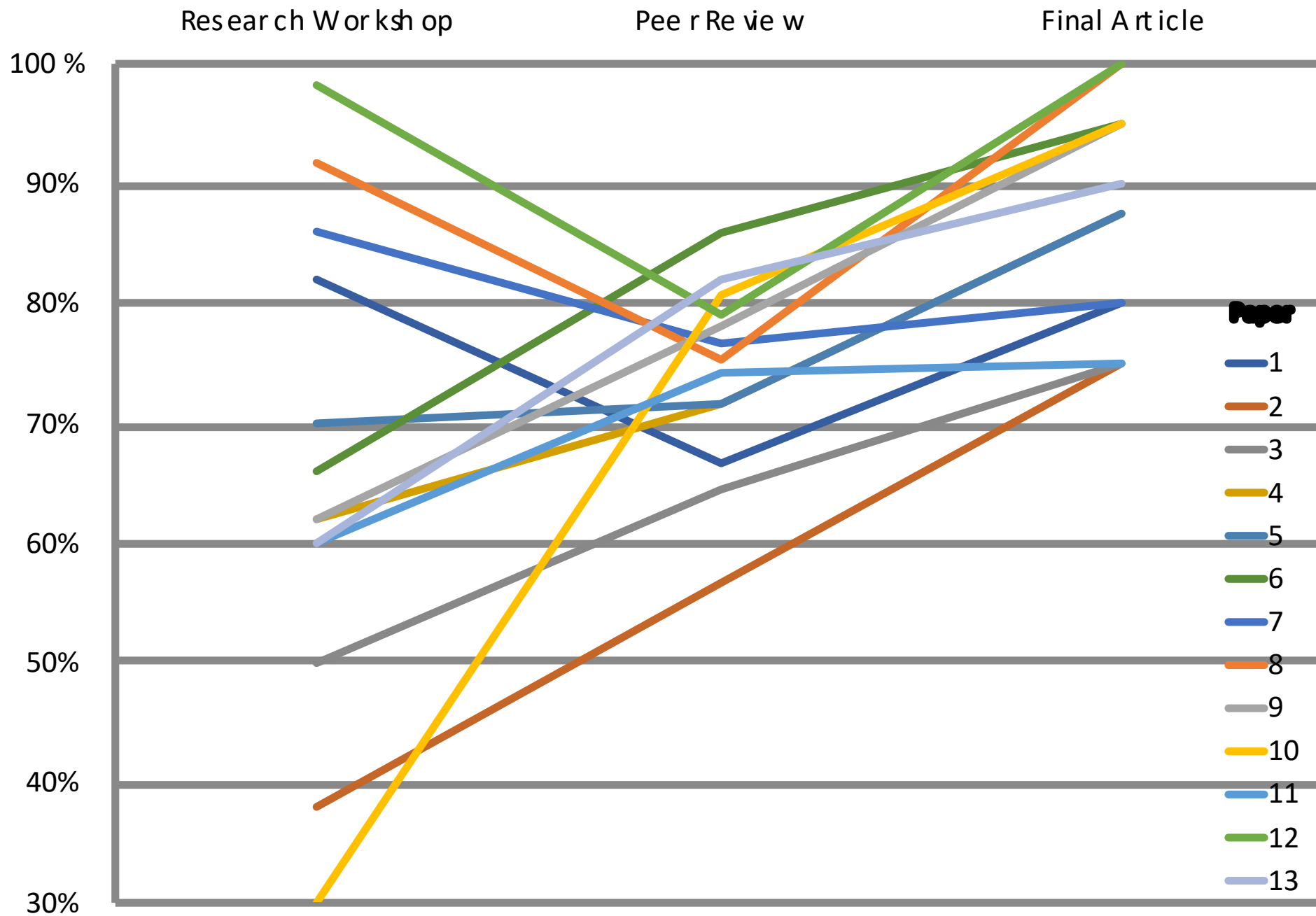
## Positive Feedback



# Negative feedback



# Paper development



# Lessons learned and to be learned

- Peer review:
  - addresses the students' higher cognitive abilities while are directly involved in the evaluation process of peer papers
  - supports the development of teaching and learning and will further improve the quality of the seminar
- Higher focus on methodology and data collection
  - already in the beginning of course
  - more emphasise in the peer review questionnaire
- Students will review only one paper
- Give clearer instruction on how peer review should be done

# Peer Review as QM Tool

- increased pressure on HE to improve service quality and optimize processes
- usual QM tools do not address learning and teaching directly
- didactics and pedagogy can improve learning success faster
- peer review as a student-centered method to measure and improve students learning success
- directly improves students skills



Thanks!!!

WORK

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