

# Self- vs. Peer- Evaluation

Which one is more accurate?

Jon Guest – Aston University

Robert Riegler – Coventry University

# Background

- Importance of developing the independent/self directed learning skills of students in HE
- To become effective independent learners students need to acquire good evaluation skills
- To what extent can they judge the quality of a piece of work?

# Background II

- We have previously focussed on self-evaluation - Guest and Riegler, 2017
  - Students display high level of over-confidence
- Do students have a better understanding of the standards than their self evaluation estimates suggest?
- Do they find it particularly difficult to objectively evaluate the quality of their own work?
- Might they find it easier to accurately judge the quality of work produced by their peers?

# Literature

- Falchikov and Goldfinch (2000)
  - Meta analysis
- Ashenafi (2017)
  - "corroborates the findings of Falchikov and Goldfinch"
- Limited number of papers compare self, peer and tutor scores/grades
  - Sunol, Arbat, Pujol, Feliu, Fraguell and Llado (2016)

# Some research design issues

- Inter-marker reliability
- Gatekeeper activity
- Impression management bias
- Difficult task
  - Mark incentive

# Research Design

- Essay title plus assessment criteria were released 1 month before deadline.
- Essay deadline:
  - Self-evaluation form submitted.
- 1 day after essay deadline:
  - Essays allocated randomly to students using “The Workshop” tool in Moodle.
- 1 week after essay deadline:
  - Peer-evaluation form submitted

# Data

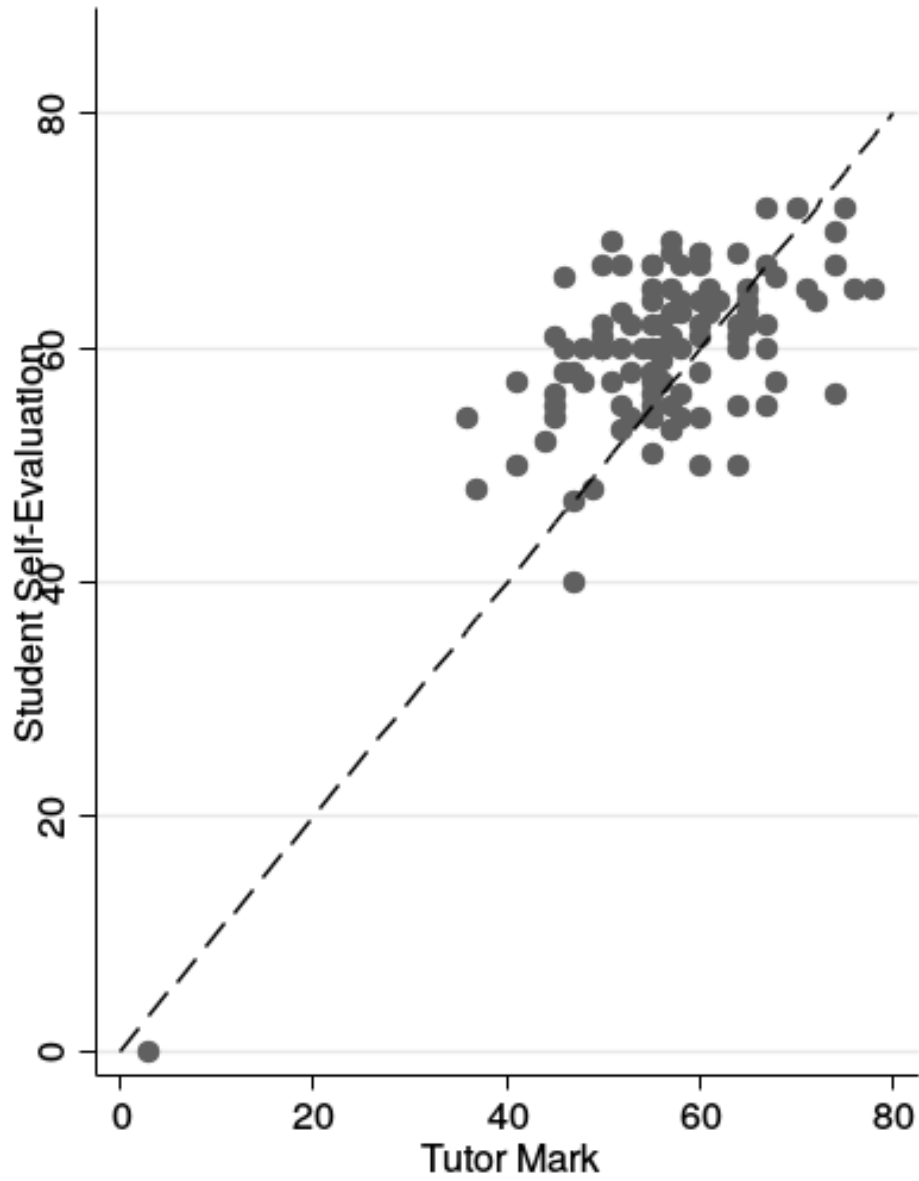
- 131 students, 110 students agreed to participate in the study.
- 77 Male, 33 Female students
- 76 students have UK Education background (A levels or BTEC)
- 8 students repeated the module
- 11 students are ERASMUS/Direct Entry

# Results (First Look)

<b>Variable</b>	<b>Obs</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>	<b>t test</b>
Tutor Mark	110	56.51	9.83	3	78	
Self- Evaluation	110	59.64	8.23	0	72	p = 0.01
Tutor Mark	110	55.54	8.97	25	80	
Peer- Evaluation	110	56.35	12.31	0	87	p = 0.57

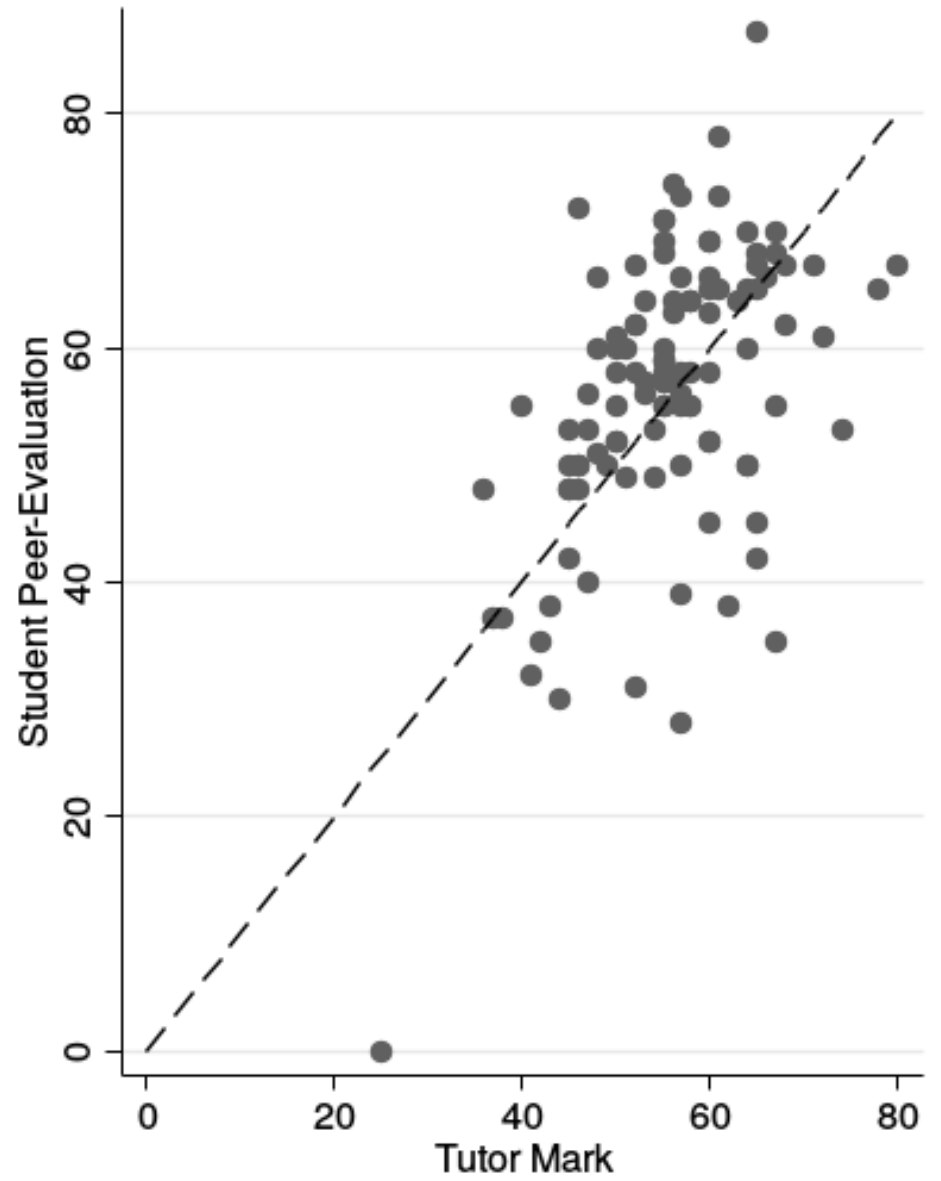


SE vs TM



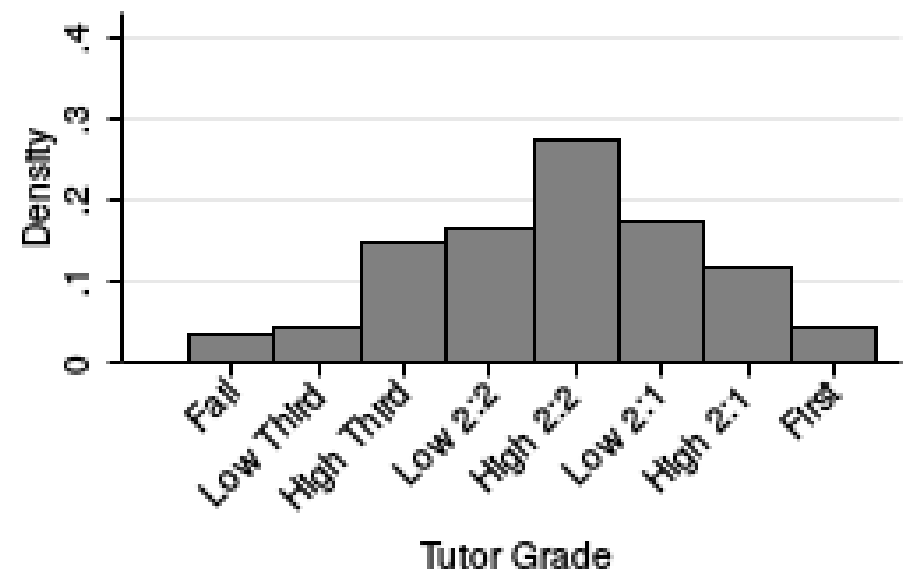
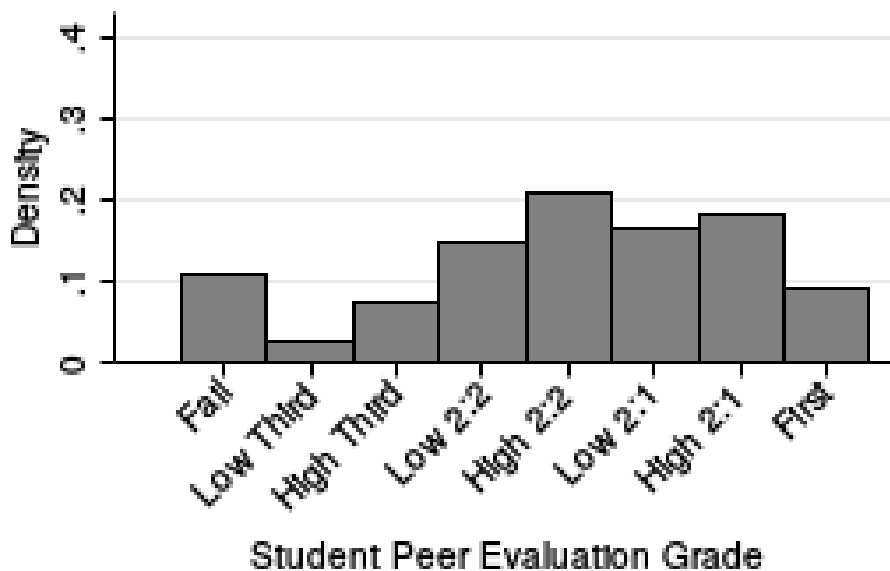
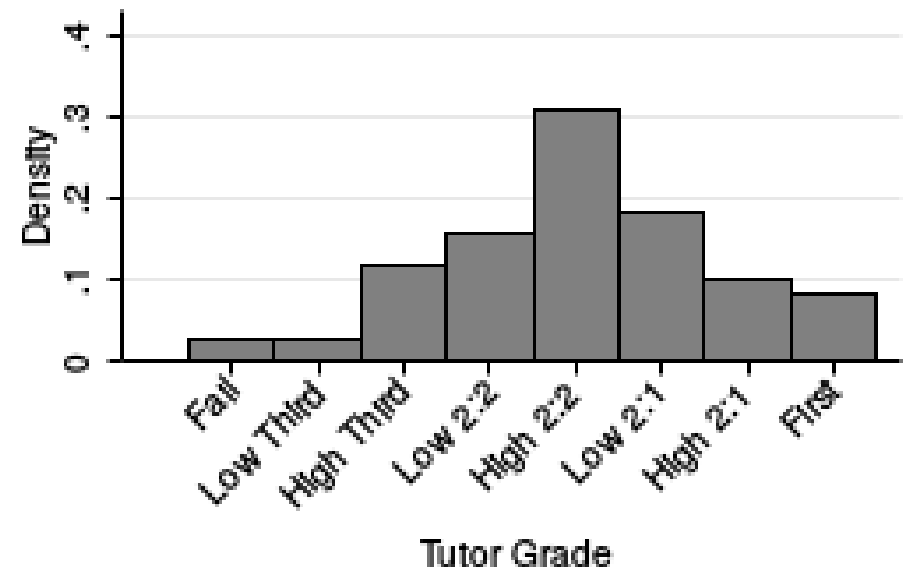
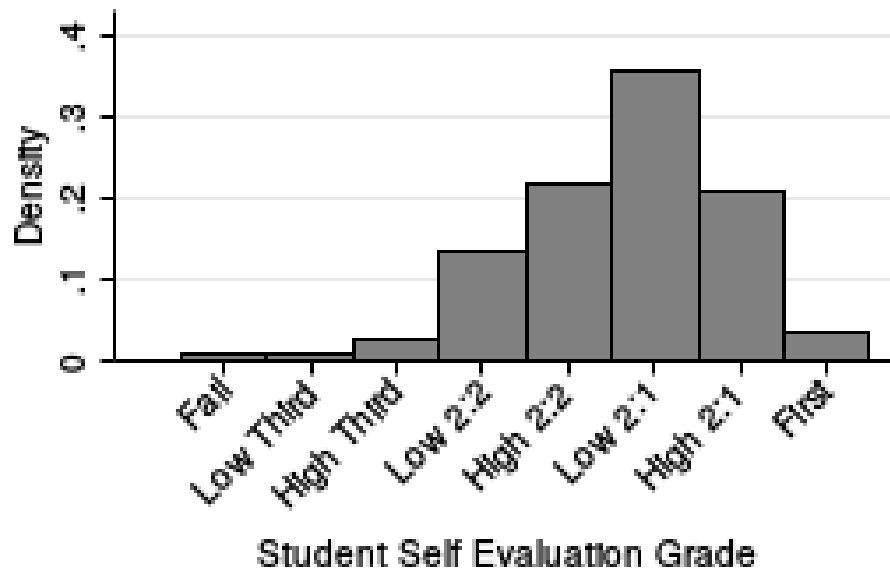
● Student    - - - Tutor Mark = Self-Evaluation

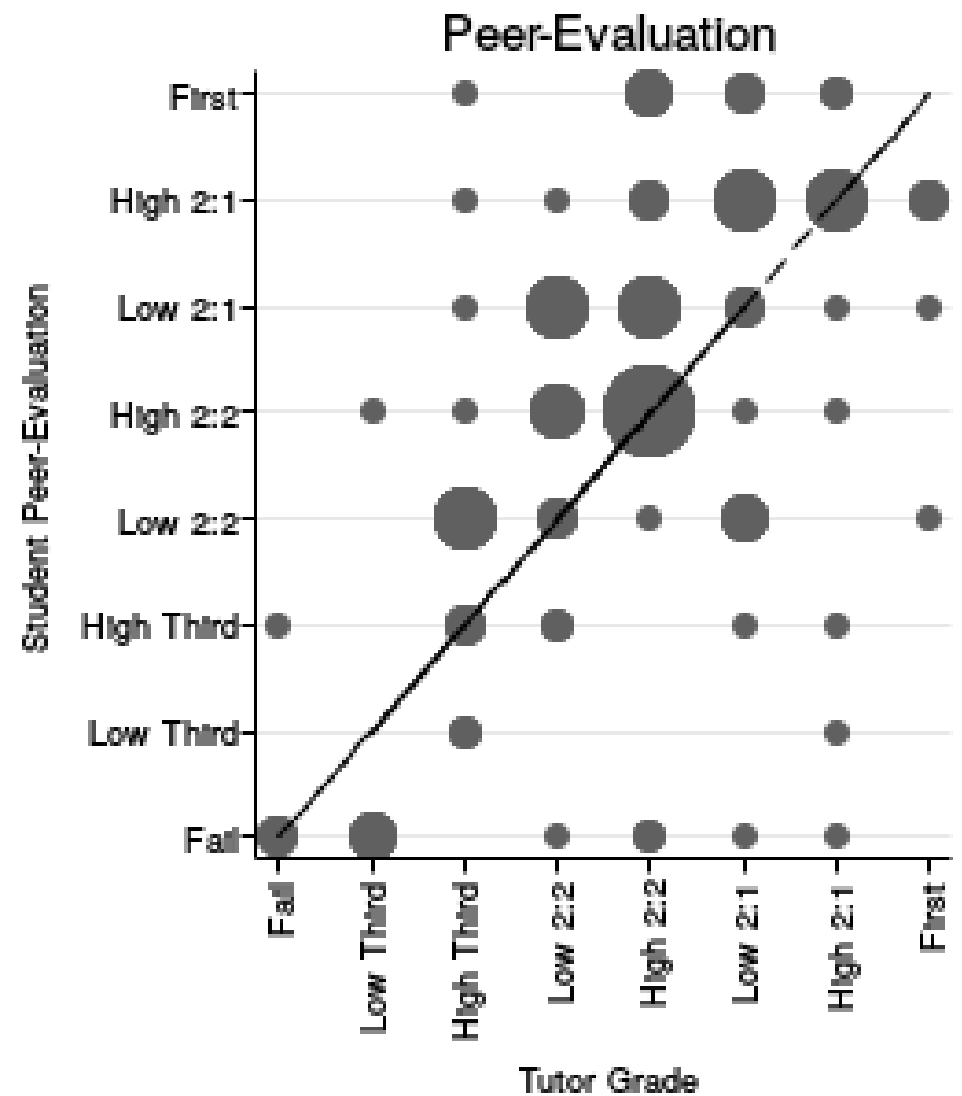
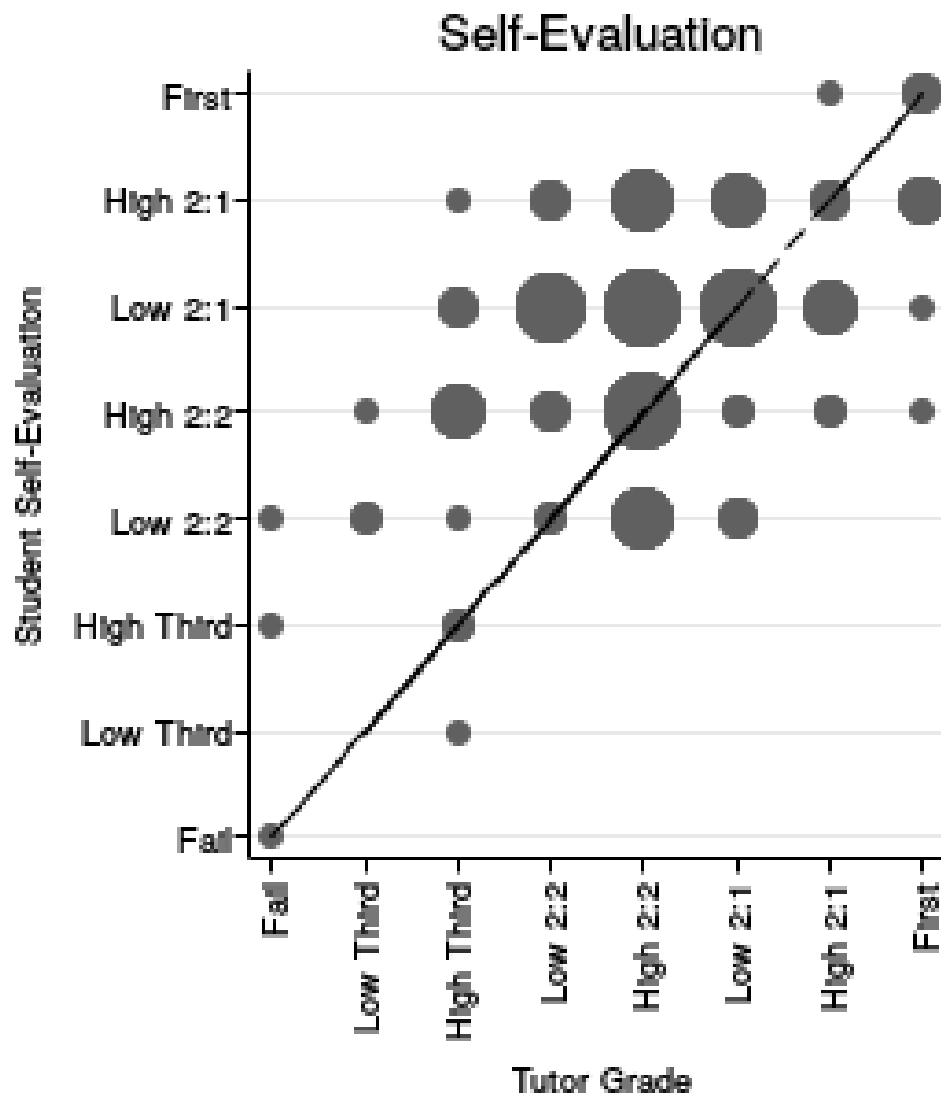
PE vs TM



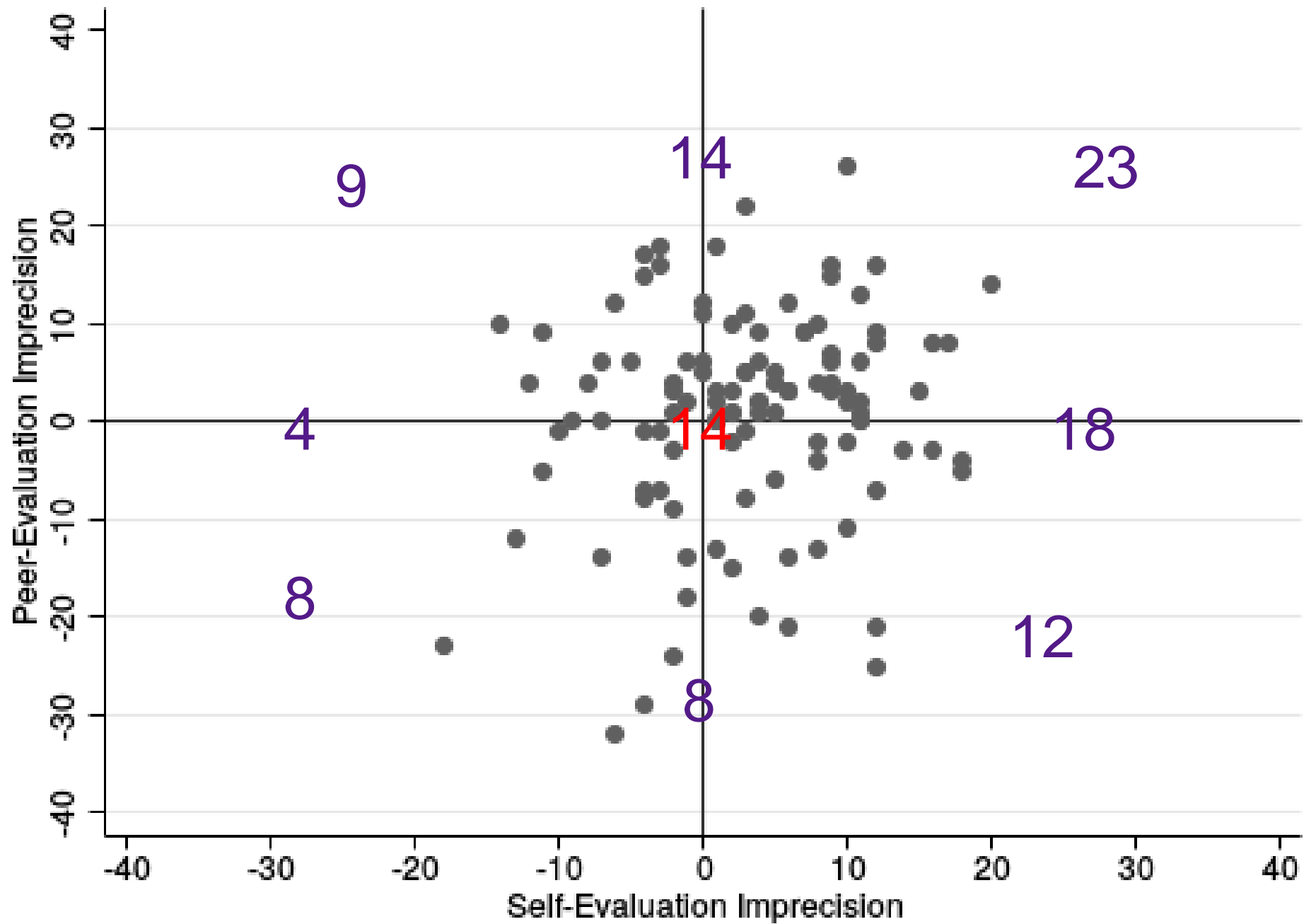
● Student    - - - TM = PE

# SE, PE and Tutor Grade differences



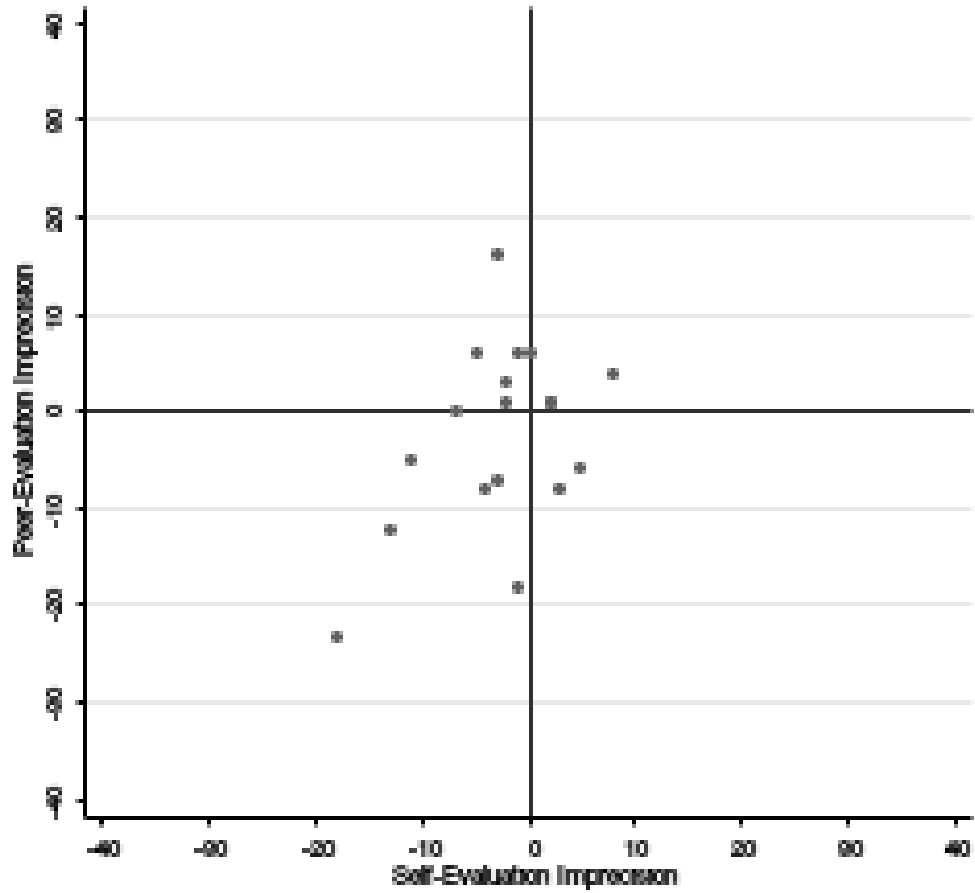


● Student      - - - - Tutor Grade = Self-Evaluation

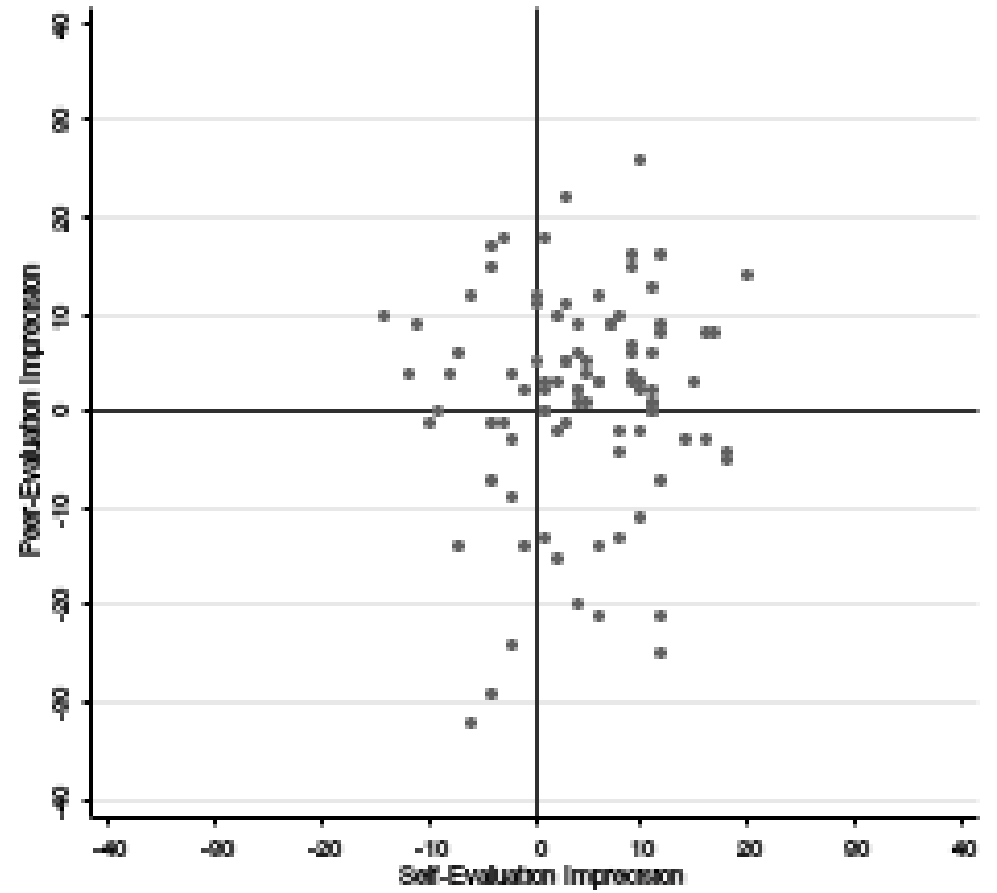


Chi<sup>2</sup> Test: Pr = 0.496

2:1 and above



2:2 and below



# Conclusion

- Students are on average more accurate in evaluating the work of their peers than their own work
- Data on Peer-evaluation is more dispersed than on self-evaluation
- Students are very heterogenous with respect to SE and PE precision
- Trade off between emotional attachment and cognitive workload
- Surprise about quantity of feedback provided

## What's next?

- 94 student provided feedback on peer-essay (voluntarily)
- Analyse impact of student ability on evaluation accuracy.
- Are results sensitive with respect to timing?