Peer and self assessment of oral presentations: effects of learner attributes

A. Mark Langan[1] & Dave M. Shuker[2]

Manchester Metropolitan University[1]
Edinburgh University[2]

Catalyst for self- and peer assessment

- Enhance reflection, save marking, personality types.

- Why we don't we do it more? Maybe perceived problems of accuracy, reliability, dishonesty?

Are these problems real? Are there predictable biases to self- and peer assessment? e.g. gender, background, assessment 'structure', (cognitive ability)

Example: Calahonda field course (2002 & 2003)

Aim

To explore effects of learner attributes on self and peer assessment grades

Why use oral presentations on a field course?

Problems with anonymity, full participation, knowledge of student group, rapid, multiple tutors, popular form of assessment, relevant to employment, requires concise synthesis, difficult to plagiarise, personal experience

Method (1)

- Talks 5 minutes long, in "thematic" sessions, with student chair, and designated "questioners"
- Talks assessed via student-driven criteria ('participants'; n = 12)
- Marking: 40% "content", 40% "presentation", 20% "structure" (threshold descriptors provided)

Method (2)

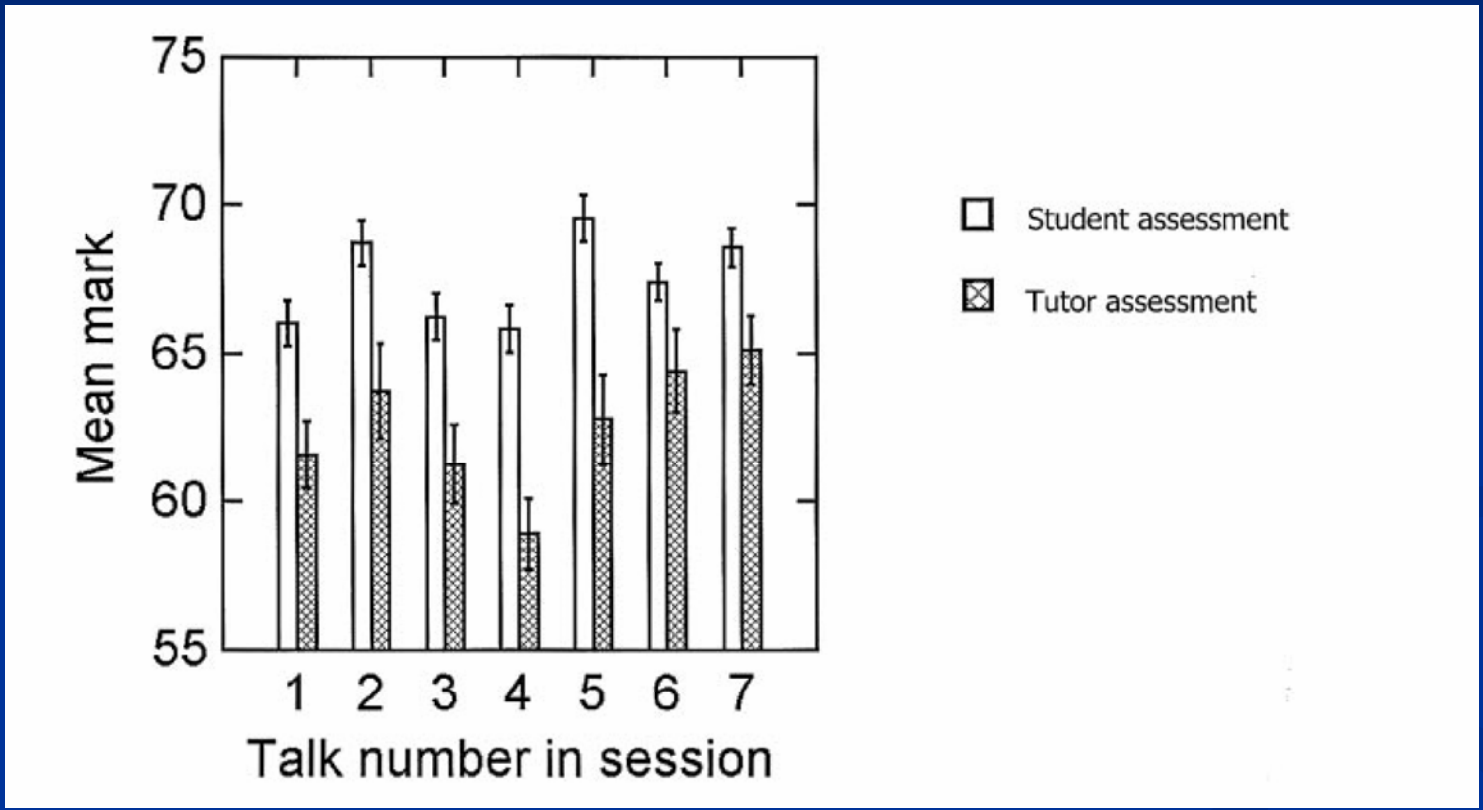
Each talk assessed by the tutors (n = 11), a subset of peers…

…and at end of the day self assessed by the student who gave the talk.

Data from 2002-3, n = 60 students

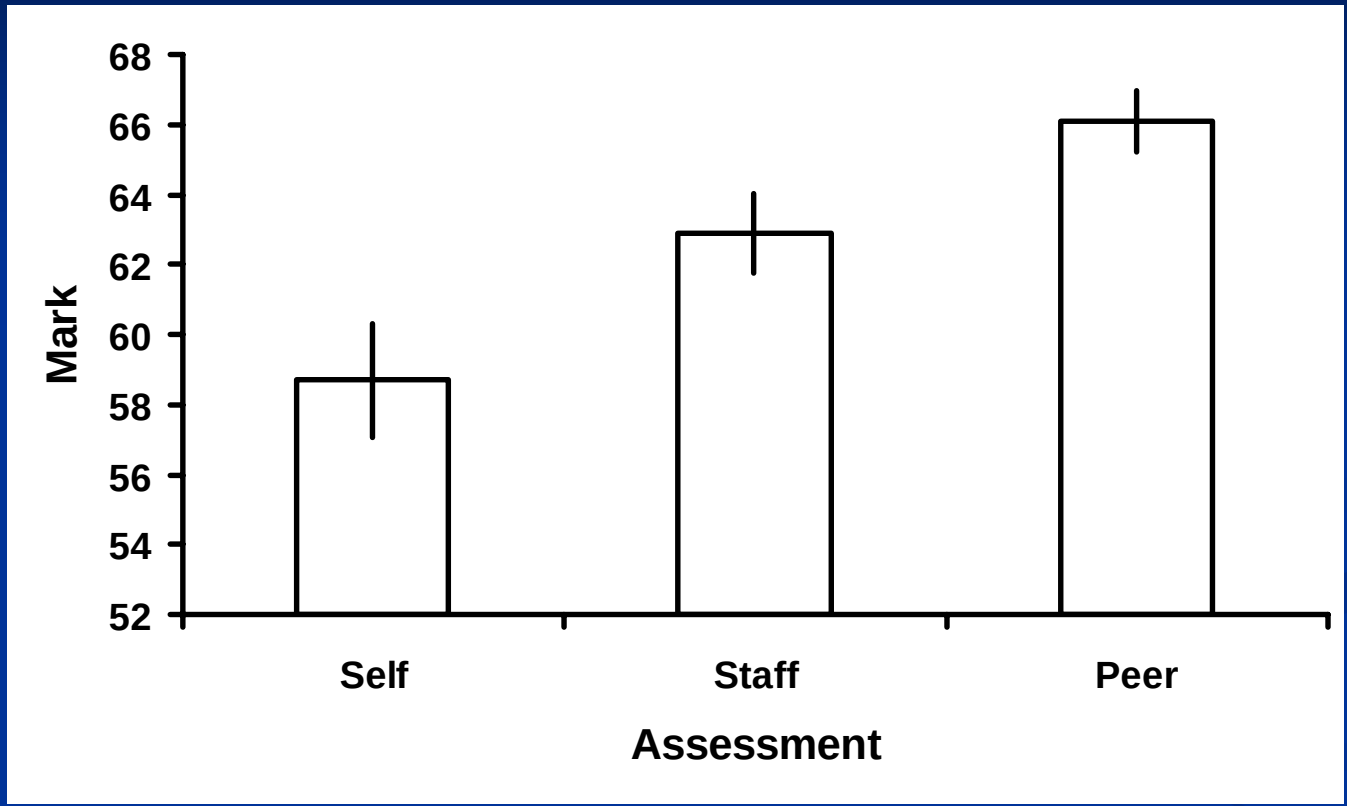
Langan et al. (2005), Langan, Shuker et al. (in prep.)

Marks dip during sessions (2002)



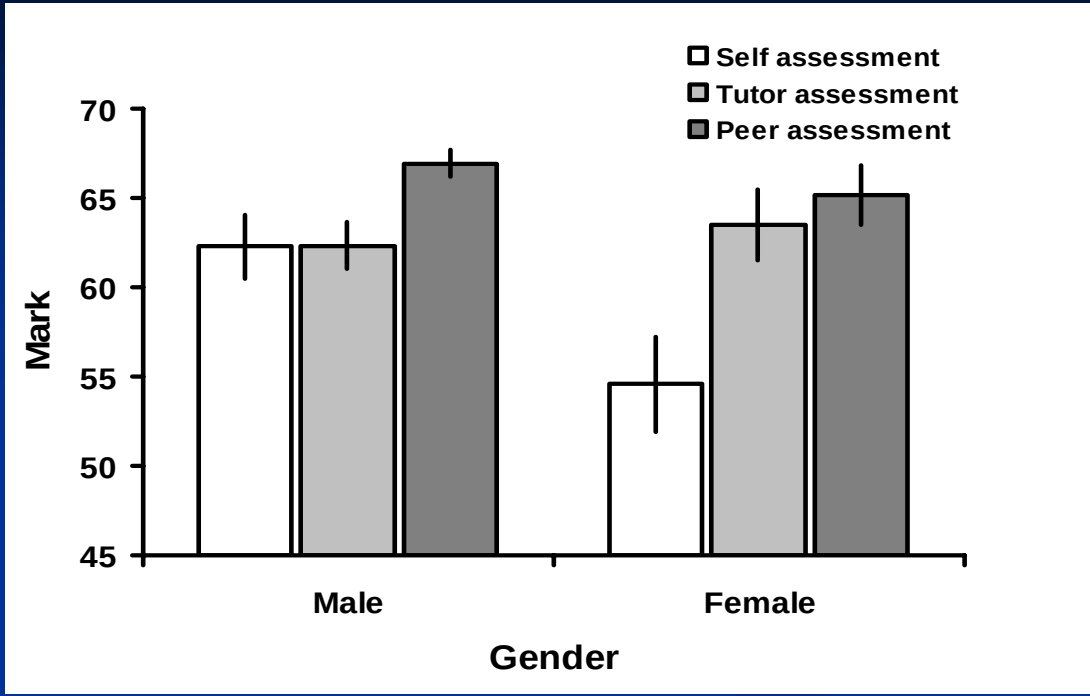
Effect was **WORSE** for tutors! ($P<0.001$).

Self and peer assessment



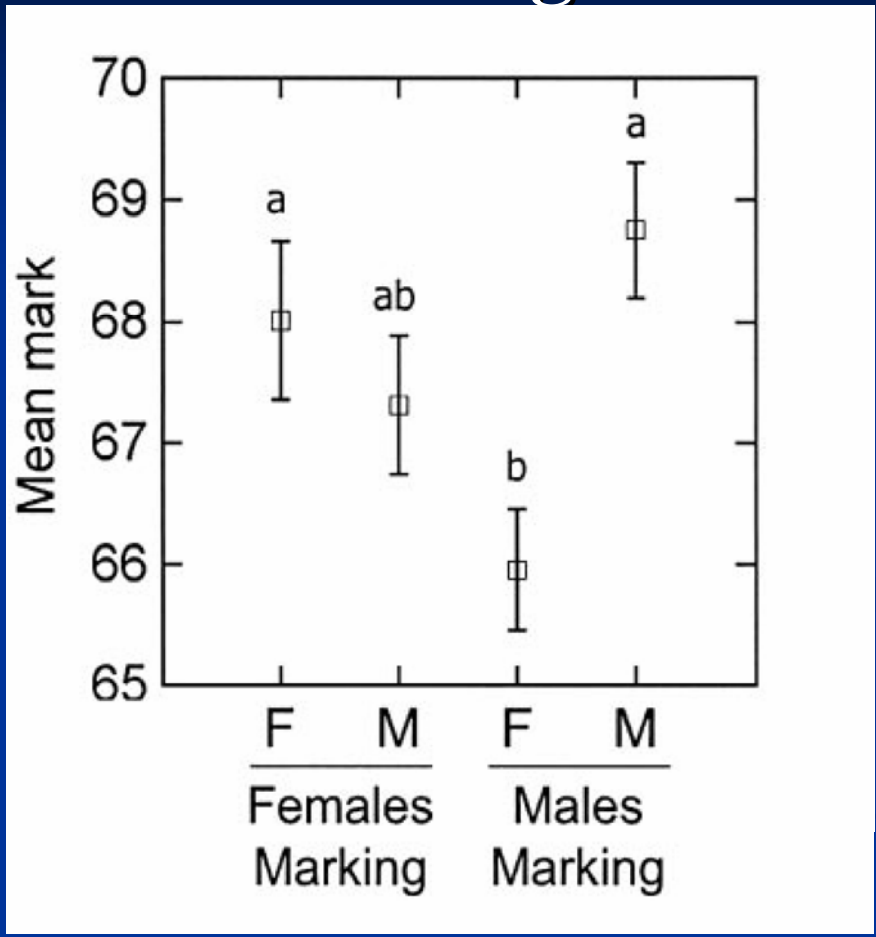
Compared to tutor grades, students **over-marked** each other, and **under-marked** themselves ($P<0.001$)

The role of gender



- Female students **under-mark** themselves
- Males receive **higher** or **lower** marks from peers, dependent on their University (P=0.04)
- Sexes award **higher** marks to own sex (P<0.001; due to males)
- **No sex bias** from tutors (P=0.67)

The role of gender



- Sexes award **higher** marks to own sex ($P<0.001$; due to males)

Other factors:

- **Tutor assessment**

No difference across years, small effect of University (P=0.04)

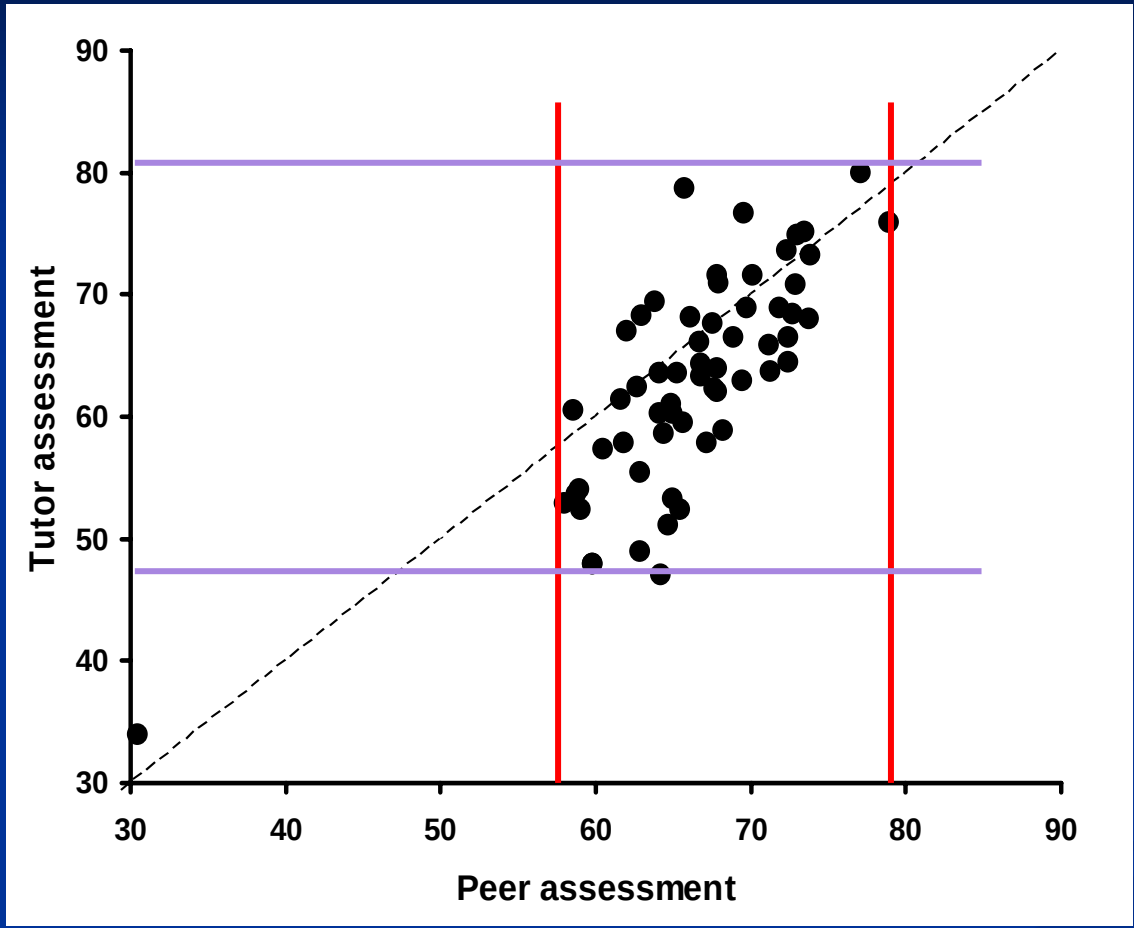
- **Peer assessment**

Differences across years (P=0.04), and effect of University (P=0.01; and interaction with gender, P=0.04), with positive discrimination towards "own" University (P<0.001)

- **Self assessment**

No difference across years (P=0.80), small effect of University (P=0.04)

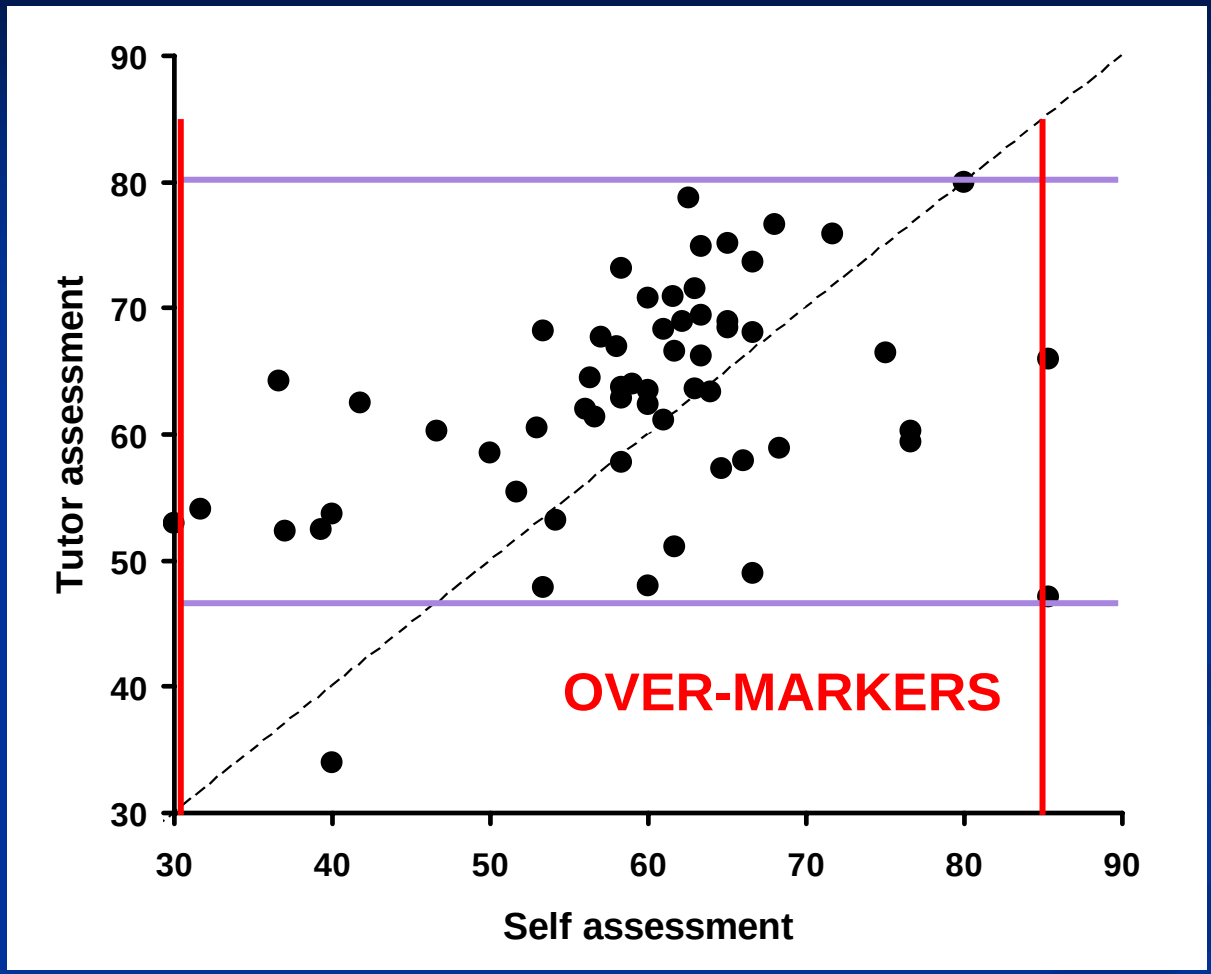
Peer assessment



Peer and tutor marks correlated ($P<0.001$, $R2 = 0.59$)

NARROWER range of marks than tutors

Self assessment



Self and tutor marks less strongly correlated ($P<0.01$, $R^2 = 0.10$)

BROADER range of marks than tutors

LOW achievers over-marked themselves

Involvement with creating assessment criteria

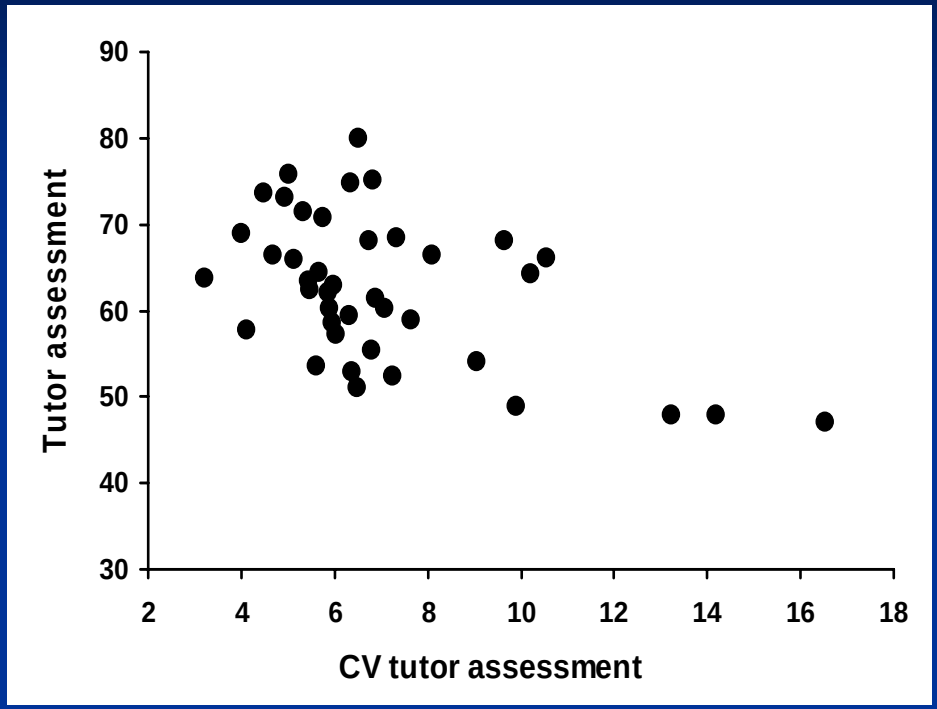
- **Peer assessment**

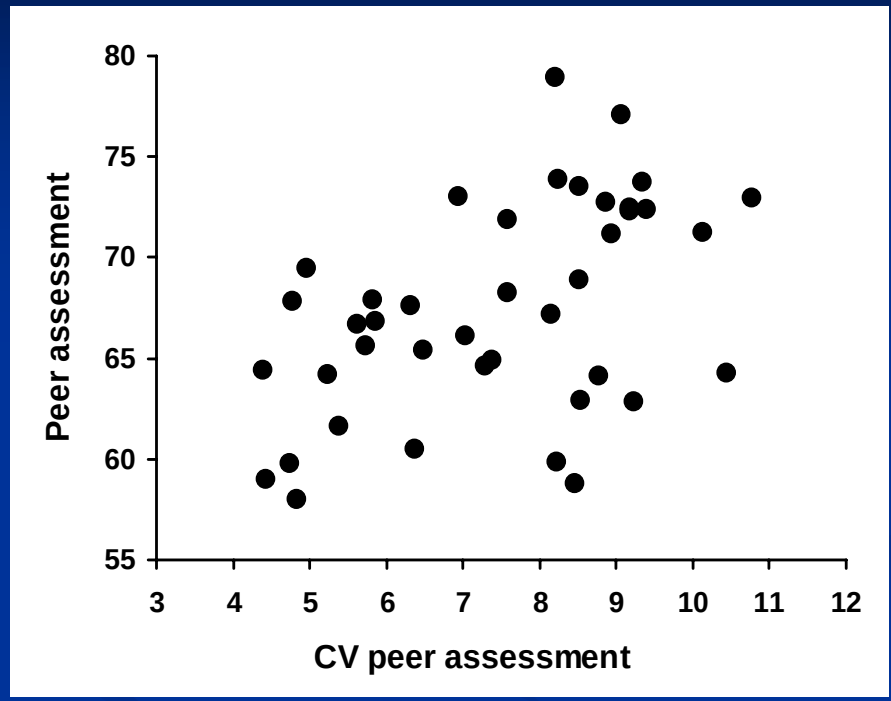
Students involved in the criteria gave peers **lower** marks (P=0.002), received **similar** marks from peers (P=0.14), and received **lower** marks from tutors (P=0.05)

- **Self assessment**

Student involvement in criteria **did not influence** self-assessment mark (P=0.10; weak interaction with gender and university affiliation, P=0.04)

Agreement within assessor class



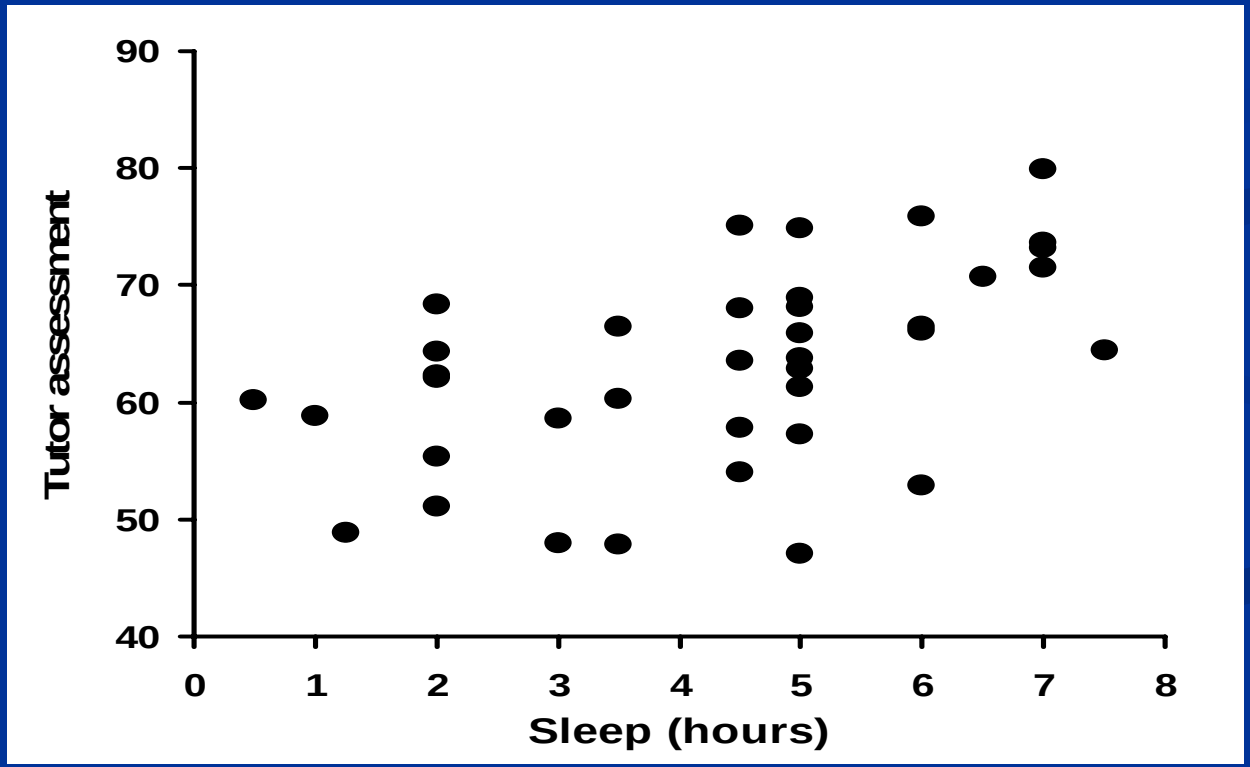


Tutors disagreed more about **low** achievers (P<0.001)

Peers disagreed more about **high** achievers (P<0.01)

Sleep

- **Self assessment:** not correlated with (reported) sleep
- **Peer and tutor assessment:** positively correlated with sleep (P=0.02 and <0.001)



Student feedback

"Useful and thought provoking."

Better able to assess peers than themselves

Became easier to assess as day progressed (context for assessment criteria?)

Issues with discomfort of being asked by peers what grades they gave

Implications

- Oral presentation assessment risk gender bias if assessed via self and/or peers

- Raises the question 'Are the peer awarded marks unsuitable for summative assessment?' Positive feedback in terms of formative assessment

- Are presentations too difficult to assess? Can students be trained in advance?

- Follow-up study – do students learn from their experiences?

Review

- Specific situation: oral presentations on a field course (how far can findings be generalised?)
- Minor biases detected. Can biases be ameliorated (e.g. gender differences, narrow range of peer awarded marks)?
- Are the students learning? Follow-up studies to demonstrate improvement in PA/SA
- Tutor experience ranged from 1 - 30 years