

Mesure de la discrimination dans une évaluation par des enseignants et étudiants

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Plan de la présentation

- Contexte
 - sessions poster en licence
- Etude des évaluations
 - par les enseignants
 - par les étudiants
- Etudes des biais potentiels
 - Genre
 - Origines

Session Poster

Pourquoi Luca?

- code génétique
- même molécule ADN/ARN
- mécanisme de transmission
- transmission de l'information génétique

Identique pour tous les organismes vivants

Last **U**niversal **C**ommun **A**mélioré

Portrait de Luca?

- ARN ou ARN?
- gène?
- Nucleo?
- Membrane cellulaire

G

MONDE ARN

ARN simple brin

précureuse → eau et phosphate → inger. ribonucléoprotéines

Exérience de 2009: Mathieu Poncet, Barbara Gerland et John Sutherland.
Éléments de la soupe primordiale
Après plusieurs réactions on obtient des nucléotides cytosine et uracile

mutation UV : cytosine → uracile

Exposition aux rayons UV
Réaction avec l'eau
Obtention de nucléotide à uracile
Source : La Pecherette : "La vie a commencé avec l'ARN"

Dogme central : faux (1958)
Replication de l'ARN (structure 3D)
Autocatalyse
Catalyse
Porte l'information génétique
Permet la synthèse de protéines: avantage sélectif

Source: Véronique Taly (Didier)

ARN double brin

Hypothèse de mutation : base + sucre = ADN

ADN double brin

stabilité : avantage sélectif
Théorie

Formation de l'ADN double brin, plus stable: avantage sélectif

Source: TP Unity Mol + Hugo Ethève

Taly, Antoine; Nitti, Francesco; Baaden, Marc; pasquali, samuela (2019): Molecular Modeling as the Spark for Active Learning Approaches for Interdisciplinary Biology Teaching. *Interface focus*, 9(3), 20180065.

Lopez, Hugo; Le Barch, Karine; Ethève-Quelquejeu, Mélanie; Pasquali, Samuela; Taly, Antoine (2018): Poster Session with Peer Grading. ChemRxiv. Preprint. <https://doi.org/10.26434/chemrxiv.6726161.v1>

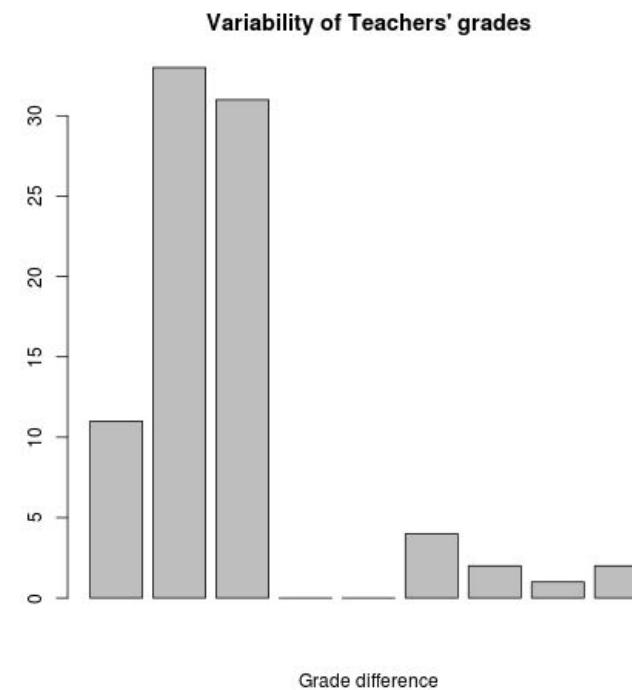
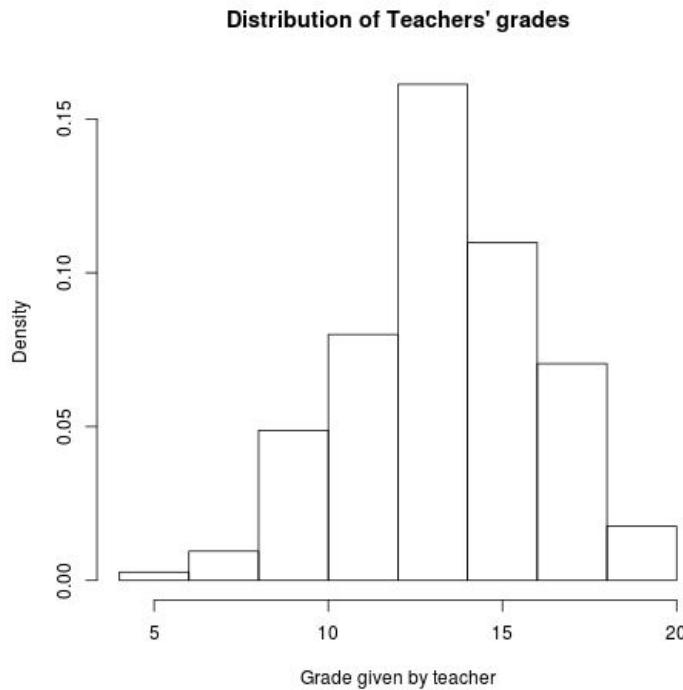
Grille d'évaluation

CATEGORY	Poster and/or Oral	Exemplary	Very Good	Competent	Partially Competent	Unsatisfactory	Points
		4 points	3 points	2 points	1 point	0 points	
A: Scientific content. N.B. B, C and D depend on A (if A=x then B, C and D <= x)	P+O	The subject is largely covered and in depth (beyond the original article), including from the angle of various disciplines.	The subject is largely covered and in depth (beyond the original article)	The subject is partially covered (only the original article)	Only a fraction of the subject covered or the poster contain many unrelated content.	Nothing or off topic.	/4
B: Accuracy	P+O	All points are accurate.	Anecdotal errors.	Limited errors.	Significant errors.	Major errors	/4
C: Sources. N.B.: if C = 0 → A=0 and B=0.	P+O	Work on multiple sources, including scientific articles. Critical and convincing analysis of the sources used.	Work on multiple sources, including scientific articles.	Use of more than one source.	Work limited to given article and course material (e.g. reference book).	Non justified claims, plagiarism, non respect of authors rights.	/4
D: Poster and pedagogy	P	The poster is structured, homogenous and conscientious. When necessary, explanations are supported by images or schemes that are clear and appealing.	The poster is structured but with non homogenous elements (color, languages, etc). No images/schemes.	The poster is poorly structured.	The poster is poorly structured and contains major errors.	No poster.	/4
E: Answer to questions	O	Answer to all questions, capability to go beyond the initial paper and to interact. The student is conscious of the limits of the responses given. When needed, different analyses are confronted.	Answer to most questions, minor errors.	Answer to part of the questions, minor errors.	Limited answer to part of the questions. Significant errors.	No answer.	/4
TOTAL							/20

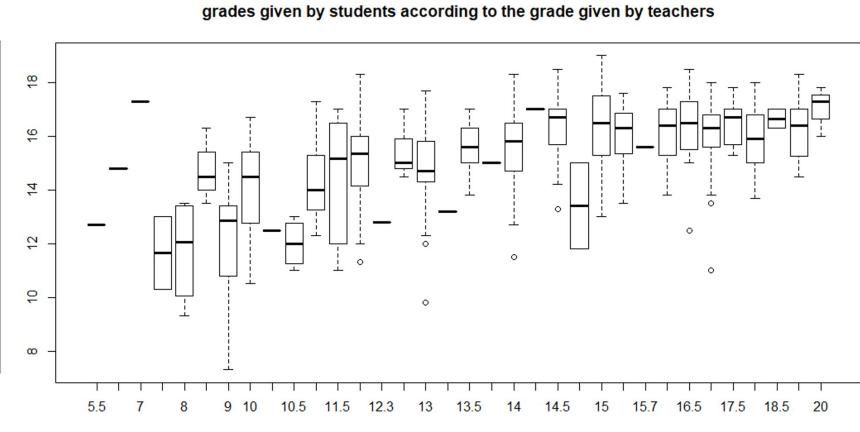
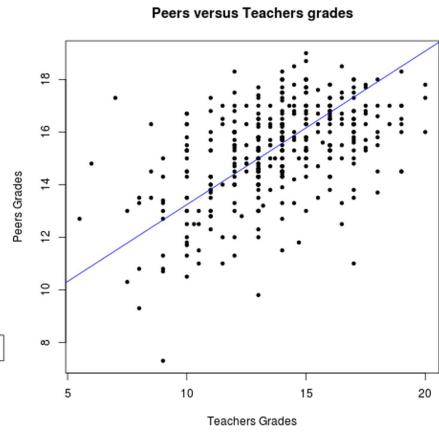
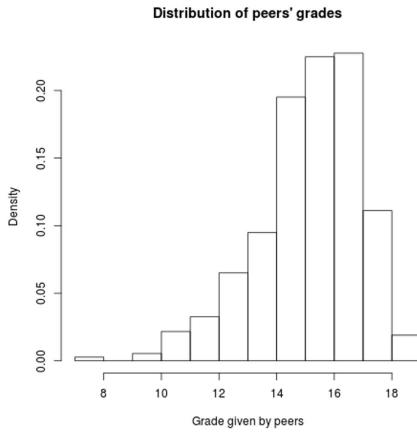


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Évaluations des enseignants

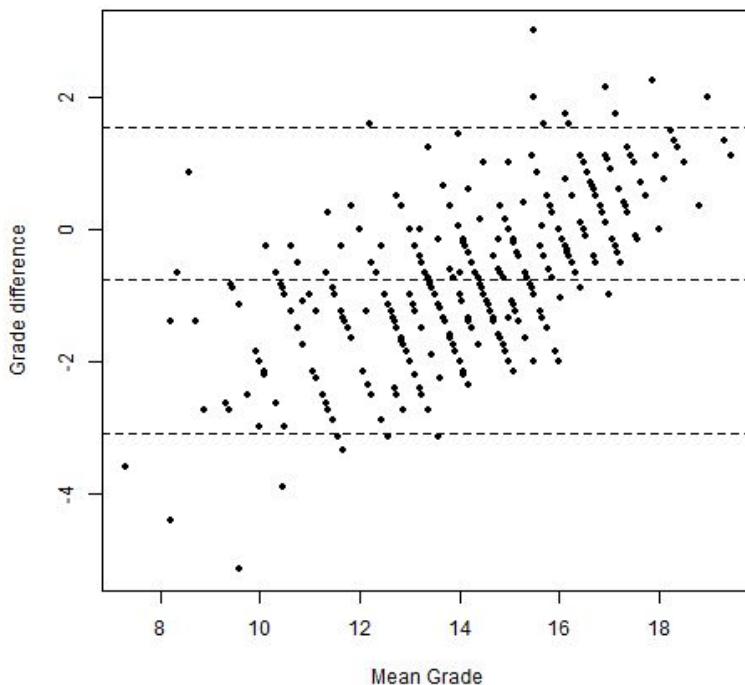


Evaluation par les pairs



Les étudiants ont des difficultés avec les évaluations les plus hautes et basses

Bland Altman representation of consensus versus Teachers grade



Pas de biais de genre ?

	Females	Males	P - value
Peer's grades	15.40	15.06	0.108
Teacher's grades	13.92	13.36	0.050
Written exam	8.51	8.61	0.8576

Langan*, A. Mark, et al. "Peer assessment of oral presentations: effects of student gender, university affiliation and participation in the development of assessment criteria." *Assessment & Evaluation in Higher Education* 30.1 (2005): 21-34.

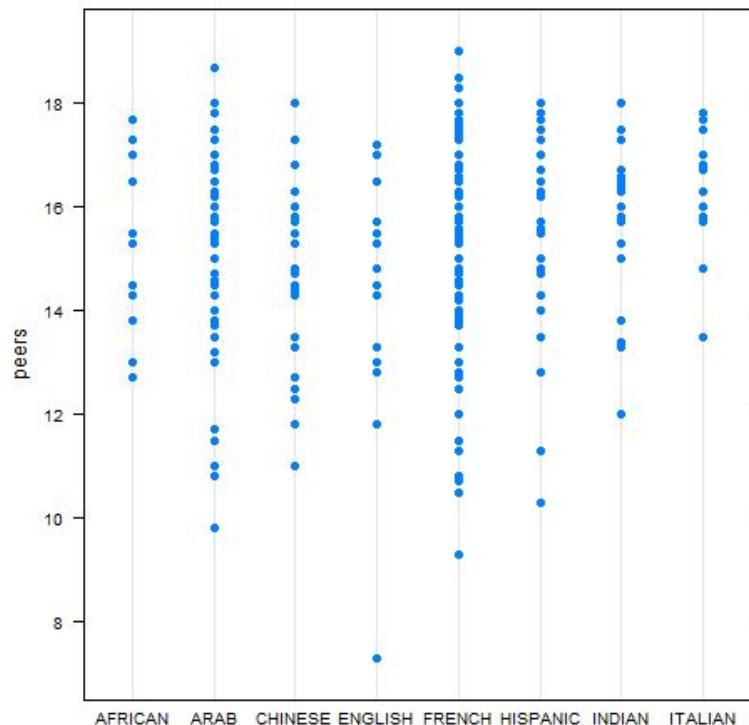
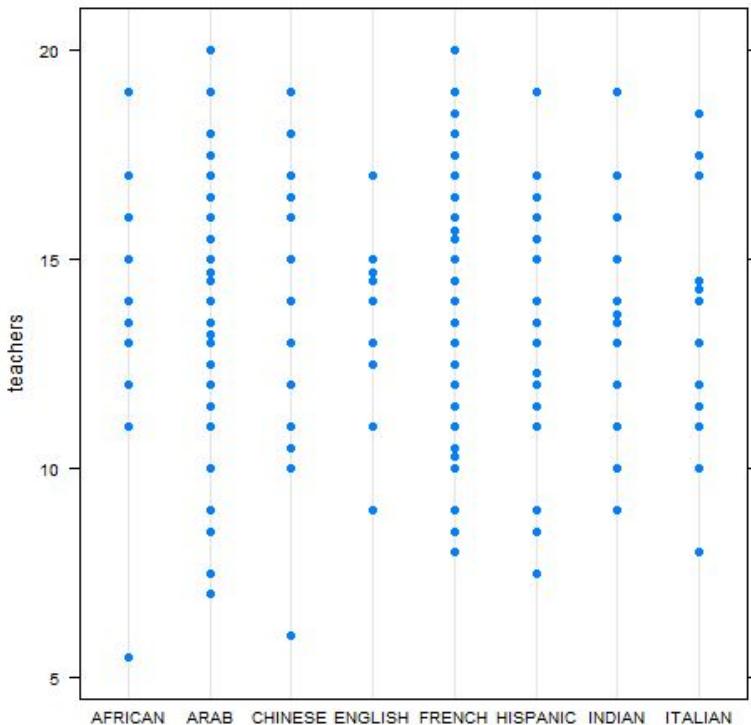
Biais en fonction des origines?

	x0.5	x0.25	x0.25	1	
indivId	averageProfs	averagePeers	grading	finalGrade	name's origin
G01a	15.7	16.7	15.5	15.9	FRENCH
G01b	17.3	17.7	16.5	17.2	FRENCH
G01c	14.8	17.7	15.5	15.7	ARAB
G02a	12	12.5	16.5	13.3	INDIAN
G02b	11.5	13.3	16.5	13.2	HISPANIC
G02c	12	15.8	17	14.2	INDIAN

Names origins	Teachers' grades		Peers' grades	
	14.50	P-values	15.41	P-values
French	14.47	0.915	15.07	0.043
Foreign	14.47	0.944	15.10	0.191
African	14.66	0.758	15.26	0.684

Based on : Torvik, Vetle I., and Sneha Agarwal. "Ethnea--an instance-based ethnicity classifier based on geo-coded author names in a large-scale bibliographic database." (2016), university of Illinois

Quelle est la source du problème?



Remerciements/Références

⇒ Louis Vasselin et Hugo Lopez ([CRI](#))

Taly, Antoine; pasquali, samuela; Ethève-Quelquejeu, Mélanie; Vasselin, Louis; Le Barch, Karine; Lopez, Hugo (2019): Assessing peer grading in a poster session. figshare. Poster.
<https://doi.org/10.6084/m9.figshare.8481932.v1>

PeersGraderJS

Hugo Lopez, Stéphane Jabol

Session poster

Taly, A., Nitti, F., Baaden, M., & Pasquali, S. (2019). Molecular modelling as the spark for active learning approaches for interdisciplinary biology teaching. *Interface focus*, 9(3), 20180065.

Lopez, H.; Le Barch, K.; Ethève-Quelquejeu, M.; Pasquali, S.; Taly, A. (2018): Poster Session with Peer Grading. *ChemRxiv*. Preprint.

