

Aprentatge de bioquímica fent servir Viquipèdia en el grau de medicina

Manuel J Rodríguez Allué, JM Vidal Taboada, N Mahy
Unitat de Bioquímica i Biologia Molecular, Facultat de Medicina, UB. Barcelona

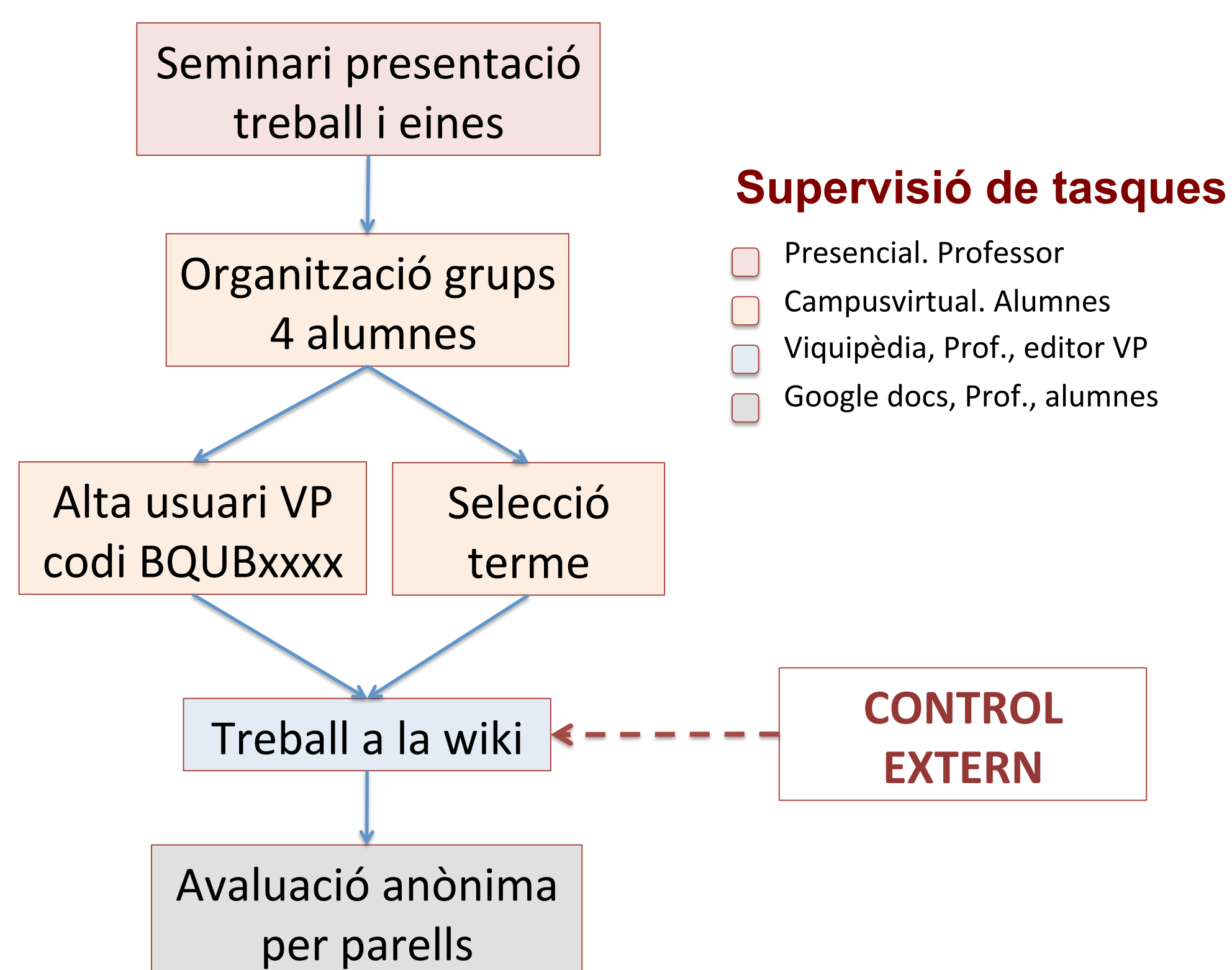
Dades de l'assignatura

Nom: Bioquímica Bàsica.
Crèdits ECTS: 6. Alumnes per curs: 180.
Primer curs. Primer semestre.
Ensenyament: Grau de Medicina.

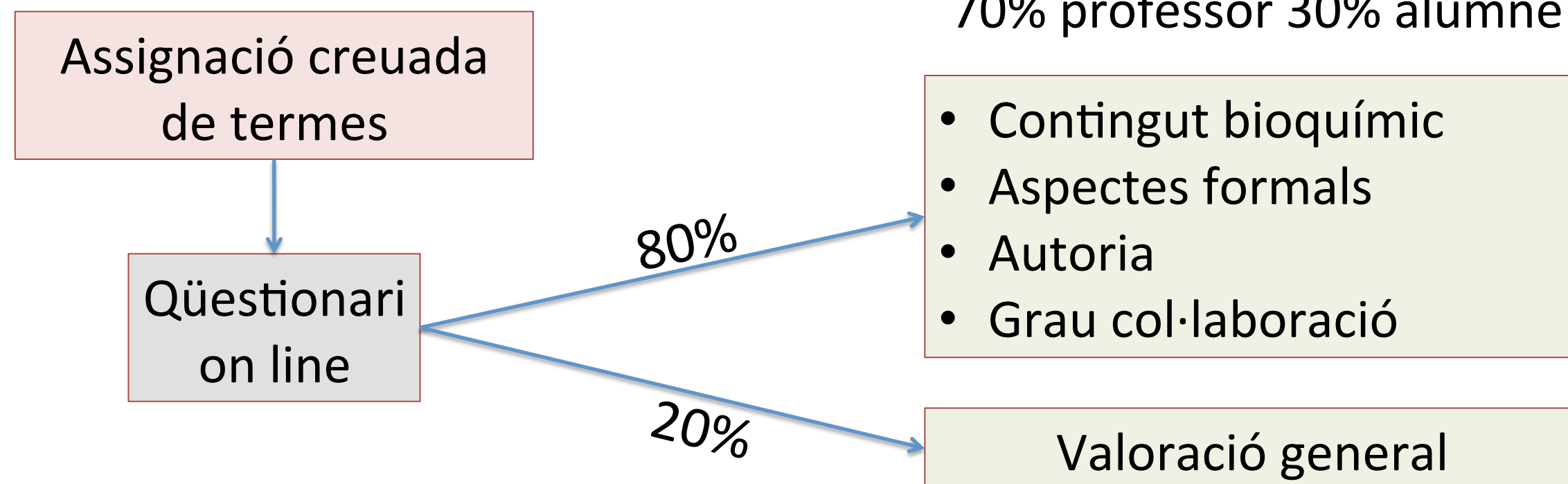
Objectiu

Implementar a l'assignatura Bioquímica Bàsica una activitat de treball col·laboratiu en línia on els alumnes aprenguin bioquímica en el context de la biomedicina.

Disseny de l'activitat



L'avaluació



Exemple de terme de nova creació

Bacterial Leucine Transporter

Bacterial Leucine Transporter (LeuT) is a bundled twelve alpha helix protein which belongs to the family of transporters that shuttle amino acids in and out of bacterial cells. Specialized in small hydrophobic amino acids such as leucine and alanine, this transporter is powered by the gradient of sodium ions that is normally maintained by healthy cells across their membranes. LeuT acts as a symporter, which means that it links the passage of a sodium ion across the cell membrane with the transport of the amino acid in the same direction. It was first crystallized to understand the inner molecular mechanisms of antidepressant's work since it has a close resemblance with the human neurotransmitter transporters (more difficult to crystallize) that these drugs block, thus inhibiting the reuptake of chemical messengers across the cell membrane of nerve axons and glial cells.^{[1][2]}

Structure [edit]

LeuT is an homodimer composed by two identical subunits which are in contact in two points. Each of these polypeptide chains is about 70 Å tall and has a diameter of 48 Å. Its formula weight is 59078.2 kDa.^[3]

It is mainly made of hydrophobic residues. These are in contact with the inside of the bilayer, while the hydrophilic residues are in contact with the extracellular and intracellular space. Taking into account that it is a transmembrane protein, this is a relevant characteristic, as it can interact both with water and phospholipids.

This transporter's secondary structure consists of twelve alpha helices and two short beta strands.

La pestanya de l'història a Viquipèdia

Bacterial Leucine Transporter: Revision history

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External tools: Revision history statistics · Revision history search · Edits by user · Number of watchers · Page view statistics

(cur) = difference from current version, (prev) = difference from preceding version, m = minor edit, -- = section edit, -- = automatic edit summary (newest | oldest) View (newer 50 | older 50) (20 | 50 | 100 | 250 | 500)

- (cur | prev) 01:29, 16 January 2015 BattyBot (talk | contribs) ... (9,934 bytes) (+75) ... (Added Category:Articles containing video clips & general fixes, added orphan tag using AWB (10741)) (undo)
- (cur | prev) 07:37, 26 October 2014 BQUB14-Nsaez (talk | contribs) ... (9,859 bytes) (+6) ... (→Binding to antidepressants) (undo)
- (cur | prev) 07:33, 26 October 2014 BQUB14-Nsaez (talk | contribs) ... (9,853 bytes) (+24) ... (→Binding to antidepressants) (undo)
- (cur | prev) 07:29, 26 October 2014 BQUB14-Nsaez (talk | contribs) ... (9,829 bytes) (+14) ... (→Function) (undo)
- (cur | prev) 07:25, 26 October 2014 BQUB14-Nsaez (talk | contribs) ... (9,815 bytes) (0) ... (→Function) (undo)
- (cur | prev) 07:21, 26 October 2014 BQUB14-Nsaez (talk | contribs) ... (9,815 bytes) (0) ... (→Conformational Change) (undo)
- (cur | prev) 17:28, 25 October 2014 KylieTastic (talk | contribs) ... (9,815 bytes) (-34) ... (Fix infobox image formatting (remove thumb)) (undo)
- (cur | prev) 07:41, 25 October 2014 BQUB14-Nsaez (talk | contribs) ... (9,849 bytes) (+19) ... (undo)
- (cur | prev) 21:02, 24 October 2014 BQUB14-Mcaza (talk | contribs) ... (9,830 bytes) (+3) ... (→Conformational Change) (undo)

Conclusions

- Amb aquesta activitat els alumnes es familiaritzen a fer servir els llenguatges escrit i gràfic de la bioquímica i s'inicien en el rigor i exigència que representa la publicació de la informació biomèdica.
- Els alumnes treballen de forma col·laborativa en el desenvolupament d'un projecte real que repercuteix positivament en la societat.
- A l'avaluació per parells d'aquesta activitat, els alumnes tendeixen a sobrevalorar més els treballs que obtenen una pitjor qualificació.
- Els alumnes es sensibilitzen amb el respecte dels drets d'autor i la llicència *Creative Commons*. És a dir, en la cultura de publicar, compartir i fer servir el treball creatiu respectant els termes i condicions de l'autor.

Eines de treball i cerca d'informació

VIQUIPÈDIA L'enciclopèdia lliure

Guia bàsica
Breu tutorial d'edició
Recursos per a novells
Documentació i llocs on demanar ajuda
Sistema de mentorització
Demana a un mentor que t'ajudi
Proves
La teva pàgina de proves

PubMed.gov
US National Library of Medicine
National Institutes of Health

UniProt

RCSB PDB
PROTEIN DATA BANK

KJGG

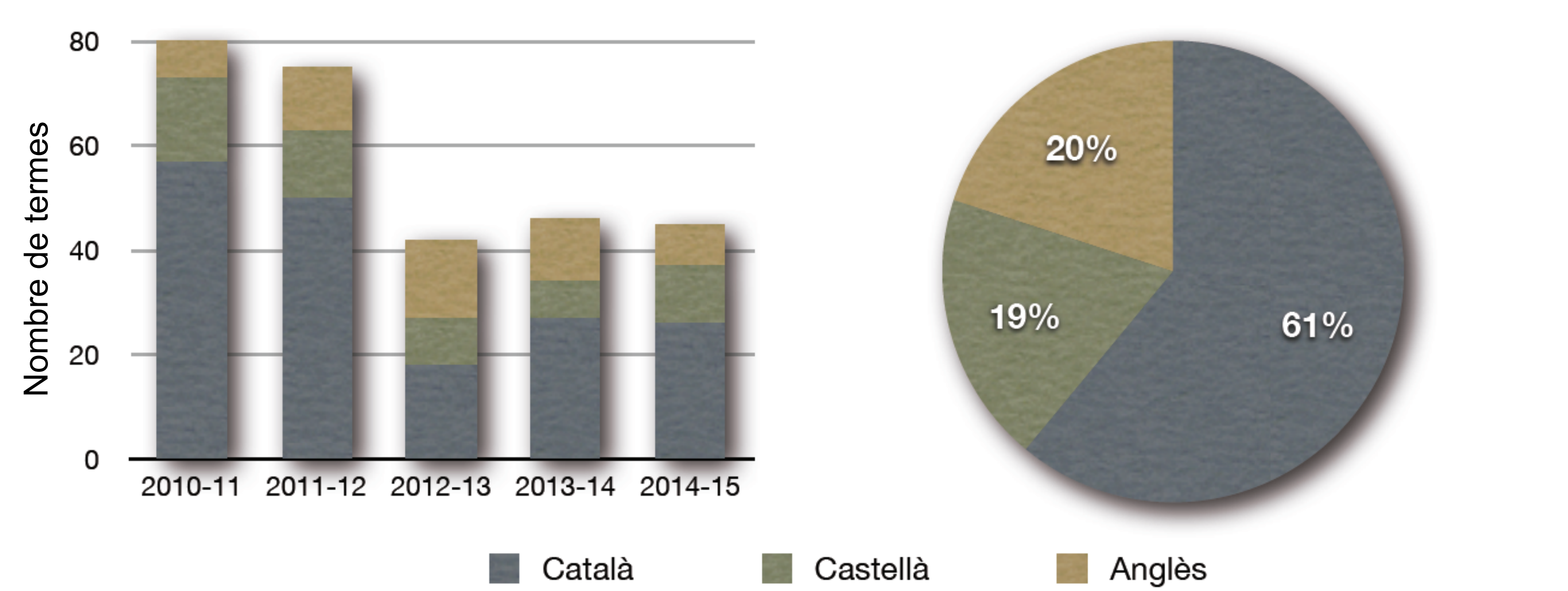
Bus turístic de la VIQUIPÈDIA

BRENDA
The Comprehensive Enzyme Information System

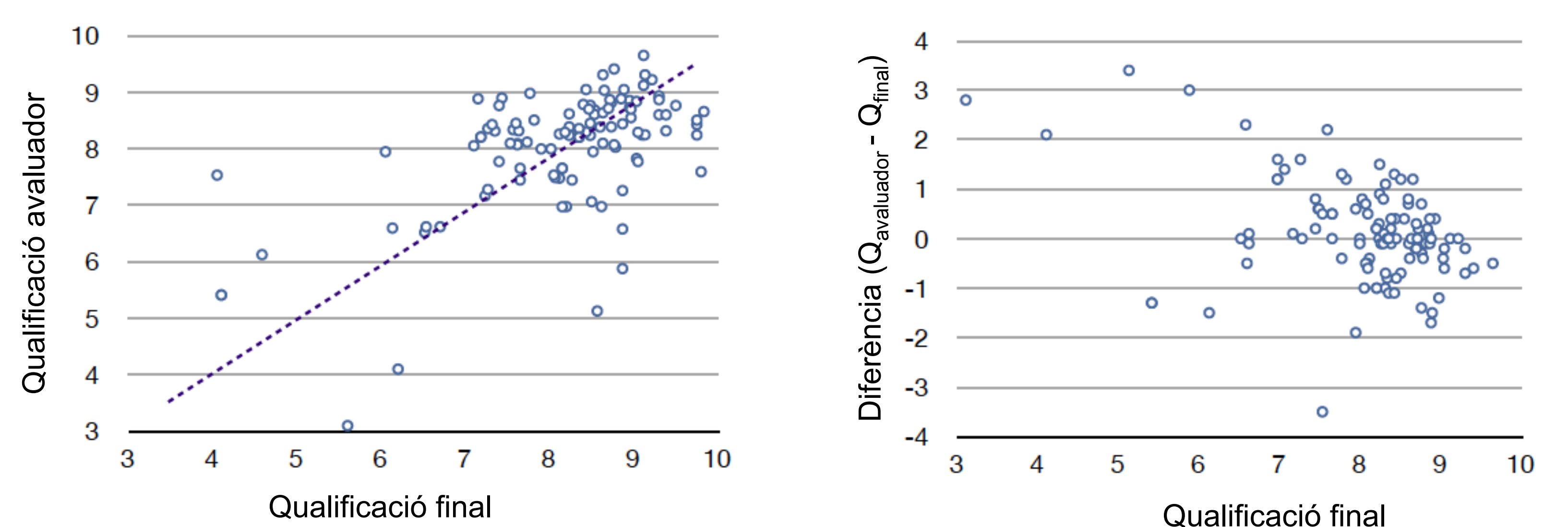
L'activitat en números

	Curs acadèmic						TOTAL
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	
Alumnes	178	176	177	170	179	176	1056
Tipus contribució							
Nou terme	76	20	21	24	29	14	185
Ampliació	55	26	32	18	14	31	176
Traducció	137	37	22	-	-	-	196
Total contribucions							557

Nombre de treballs per idioma



Anàlisi de l'avaluació anònima per parells (2012-2015)



Referències

- Wiki For Higher Education (wiki4HE Project): <http://oer.uoc.edu/wiki4HE/> (Gener 2015).
- Johnson, D.W. y Johnson, R.T. (1999). Aprender juntos y solos. Buenos Aires: Aique Grupo Editor, S.A.
- Learning Environments, Educause Center for Applied Research, Research Bulletin 15. <http://net.educause.edu/ir/library/pdf/ERB0515.pdf> (Gener 2015)
- Viquiprojecte docent: Bioquímica UB https://ca.wikipedia.org/wiki/Viquiprojecte:Bioqu%C3%ADmica_UB (Gener 2015)