Creating a space for critical thinking in the EAP / ESP classroom

Ruth Breeze
Universidad de Navarra
Spain

Critical thinking

In the university systems of English-speaking countries:

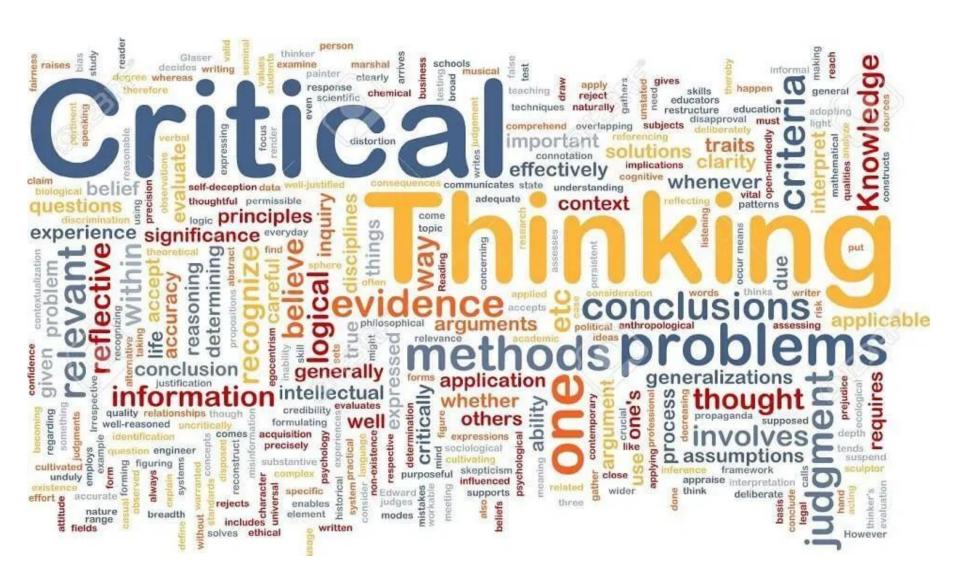
 A "key graduate attribute" in the educational missions of many institutions (Barrie & Prosser 2004).

In English for Academic Purposes:

 An "essential component of EAP programs" (Dooey 2010).

Critical thinking?

... four distinct areas related to learning and teaching in higher education, namely credits and learning outcomes, modes and forms of study, learning in digital environments and teaching. Each of these areas is closely linked to the concept of student-centred learning, defined as 'both a mindset and a culture [...] characterised by innovative methods of teaching which aim to promote learning in communication with teachers and other learners and which take students seriously as active participants in their own learning, fostering transferable skills such as problemsolving, critical thinking and reflective thinking' (ESU 2015) (The EHEA in 2018. Bologna Process Implementation Report, p. 49, citing ESU (European Students' Union) 2015. Overview.)



Contents

- What is critical thinking?
- Ordering different approaches
- A small study on CT
- Applications in EAP
- Applications in ESP
- Conclusions

Moore (2016) identifies three approaches that can be found in EAP theory and materials:

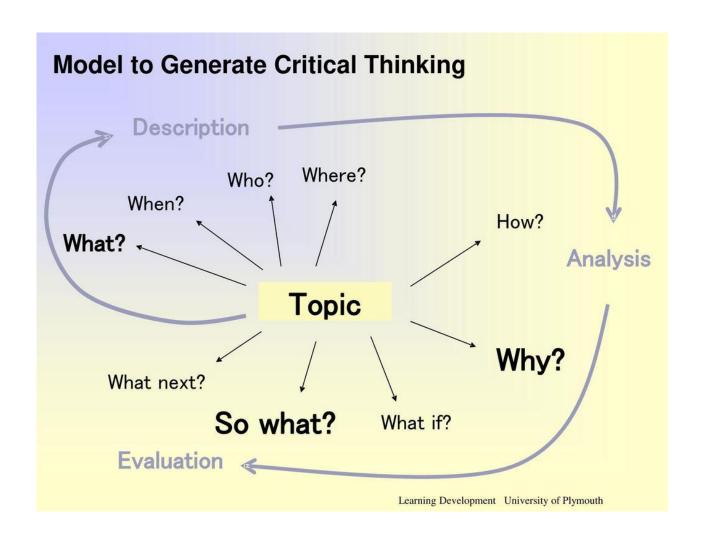
- The "skills approach"
- The "ethics approach"
- The "language of evaluation approach"

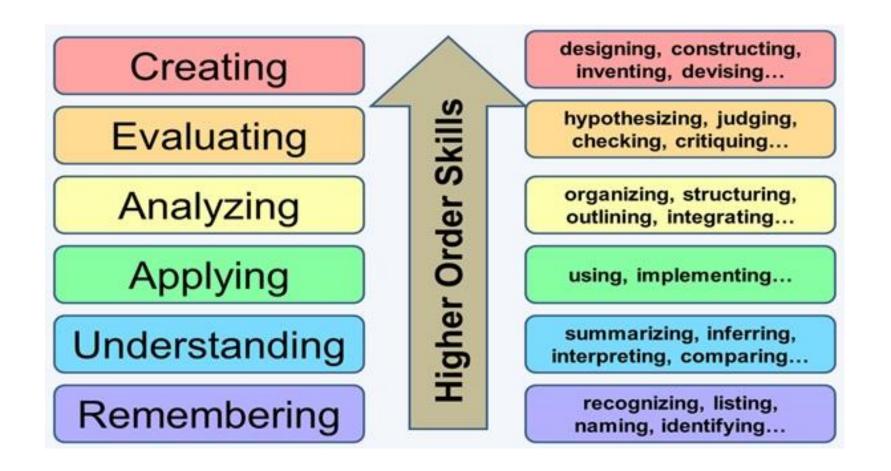
Moore (2016) identifies three approaches that can be found in EAP theory and materials: (my reordering)

- The "skills approach"
- The "language of evaluation approach"
- The "ethics approach"

The skills approach:

- Emerged from philosophy of education and the notion of the taxonomy of skills.
- Critical thinking is "a finite set of cognitive operations", one of the "skills" that are applicable across many academic domains and discipines (cf. Ennis 1987: "constituent thinking skills"). An essentially pragmatic approach, envisioned as an introduction to academic thinking, discourses and practices.
- Generated a "critical thinking skills industry" (Barnett 2000) and influencing many EAP textbooks.





Bloom's taxonomy

Readers should do what with knowledge gained in the chapter?

Factual

Basic terminology, facts, or major ideas and thinkers in the field.

Grasp foundations so they can build to next level.

Conceptual

Interrelated concepts, principles & theories.

Comprehend, analyze, abstract ideas.

Procedural

How-to steps.

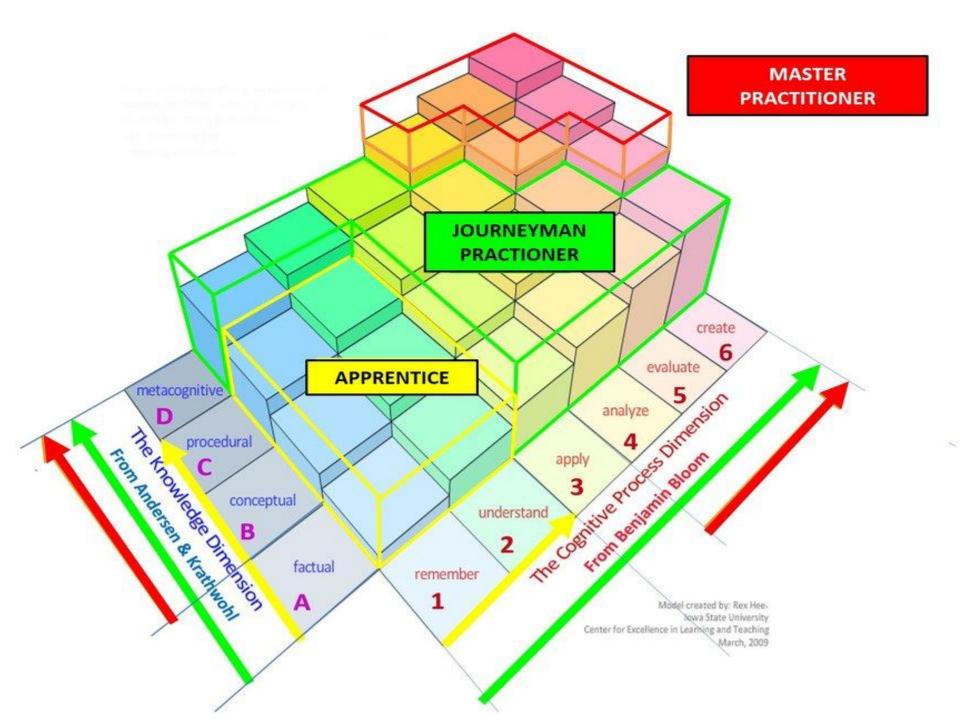
Follow protocols or apply ideas in practical ways.

Metacognitive

Strategic & self-knowledge.

Situate ideas within larger frameworks, locate own roles or positions.

(Adapted from Anderson, Bloom, Krathwohl, & Airasian, 2000)



A statement of a learning objective contains a verb (an action) and an object (usually a noun).

The verb generally refers to [actions associated with] the intended cognitive process.

 The object generally describes the knowledge students are expected to acquire or construct. (Anderson and Krathwohl, 2001, pp. 4-5) n innovative learni In this model, each of the colored blocks shows an example of a learning objective that generally corresponds with each of the various on one's an efficient project combinations of the cognitive process and knowledge dimensions. efficiency of samplin Deconstruct Assembl one's blases. a team of Remember: these are learning objectives—not learning activities. Use It may be useful to think of preceding each objective Integrate techniques that match Determine Generate compliance with with something like: "Students will be able to . . ." one's strengths relevance of a log of daily regulations. results activities. Predict Carry out Differentiate Check one's response to *Anderson, L.W. (Ed.), Krathwohl, D.R. (Ed.), culture shock pH tests of water high and low for consistency amon samples. Airasian, P.W., Cruikshank, K.A., Mayer, R.E., Pintrich, P.R., Raths, J., & Wittrock, M.C. (2001). Identify Clarify A taxonomy for learning, teaching, and strategies for retaini Provide Select assembly assessing: A revision of Bloom's Taxonomy of advice to the most complete list instruction Educational Objectives (Complete edition). novices. of activities New York: Longman. Recall Classify Respond how to perform metacognitive adhesives by to frequently asked taxicity. questions Solice And Solice In the Constituted by Constituted Control of the state of the sta How to do something methods the string of skills, also introduced the strong of the st Recognize Procedural Summarize symptoms of features of a new Carrour or use a Brocedine exhaustion. product. conceptual The interrelation of the annual control of understand The interrelation times among List Construct meaning from the days elethene within a language structure that emplayed a structure that emplayed the structure of the s primary and secondary Parter structure that endines. colors. The basic elements students Retieve relevant knowledge remember The basic elements studented fon box tem menon. Rust Know to be acquained Model created by: Rex Heer Iowa State University Center for Excellence in Learning and Teaching Updated January, 2012 Licensed under a Creative Commons Attribution-IOWA STATE UNIVERSITY NonCommercial-ShareAlike 3.0 Unported License. Center for Excellence in For additional resources, see: Learning and Teaching www.celt.iastate.edu/teaching/RevisedBlooms1.html

The language of evaluation approach:

- Emerged from linguistic focus on ESP/EAP.
- Critical thinking is something expressed using particular linguistic forms and formulae.
- Essential linguistic devices (i.e. hedging, boosting), phrases and expressions can be taught in the EAP classroom.
- By gaining familiarity with genres in which critical thinking is used, students will be socialised into critical thinking practices and language in their own discipline.

Useful words and phrases for each writing style

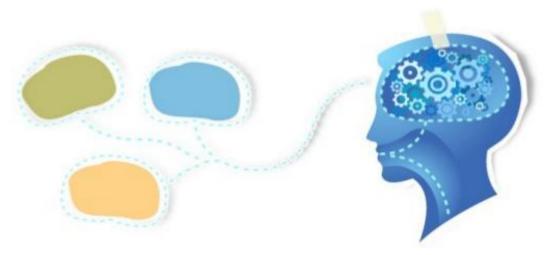
These phrases and words may be helpful. Also, refer to the <u>Sentence Starters, Transitional and Other Useful Words</u> guide.

Descriptive Language	Analytical Language	Critical/Evaluative Language	Reflective Language
The context is	Comparisonandreveals	In order to identify it would be	This raised for me
Components of the model are	Application of this model to	necessary to	For me, the most significant aspect was
This occurred at	indicates	Given it can be concluded	I felt/noticed/discovered/realised that
Key characteristics are	The strengths are	The point is valuable	The questions this raises for me are
The methodology chosen was	This occurred as	If this were applied to	In future practice, I
	This was completed because	The significance/implications of	I found this relevant as
	In contrast to	If could be applied to then	
	Likewise/Similarly	The argument is convincing as	
	However/In contrast	This could be transferable/applicable	
	The alternative to this is	to	
	If were altered/removed/added then		

(Adapted from "Reflective Writing," n.d.; "Critical Thinking," 2010)

The ethics approach:

- Emerged from critical theory and critical pedagogy (cf. Marxist concept of critical consciousness, Freire's pedagogy of the oppressed).
- Critical thinking is about the critical scrutiny of social structures and practices, particularly those leading to social injustice.
- EAP should do more than just prepare students to participate in academic practices: it should "encourage students to question, and in some sense, to transform those practices" (Benesch 2001). Influencing on some EAP textbooks.



Critical consciousness in organizations is examining and critiquing shared assumptions in such a way to that we understand certain social problems no longer as misfortune, but as an injustice.

(Turner, 1969; Freire, 1972; Gramsci, 1971)

But

Problems:

- Skills cognitive operation making logical/rational judgements.
- Language of evaluation about the "how" judgements should be framed in discourse, but not about how they can/should be made.
- Ethics judgements of a "more normative, deontic kind", i.e "what should be".
- Critical thinking is curiously elusive, and seems likely to be discipline dependent (Moore 2016): related to other concepts such as logics, knowledge structures, etc.

Different disciplines, different CT

- Moore (2016): Interview based study with colleages from different disciplines.
- History: construct of critical thinking seemed to be related to interpretation of human actions (motivations, etc.) and to evaluation of outcomes (e.g. Success).
- Philosophy and cultural studies: qualities relating to texts (persuasiveness, genericness).
- These two types of analysis can be thought of in Hallidayan terms as phenomenal (dealing with real world entities) and metaphenomenal (dealing with ideas, theories, etc.). The latter presents greater difficulty (Morton & Moore 2005).

A small study....

- 6 lecturers in 3 countries
- Define critical thinking
- Identify difficulties with critical thinking

Defining CT on the ground

Academic level: Different understanding at different levels: undergraduate essays (if the text is logically structured, if the ideas are supported, if there is reasoning to support opinions), postgraduate research (comparing sources, critical attitude to different sources).

Nature of discipline: Some things are not a matter of opinion (e.g. science). "It is important not to neglect the role of declarative knowledge while promoting the competence of 'CT'." / "In biology, for example, you are not supposed to have your own opinion".

Defining CT on the ground

Fact-based or text-based discipline: Different approach to criticality.

Background culture: Students are afraid to give their own opinions.

Student difficulties with CT

SOME EXPERIENCES

- "Students are not trained to use critical thinking and they are used to just copying ideas from different sources, without evaluating or interpreting these ideas."
- "I have the impression that in Secondary Education they are not prepared to question what they read."
- "Students don't respond to feedback on content, or critical thinking, only to feedback on formal corrections or language."
- "Evaluative practices (at school) are still more focused on the assessment of memorized information and application of rules."

Student difficulties with CT

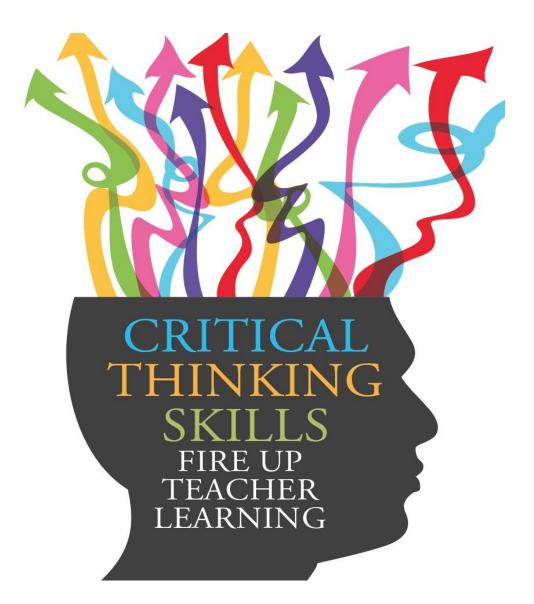
SOME EXPERIENCES

- "I've tried to give the students two or three articles to read and ask them to formulate their own opinion and, then, we would have a discussion. In class it turns out that they have not read the articles. Well, they say that they do not know what to think about them."
- "As an experiment, sometimes I propose them a case study, and, when they get the right answer, I pretend that they were wrong and I say this categorically. Nobody replies and they simply accept what I say."

Conclusions from our CT study

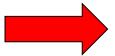
- All the lecturers we interviewed say CT is important, but find it hard to define.
- They conceptualise CT in different ways. The skills approach seems to be favoured.
- They emphasise that CT means different things in different disciplines and at different levels.
- CT is more than a set of discursive strategies, but discursive strategies are important to "frame and "display" critical thinking.

Applications

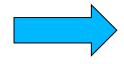


Applications



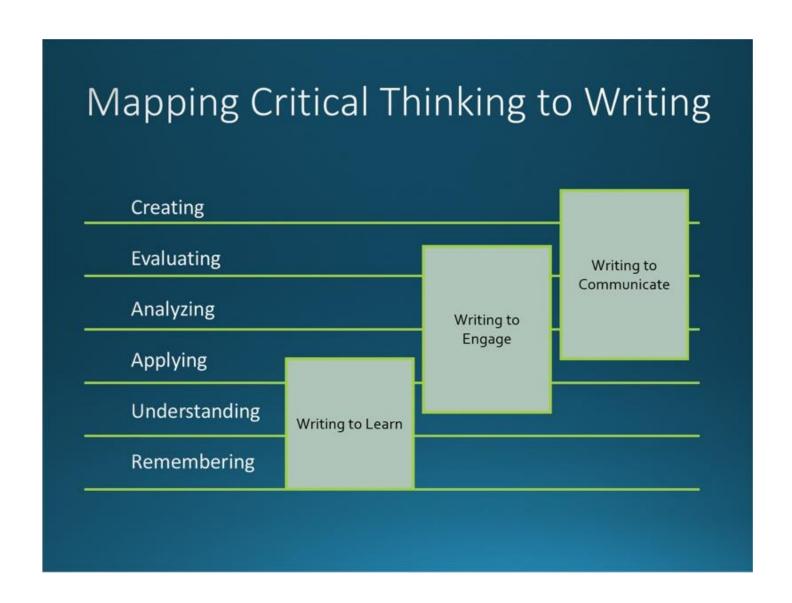


Language of evaluation approach



Ethics approach

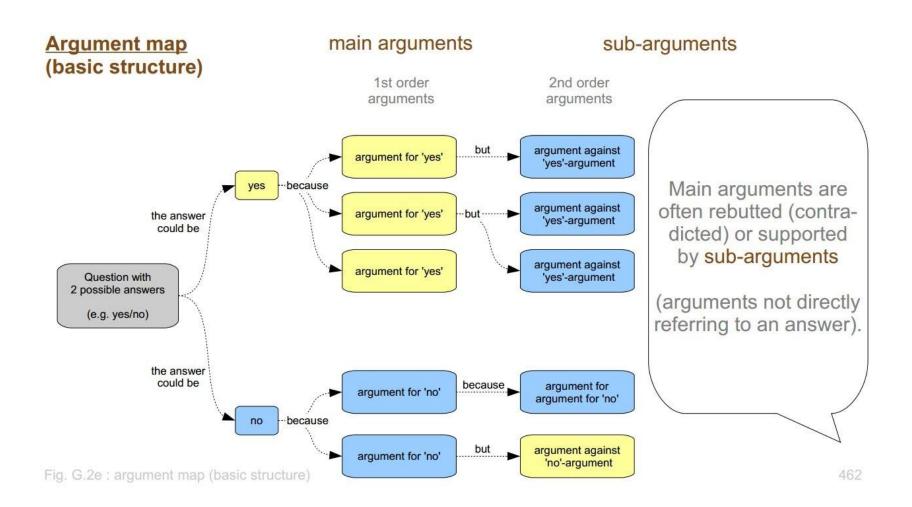
English for Academic Purposes / English for Specific Purposes

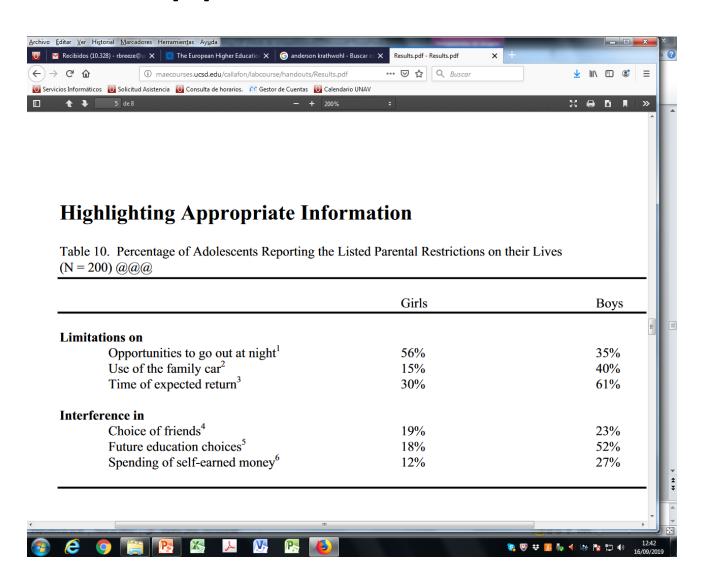


To prepare for essay writing:

Brainstorming
Preparatory discussion
Prepare arguments for/against
Prepare arguments for/reverse roles
Write one paragraph then submit to peer review
Advocatus diaboli
Socratic method
Class debates

. . . .



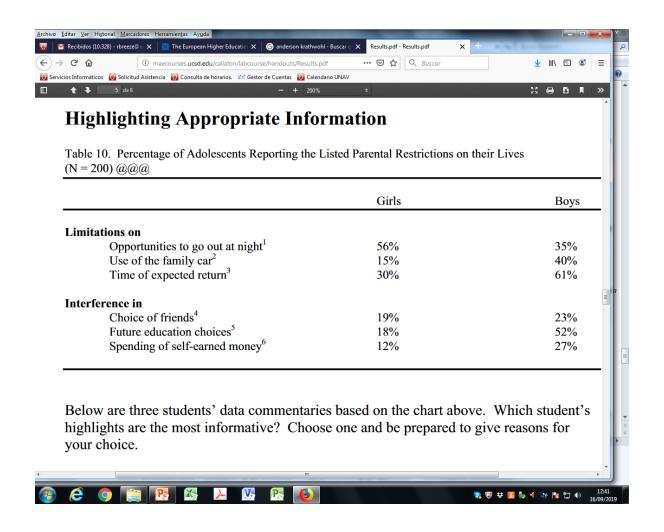


Genre – e.g. essay

Ordering arguments / counterarguments

Techniques of persuasion

Strength of claim



Response papers (arguing back...)

Essays based on previous reading (e.g. 2 contrasting viewpoints)

Essays about "real" topics

Research papers based on small-scale research projects carried out in the classroom/using google forms







Ideas from:

Engineering

Nursing/medicine/pharmacy

PR and marketing

Journalism / media studies

Law

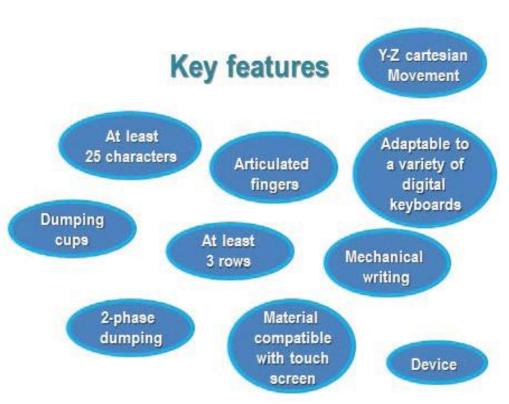
Engineering: A new invention.....

A patent claim is a single sentence composed of three parts: the introductory phrase, the body of the claim, and the link that joins the two:

Preamble and	A writing instrument for making a mark on a writing surface, the
transitional phrase	writing instrument comprising:
Element A	an elongate protective sheath with a central cavity extending
	along a length of the elongate protective sheath;
Element B	a solid material disposed within the central cavity so that a person can grip the protective sheath and guide a tip of the solid material extending out of a first distal end of the elongate protective sheath to make the mark on the writing surface; and
Element C	an eraser disposed adjacent to a second distal portion of the elongate protective sheath opposite the first distal end.

A new invention.....





Writing a patent claim

Engineering......

More ideas:

- •Create a graphical abstract for your paper and post it on the website for your classmates' comments
- Create "poster" papers (using own project or published paper) and defend them (and attack them)
- •Solutions to problems: decision-making tasks (Which bridge should we build? How should the town council spend the transport budget? Which type of train should we buy?)

Medicine/Nursing/Pharmacy

•Abstracts:

- •Collect sets of abstracts of papers from different studies about common nutritional/lifestyle issues: e.g. Is it healthy to eat red meat? Why do young people smoke? Do health campaigns have an influence on people's lifestyles?
- •Students should assemble these abstracts to create a "review" paper.

Class research:

- Choose a simple questionnaire-based study.
- •Students replicate the study with their peers, using the same questionnaire, and write up the results comparing their own results with the original paper.

PR and Marketing



Read guidelines about handling customer complaints

Writing complaints

Answering the complaints

Evaluating the answer

Evaluating the guidelines

Media: Deconstructing a text...

Identifying sources

Comparing media texts with their sources

Media: Deconstructing a text....



Media: Deconstructing a text....

- Read the text carefully to identify all possible sources
- Grade the sources in terms of (likely) reliability
- Grade the sources in terms of bias
- Find the sources in the Internet and compare them with the article
- · Use a fact-checking site to contrast the points made in the article
- Look at discursive strategies in the text (hedging, boosting, foregrounding, presentation of "experts", etc.) that may distort the message



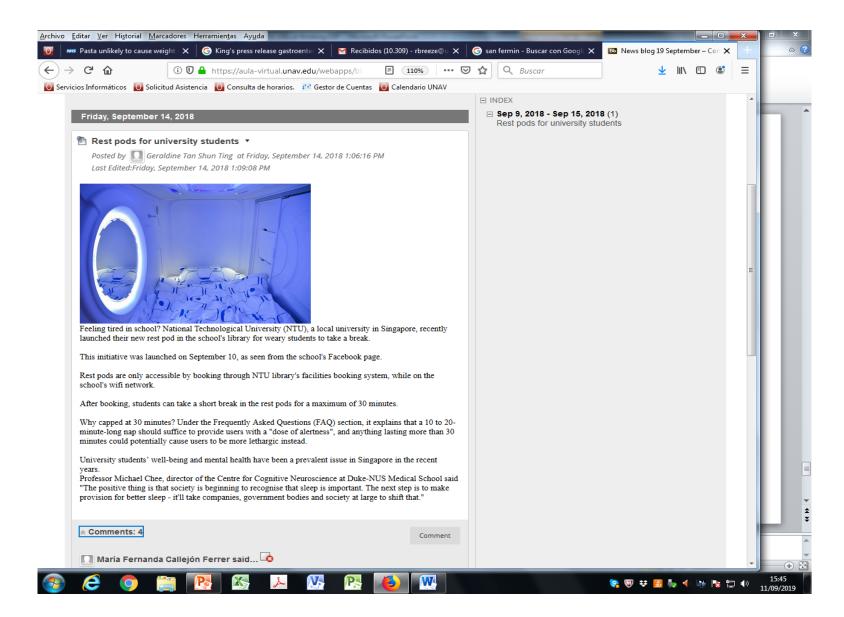


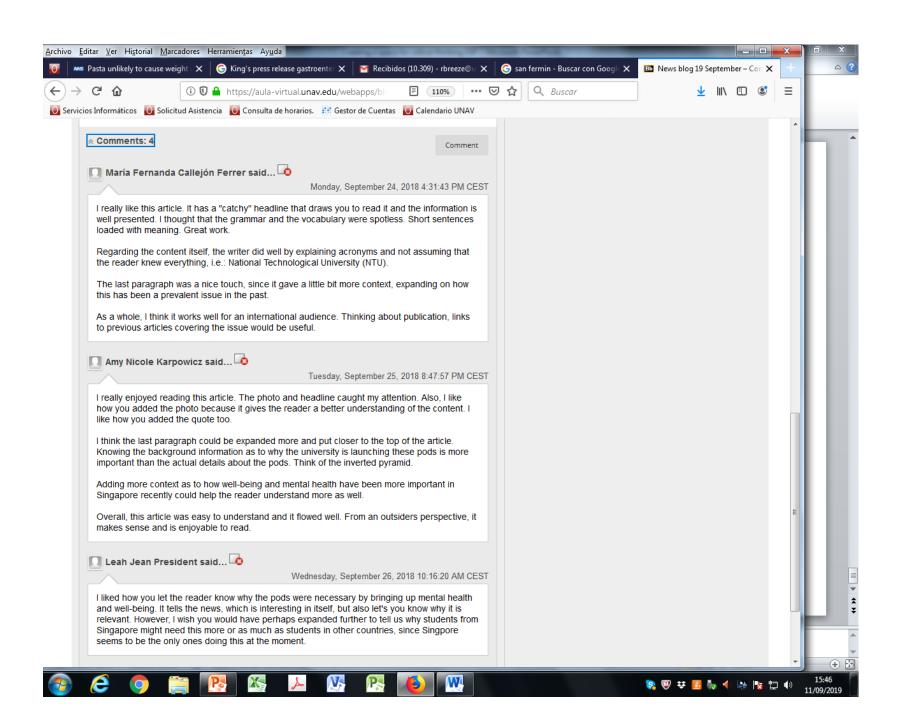


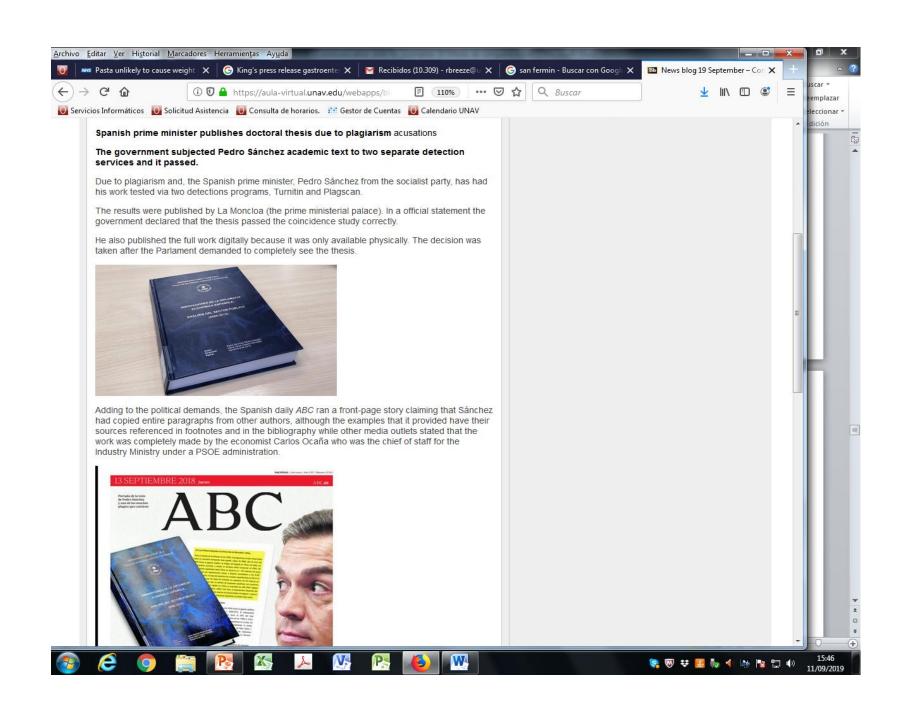
Media: Writing for international readers

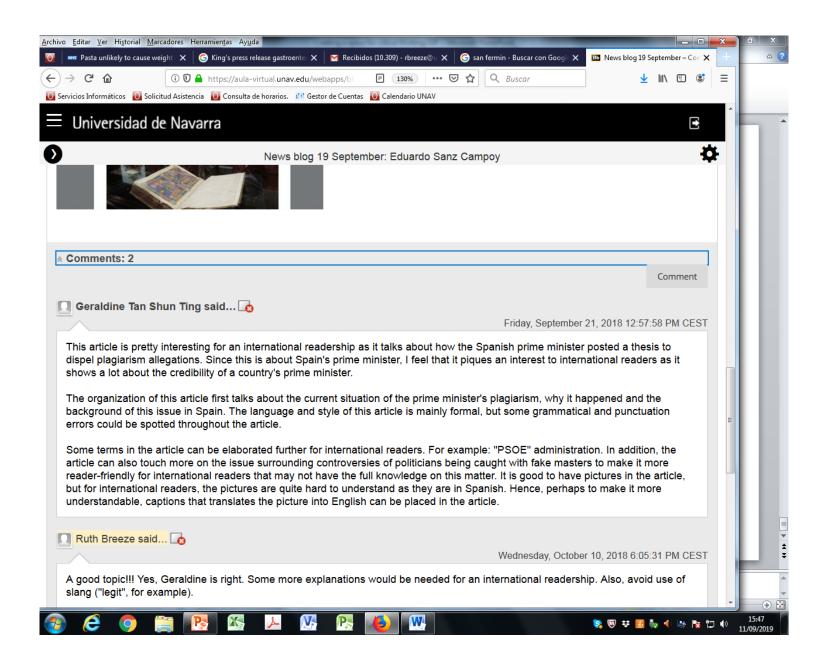


Writing for international readers





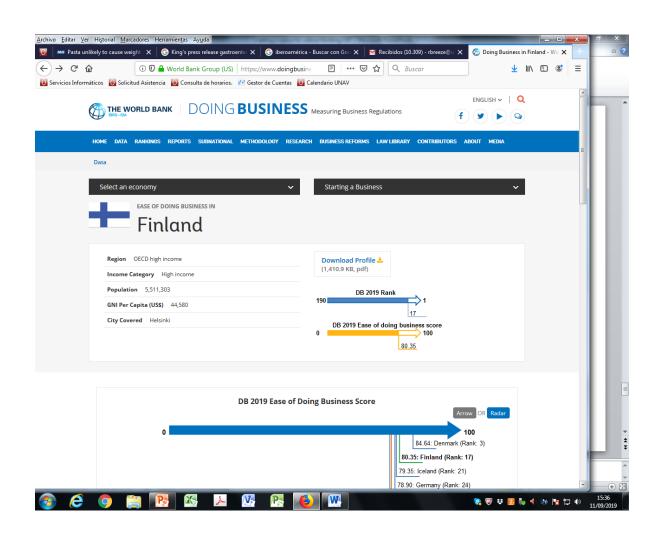




Law: Researching a legal topic

- The head of your department has just told you that she has a new client who is interested in setting up a business in (country X).
- Use the World Bank website
 "www.doingbusiness.org" to find out whether it
 is easier to set up a business in (country X) or in
 your own country.
- Write a memo to your boss providing relevant information.

Law: Researching a legal topic

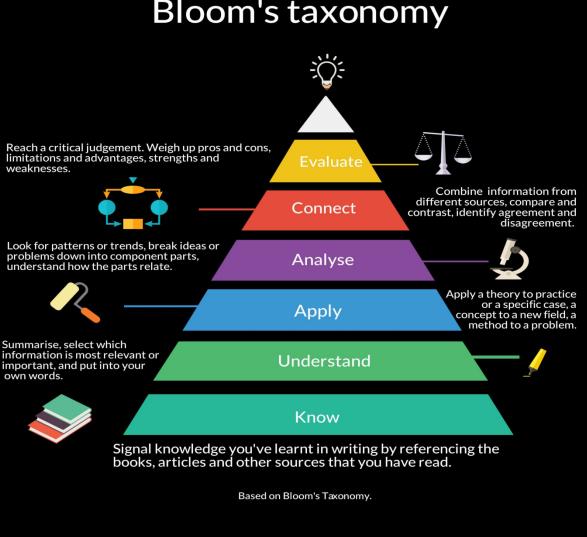


Law.....

Other ideas for promoting CT in English for Legal Purposes:

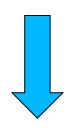
- •Buying and selling real estate: comparisons, writing advice, writing client information leaflets
- •Rewriting official information in "plain English" for non-specialists, or comparing two "plain English" versions
- •Comparing two sections or clauses from different countries, to identify differences and assess implications
- •Comparing the preamble to different constitutions (from English-speaking countries), to relate these to historical and cultural background



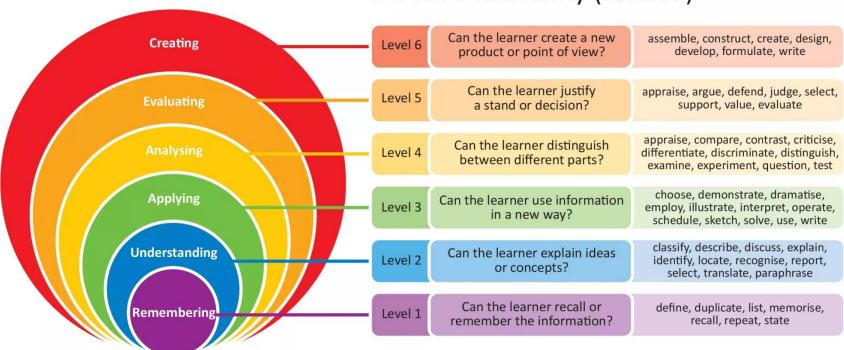


Skills approach

Descriptors / rubrics



Bloom's taxonomy (revised)

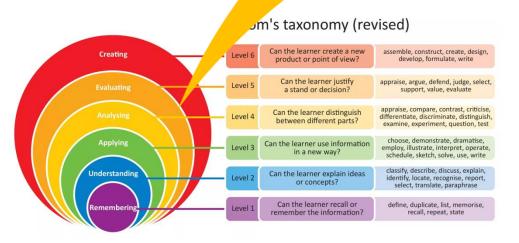


Language of evaluation

Genres, discourse strategies, etc.

Register, specialised lexis

Subject knowledge, CT skills

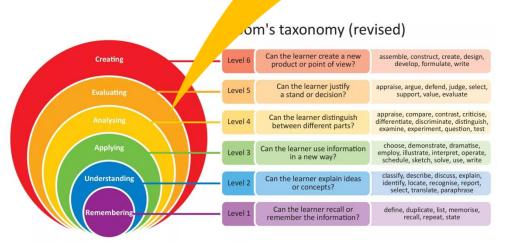


Case study
Evaluate news article on health-related topic:
Is this news accurate?
What social implications might this have?

Genres and strategies: object (media), target (essay)

Social implications
Use correct register and terms

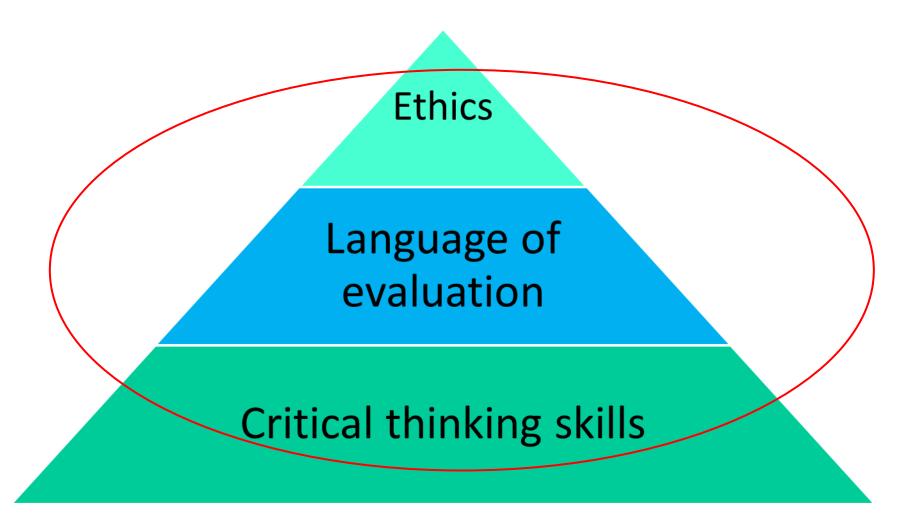
CT skills: analyse, compare, evaluate



Putting the parts of CT together

Ethics Language of evaluation Critical thinking skills

Putting the parts of CT together



Thank you! ¡¡Gracias!! Eskerrik asko!



Ευχαριστώ

rbreeze@unav.es

- Barrie, S. & Prosser, M. 2004 Generic graduate attributes: Citizens for an uncertain future. Higher Education Research and Development 23, 4, 243-246.
- Benesch, S. 2001. Critical English for Academic Purposes. Mahwah: Lawrence Erlbaum.
- Breeze, R. 2017. Promoting critical cultural awareness in the international university. In Breeze, R. and Sancho Guinda, C. (eds), *Essential competencies for English-medium university teaching*. Cham: Springer.
- Breeze, R. & Sancho Guinda, C. 2017. Genre-based strategies for integrating critical and creative thinking in Engineering and Journalism. *ESP Today* 5, 3, 5-23.
- Case, R. 2013. The Unfortuate Consequences of Bloom's Taxonomy. *Social Education*, 77(4), 196-200.
- Dooey, P. 2010. Students' perspectives of an EAP pathway program. *JEAP*, 9, 3, 184-197.
- De Waelsche, S. 2015. Critical thinking, questioning and student engagement in Korean University English courses. *Linguistics and Education*, 32, 131-147.
- El Soufi, N. & See, B. H. 2019. Does explicit teaching of critical thinking improve critical thinking skills of EL learners in HE? *Studies in Educational Evaluation*, 60, 140-162.
- Ennis, J. 1987. A taxonomy of critical thinking abilities annothing dispositions. In J. Baron & R. Sternberg (eds), *Teaching thinking skills: Theory and practice*. New York: W. H. Freeman.
- Hernandez, M. L. & Rodríguez, L. F. G. 2015. Transactional Reading in EFL Learning: A Path to Promote Critical Thinking through Urban Legends. *Colombian Applied Linguistics Journal*, 17, 2, 229-245.

- Moore, T. 2013. Critical thinking: seven definitions in search of a concept. *Studies in Higher Education*, 38, 4, 506-522.
- Moore, T. 2016. On teaching critical thinking in English for Academic Purposes. In R. Breeze & C. Sancho Guinda (eds), *Essential competencies for English medium higher education*. Cham: Springer.
- Morton, J. & Moore, T. 2005 Dimensions of difference: a comparison of university writing and IELTS writing. *JEAP*, 4, 43-66.
- Mulnix, J. W. 2012. Thinking critically about critical thinking. *Educational Philosophy and Theory*, 44, 5, 464-479.
- Schmidt, A. 2016. Critical thinking and English language teaching. *EFL Magazine*.
- https://www.eflmagazine.com/critical-thinking-english-language-teaching/
- Wilson, K. 2016. Critical reading, critical thinking. Delicate scaffolding in EAP. *Thinking Skills and Creativity*, 22, 256-265.
- Wong, B. L. 2016. Using Critical-Thinking Strategies To Develop Academic Reading Skills Among Saudi lep Students. MA thesis, Hamline University.