

An aerial photograph of the EPFL campus in Lausanne, Switzerland. The image shows several large, modern buildings with flat roofs and glass facades. In the background, there is a large body of water (Lake Geneva) and mountains under a cloudy sky. A prominent red structure is visible in the foreground.

Searching for scientific information and citation basis - Design Project

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22 February
2022

Learning Objectives

- Build an information retrieval strategy
- Get familiar with some of the EPFL Library information resources
- Distinguish document types: take the quiz
- Break – 15 min
- Avoid plagiarism by citing correctly : take the quiz

Information retrieval strategy

- Define the topic in the form of a question
- Pull out the main concepts, keywords
- Think of synonyms and related concepts
- Write a search equation
- Use multiple resources

Information retrieval strategy

- Define the topic in the form of a question

Develop a methodology to reduce the concentration of micropollutants in wastewater.

How to treat wastewater to remove micropollutants?

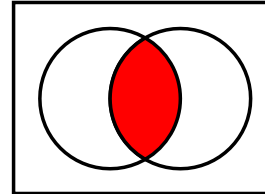
Pull out the main concepts, keywords

Wastewater / Micropollutant / Treat / Remove

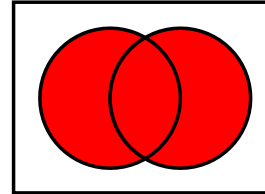
- Think of synonyms and related concepts
- Write a search equation
- Use multiple resources

Boolean operators and more

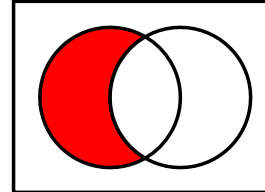
AND to combine key concepts



OR to add key concepts



NOT to exclude concepts



() * « »

Information retrieval strategy

- Pull out the main concepts, keywords
Wastewater/ Micropollutant*/ Treat*/ Remov**
- Think of synonyms and related concepts
« Sewage Sludge » / Saniti / Process* / Extracti* / Method**
- Write a search equation
(Process OR Method*) AND (“Wastewater treatment” OR “Wastewaters treatment” OR Wastewater*) AND Micropollu**
- Use multiple resources

Choosing information resources

■ Use scientific resources

- Encyclopaedies
- Books
- Articles
- Conference papers
- Thesis
- Patents
- <https://www.epfl.ch/campus/library/collections/>

Web of Science™

BEAST discovery tool

<https://go.epfl.ch/beast-catalog>

Use the EPFL [VPN](#) connexion

- Cross-check information
- Is the information reliable, valid, objective and accurate?
 - ✓ Is the information up-to-date?
 - ✓ Who is the author?

Take the quiz

Types of documents

Quiz

1. Access <https://responseware.eu>
2. ID session : formations

**Test yourself with 11
questions about Citation**

Copyright...

... applies **automatically** (no need to ask)

... comprises, in Swiss and European law, the **moral right** which is inalienable (recognition of authorship, integrity of the work)

and the **property rights** which are transferable (diffusion, commercial use)

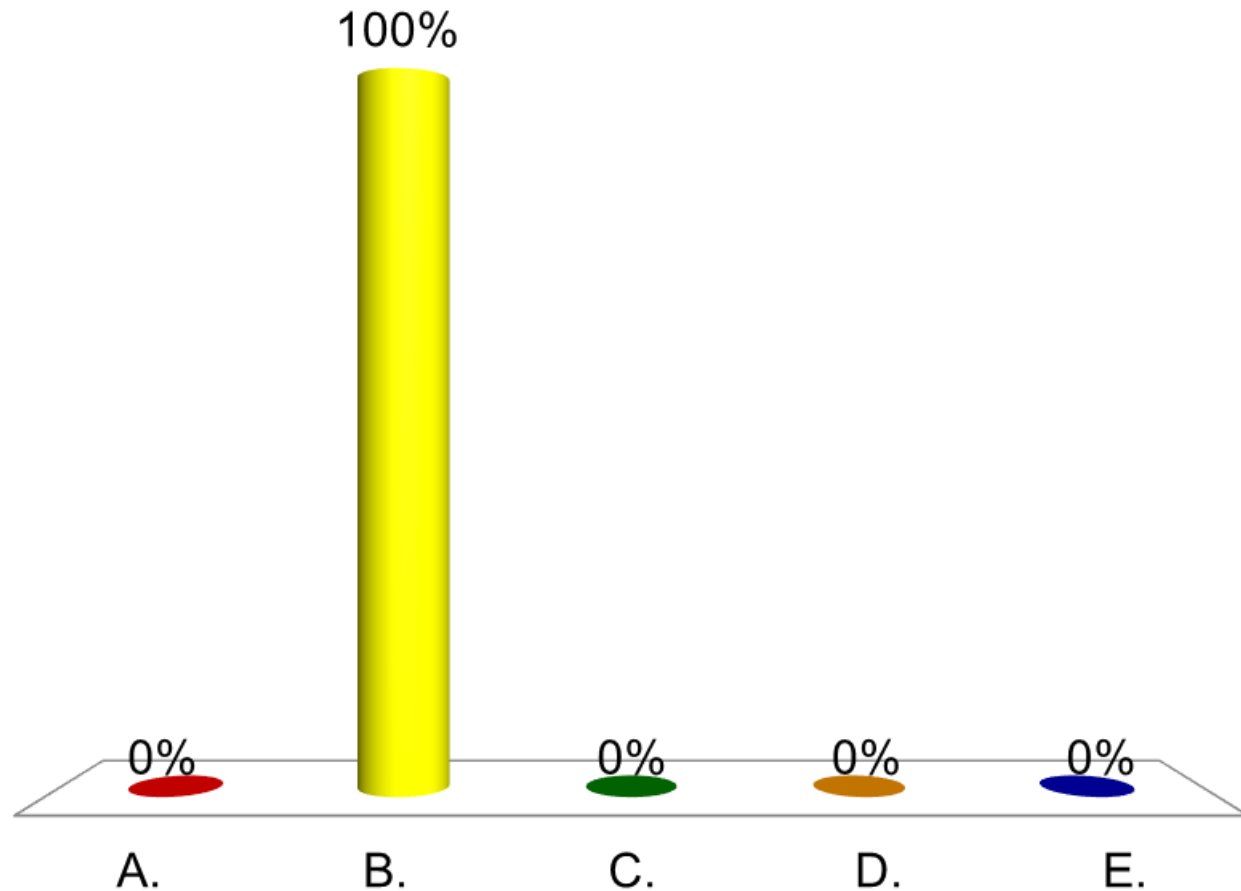
... protects the form, and not the idea!

... provides, conditionally, some exceptions. In particular, those related to **education** and to **citation** (LDA art. 19 al. 1b et art. 25)

1. Why should you cite when you write a report?

(several answers may be correct)

- A. Assign the ideas/words to their author
- B. Reuse what was already done
- C. Help the reader who wants to know more
- D. Write a longer document
- E. Avoid plagiarism



Citing enables you to...

... make the difference between your own **AND** new input and the one that comes from previous publications;

... add **credibility** to your work (you have read what was published in your domain and you know what you are talking about) ;

... replace your work in its context and demonstrate the **originality** of your input;

... provide the reader with the **references** that were useful to you in case she or he would like to know more ;

... reuse an **extract** of a document as it is.

Not citing means...

claim someone else's work for yourself

OR

present as new something that is not new

→ this is what we call plagiarism

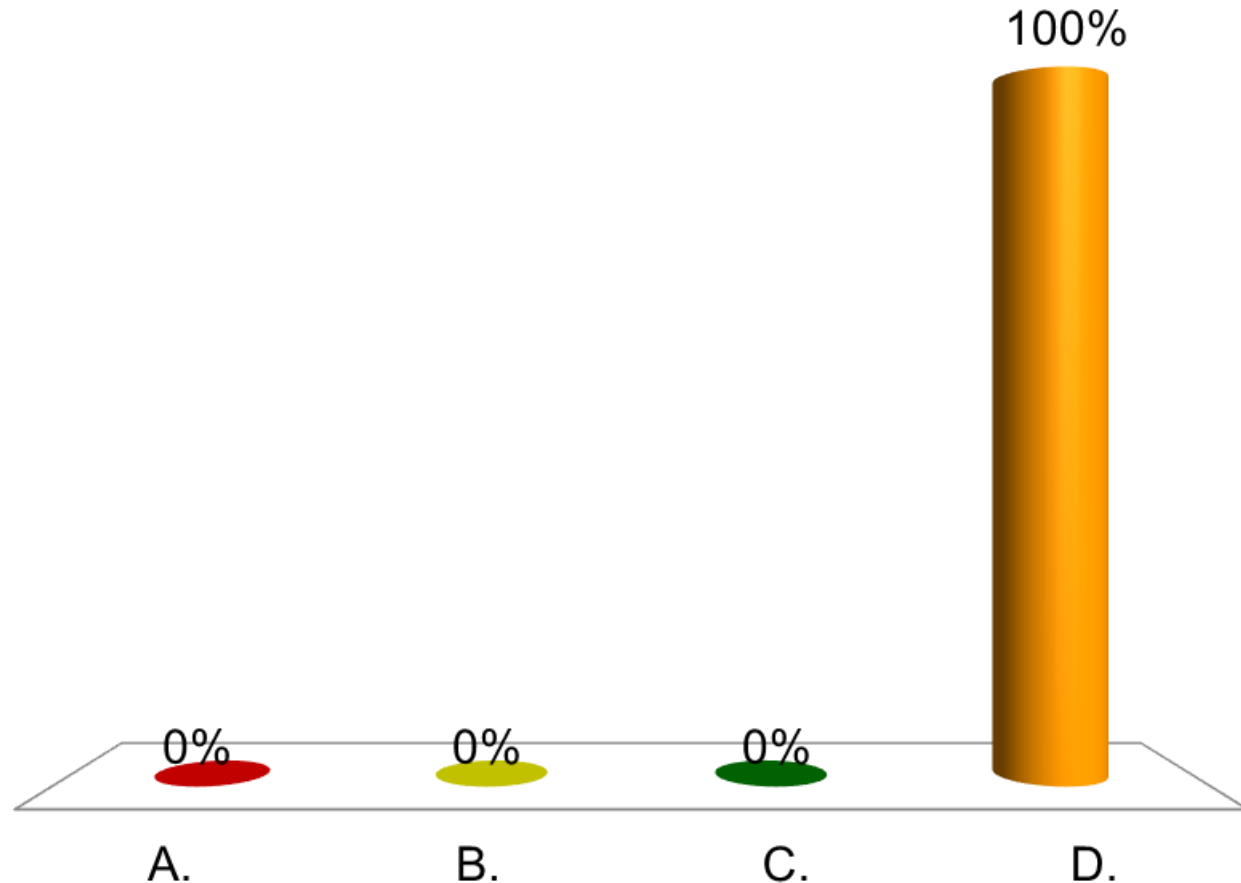
→ no matter if it is intentional or not

2. How to insert a section borrowed from another document? (several answers may be correct)

Highlight the borrowed section...

- A. in italics
- B. in bold
- C. with quotation marks
- D. in a separate paragraph

Borrowed sections should be **highlighted** no matter how



How to insert a citation or a section borrowed from another document

Example 1:

In his article *The biology of dying democracies*, Kováč (2019) states that «Marxist communism became a gigantic experiment in the 20th century to test the European rationalism. The experiment failed.»

Example 2:

The approach chosen for this article is the one presented by Kováč in *The biology of dying democracies* (2019), described as follows :

Humans are controversial beings, an inconsistent mixture of nature and culture and dominated by both. Biological hominization was followed by cultural humanization. So far, biologists mostly tended to conceive the biological individual as a Darwinian unit communicating with another individual in interest of one's own Darwinian fitness. Signals should serve to modify the behaviour of the receiver to benefit the signaller.

How to insert a citation or a section borrowed from another document

Example 3:

Experts believe that information literacy knowledge helps students to judge the appropriateness of information (Smith, 2016, McDowell, 2018 and Alhazmi, 2012).

OR

Experts believe that better information literacy knowledge will help students to judge the appropriateness of information[1-3].

How to insert a citation or a section borrowed from another document

Example 4 – Paraphrasing

The original :

- « A variety of evidence points to the existence of dark matter in the universe. As it is not directly observable with conventional astronomical techniques, we must rely on computer modules to guide our understanding. »

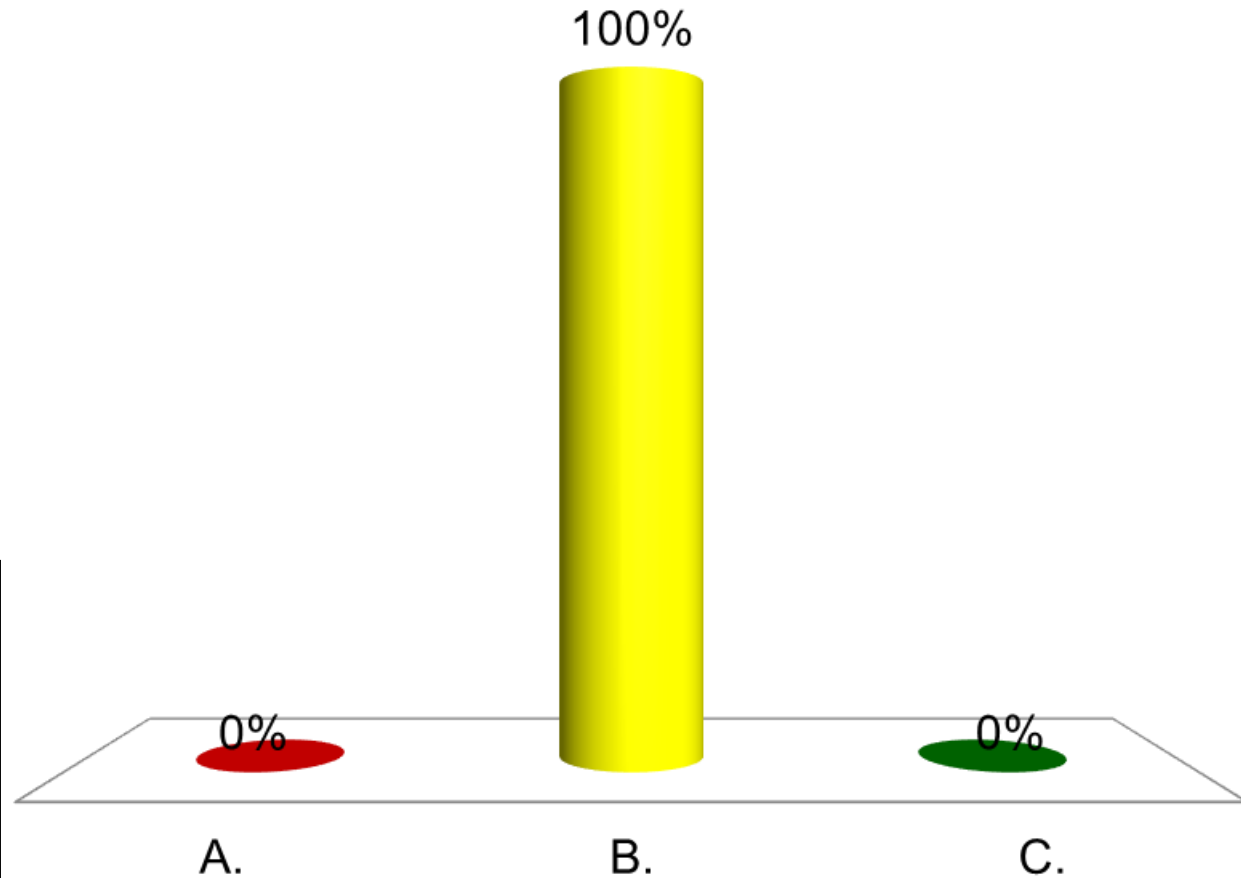
The paraphrase :

- Research about the universe suggests that dark matter exists. However, scientists must use computer models to learn about it because dark matter can't be studied directly (Lanzel and Barnes, 2009)

3. What should I do to borrow a section from someone else's work?

- A. Highlight the borrowed section
- B. Ask the permission to the author
- C. Cite the original source

Copy-Paste
+
Highlight of the borrowed section
+
Indication of the source



4. If I use a document that has not been published (yet) I need to cite it.

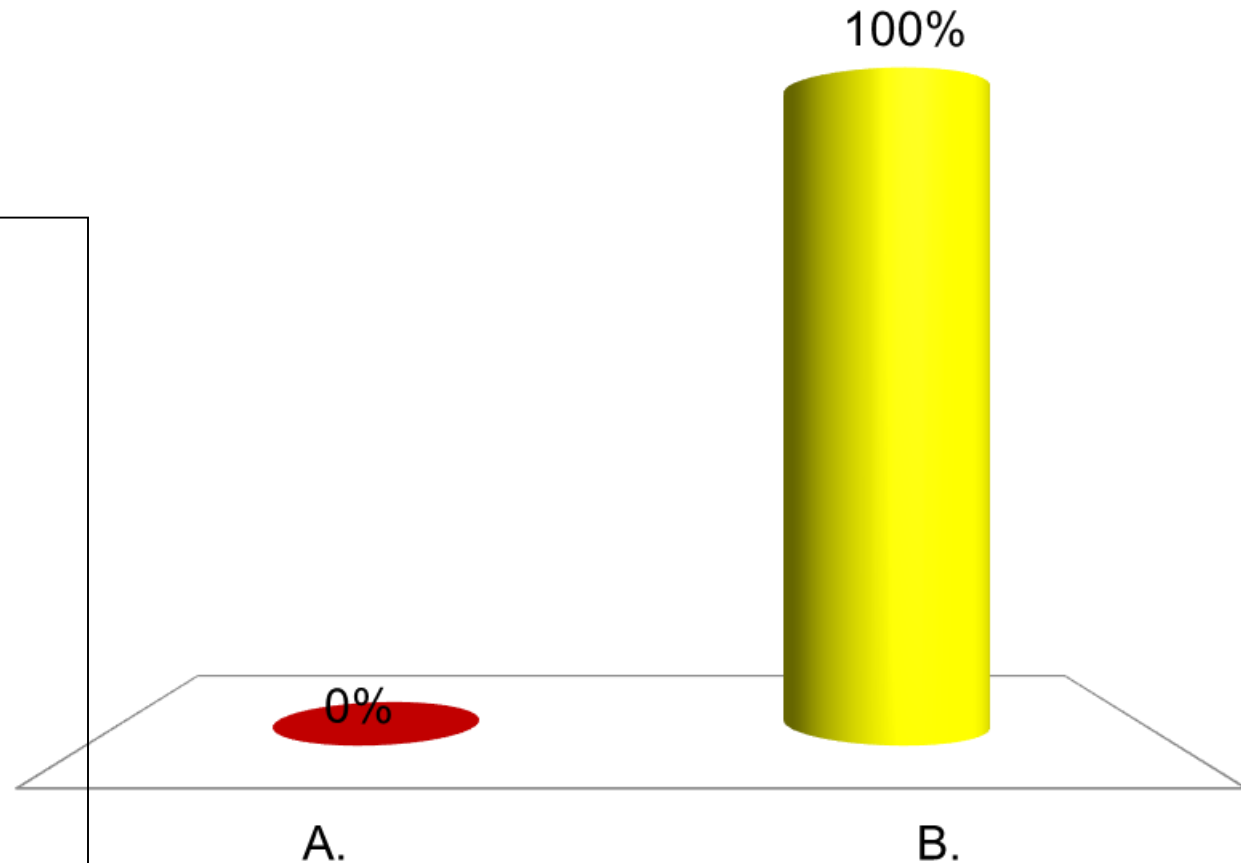
- A. True
- B. False

Always cite your sources.

Anyway, it would be better not to use documents that are inaccessible to the reader, such as confidential or internal documents

Pre-prints:

Not always accessible for the reader
Various versions



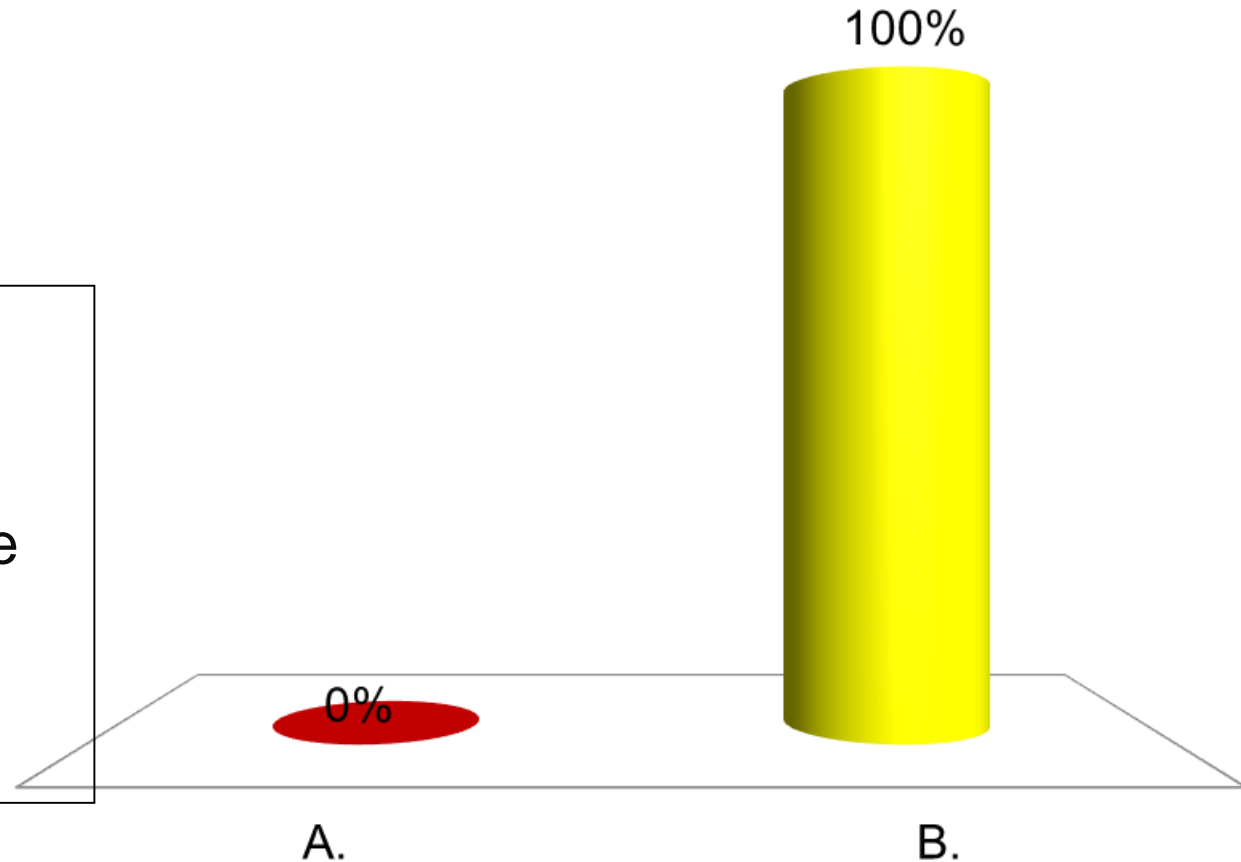
5. I have to cite a document that I published previously.

- A. True
- B. False

Reminder

Citing enables you to make the difference between your **own AND new input** and the ones that come from previous publications.

SELF-PLAGIARISM is also plagiarism



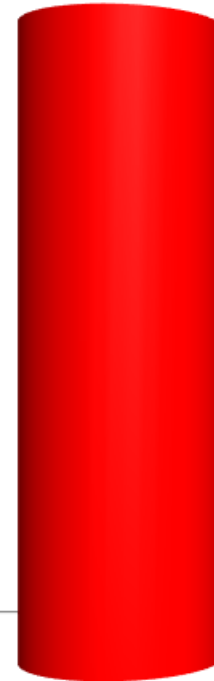
6. I have the right to adapt a quotation.

- A. True
- B. False

Highlighting modifications

« As **[John Smith]** commented in the 1st chap. of his book **[Introduction to statistics]**, statistics hide sum and substance. [...] therefore one should not forge **[sic]** that interpretation leads to bias. »

100%



A.

0%



B.

7. In the bibliography, I have to mention everything I have read to write my article/report.

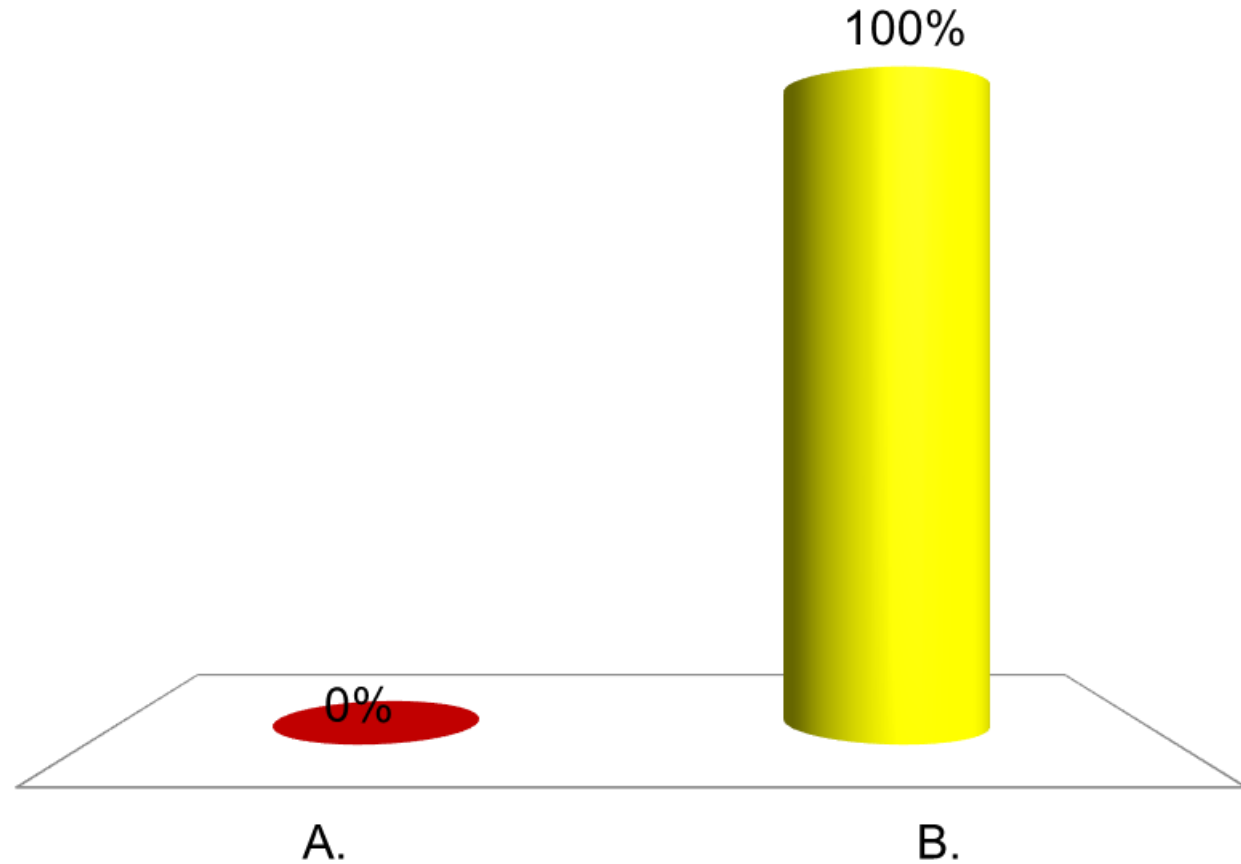
- A. True
- B. False

cited references

→ bibliography

other interesting references

→ separate list



8. To reuse an image or a graph found in another document, I have

to: (several answers may be correct)

- A. Copy-Paste
- B. Obtain the author's permission
- C. Cite the source

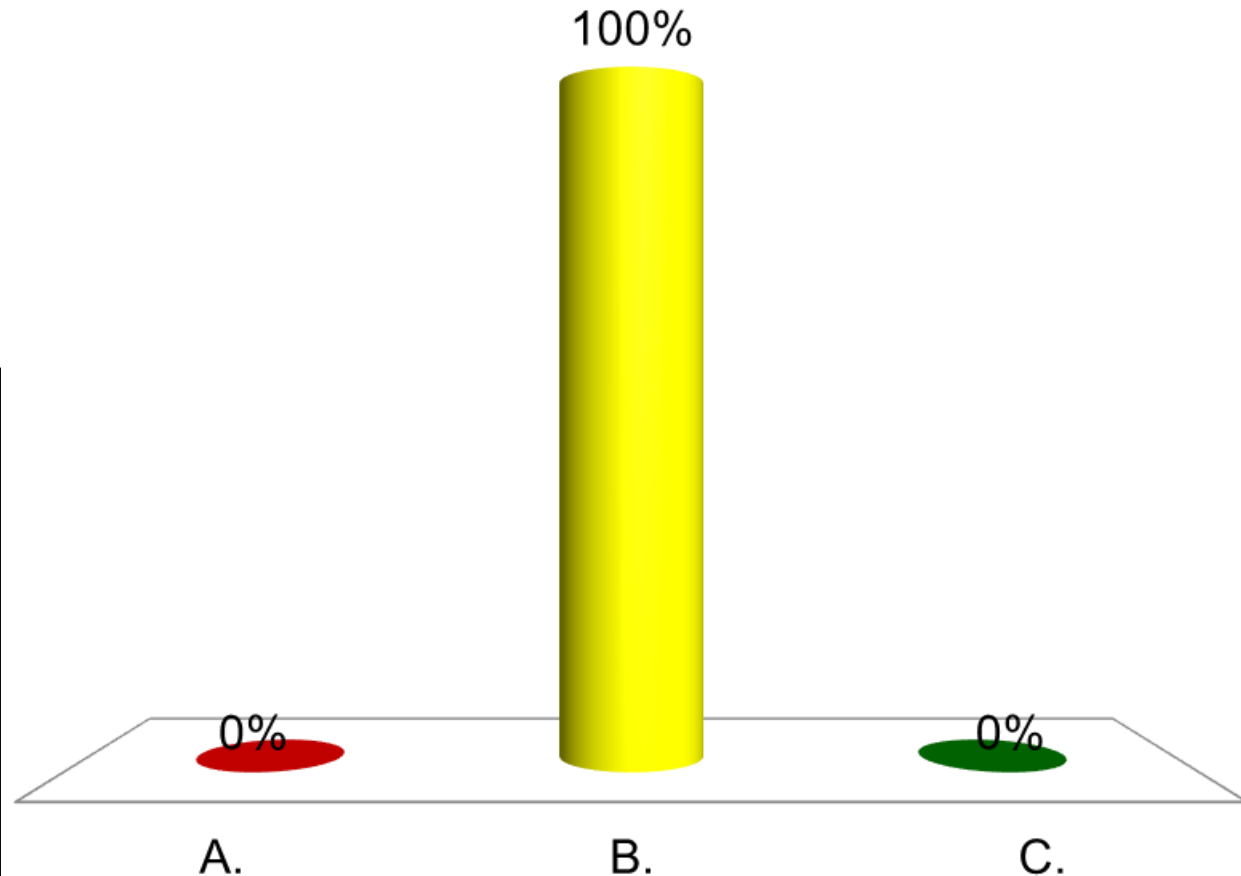
Image = integral work

Graph = protected layout

cite (correctly) the source

+

Ask explicit authorization from copyright owner



Tips

Image:

Freely usable images under [Creative Commons](#) licenses

- Cite the source
- Search one of these sites:
 - <https://www.pexels.com/fr-fr/>
 - <https://www.flickr.com/>
 - https://commons.wikimedia.org/wiki/Ac_cueil

Graph:

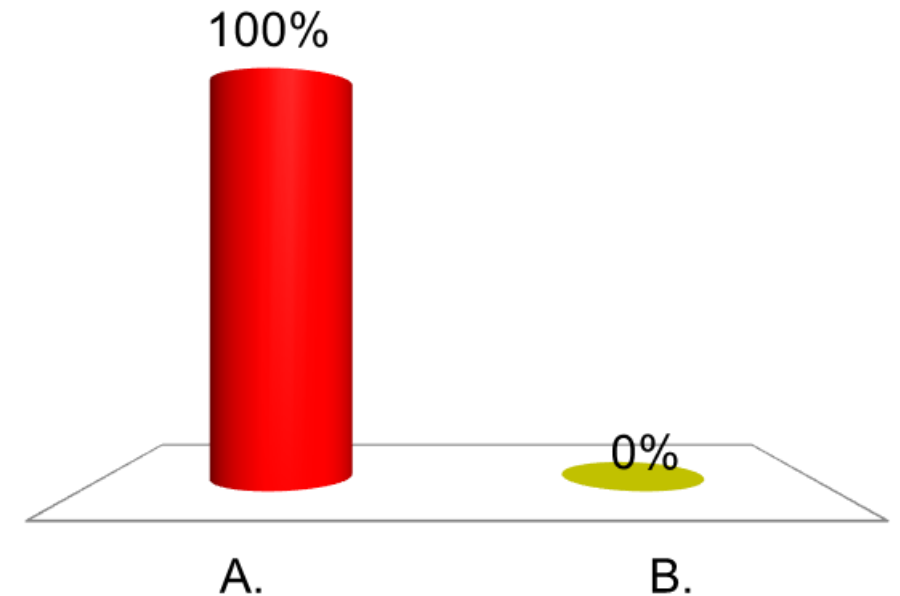
Recreate the graph yourself

- Cite the source

9. You consult an article [1] in which a section from another article [2] (that you haven't read) is cited. You would like to insert this section from article [2] in your report. Which source do you cite?

- A. [1] Kim S et Dale BE 2004 *Global potential bioethanol production from wasted crops and crop residues*. *Biomass & Bioenergy* 26(4): 361-375
- B. [2] Zaldivar J, Nielsen J, Olsson L Fuel 2001 *Ethanol production from lignocellulose: a challenge for metabolic engineering and process integration*. *Applied Microbiology and Biotechnology* 56 (1-2):17-34

Do not cite a document that you have not consulted!



Suggestions

In the text

Kim S. (2004) suggests that the technique described by Zaldivar J. (2001) as « being by far the most efficient on most continents » is not the only way to follow for the development of the bioethanol production.

In the bibliography

Kim S et Dale BE 2004 *Global potential bioethanol production from wasted crops and crop residues*. Biomass & Bioenergy 26(4): 361-375

OR

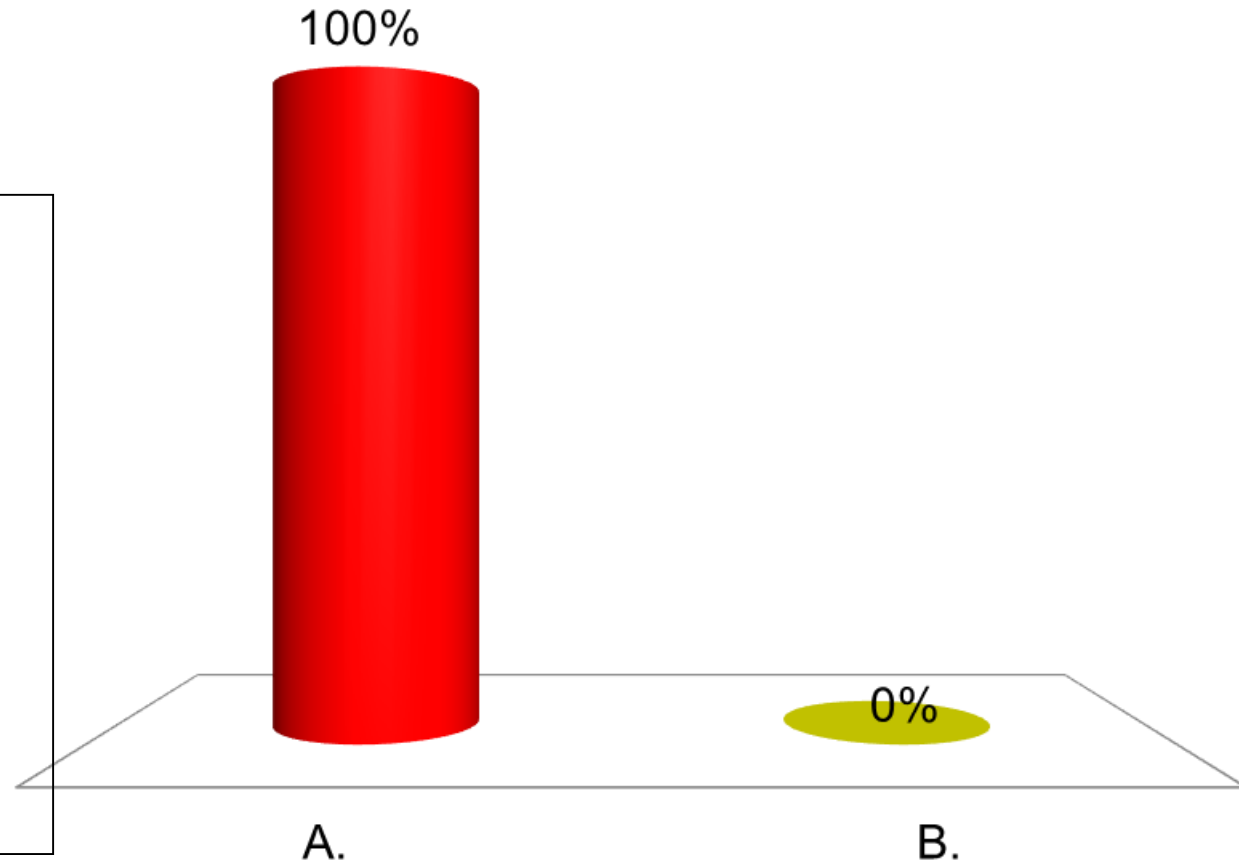
Zaldivar J, Nielsen J, Olsson L Fuel 2001 *Ethanol production from lignocellulose: a challenge for metabolic engineering and process integration*. Applied Microbiology and Biotechnology 56 (1-2):17-34 **cited by** Kim S et Dale BE 2004 *Global potential bioethanol production from wasted crops and crop residues*. Biomass & Bioenergy 26(4): 361-375

10. To cite a webpage, it is enough to simply indicate the URL

- A. True
- B. False

URL is useful but not enough,
because
- not permanent

Reference to a webpage:
page title, author, website title, URL,
consultation date (or time)
+ any piece of information that may
help to identify the source



11. Which reference is correct?

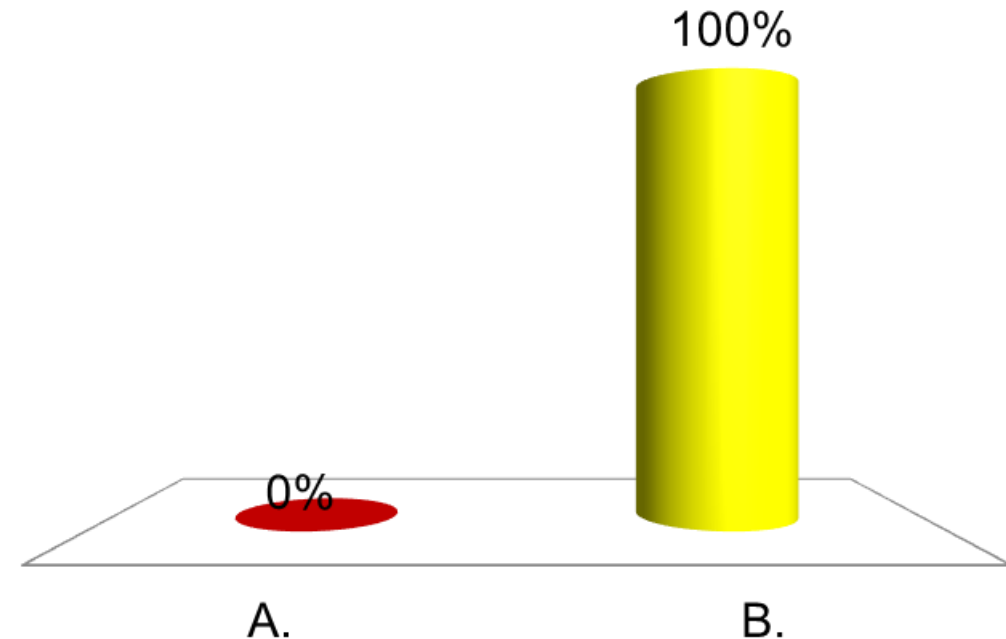
- A. MONTGOMERY, Douglas Carter, 2013. Design and analysis of experiments. 8e éd. Hoboken, N.J : John Wiley & Sons. ISBN 978-1-1180-9793-9.
- B. 1. Montgomery, D. C. Design and analysis of experiments. (John Wiley & Sons, 2013).

You

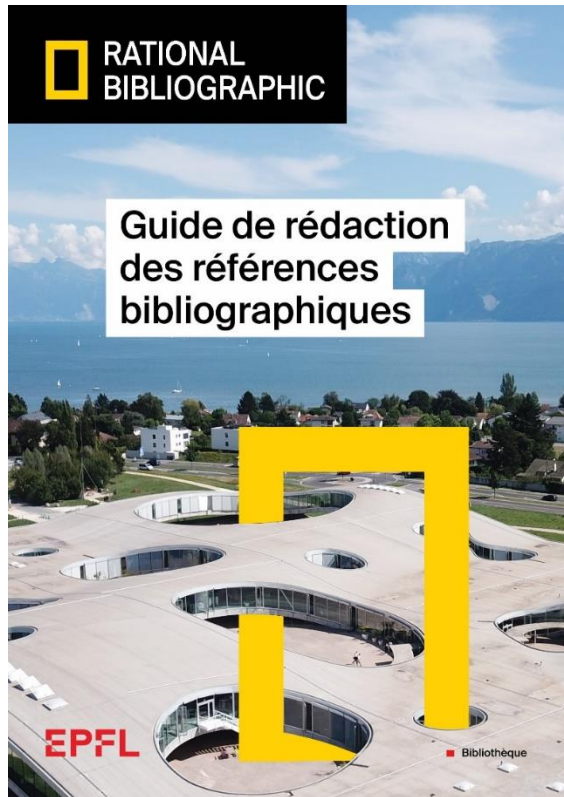
Check that the collected information is correct and complete.

Tip: use a reference manager software

like Zotero to create a bibliography according to the chosen citation style.



To know more about citation...



Refer to our Rational Bibliographic **guide** to create and verify your references: go.epfl.ch/guide-bibliographique

zotero

- Valérie Charbonnier – Liaison Librarian for Environment
 - valerie.charbonnier@epfl.ch
 - Weekly duty period
 - [Library page](#) for Environment
- EPFL Library Teaching team
 - Formations.bib@epfl.ch
 - [Book a librarian](#)



Thanks!