

OL 241 Assignment Four Homework

Online Learning. OL 241 How to Write a Community Climate Action Plan:

<https://csd-i.org/climate-change/climate-change-action-plan-241/>

Center for Sustainable Development: <https://csd-i.org>

This week's resources:

Assignment Four Discussion

Magee Example Project Assignment Four

Scientific Document Example: The Role of Urban Trees in Reducing Land Surface Temperatures in European Cities

Assignment Four. Will your theory of a solution work?

Investigating if there is a scientific basis that our proposed theory and activities have worked on other projects.

In this assignment, you will be researching two activities. Pick activities you plan to use in your project that are simple ones that can be easily described.

Look for potential information in these places:

Google

Google Scholar

In Google you can ask questions just as if you are asking them of another person.

For example, in my project, I am looking for information on street trees and urban heat. So in Google, I can type in "Is there evidence that street trees reduce urban heat?"

Google also has Google Scholar which focuses strictly on scientific documents.

<http://scholar.google.com/schhp?hl=en&tab=ws>

With this key word approach I can get excellent results. If you happen to hit a gold mine of results, save those key words. They may come in handy in the future, and the way you phrased the key words may be a template for future searches on different subjects.

I find using keywords like 'Groundwater Recharge Techniques' and 'Urban Street Trees for Climate Change', gets me out of mainstream news and into real scientific information. You can also type in things like 'abstracts' and 'executive summaries' to point you towards scientific documents. Play around.

We are looking for peer-reviewed, scientific documents. If you find one with the magic symbol PDF next to it, this means that there is a document to download.

We are not looking for informational documents found on websites that have not gone through evaluation by a team of scientists (peer group). These are called 'Grey Literature' and are not acceptable for gathering scientific evidence.

This is what a peer-reviewed scientific document looks like online; note the list of authors' names, the abstract and the reference to a university:

<https://www.nature.com/articles/s41467-021-26768-w.pdf>: 'The Role of Urban Trees in Reducing Land Surface Temperatures in European Cities' by Jonas Schwaab, Ronny Meier, Gianluca Mussetti, Sonia Seneviratne, Christine Bürgi & Edouard L. Davin.

Sometimes you'll go to a link which is only for an abstract (a paragraph describing a document). Frequently these abstracts are at publishing houses, and they will want to charge you to download the full document. However, make a note of the exact name of the study and the authors, and do a Google search on those, and sometimes you can find the original document online as a PDF for free.

If you work at or are attending a university and have access to peer-reviewed search engines, your life will be much simpler. They are geared to finding the kinds of scientific documents we are looking for.

When you find a document, sometimes it will be a "synthetic study", or a "literature review", which has analyzed a large number of primary research documents. These will give you the most useful results for your project.

In the executive summary/abstract and in the conclusion of the scientific studies they will tell you if the activity has worked to solve the challenge that you've identified, and under what circumstances.

Once you've found one or several of these documents I want you to act like a scientist and without putting your own desires and feelings into the interpretation of the document, write a one paragraph summary that will indicate whether or not the activity that you have selected for your project appears to work, or not.

Do this for two of your project activities: one or two scientific studies and one short, summary paragraph for each of the two activities.

If a document indicates that the activity you chose to solve your project's challenge does not work-- that's good news too; because it means that you won't waste a lot of time and money on an activity which is not going to perform.

If one of the documents indicates the activity doesn't work, just write your paragraph on that one: the fact that it doesn't work is good information for all of us.

If during your searches you see any practical information on one of your activities like a field guide or manual, bookmark it (or save it as a PDF) for when your project launches.

The homework to turn in will be:

1. A list of links to one or two scientific papers for each of your two proposed project activities.
2. A short paragraph summarizing the findings of one scientific paper for each of your two activities.
3. If your research indicates that you need to revise an activity, Revise the Assignment 2 project outline and forward me a copy.

Go to Magee's Example Project Assignment Four to see what this could look like.

See you next week.

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