

COMP320: Research Practice

2: Conducting a literature review and forming the research question

Learning outcomes

- ▶ **Explain** what makes a good research question
- ▶ **Formulate** research questions in the area of your chosen project
- ▶ **Conduct** a scholarly literature review

Literature review



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- ▶ **References**

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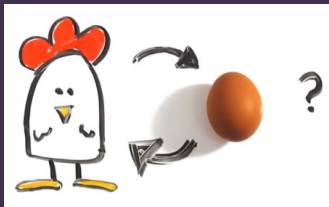
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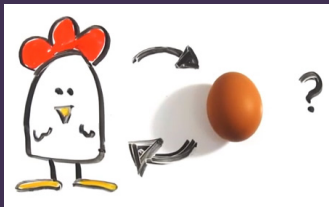
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 - ▶ Is your research question one that others have asked, and possibly tried to answer?

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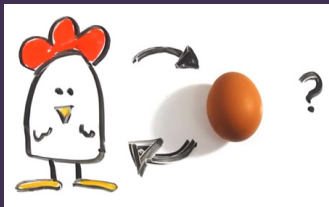


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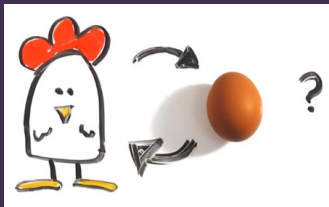
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- ▶ Having an initial research question in mind will help focus your literature search
- ▶ What you read will influence your research question
- ▶ Be prepared to **refine** your research question

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- ▶ Write up as you go along

Recommended reading

D. Boote and P. Beile. "Scholars before researchers: on the centrality of the disseration literature review in research preparation," *Educational Researcher* Vol. 34 No. 6, pp. 3–15, 2005.

Formulating the research question



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- ▶ Is **interesting** and addresses a **need**

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 - ▶ Are videogames bad for children?
- ▶ Too narrow, not interesting:
 - ▶ How many children in Cornwall play Overwatch?
- ▶ Better:
 - ▶ What effect does regular videogame playing have on the academic attainment of children ages 11–14?

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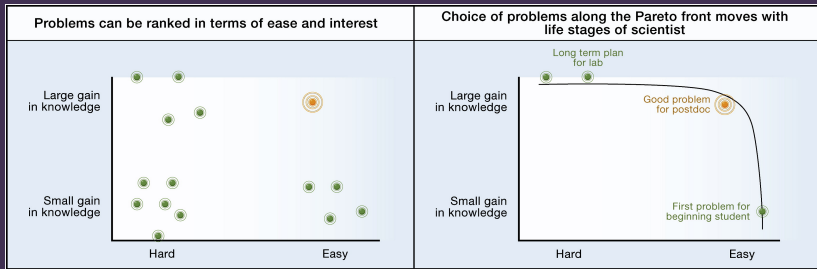
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- ▶ Hypothesis:
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- ▶ A good research question leads to several hypotheses

Choosing a research problem



U. Alon, "How to choose a good scientific problem," *Molecular Cell* 35, pp. 726–728, 2009.

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- ▶ What are the **research questions** behind them?

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 - ▶ In 1 sentence: why is this interesting and/or important?

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- ▶ Refine your proposal into a well-defined research question, to discuss with your supervisor after this