

MTH6110

Qualitative vs Quantitative Approaches to Teaching and Learning

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Plan for Today

- 1. Warmup
- 2. Discussion Reading Coe et. al.
- 3. Finding and Citing (Maths) Education Research





Warmup!

Look at your Self-Audit

Accomplishments
Strengths/Weaknesses
Goals

Write down an Action Plan for achieving your goals

Specific

Within your current means to accomplish

Have concrete timelines

Take into account anticipated barriers





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Discussion - What are the elements of a well-written introduction?

In your group - List as many tips and tricks (or things to avoid) as you can for writing a great introduction in 5 minutes.

Altogether – Compile and compare with Coe et. al. introduction, p. 8

Image courtesy of https://www.writermag.com/writing-inspiration/creativity-inspiration/curing-causes-of-writers-block/





Reading Assignment 2 – Skill Building

In a new group - Write a few brief summarizing sentences for each of the six subsections that appear in the first chapter.

At home – The first citation is (Strong et al 2011; Hamre et al 2009). Do you know how to find and cite references like this? Do you know where you would look to find out?

Further Considerations

Before embarking on your Week 3 reading, look at how our directions for each Reading Assignment have been structured from Week 1 onward.

Do you notice anything in terms of learning objectives planning, skills progression or sophistication?



One more thing...

Content Knowledge Instruction Quality

Classroom Climate

Classroom Management Teacher Beliefs Professional Behaviours

Are we missing any components of great teaching?





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Maths Education Research Literature

Recall our objectives for next few weeks

- finding relevant resources
- citing resources in your own work
- basic structure of a research article
- how to approach content
- interpretation and application of conclusions



Looking up Maths Education Research

The QM Library houses many repositories and can support you in finding and correctly citing relevant Maths Education resources in your works for this module.

- ERIC
- **MathSciNet**
- ArXiv
- Find it, use it, reference it!











Find it and Reference it! **Journal Literature**

Demonstration Exercise

- Let's choose a (random) Maths Education research article
- Do not read it (yet)!
- Identify the basic components
 - Title, journal, abstract, keywords, sectioning,
 - Introduction, methodology, evidence, analysis, conclusions
- Look at construction
 - Theory vs. Practice
 - Qualitative vs. Quantitative
- Consider takeaways and limitations?
- How do we cite this (random) work?





Maths Education Research Literature

Now you can practice!

- finding relevant resources
- citing resources in your own work
- basic structure of a research article
- how to approach content

Coming up...

interpretation and application of conclusions





Our (Weekly) Skills Checklist

- Reading
- Interacting
- Watching
- Reflecting
- Writing







Questions?

Thank you for your participation!