Musculoskeletal Biomechanics
BIOEN 520 | ME 527

Session 7B
Mini-Lab 3
Literature Reviews
Literature Reviews...

FYI: Clinical Significance \(\neq\) Lit Review

\(\gg\) a subset of a lit review...
[Q]: What is the purpose of a lit review?

- Synthesize background information
  - Establish what’s been done?
  - What model/methods were used (good/bad?)
  - Limitations (what was controlled/not controlled?)
  - What were the findings?

- Interpret what is known/unknown
  - Collectively, what do we know (...and, still don’t know)
  - What’s important to further investigate and why?

- How does the proposed study fit in?
  - What’s the significance of the proposed study?
Literature Reviews...

Small Group Discussion...

• Review and compare lit reviews (...2 helmet papers)
  – Bowman et al., JOB, 2012
  – Mizuno et al., AA&P, 2014

• How well do they achieve the lit review objectives?
  – Synthesis of relevant research?
  – Interpretation of known/unknown/needs?
  – Rationale for current study?
What tools/strategies do you use?

Tools
- PubMed (database) search
- “Ancestor tree” recent papers (esp. review papers)
- Books
- Web of Science via UW Libraries*

Organize results
- Sheri’s tabularized example

Literature Reviews...

Tips on how NOT to write it up?

• “Many studies have examined XYZ [1-52].”
• Series of paragraphs... one for each study
• Critiques (“trashes”) other studies
Literature Reviews...

Good practices...

• Synthesize previous studies by grouping ideas into themes

• Summarize what are the knowns, unknowns, and current needs

• State the objectives (hypotheses) for your study and how it fits in

Online Resource:
https://emedia.rmit.edu.au/learninglab/content/literature-review-tutorial