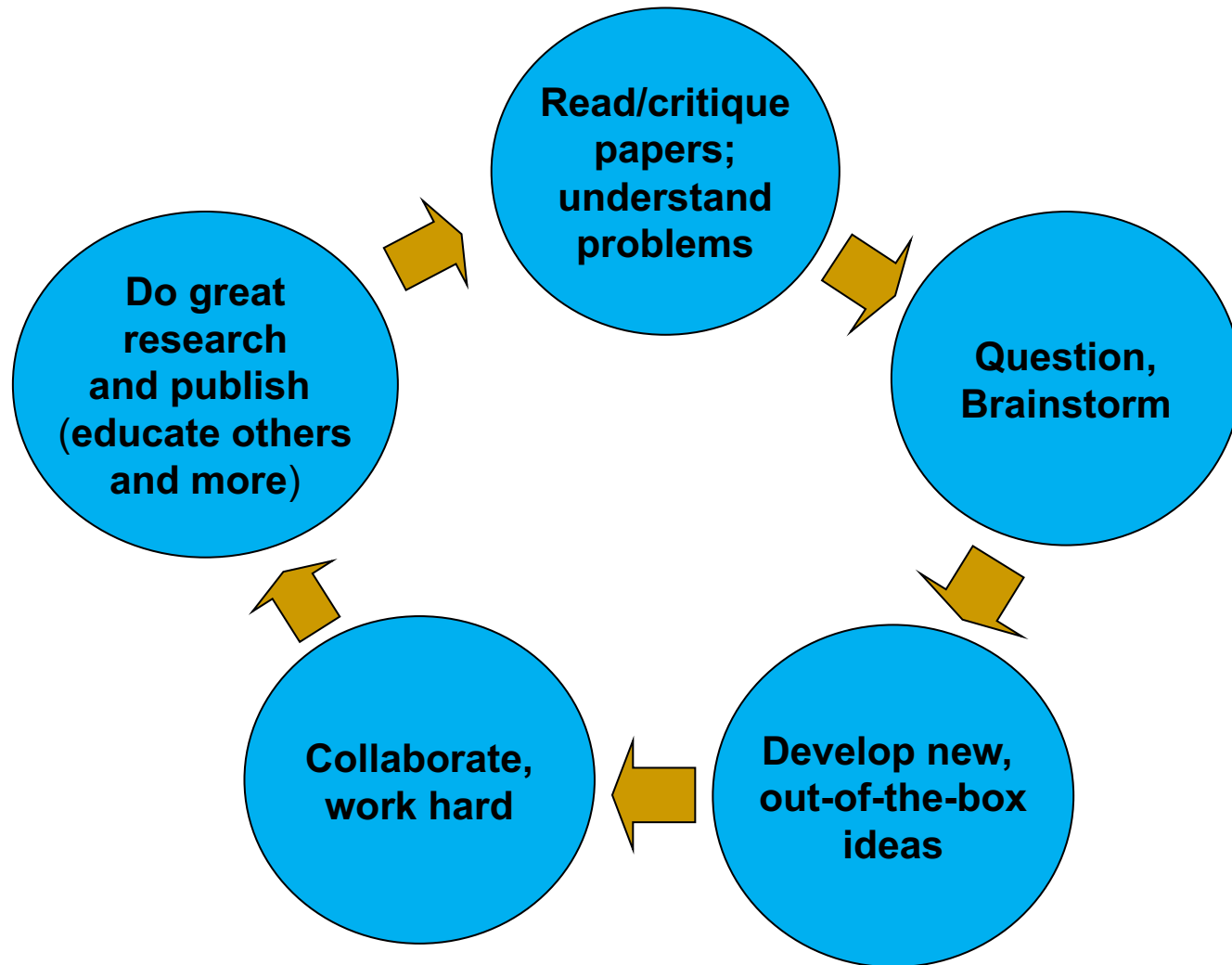


Recap: Some Goals of This Course

- Teach/enable/empower you to:
 - Think critically
 - Think broadly
 - Learn how to understand, analyze and present papers and ideas
 - Get familiar with key first steps in research
 - Get familiar with key research directions

The Virtuous Cycle of Scientific Progress



Anatomy of a Good Paper Review (Talk)

n 0: Title, Authors, Venue

n 1: Summary

q What is the problem the paper is trying to solve?

q What are the key ideas of the paper? Key insights?

q What are the key mechanisms? What is the implementation?

q What are the key results? Key conclusions?

n 2: Strengths (most important ones)

q Does the paper solve the problem well? Is it well written? ...

n 3: Weaknesses (most important ones)

q This is where you should **think critically**. Every paper/idea has a weakness. This does not mean the paper is necessarily bad. It means there is room for improvement and future research can accomplish this.

n 4: Thoughts/Ideas: Can you do better? Present your ideas.

n 5: Takeaways: What you learned/enjoyed/disliked? Why?

n 6: Discussion starters and questions.

n

Suggested Paper Discussion Format

- n Problem & Goal
- n Key Ideas/solution
- n Novelty
- n Mechanisms & Implementation
- n Major Results
- n Takeaways/Conclusions

**~ 5 minute
Summary**

- n Strengths
- n Weaknesses
- n Alternatives
- n New ideas/problems
- n **Brainstorming and Discussion**

**~2 min Critique
plus
~3 min Discussion**