

Importance of selecting an academic topic

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Most challenging in research work

- Fresh grad students face arrayed challenges as they set to initiate their research work
- Selection of an academic topic maybe the most important one



Every problem
can be
smoothly
solved now.



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At the cross road, direction is
much more important than
speed.



What is the academic topic ?

- The margin between what we have recognized or observed and the inherent mechanism governing the associated phenomenon
- To address the questions about *what? Why? or how?*
- Both fundamental and applied research embrace their academical topic

NOT an issue on just to complete a product, or to improve its quality or performance.

Just how to cook is **NOT** an academic topic too.

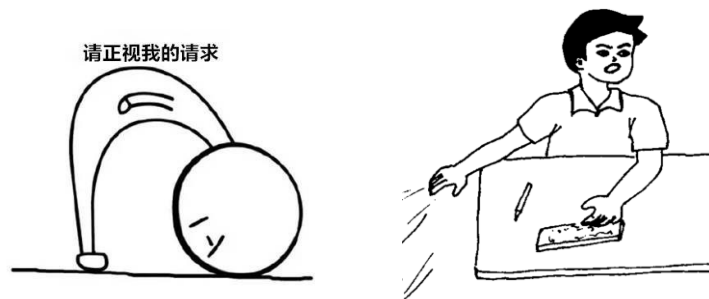


What's the chemical reactions occurring during cooking

How to select the academic topic ?

- To put forward your own topic based on literature survey or/and experiments
- A logic analysis often produces an academic topic
- Discussion with others, including the supervisors, is vital
- Supervisors will help you, but only in your final decision

DO NOT hurry into an unthoughtful topic



- Half work yields double results
- Haste makes waste

What is an good academic topic ?

- An unconventional theoretic issue for the academic community
- Or distinct scientific solution towards a commonly encountered problem
- Having theoretic or applied values, particularly opening up a door for the discipline
- Innovation or creativity means no reports are available
- Research regime is appropriate, different from the research field

- **NOT** following the fashionable topics
many people are pursuing



Other associated issues

- Extension or deepening of the group's previous work
- Matching with what the student is skilled in
- A mandatory project or grant recently obtained by the supervisor
- A new direction the group is prepared to explore for reshaping the group

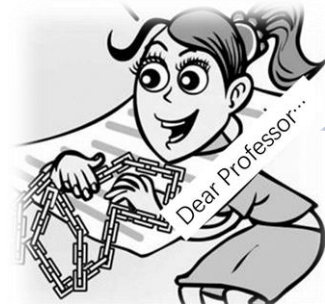
Note: An excellent student is obligated to, or should be pushed to venture into an unknown field, which, of course, has something to do with the group's research



Examples ?

- Investigation of electrochemical kinetics for wastewater treatment: **No**
- Investigation of electrochemical kinetics of oxygen reduction reaction for wastewater treatment: **YES**
- Development of rapid measurement method of BOD based on MFC sensor: **Moderate**
- Microbial-coulomb method for rapid measurement of BOD MFC matrix: **YES**

Note: Quite often, this topic can not be finalized till the completion of thesis/dissertation



Imprisonment of a few years ??!?



THE END