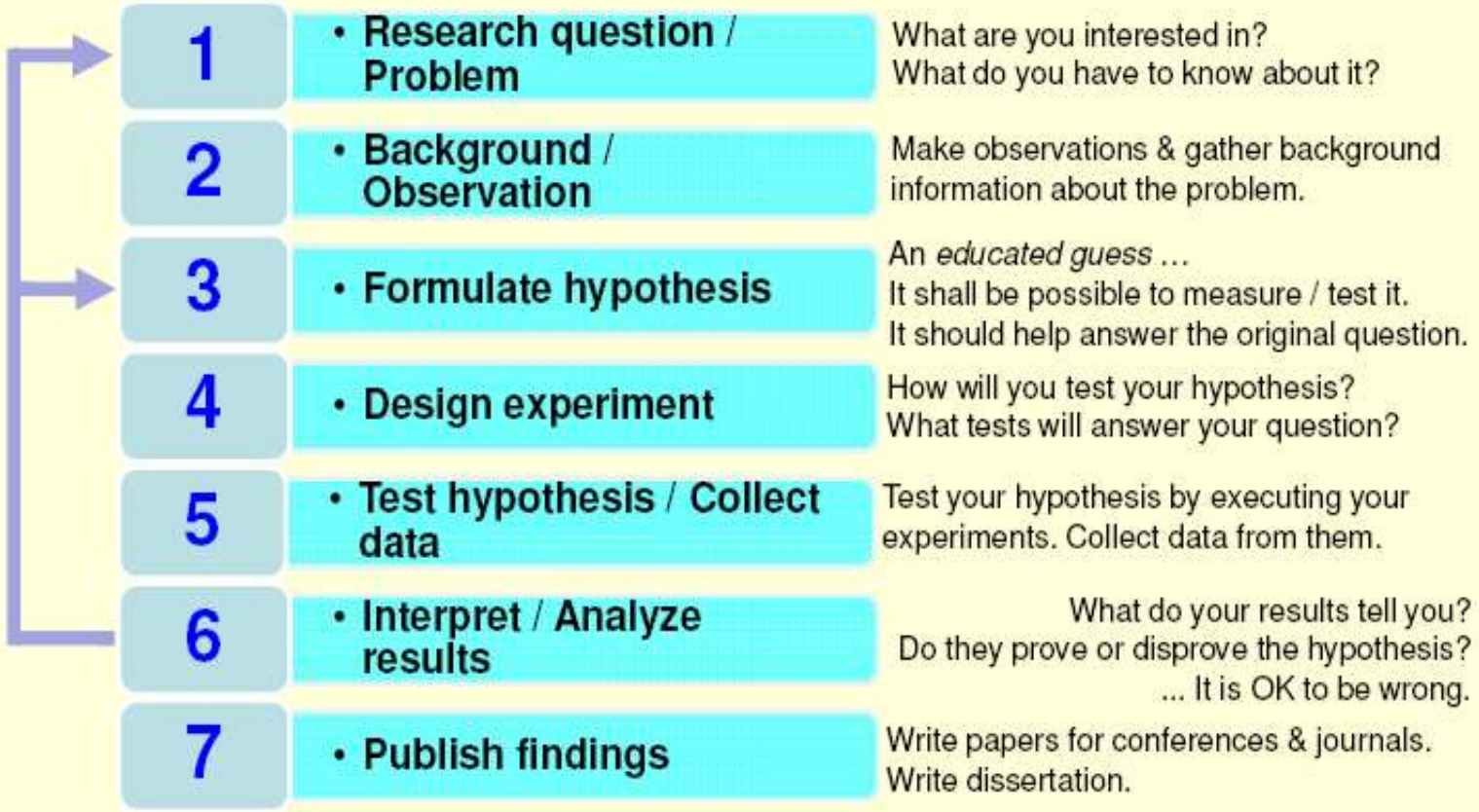
# RESEARCH METHODS

Dr. Muhammad Usman
Manager (Database)
PASTIC National Center – QAU, Islamabad

# CLASSICAL PHASES

# CLASSICAL PHASES

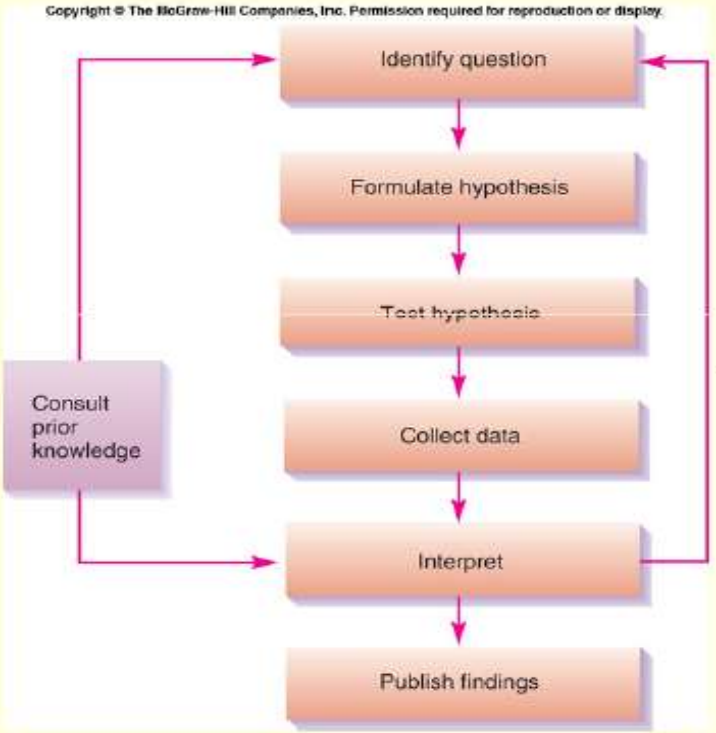


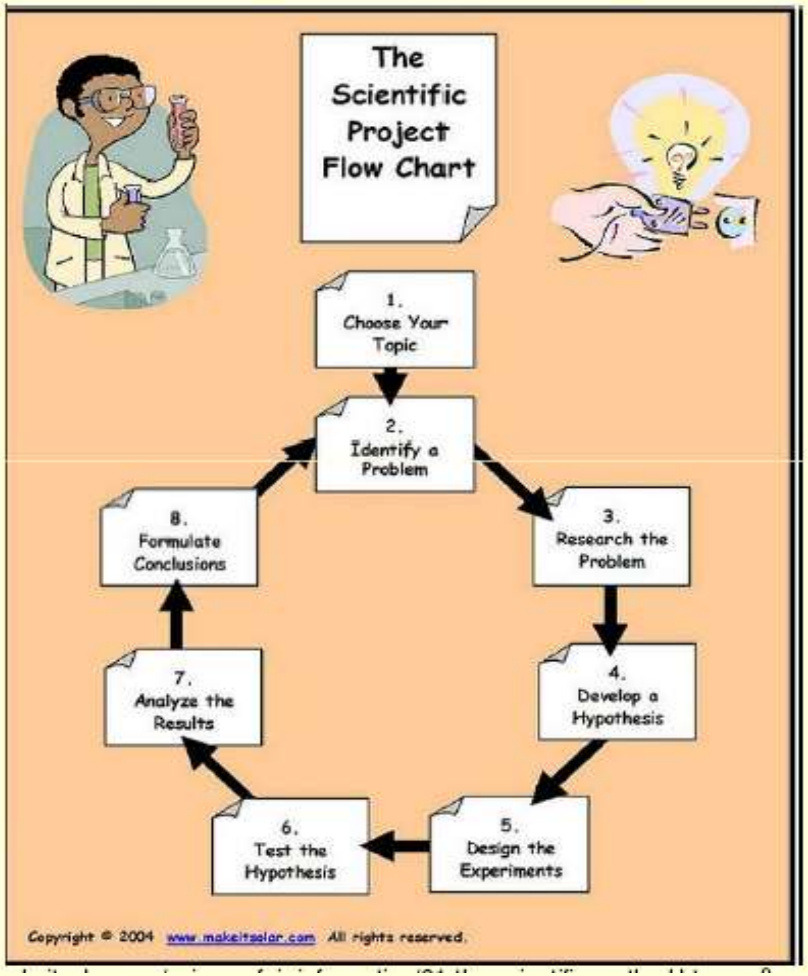
# OTHER VARIANTS


1. Define the question
2. Gather information and resources (observe)
3. Form hypothesis
4. Perform experiment and collect data
5. Analyze data
6. Interpret data and draw conclusions that serve as a starting point for new hypothesis
7. Publish results
8. Retest (frequently done by other scientists)

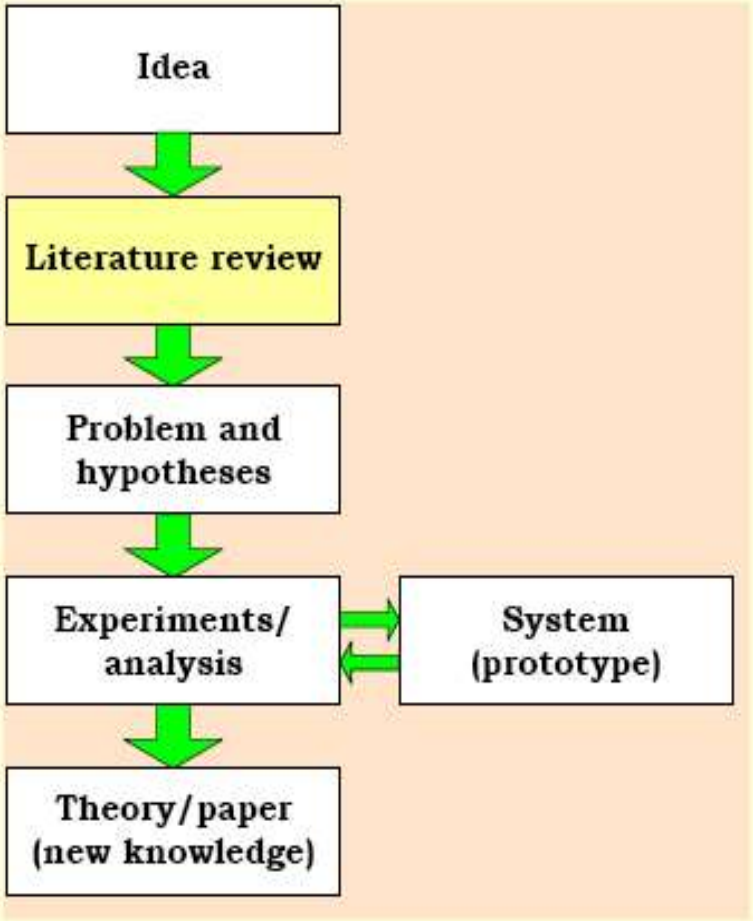
[Wikipedia]

# OTHER VARIANTS



# OTHER VARIANTS




The Scientific Method Made Easy


http://www.youtube.com/watch?v=zcavPAFiG14

# ERRORS OF EXPERTS WHO DID NOT FOLLOW THE SCIENTIFIC METHOD

- "Computers in the future may weigh no more than 1.5 tons."
  Popular Mechanics, forecasting the relentless march of science, 1949

- "I think there is a world market for maybe five computers."
  Thomas Watson, chairman of IBM, 1943

- "Airplanes are interesting toys but of no military value."
  Marechal Ferdinand Foch, Professor of Strategy, Ecole Superieure de Guerre.

- "Louis Pasteur's theory of germs is ridiculous fiction".
  Pierre Pachet, Professor of Physiology at Toulouse, 1872

- "Heavier-than-air flying machines are impossible."
  Lord Kelvin, president, Royal Society, 1895.