

# Pendidikan Berbasis Riset

## Menuju UI Sebagai Universitas Berkelas Dunia

Prof. T. Basaruddin

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# Outline of the talk

- World Class University
- Roles of research
- Research-based education
- Case of UI

# World Class University

- Among the characteristics of a world class institution are: **recognised cutting-edge research**; top class professors; favourable working conditions; adequate resources; **academic freedom and intellectual excitement**; sound governance and control by scholars over central elements of academic life; and adequate, **publicly-supported funding for research and teaching**. (Philip Altbach – 2003)

# Ranking

- Times Higher Education Supplement
  - the criteria used including those that reflect **research excellence**, teaching quality, graduate employability and attractiveness to students
  - adopted somewhat of a “rank first, ask questions later” approach, revising its methods on the fly
- Shanghai Jiao Tong University.
  - In 2003, professors and graduate students in the university’s higher education policy unit developed a new method of comparing research institutions across national borders, using measures like the number of faculty and graduates awarded the **Fields Medal or the Nobel Prize, and the number of articles and citations in prestigious scholarly journals**

# Classification of University

- Carnegie Classification of Universities
  - The new classifications are organized around three key questions: What is taught? To whom? In what setting?
  - **CompDoc/MedVet: Comprehensive doctoral with medical/veterinary.** According to the degree data, these institutions award doctoral degrees in the humanities, social sciences, and STEM\* fields, and they also award degrees in medicine, dentistry, and/or veterinary medicine. They also offer professional education in other health professions or in fields such as business, education, engineering, law, public policy, or social work.

# Research in university

- Unlike research in a research institute, the primary goals of research in a university are three folds:
  - Develop knowledge
  - Solve problems
  - Prepare future scientists/researchers

# Research-based education

- In a modern university teaching, learning and research are intertwined and they are related activities
- High research focus and high student centeredness creates an optimal learning environment, solving real-life problems; inquiry-based learning

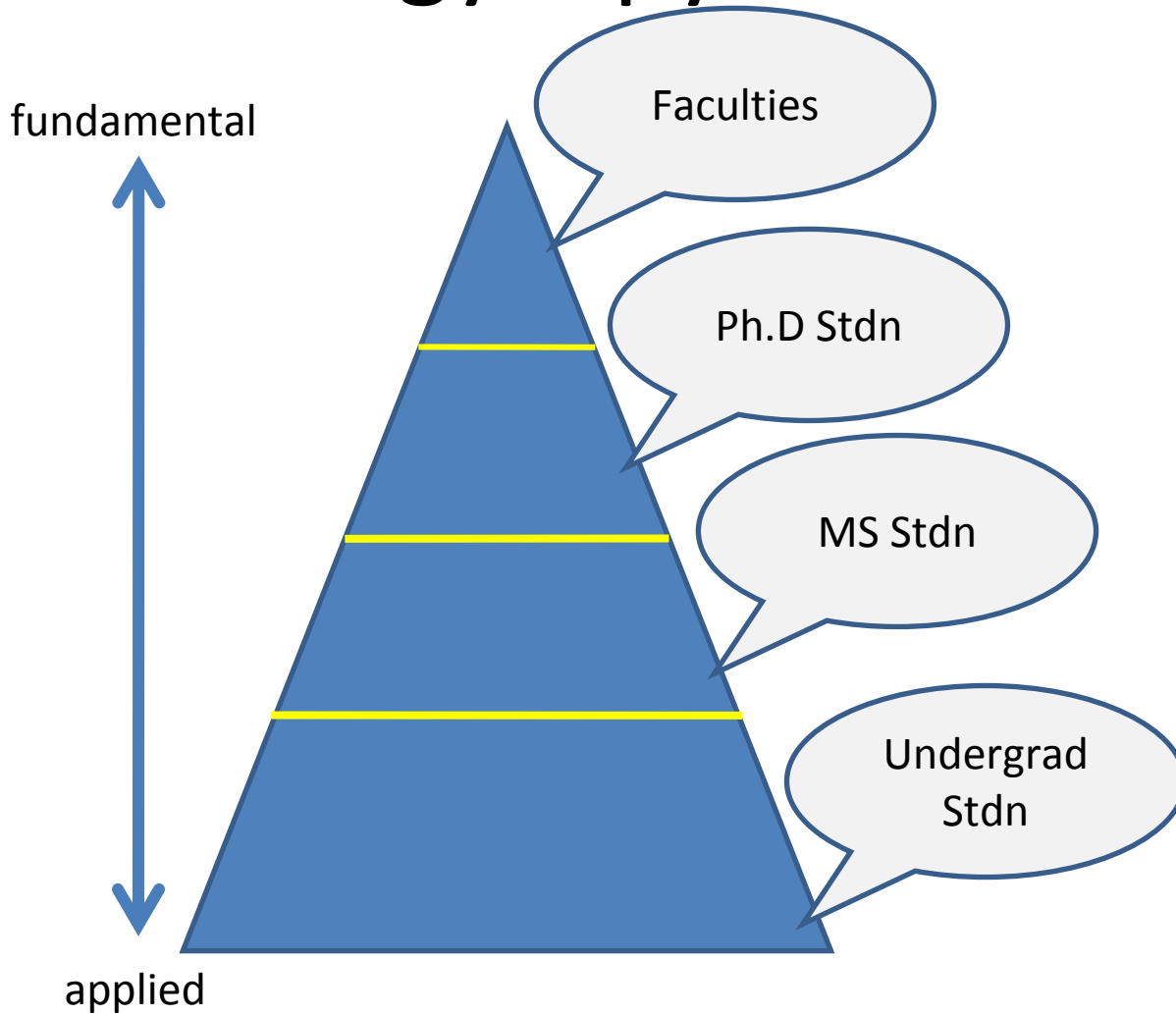
# Related terms

- Research-led education: Students learn about research findings; contents are dominated by staff research interests and info transmission is the main approach
- Research-oriented: students learn about research processes, emphasis on both the process of knowledge creation and the learning process
- Research-based: Students learn as researchers through inquiry-based activities. The division of roles between teacher and student is minimised.

# Case of UI

- UI is determined to pursue research excellence as an avenue to become “WCU”
- Strong pool of researchers: but
  - Research environment is not there yet
  - Scarcity of funding for serious research
  - Constantly changing gears → too much commitment for non-research activities
- Significant number of graduate students: but
  - Research capacity/interest is not part of recruitment criteria

# Strategy – pyramid of researchers



# Challenges

- Research starts from dream, some end with nightmares
  - Who should pay for the cost?
- Relevance is a critical issue
  - Maturity of domestic industries
- Critical mass
  - Quality of graduate students

