Effectiveness of Active Learning-Based RCR Workshop in Malaysia

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The Malaysian RCR Educational Programme

- Conducted RCR workshops in 2013
- Established Malaysian RCR Programme in 2015
- Published Malaysian RCR educational module in 2018
- Launching national survey on RCR in 2019

- Lead by the Young Scientists Network in Malaysia
- Target all researchers in Malaysia
- Conduct workshops around the country
Active Learning Pedagogy Workshops

• Main RCR topics
• Case studies, roleplay, peer teaching, etc.
• Pre- and post-workshop survey
Demographics Snapshot

GENDER
- Male: 43%
- Female: 57%

AGE
- <30: 23%
- 31-40: 64%
- >40: 11%
- Missing: 2%

YEARS OF RESEARCH EXPERIENCE SINCE PHD
- 0 to 5: 40%
- 6 to 10: 35%
- More than 10: 23%
- Missing: 2%
Attended RCR related course?

- Yes: 34%
- No: 66%

Does your university provide clear guidance on how to report suspicious research conduct?

- Yes: 29%
- No: 63%
- Missing Data: 8%
In your own words, describe RCR.
List as many topics as you can think of that are related to RCR.
Describe DURC
Explain Falsification.
Explain fabrication.
Explain plagiarism.

Score (full score=2)
When you witness your colleague committing research misconduct, what would you do?

Changes in attitude

- Not doing anything
- Advice the colleague who committed research misconduct
- Report the incidence to the responsible unit

Percentage

![Bar chart showing changes in attitude between pre- and postworkshop surveys.](chart.png)
But..

Does gender, age or years of research experience affect how they would behave?
When you witness your colleague committing research misconduct, what would you do?

- Experienced researchers (> 10 years) were less likely to take action.
Refining our research

• Codified each participant; researchers are blinded
• Track the changes of individual participant pre and post-workshop
• Expand knowledge and attitude section
• Contact previous workshop participants to assess long-term effect
Conclusion

• RCR education is lacking Malaysia
• Workshop is able to shift knowledge and attitude
• Participants feedback:
  “The mixtures of talks and activities made it fun”
  “I really enjoyed the openness of all the discussions”
  “Not boring”
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