

Richard Hamming - “You and Your Research”

Homework 1, Research Methods and Project Management

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Thinking and approaches, 1

- He asked questions “Why, What it’s the difference? How did you come to do this?” He was reading many autobiographies.
- Bell labs with other known people like Shannon
- Repetition successes vs only 1 good thing during the life
- Prepared mind sooner or later finds something important and does it, so it could be said that there is a luck. And courage. Age. Working conditions.
- Defect → asset (when scientists couldn’t do a problem they finally starting to study “why not”)
- Knowledge+productivity. Learn >> Things you can do >> Opportunities
- Hard work must be applied sensibly and reasonable!

Thinking and approaches, 2

- Subconscious = hard work > attention > thoughts >, creativity
- What are the important problems in my field? Important problems → important work (+a good idea). Most scientists have 10-20 important problems and they are looking for an attack. Drop other things, neglect things.
- Opportunity doesn't work out, never mind - hit more.
- Presentation – importance, background and survey, not detailed results and technical stuff
- Success != Fame
- Don't fight with the system, learn to work with it + take the advantages
- Ego. Don't do things your way at all cost. People around are important!
- Dressing. You should dress according to the expectations of the audience spoken to.

Thinking and approaches, 3

- Fighting a system vs doing first-class job.
- Focus on positive, not negative things
- If you want, tell alibi to other people, but don't kid yourself and also be honest to yourself.
- You need to know yourself, weaknesses and strengths.
- Be carefull about “sound absorbers” - they won't use good ideas, they won't stimulate you.
- Don't close the doors, talk with people, but choose wisely to whom!

Hard work, talent, but no success

- Work on important problems!
- Be emotionally involved!
- Try and change, adapt! No alibis to yourself!
- Stop saying that it is a matter of luck!
- Go forward!
- Read, but not just all the time!

References

- Hamming R. Kaiser JF, editor. You and your research. Transcription of the Bell Communications Research Colloquium Seminar; 7 March 1986; Morristown, New Jersey, United States. 1986. Available: <http://www.cs.virginia.edu/~robins/YouAndYourResearch.html>. Accessed 24 September 2007