Popular Lecture

How to be Successful in Academic Life

by

Gursharn Singh Randhawa

Department of Biotechnology, Indian Institute of Technology Roorkee, Roorkee-247667, India

Phone: 91-1332-25808; E-mail: sharnfbs@iitr.ac.in; Website: www.gsrandhawa.in

Description of Slides

- 1. GENERAL ADVICE GIVEN TO STUDENTS
 - "WORK HARD"
- 2. MY ADVICE

GIVE PROPER ATTENTION TO VARIOUS ASPECTS RELATED TO SUCCESS IN ACADEMIC LIFE WHICH ASPECTS????

- 3. VARIOUS ASPECTS RELATED TO SUCCESS
 - DESIRE
 - GOAL SETTING
 - **DETERMINATION**
 - PLANNING
 - MENTOR

- DISCIPLINE
- MILESTONES
- ORAL EXPRESSION
- WRITING ABILITY
- ANALYTICAL OR LOGICAL ABILITY
- AWARENESS OF STRENGTHS AND WEAKNESSES
- HEALTH
- ROLE MODELS
- ATTITUDE
- HUMAN RESOURCE
- LEADERSHIP QUALITY
- CREATIVITY

4. DESIRE

- Desire is the seed of success
- Desire is the beginning of journey
- Where there is a will, there is a way

5. GOAL SETTING

- "A goal properly set is halfway reached."
 - Abraham Lincoln
- "People with goals succeed because they know where they are going. It's as simple as that."
 - Earl Nightingale
- "Goals give you more than a reason to get up in the morning; they are an incentive to keep you going all day. Goals tend to tap the deeper resources and draw the best out of life."

- Harvey Mackay

• Main rahan te nahin turda......

I do not walk on the paths Paths are made when I walk

-Surjit Patar, Punjabi Poet

• An Example of Goal Resetting

KULVINDER SINGH GILL

Goals set during college time

- To get a Bachelor's degree in agriculture
- To be an AGRICULTURAL INSPECTOR
- To buy a MOTOR CYCLE

Later Achievement

• Ph. D. from Kansas State University, U.S.A.

Presently he is

- One of the eminent wheat scientists in the world
- Chair Professor at Washington State University, Pullman, U.S.A.
 - Another Example of Goal Resetting

SURJIT PATAR

- Got admission in college in science group
- After a few days went to principal with an application for change of subjects from science to arts
- The principal rejected the application
- Next year took admission in arts group
- Became Gold Medalist in M. A. (Punjabi)
- Has become a globally known eminent poet
- Has been honored with prestigious awards like Sahitya Academy Award, Saraswati Award, Padmasri Award

6. **DETERMINATION**

- Determination is the quality that you show when you have decided to do something and you will not let anything stop you
- Determination could be like glass, wax, stone, steel.....
- Strong determination is the key to success
- Never, never, never give up......
- Every achievement has a price
- Bigger the achievement, bigger is the price
- Achievement takes away many of your dear things

"All my life has been shooting. I have done nothing in my life. I am quite a loser. I have done nothing in the past 12 years. I just sleep, run and do nothing except shooting,"

-Abhinav Bindra (after winning India's maiden individual Olympic gold medal)

7. PLANNING

- The process of deciding in detail how to do something before you actually start to do it
- It is important to know where would you like to reach but at the same time it is equally important to know how will you reach there

8. MENTOR

- Someone who teaches and gives a lot of advice over a period of time
- MENTORSHIP LINEAGE

SOCRATES (469/470 BC- 399BC)

↓
PLATO (428/427 BC-348/347BC)

↓
ARISTOTLE (384BC-322BC)

↓
ALEXANDER THE GREAT (356 BC-323BC)

THEOPHRASTUS (371BC-287BC) Father of Botany

• SUNIL PAL – AN EXAMPLE OF MENTER

Shahdaab of Bulandshaher(UP): Doing the job of white washing the houses till the age of 16 years; Meets his mentor by coincidence (Sunil Pal, one of the senior players in the Railways team in 2007).

Now the youngster has represented India in the Junior Asia Basketball Tournament held in Iran apart from playing in Malaysia for the Indian team.

• DR. ISHAN PUROHIT – ANOTHER EXAMPLE OF MENTER

- Went on a trekking trip to hills of UTTARAKHAND
- Met a local boy who volunteered to accompany him as a guide
- Learnt during the trip that the boy, despite having a B. Sc. degree, is running a small tea shop
- The boy was undergoing tough time due to several problems in the family....death of mother, paralytic attack to father, blindness and tumor problems of sister...financial condition miserable
- Brought the boy (NARESH) to NEW DELHI and helped him to get coaching for admission to higher studies
- > NARESH got M. Sc. (Biotechnology) Degree from IIT Roorkee
- ➤ Has been awarded prestigious Marie Curie Fellowship to undertake Ph. D. program at EMBL, ZURICH, SWITZERLAND

9. **DISCIPLINE**

- Discipline is the quality of being able to behave and work in a controlled way which involves obeying a strict set of rules.
- "I think one of the keys to success is balancing enthusiasm and open minded creativity with discipline"

Russell Hulse, 1993 Nobel Laureate in Physics

10. **MILESTONES**

Put milestones in your journey to success
 In years
 In months
 Even in a day

Do regular assessments

11. ORAL EXPRESSION

Give a 10 minutes lecture daily.....
 Any topic
 Any language
 Audience may or may not be present

12. WRITING ABILITY

Write one page daily Any topicAny language

13. ANALYTICAL OR LOGICAL ABILITY

• Right decision at right time

14. AWARENESS OF STRENGTHS AND WEAKNESSES

- List your strengths: 1, 2, 3, 4, 5......
- List your weaknesses: 1, 2, 3, 4, 5......

15. **HEALTH**

PHYSICAL HEALTH

Food

Sleep

Exercise

• MENTAL HEALTH

16. **ROLE MODELS**

- Figure out your role models
- "Take inspiration from your role models but don't imitate them blindly"

Dr. Y. S. Rajan

Padmasri Award - 2012

Dr. Vikram Sarabhai Distinguished Professor Indian Space Research Organization (ISRO)

17. **ATTITUDE**

- Positive attitude towards life
- Attitude to success
 The charm of success lies in the fact that it must not go to your head
- Attitude to failure "Failure is simply the opportunity to begin again more intelligently"

Henry Ford

• "Success is not final, failure is not fatal: It is the courage to continue that counts"

Venkat Ramakrishnan

Awarded Nobel prize in Chemistry in 2009

Decades ago he failed to clear entrance tests for both the IITs and a reputed medical college

• Aditi Lahiri

Rejected by CU, a star at Oxford

The Times of India, Feb 20, 2011

1990's: Twice applied for faculty position at Calcutta University; rejected on both occasions

2011: The first Indian woman to hold an Oxford Chair

• Famous...... But, bad at school

Jalal-ud-Din Muhammad Akbar - Couldn't even write his name

Abraham Lincoln - Formal schooling lasted 18 months

Thomas Alva Edison - Home schooled by his mother

Raj Kapoor - Couldn't make to matriculation

Sachin Tendulkar - Left class 11 halfway

"Pain makes me stronger;
 I had a lot of pain throughout my career and I have managed to play with it."

Roger Federer
Former World No. 1 Tennis Player

18. **HUMAN RESOURCE**

• PARENTS' ADVICE

Avoid interaction with more persons

Parents' intentions are right —They want safety of their children

But their approach is not right

• MY ADVICE TO STUDENTS

Learn to identify GOOD and BAD persons – QUICKLY and CORRECTLY

Even small mistakes can land you in serious problems

Have more interaction with GOOD persons

Avoid BAD persons......Even BAD relatives

- Relationships
- Networking

19. **LEADERSHIP QUALITIES**

- Learn to be a leader
- Start at a very small level

20. **CREATIVITY**

• Creativity is the ability to invent and develop new and original ideas

21. **EXAMPLES**

- **Steve Jobs**
- **■** Craig Venter
- Mario R. Capecchi
- **■** James B. Sumner
- **■** Sidney Brenner
- **■** Balwan Singh
- **■** Manpreet Singh
- **■** Dalip Singh Uppal
- **■** Teg Singh

- **■** Banarsi Lal Chawla
- **■** Madan Vasishta
- **■** Fauja Singh
- Natalia Partyka
- **■** Jessica Cox
- 22. **STEVE JOBS** (Feb 24,1955 Oct 5, 2011)

Difficulties/Struggle

- Uncertain childhood
- College dropout

Achievements

Revolutionized 6 industries

- Personal computers
- Animated movies
- Music
- Phones
- Tablet computing
- Digital publishing

23. **CRAIG VENTER** (October 14, 1946-)

Difficulties/Struggle

• Average student during

Achievements

• Leading person in Human

- school.
- Had to quit studies for Vietnam war
 Attempted suicide by swimming out to sea
- genome sequencing
- Transformed synthetic biology
- Time 100 most influential people in the world (2007)
- Founder:
 Celera genomics,
 Institute for Genomic
 Research ,
 J. Craig Venter Institute

24. MARIO RENATO CAPECCHI (Oct 6, 1937-)

Difficulties/Struggle

- Had to live without family support from age 4 to 10
- Faced extremely harsh childhood
- Suffered from malnutrition and serious illness

Achievements

- Developed site -directed mutagenesis method in mouse
- Nobel prize in Physiology or Medicine 2007

25. **JAMES B. SUMNER** (1887 -1955)

Difficulties/Struggle

- Average student in school
- Basically left handed
- Lost his left forearm at age 17
- Isolated first enzyme
- Nobel Prize in Chemistry 1946

26. SIDNEY BRENNER (January 13, 1927)

Difficulties/Struggle

- Belonged to a poor family
- His father was not in a position to send him to school
- A lady supported and gave admission for free in her school to educate him

Achievements

- Became one of the founders of molecular biology
- Nobel Prize in Physiology or Medicine 2002

27. BALWAN SINGH

Difficulties/Struggle

- Average academic career
- Completed M.Sc. in 4 years
- Worked as technician

- Offered faculty position by Emory University, U.S.A.
- Eminent scientist in the field of immunology

28. **MANPREET SINGH**

Difficulties/Struggle

- ☐ In the University of
 Roorkee entrance exam,
 he wanted to leave the
 examination hall after 5
 minutes thinking that he
 did not know anything
- ☐ The invigilator did not allow him to leave the examination hall because of the rules

Achievements

- ☐ Qualified University of Roorkee Entrance Exam
- ☐ Became Gold Medalist of his Batch, B. E. (Mechanical Engineering)
- ☐ His B. E. project was declared the best project of the University
- ☐ Presently C. E. O. of BSS Software Pvt. Ltd. Mumbai and Singapore

29. **DALIP SINGH UPPAL**

Difficulties/Struggle

- Passed matriculation in first division
- Due to family's financial situation, had to take job as BELDAR
- During the job his duty

- Joined as a typist in Civil Secretariat of State Govt
- Learnt shorthand and became a Steno
- * Through correspondence got B.A., M. A. Degrees

- was to take care of buffaloes
- One day his supervisor noticed that he gave an excellent bath to a buffalo
- The supervisor after knowing he is matriculate with first division shifted him to office for learning typing work
- ❖ Joined as Deputy Registrar in Punjabi University Patiala
- ❖ Retired as Finance Officer from Punjabi University Patiala

30. **TEG SINGH**

Difficulties/Struggle

- ➤ Had to discontinue studies after 12th standard due to death of his father
- Took job as a peon in a university
 Had to take care of mother and three unmarried sisters

Achievements

- ➤ Along with his job he got the following degrees through correspondence: B. A., M. A., M. Phil
- ➤ Qualified National Level NET Test for lectureship
- Presently enrolled as Ph.D. student

31. BANARSI LAL CHAWLA

Difficulties/Struggle

- Education upto 5th standard
- ➤ Had to work for livelihood at the age of 11; Sold biscuits at railway platform; Sold peanuts by roadside
- First in Asia to set up an automobile tyre factory
- ➤ His daughter was the first Indian girl to go in space

32. MADAN VASISHTA

Difficulties/Struggle

- Became permanently deaf at the age of 12
- Had to leave school in class 6th
- Took care of cattle at house for 10 years

Achievements

- First Indian to get Ph.D. from Gallaudet University, U.S.A.
- Became a faculty member at Gallaudet University
- Gallaudet University published his autobiography

33. **FAUJA SINGH**Career rediscovered at 81

Difficulties/Struggle

■ Felt devastated at age 81 due to death of wife,

Achievements

• First in the world to complete full marathon at

- daughter and son
- Started running to pass time at the age 81
- the age 100 (2011)
- Set 8 world age group records at age 100 (2011)
- Marathons run :London (5), Toronto (2),New York (1)

34. NATALIA PARTYKA

Difficulties/Struggle

- Born on July
 27, 1989 without
 right hand and forearm
- Started playing table tennis at the age of seven

Achievements

- Became an international table tennis player
- Reached the last 32 of the London 2012 Olympic women's table tennis
- In 2004, won a gold medal in the singles event of Athens Paralympics and in 2008, won a gold medal in the singles event of Beijing Paralympics

35. **JESSICA COX**

Difficulties/Struggle

Born without arms

- first pilot ever to fly a plane using only her feet
- Has become a

motivational speaker

36. **OUR TEAM**

- Shilpi Kumari
- Swati Verma
- Umesh Kumar Tanwar
- Shalini Pareek
- Pallavi Gahlot
- Navneet Kaur
- Deepa Dewan
- Nishu Mittal
- Poonam S. Jaiswal

37. ACKNOWLEDGEMENTS

- Dr. Durga Prasad Panigrahi
- Dr. Nagesh K. A.
- Dr. Pradeep Kumar Srivastava
- Dr. Vijay Kumar Tiwari
- Dr. Nidhi Rawat
- Dr. Kumari Neelam
- Dr. Megha Agrawal
- Dr. Pranita Bhatele

38. **MY MENTOR**

Sardar Tara Singh Ji

39. MY EMAIL: SHARNFBS@IITR.AC.IN

MY WEBSITE: WWW.GSRANDHAWA.IN