Lessons for new P.I.s: Time Management, Grantsmanship, and Leading Your Group

Credits/Sources: Kathy Barker, David Guzick, Susan Johnson, Pamela Raymond, Gary Gallick, Dan Lebovic

U of M RSP
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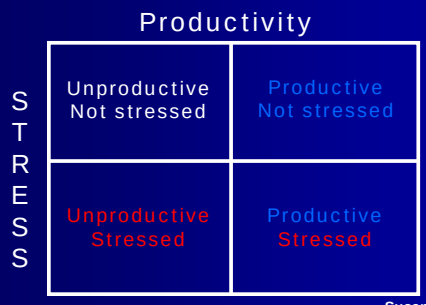
Academic management skills

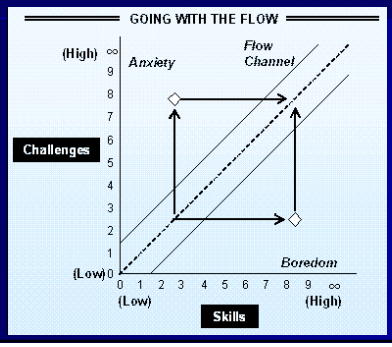
- Time management
- Grantsmanship and choosing a research problem
- Group management (hiring, establishing policies, communication, morale, evaluation, common disputes, collaboration, and research burnout)
- Balancing career and life

Psychology of time management

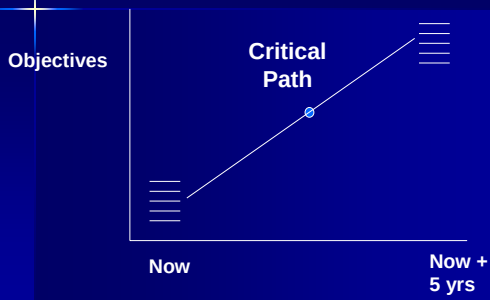


Susan Johnson

PEAK PERFORMANCE: Challenges v. Skills



Critical path and yield loss



David Guzick

Time management basics

Step one: Collect everything new in an inbox system

Step two: Process each item in the inbox system ***out of*** or ***into*** your life

Step three: Set up a storage system

Step four: Learn to take action

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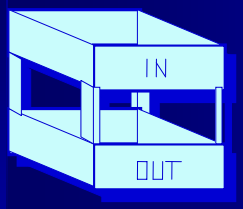
Step one: collect everything new in an "inbox system"



All unprocessed items from others and from *yourself*

Only items you have not looked at – you don't have time to do things twice!

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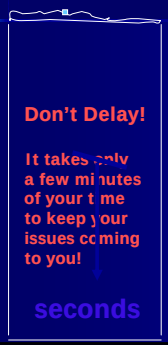
Step two: Process each item in the inbox system *out of* or *into* your life



We often *over*-estimate how long single tasks will take

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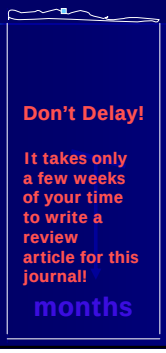
Break down larger projects into steps



We often *under*-estimate how long multiple step projects will take

We often under-estimate time traps like the phone, email, and the web!

Susan Johnson

Grocery list analogy for your to-do list

- Butter
- Eggs
- Learn Italian cooking
- Milk
- Coffee
- Lettuce
- Pears
- Mom's birthday party
- Ginger
- Lasagna noodles
- Cheerios
- Bread
- Yogurt
- Thanksgiving dinner
- String cheese
- Ham
- Fish
- Lasagna
- Peas
- Consider macrobiotic diet

Susan Johnson

Projects
Grocery list analogy for your to-do list

Maybe, someday

- Butter
- Eggs
- **Learn Italian cooking**
- Milk
- Coffee
- Lettuce
- Pears
- **Mom's birthday party**
- Ginger
- Lasagna noodles
- Cheerios
- Bread
- Yogurt
- **Thanksgiving dinner**
- String cheese
- Ham
- Fish
- **Lasagna**
- Peas
- **Consider macrobiotic diet**

Susan Johnson

Grocery List:
2 additional refinements

- **Aisle 1:**
  - Butter –1 lb
  - Eggs – 2 doz
  - Milk – skim, 1 gal
  - Yogurt – plan nonfat 8 oz
  - String cheese – 1 lb
- **Aisle 2**
  - Coffee – decaf, 1 lb
  - Lasagna noodles – 16 oz
- **Aisle 3**
  - Cheerios – 1 box
  - Bread – wheat, 1 loaf
- **Aisle 4**
  - Ham – smoked, 6 lb
  - Fish – 8 oz, perch
- **Aisle 5**
  - Peas – 10 oz
  - Lettuce – 2 heads
  - Pears - #12
  - Ginger - fresh

Susan Johnson

Step three: set up a storage system – on paper and computer

Week of Sept 7

- Call Jim Henderson
- RSVP to May reception
- complete first draft of manuscript
- call Dr. Smith re: appointment
- climb Mt Everest
- buy Mercedes SUV
- order flowers for secretary
- draft new personnel procedures
- send a poll to the advisory committee
- prepare Affirmative Action Office report

Susan Johnson

'M' for memory vs. 'T' for thoughts

Einstein's brain

Susan Johnson

Step four: learn to take action

- Learn ways to get started
- Kitchen timer method
- Planning cascade
- Beware of common cognitive errors

Susan Johnson

Common Cognitive Errors:

- Thinking you need a long unbroken stretch of time to accomplish something
- Believing you cannot begin until a perfect plan is developed
- Forgetting Murphy's law (things will go wrong)

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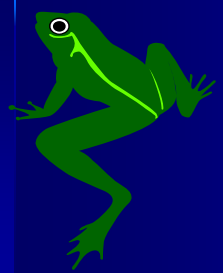
Learn ways to get started



"if you are going to eat a live frog, don't spend too much time looking at it first"

---Mark Twain

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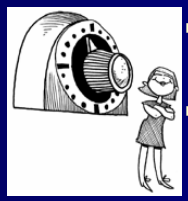
Kitchen timer method



- Set the timer for 5/10/15 minutes
- Get start with a mechanical task:
  - Sort
  - Read
  - Copy
  - Free write

Susan Johnson

Perfectionism

- **The good:**
  - **Awareness**
  - **Attention to detail**
  - **Beautiful grants**
  - **Meticulous papers**
- **The not-so-good**:
  - **Expectations never met**
  - **Obsessive**
  - **Inability to delegate**

"Pursue excellence without insisting on absolute perfection"

William Droegemueller

The planning cascade

Lifelong: Mission and priorities

This phase of your life: goals

This year: objectives & projects

This week

Today

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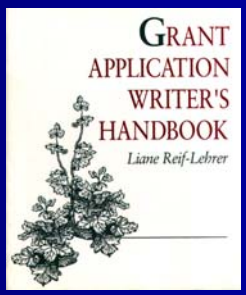
Academic management skills (continued)

- Time management
- Grantsmanship and choosing a research problem
- Group management (hiring and being a boss/mentor, common disputes, setting-up and cultivating collaborations, research burnout)
- Balancing career and life

Grantsmanship: There are many sources to help you

Don't use reviewers to teach you how to write grants: that takes too long!



Dr. Guzick's ten commandments for choosing a research problem

- Pick an area on the basis of scientific and/or public health interest
- Look for an under occupied niche that has potential
- Choose the right mentor

David Guzick

Dr. Guzick's ten commandments for choosing a research problem

- Find a balance between high interest and doability
- Find a balance between high interest and fundability
- Anticipate the results before doing the first study
- Be vigilant and committed to completing the project

David Guzick

Dr. Guzick's ten commandments for choosing a research problem

- Build on a theme
- Read outside your area for creative opportunities for collaboration
- Find a balance between low- and high-risk projects, but include at least one high-risk, high-interest project in your portfolio

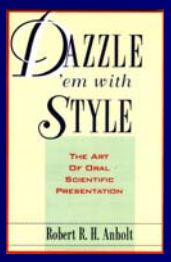
David Guzick

Congressional debate during the founding of NIH

Answer's a basic question?

Clinically relevant?	No	Yes
No		Bohr's Quandrant
Yes	Clinical Trials	Pasteur's Quandrant

More examples that help develop your skills



Generic proposal outline

- Opening sentence (an attention grabber)
- Key knowns, then unknowns
- Frame the problem of what is next needed to advance the field
- Long term goal (10-20 years of research)
- Objective for this proposal

Generic proposal outline (con't)

- Your central hypothesis
- Rationale
- Why your group is well positioned (environment)
- Specific aims (2 to 5)
- Importance
- Innovation

Academic management skills (continued)

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What is a good research group? ...Every student can tell you!

- The science is solid
- The head of the group is successful, or promises to be
- The people in the group are happy
- The group has a recognizable personality and an identifiable culture

Kathy Barker

Be a leader - You are well trained for what you are doing!

- Medical know-how
- Resilience
- Honesty and integrity
- Communication skills
- Organizational ability

Kathy Barker

Success of your research program requires...

Organizational success:

- A quality or unique product
- Proper timing
- Adequate start-up
- People resources
- Effective management

Success in research:

- Good science
- Political savvy
- Grants
- Smart and enthusiastic lab members
- A leader (you!)

Kathy Barker

Work with your style and your strengths

- Will you be more effective in hands on data collection or the desk?
- What are you motivated by in science?
- How do you make decisions?
- Do you want to manage details, or deal only with the big picture?
- Do you work better with peers, bosses, or subordinates?

Kathy Barker

Policies

- Attendance, vacations, time expectations
- Chores to be rotated
- Rules for common areas
- Safety
- Journal club and research meeting attendance
- Data notebooks - usage, requirements, and sample page
- Phone and computer use rules
- Evaluations
- Authorship

Kathy Barker

Evaluating member's performance towards goals

- Day-to-day feedback
- Periodic seminars
- Informal evaluations
- Formal evaluations
- Self-evaluations

DOCUMENT
BE CONSTRUCTIVE
BE HONEST

Kathy Barker

Maintaining morale

- Make the group feel part of the bigger world of science, especially through down times
- Help each person feel they belong
- Encourage social interactions

Kathy Barker

Teach collaboration

- Put new people to work with more experienced ones
- Facilitate collaborations outside your group
- Maintain collaborations with former trainees who have left

Kathy Barker

Prevent research burnout

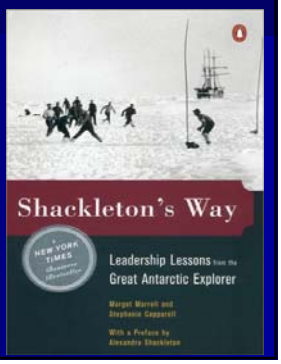
- Misalignment with the area or institutional culture
- Feeling of lack of control and effectiveness
- Emotional exhaustion and depersonalization
- Low sense of personal achievement

- Make peace with the bureaucracy (division, dept, IRB, university, NIH)
- Do not compromise your values (find a way to work in what you believe in)
- Keep your skills updated
- Invest in your personal life

Kathy Barker

Leaders ....

- Get the most from each individual
- Lead
- Inspire
- Work with weaknesses
- Stay honest and moral
- Are versatile



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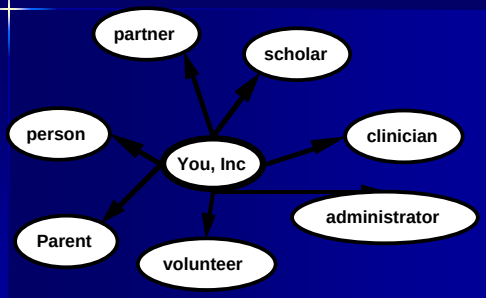
You have many roles



Susan Johnson

Finding balance is essential

Work

Life
Loved ones
Self
Renewal
Giving
Community

http://www.pbs.org/workfamily/index.html
http://www.centerforworkandfamily.com

U of M Resources

- UMHS Employee Assistance Program (EAP)
  http://www.med.umich.edu/mworks/eap/
- U of M Faculty and Staff Assistance Program (FASAP)
  http://www.umich.edu/~fasap/
- Work/Life Resource Center (WLRC)
  http://www.umich.edu/~hraa/worklife/

Dream and take risks: "If we aren't careful, we are likely to go in the direction we are going"

Yogi Berra

"It is your attitude, not your aptitude, that determines your altitude"

Steve Goldstein

"Persevere!"

Lawrence Longo