

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

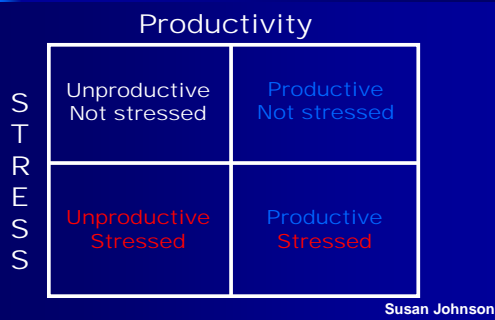
Credits/Sources: Kathy Barker, David Guzick, Susan Johnson, Pamela Raymond, Gary Gallick, Dan Lebovic

U of M RSP
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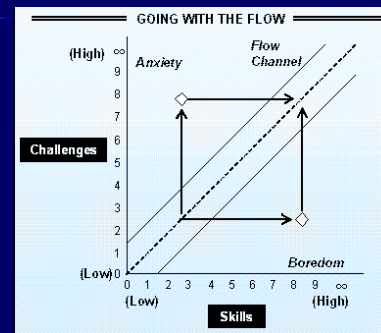
Academic management skills

- 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

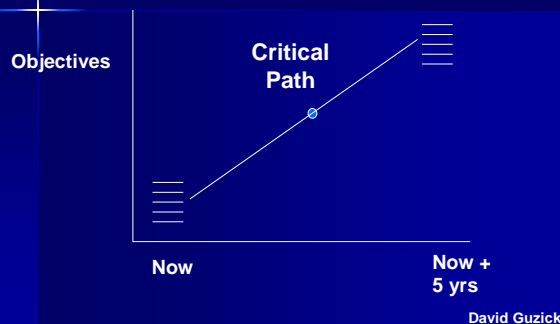
Psychology of time management



PEAK PERFORMANCE: Challenges v. Skills



Critical path and yield loss

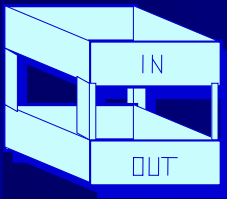


Time management basics

- 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

Susan Johnson

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!

Susan Johnson

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

Don't Delay!

It takes only a few minutes of your time to keep your issues coming to you!

seconds

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

Susan Johnson

Break down larger projects into steps

Don't Delay!

It takes only a few weeks of your time to write a review article for this journal!

months

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

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

Susan Johnson

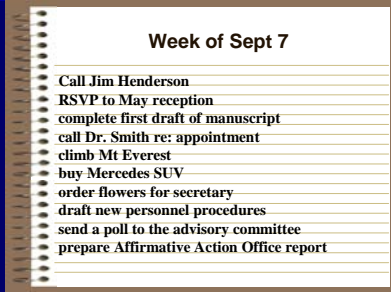
Grocery List:

2 additional refinements

- **Aisle 1:**
 - Butter - 1 lb
 - Eggs - 2 doz
 - Milk - skim, 1 gal
 - Yogurt - plain 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



Susan Johnson

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



Susan Johnson

Step four: learn to take action

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

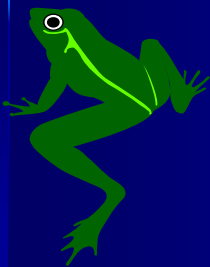
Susan Johnson

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)

Susan Johnson

Learn ways to get started

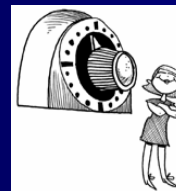


"if you are going to eat a live frog, don't spend too much time looking at it first"

---Mark Twain

Susan Johnson

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

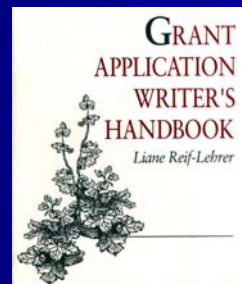
Susan Johnson

Academic management skills (continued)

- Time management
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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

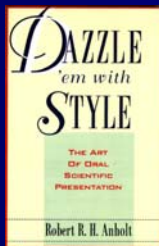
- Build on a theme
- Read outside your area for creative opportunities for collaboration
- Find a balance between low- and high-risk projects, but include at least one high-risk, high-interest project in your portfolio

David Guzick

Congressional debate during the founding of NIH

		Answer's a basic question?	
		No	Yes
Clinically relevant?	No		Bohr's Quadrant
	Yes	Clinical Trials	Pasteur's Quadrant

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

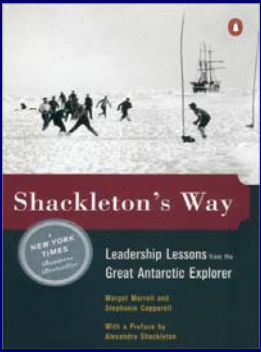
- Misalignment with the area or institutional culture
- Feeling of lack of control and effectiveness
- Emotional exhaustion and depersonalization
- Low sense of personal achievement
 - Make peace with the bureaucracy (division, dept, IRB, university, NIH)
 - Do not compromise your values (find a way to work in what you believe in)
 - Keep your skills updated
 - Invest in your personal life



Kathy Barker

Leaders

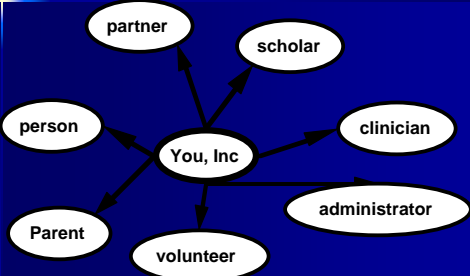
- Get the most from each individual
- Lead
- Inspire
- Work with weaknesses
- Stay honest and moral
- Are versatile



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You have many roles



```

    graph TD
      YouInc((You, Inc)) --> Partner((partner))
      YouInc --> Scholar((scholar))
      YouInc --> Clinician((clinician))
      YouInc --> Administrator((administrator))
      YouInc --> Volunteer((volunteer))
      YouInc --> Parent((Parent))
      YouInc --> Person((person))
  
```

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/~hrra/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