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Developing and Funding a Research Agenda

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A formal overview *

- Consider $P(\text{Research Success})$ is a joint probability composed of $P(\text{Funded} \mid \text{NOT Burnout})$, such that:
  - $P(\text{Funded} \mid \text{NOT Burnout}) = f(\text{Passion, Empathy, Preparation})$

- The conditional variables *Passion, Empathy & Preparation* exist on a hypersurface such that, by maximizing the *Passion, Empathy, Preparation* hypervolume, the term $P(\text{Funded} \mid \text{NOT Burnout})$ is also maximized.

- Remember you are writing to SOMEONE. Identify who that person is, so that you are not talking past them in your proposal.
1. Start by getting to know yourself...

- Water Resources Engineer
  - PhD Student
  - Ecohydrology
- Work at OLC (12-yr.)
  - Earth Science
  - Engineering
  - TCUP & PEEC PI
- Curious about energy:
  - Emergy - H.T Odum;
  - Mitakuye Oysen – Lakota
  - “One source” – Ueshiba Morihei

![Family Tree Image]

This is a part of my family tree

- Homestead
  - Tripp County
  - Rosebud Rez.
- Homestead
  - Glad Valley
  - Chey. River Res.
- Irish Potato Famine
  - Homestead
  - 1867 Treaty Lands
- Logging for Homestake Mine
  - 1867 Treaty Lands

Wife is Japanese (Hiroshima);
Daughter is bilingual & multicultural
2. Next, understand the elements of success, and the failure of lacking a success element...

Empathy is the capacity to understand or feel what another person is experiencing from within the other person’s frame of reference.
3a. Such as: not having done your homework (lacking empathy)...
3b. Or, lacking a union card (lacking preparation)... 

You are pursuing rejection (not success) if:
1) You have not completed or working towards a PhD; *
2) And/or otherwise have not demonstrated experience.

* Cue for an insightful comment from Dr. Costello Brown.
3c. Or, are not listening to your mind (losing passion).

You are **pursuing burn-out** (not success) if:

1) You lack a personal connection with your efforts;
2) And/or are lacking balance between work-life-family.
4a. Some things that have worked at OLC to make research part of our Mission are...

Develop Empathy within your TCU

1) Make it your boss’s (or VP’s) idea that applied research should be part of the institutional Mission statement;

2) Promote your Department’s success through others posters & presentations, in newsletters, and in academic reports;

3) Read and discuss the literature on persistence and co-curricular activities;

4) Get involved with the committee process & promote applied research as being consistent with the Vision of your institution;
4b. Some things that have worked at OLC to recruit community champions are...

1) Drink Coffee with Natural Resource Agency staff. Use the time to identify shared needs and interests (understanding the frame *)

2) Collect pilot data as part of classes (hands-on learning);

3) Involve student research assistants (co-curricular activities);

4) Share your passion & knowledge (outreach).

* See Jerome Bruner’s The Process of Education
4c. Some things that have worked at OLC to **align funding priorities** are…

Develop **Empathy** for your funder

1) **Read the TCUP solicitation** and apply for a TSIP; or a **Documenting Endangered Language (DEL)** or a PAGE, etc.;

2) **Keep an eye out for solicitations** from NSF, NASA, USDA-NIFA, .mil programs, and AICF;

3) **Read the solicitations**;

4) **Ask to review proposals.** *

* over time you will learn what a bad proposal looks like and (might) stop writing them.
5. Some things that have worked at OLC to overcome rejection are...

1) Partner with faculty from State Universities in research projects in which your institution can be the lead partner;

2) Start taking classes toward your PhD;

3) Include tuition reimbursement as part of participant support or look into the AICF Fellows Program to fund your PhD;

4) Learn statistics & how to program. Mathematical thinking helps to focus your mind on the critical path. I ❤️ R-Studio.
6a. Some things that help *make a personal connection with research* are...

Find your **Passion**

1) **Learn what it is that you love** and focus your time (mostly) into that space;

2) However, realize all jobs involve drinking some chunky milk...

3) **Ask to help with annual report writing.** Your PI or PM will appreciate you, *you will connect with the project more deeply*, and you will become a better writer *.

* The best way to learn to write good code (or good proposals) is to write a lot of bad code (or bad annual reports) – Hadley Wickham, R-Studio Chief Scientist
6b. And, most importantly…. we are spiritual beings that need to feed our spirits or our spirits will fly away.

1) Take time for family and friendships;
2) Exercise your body and find your breath *;
3) Meditate and/or pray;
4) Appreciate yourself… There is a reason that you should Be you and that you are Here, Now. Find that reason and keep it in your mind when you observe, listen, write, teach.

* The word ‘yoga’ means ‘yoke’, which describes energy / chi / breath / spirit connects your body and mind.
Finally, training yourself is a substantial part of developing and funding a research agenda...

- Be grateful for hardships, setbacks, and bad people. Dealing with such obstacles is an essential part of training in the Art of Peace * ... and in sustaining a research agenda.

* Ueshiba Morihei – The Art of Peace