A Closer Look at Establishing and Supporting a Research Agenda
You are entering a new phase of academic life... and there are milestones along the way

Enter academia – get a job

Academic Preparation

Assistant Professor

Full Professor

Associate Professor

Provide for the community – your first grant!

Cross the river

Share your wisdom - write a book or become a consultant

You are here now (probably)
And, it is normal to question your accomplishments...

- Unless you are a sociopath, you will probably experience Imposter Syndrome.
- It is normal & can be debilitating.
- Discussing your feelings with colleagues, spiritual leaders, and/or mental health providers helps to realign your perceptions with reality.
- ... For instance, I felt like an imposter, as I prepared this presentation. And, years one to seven of a PhD program (now entering year eight).

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“The exaggerated esteem in which my lifework is held makes me very ill at ease. I feel compelled to think of myself as an involuntary swindler.”

Albert Einstein

A good article on Impostor Syndrome https://www.depts.ttu.edu/vpr/scholarly-messenger/2016/May/rcr-imposter-syndrome.php
Writing a proposal is how to sustain the community & proposal reviews are similar to the law...

- The standard for proposal reviews is “reasonableness” (not a judgement of your self-worth or the worth of your research);
- Accept that you won’t know everything;
- And focus on telling a compelling story.
- And, persuade your reader you will advance science and broaden opportunities for others.

If they are persistent, even slow mountain lions achieve success

By Paul Rogers | progers@bayareanewsgroup.com
Consider your stakeholders when framing a proposal...

- May help to generate ideas,
- With how proposal is reviewed,
- & how your grant is executed.
... as well as your organization’s vision. Ours is to achieve Woksape (wisdom) for students & faculty.

<table>
<thead>
<tr>
<th>Vision</th>
<th>Lakota*</th>
<th>English</th>
<th>Meaning</th>
<th>Kolb’s Cycle of Learning</th>
<th>Kegan and Tobort’s Human Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Woonspe</td>
<td>lesson/learning</td>
<td>to acquire experience and data</td>
<td>experimentation***</td>
<td></td>
<td>selfish – adolescence</td>
</tr>
<tr>
<td>Woslolye</td>
<td>knowledge</td>
<td>to organize and tabulate</td>
<td>concrete knowledge</td>
<td></td>
<td>all for one &amp; one for all-undergraduate</td>
</tr>
<tr>
<td>Wookahniye</td>
<td>understanding / comprehension</td>
<td>to analyze/disseminate/integrate</td>
<td>reflection</td>
<td></td>
<td>healthy selfishness – working life</td>
</tr>
<tr>
<td>Woksape</td>
<td>wisdom</td>
<td>to act according to the first three levels</td>
<td>abstract knowledge</td>
<td></td>
<td>Altruism – wise elder</td>
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</tbody>
</table>

Woitinze means support. We use grant funds to build woitinze: infrastructure, curriculum, internships, and financial opportunities for students and faculty

- Adopted by Tom Allen from the work of Leonard Little Finger
- Adopted by Dan Dolan (SDSMT) – who has a DEEP grasp of what it is to be human
- Vygotsky’s social development theory – Cultural abstract knowledge provides basis for experimentation.
Vision is important. Because sometimes leadership is thrust upon you...

- 2001 TCUP Phase I (Fredenberg & Phelps) – purchase lab equipment
- TCUP Phase II (Phelps) – grow new PIs; 2006
- QEM Leadership Development Institute – Cohort One starts; early 2007
- TCUP Phase II (Tinant) – grow new PIs; later 2007
Take small steps (Goals) to achieve your vision...

TCUP Yuowanca - where the tipi poles come together (Tinant & LaGarry, 2008)

1. Develop place-based science education;
2. Build research collaborations with Tribal agencies & mainstream universities;
Take small steps (Goals) to achieve your vision...

Oglala Lakota College, South Dakota State University, South Dakota School of Mines & Technology PreEngineering Educational (OSSPEEC) Collaborative * (Tinant & Berdanier, 2010)

1. Develop first two years of engineering coursework;
2. Transform classical engineering teaching -> incorporate Constructivist pedagogy;
3. Increase Native American engineer graduation rate -> Project-Based Experiential Learning for Reservation needs

• This is also how I learned ask Lakota elders rather than engineers to name proposals.
Take small steps (Goals) to achieve your vision...

TCUP Woksape Kici Woitinze
- support for wisdom
Tinant, Higa, LaGarry, Brave, Sanovia; 2015

1. Increase faculty and student science research dissemination;
2. Improve STEM graduation rates:
   1. Increase math success,
   2. Bridge high school graduates to college with research,
   3. Deepen K-12 teacher STEM knowledge.
Take small steps (Goals) to achieve your vision...

Oglala Lakota College, South Dakota State University, South Dakota School of Mines & Technology PreEngineering Educational (OSSPEEC) Collaborative Phase II *
(Tinant & Sanovia, 2016)

1. Broaden engineering coursework to other engineering disciplines;
2. Foster Reservation engineering research in:
   1. Water – Food – Energy Nexus - Sustainability
   2. Advanced Manufacturing – Maker Space & Affordable House

- Possibly the worst name ever; this is another reason for more Tribal consultation and less focus on precedent by members of the majority culture…
Acknowledgements:

- **Bryant High Horse** – Lakota speaker, psychologist, educator & Vietnam veteran, my kola & teacher
- Quality Education for Minorities (QEM) Leadership Development Institute Personnel - **Shirley McBay, Carty Monette, Costello Brown, Althea Burns**
- National Science Foundation (NSF) **Tribal College and Universities Program** Awards #0903696, #1037661, #1640237, xxxxx, yyyyy (new computer - can’t log into Research.gov…)
- **Dr. Dan Dolan (SDSMT)** – Professor Mechanical Engineering (Ret), MS Psychology, Director of CAMP Lab, seeker of truth, authentic human being,
- **Harriet Brings Plenty** – Lakota speaker & educator, my unci.
- **Ben Geary** – Mata Guro Trece Hampas, psychologist, second to last chair saxophone player, super-plus old-school kola.
- **Sensei Andy Sanano** – Founder Trece Hampas – thirteen-strikes Arnes de Mano.
Concluding thoughts on leadership:

1) The Creator asked you to come to LDI, so that you can do your work;
2) Leadership is difficult. To become a good leader requires that you learn to fight your ego;
3) “The Way of the Warrior is to manifest Divine Love”… The True Way is to follow the Art of Peace… to fulfil what is lacking *.
4) At work, keep your mind mostly on positive verbs - grow, strive, transform, renew. And learn to be a little bit forgetful.
5) Follow the virtues of your people. When you cross into the next world, your relatives will ask you if you lived by the teachings.

* Ueshiba Morihei – The Art of Peace