

NIMH and the Delaware Project



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NIMH
National Institute
of Mental Health

NIMH: A Public Health Mission

NIMH Vision

NIMH envisions a world in which mental illnesses are prevented and cured.

NIMH Mission

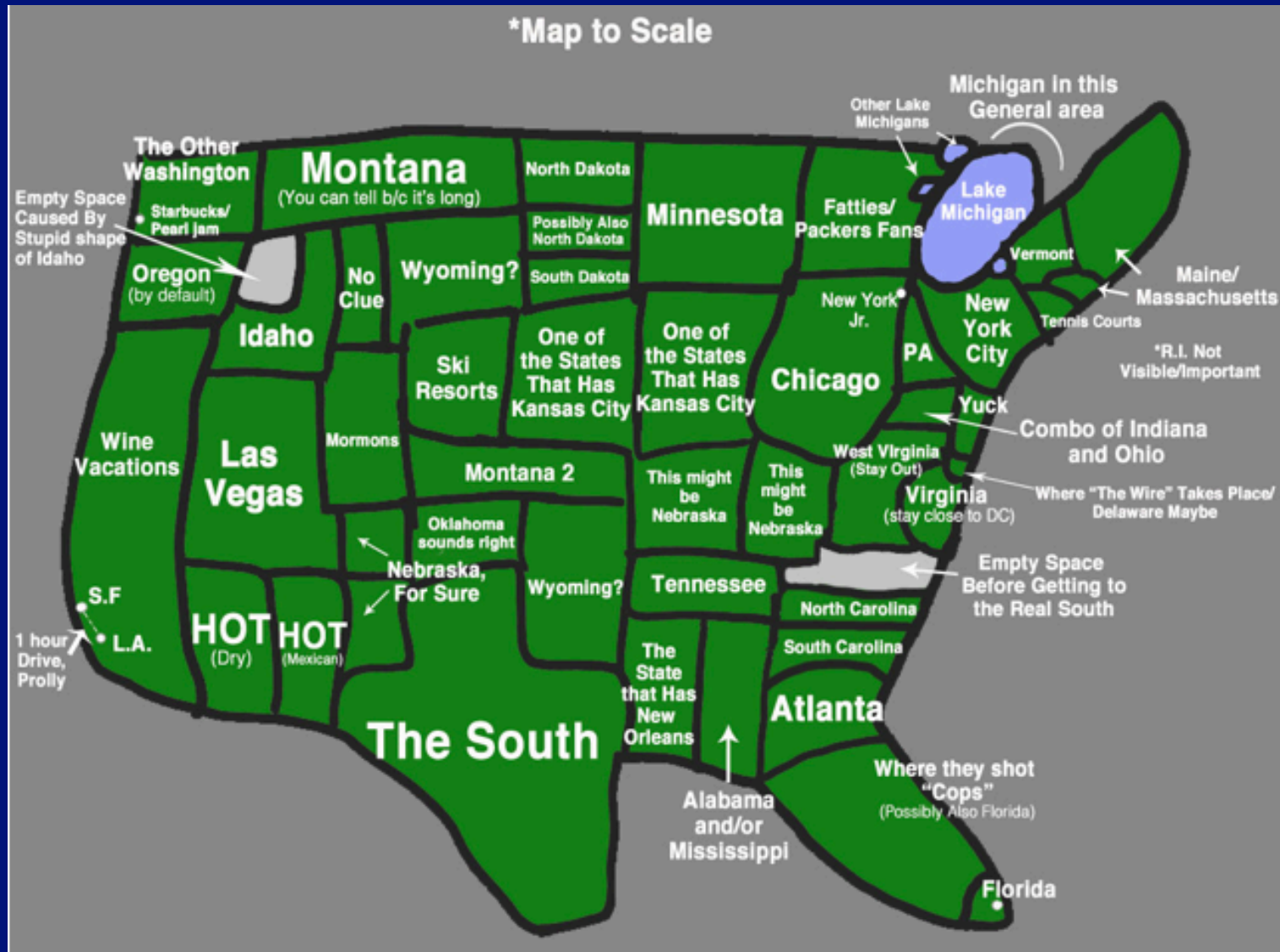
The mission of NIMH is to transform the understanding and treatment of mental illnesses through basic and clinical research, paving the way for prevention, recovery, and cure.



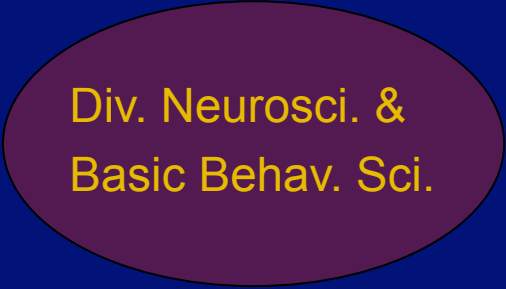
Interventions: 30K foot overview

- Effective empirically supported treatments are available.....
- But only to a very small number of people.
- New treatments are developed.....
- But taken up only very slowly.
- Therapists can be trained in empirically supported treatments....
- But they fail to deliver them with fidelity.
- The number of people who seek mental health services is greater than ever before....
- But rates of mental illness have not decreased.

Our map for intervention science is about as good as New Yorkers' map of Delaware (and the rest of the US)

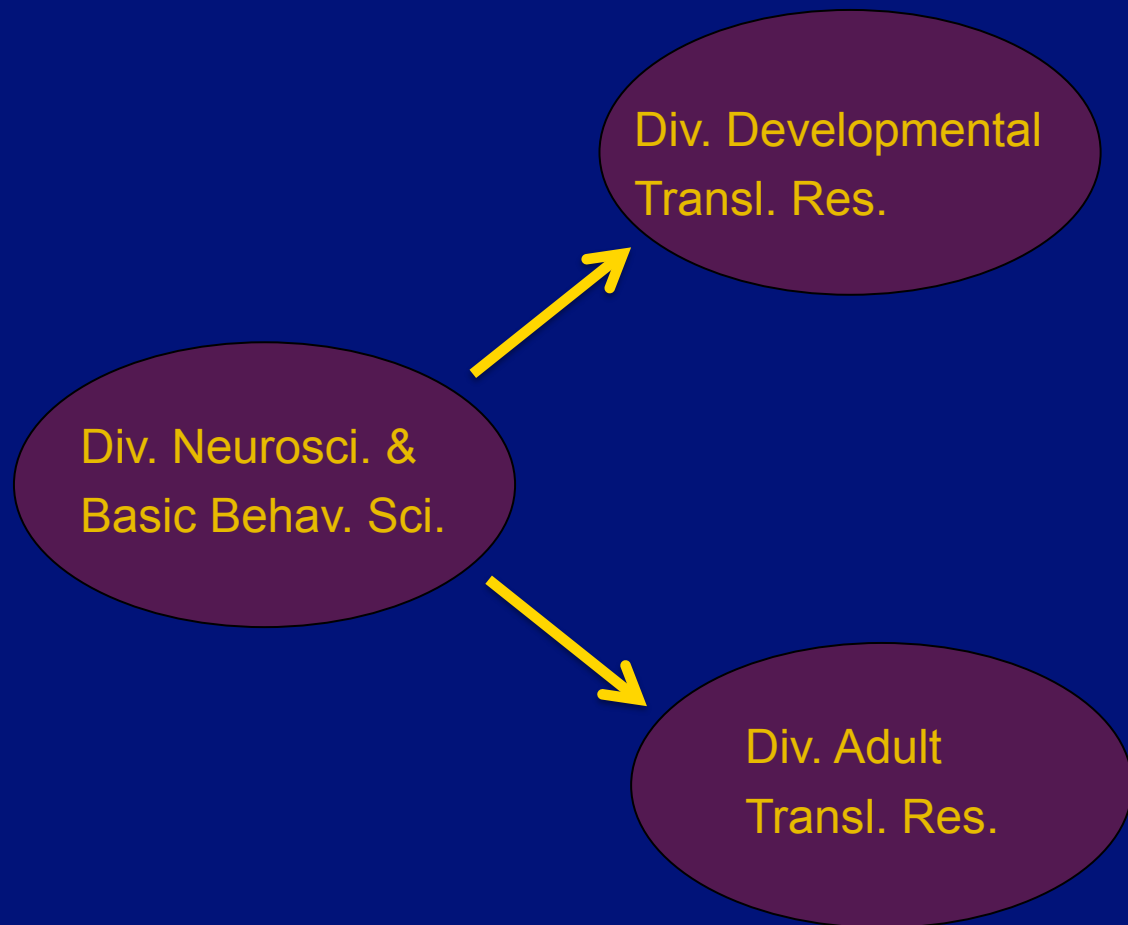


The Translational Pipeline at NIMH:

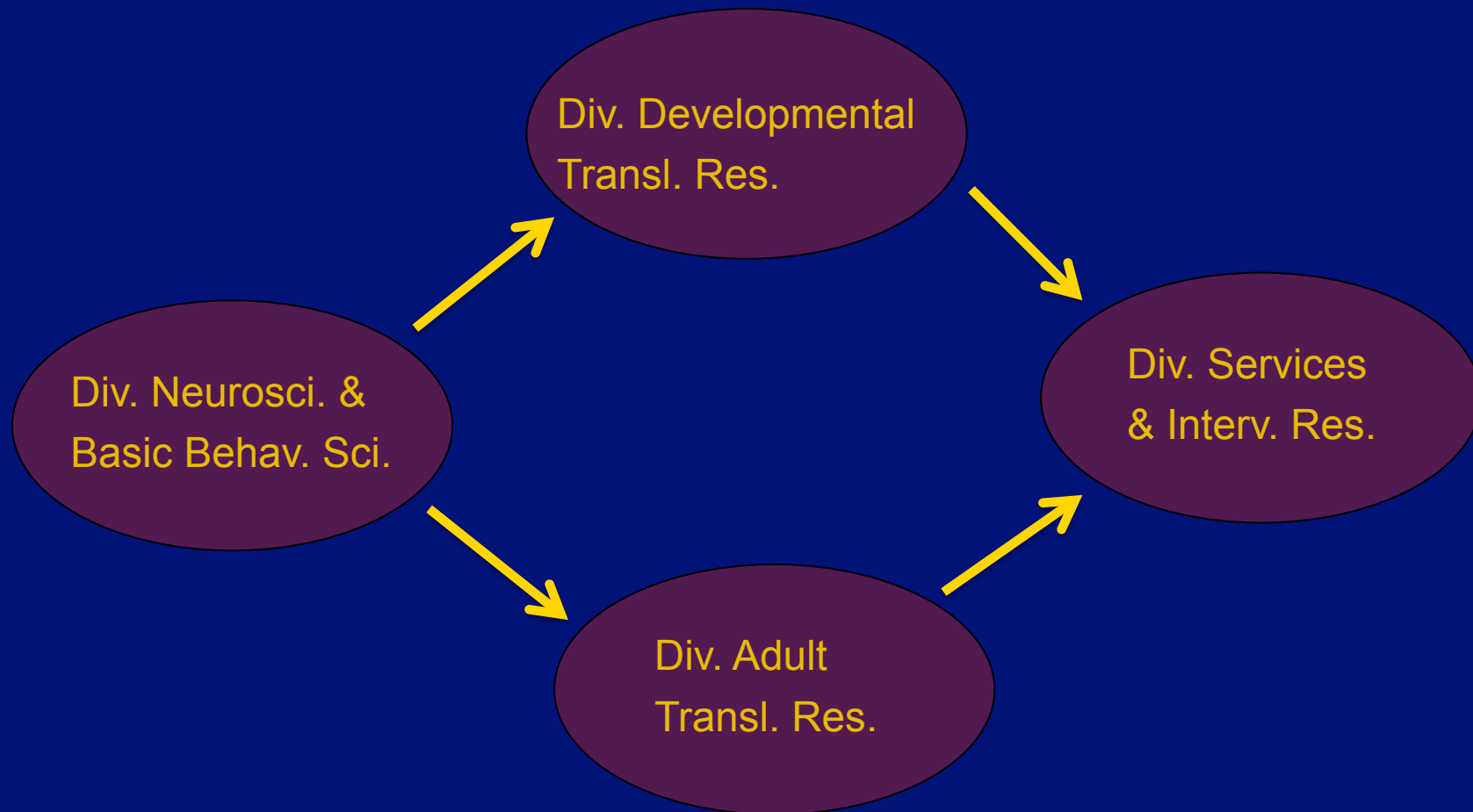


Div. Neurosci. &
Basic Behav. Sci.

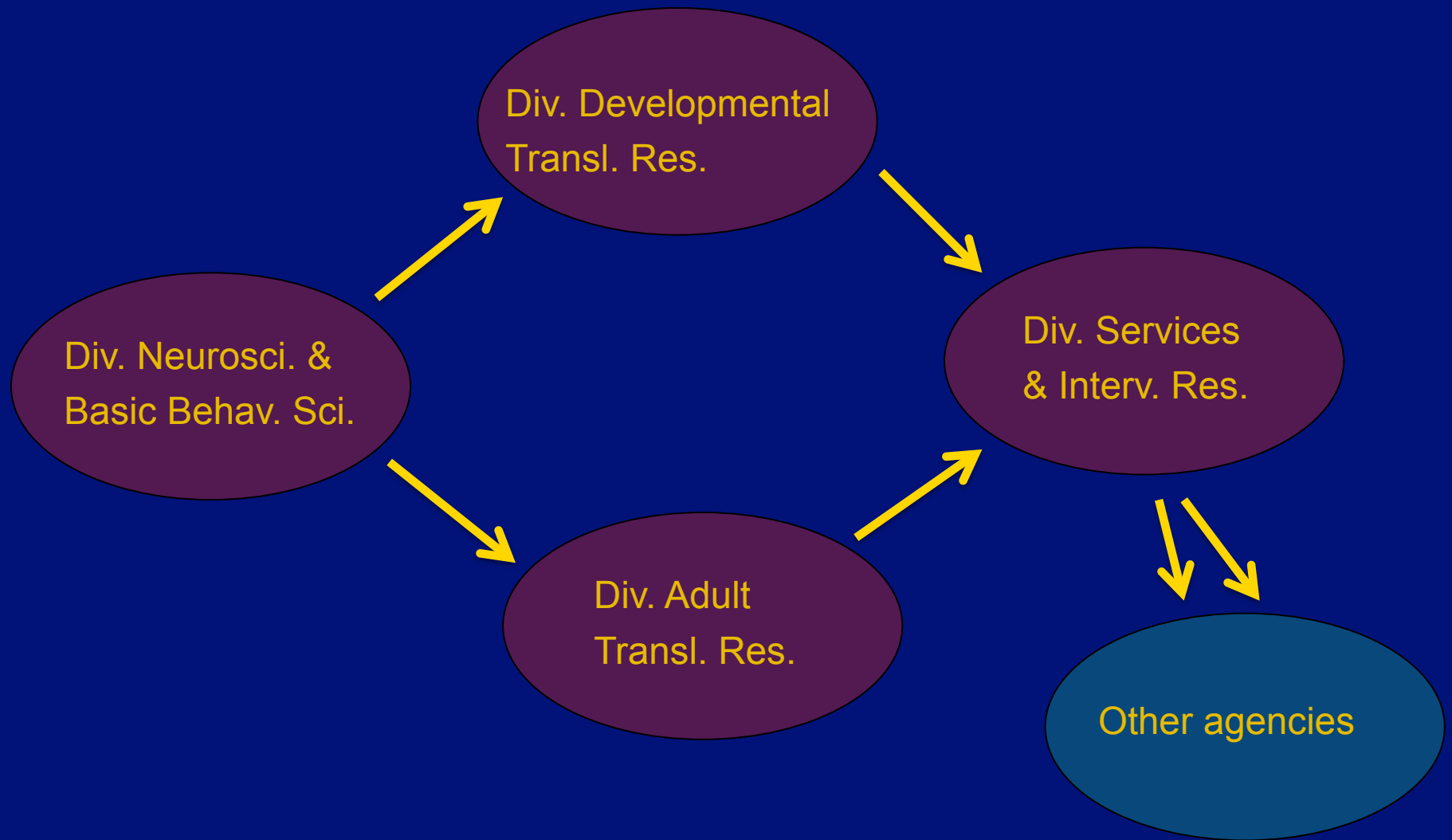
The Translational Pipeline at NIMH:



The Translational Pipeline at NIMH:



The Translational Pipeline at NIMH:



Obstacles to moving research through the
Translational pipeline; even on the same farm



Obstacles: We should not assume a linear movement Through stages in every case.

Director's Blog

May 20, 2011

Making the Most of our Interventions Research

Thomas Insel

Why are interventions that are shown to be effective not routinely disseminated? One concern is that the interventions developed in a research environment may not always be good fits with community settings.

Typically, intervention development and efficacy trials are conducted in academic or laboratory settings with carefully screened patients who often are free of medical conditions and other co-occurring problems (e.g., substance use disorders). Yet people in community settings more often than not have coexisting disorders, complicating their diagnosis and treatment. In addition, staff involved in efficacy trials usually are highly trained, carefully selected, and closely supervised. Contrast that with some segments of the public sector, where it is estimated that as much as 40 percent of mental health providers do not have graduate or professional degrees. Moreover, research-derived psychosocial therapies are sometimes developed without consideration of people's typical service use patterns. Studies have found that patients often attend many fewer sessions than are usually prescribed by research therapies. Finally, these intervention studies rarely take into account the realities of billing and reimbursement constraints for both the privately and publicly insured.

To be clear, we are seeking to support research on interventions that can be disseminated broadly, will change provider behavior, and impact clinical outcomes in the world. We are seeking approaches that are relevant to underserved clinical populations, can be readily taught to the existing workforce with minimal cost, can be monitored for quality inexpensively, and can be tweaked through cost-effective supervision practices. Finally, we want researchers to be mindful of economic considerations that drive broad implementation, and recognize that even blockbuster interventions will lack impact unless someone agrees to pay for them.



NIMH intervention development philosophy

- New interventions directed toward *targets*
- Molecular targets
- Clinical targets
- I.e., mechanisms
- “Precision medicine” (IOM report)



New treatment approaches: NIMH Strategic Plan Goal 1.4

- “Develop, for research purposes, new ways of classifying mental disorders based on dimensions of observable behavior and neurobiological measures.”
 - Identify fundamental components that may span multiple disorders (e.g., executive function, affect regulation)
 - Develop reliable and valid measures of these fundamental components for use in basic and clinical studies
 - Determine the full range of variation, from normal to abnormal
 - Integrate genetic, neurobiological, behavioral, environmental, and experiential components

Research Domain Criteria (RDoC)

v. 3.1, 6/30/2011	DRAFT RESEARCH DOMAIN CRITERIA MATRIX							
	----- UNITS OF ANALYSIS -----							
DOMAINS/CONSTRUCTS	Genes	Molecules	Cells	Circuits	Physiology	Behavior	Self-Reports	Paradigms
Negative Valence Systems								
Acute threat ("fear")								
Potential threat ("anxiety")								
Sustained threat								
Loss								
Frustrative nonreward								
Positive Valence Systems								
Approach motivation								
Initial responsiveness to reward								
Sustained responsiveness to reward								
Reward learning								
Habit								
Cognitive Systems								
Attention								
Perception								
Working memory								
Declarative memory								
Language behavior								
Cognitive (effortful) control								
Systems for Social Processes								
Imitation, theory of mind								
Social dominance								
Facial expression identification								
Attachment/separation fear								
Self-representation areas								
Arousal/Regulatory Systems								
Arousal & regulation (multiple)								
Resting state activity								



Leveraging the Clinical Scientist Cadre

- Other programs and disciplines will produce practitioners
- Clinical scientists:
 - (1) Ability to function continuously to connect silos
 - (2) Can we identify what we need to teach students to do this?
 - (3) And, how do we communicate [train] this knowledge?



Conclusion:

- The product of this workshop: a guideline for how to do this.....
- At, and between, each stage.