

**Communicating your
research clearly and
effectively**





Literacy and Orality

Practice

Designing and arranging
presentations

Practice

Revising and delivering
presentations

Practice



Writing

is: invented,

learned,

and not

ubiquitous.

I moved into engineering research about eight years ago as a result of my university work in remote sensing and my background and interest in climate change. After working in radar lab focusing on ionospheric density, I found my interests moving increasing upper atmospheric radio science in general, and ionospheric irregularities specifically.

After two post-doc positions, I was offered a position in the Electrical Engineering department here at the University of Washington. I appreciated the department's standing in the discipline; the fact that it was in Seattle didn't *hurt*.



Bobby Jindal: Republican response



Bobby Jindal: interviews

Briefly sketch out a 4-5 minute talk on a recent project (research or otherwise).

In pairs, practice giving
your 4-5 minute
presentations.

A speech is
like a feast,
at which the
dishes are
made to
please the
guests, and
not the
cooks.

**Baltasar
Gracián**



What do you want the audience to do after listening to your speech?



**Not: I want to
explain all my lab's
functions**

[Photo: Michael Tapp](#)

Instead: I want my audience to be able to identify and describe two important findings



Speech goals are:

audience focused.

concrete and observable.

In preparing for battle, I have always found that plans are useless but planning is indispensable.

Dwight D.
Eisenhower



In preparing for
speeches, I have
always found
that **outlines** are
useless but
outlining is
indispensable.

Dwight D.
Eisenhower



I. Main point (major unit of the presentation)

A. Subpoint (key idea within the unit)

i. Details (data, support or details for the subpoint)

Literacy and orality
Communication and
performance orientation
Selecting your goals
Planning the talk
Balance
Simplicity
Order
Revision
Highlighting organization
PSA
Breathing
Projection
Movement
Gestures
Parts of ethos
Ethos analysis

Understanding speech

- Literacy and orality
- Communication and performance orientation

Planning

- Selecting your goals
- Planning the talk
 - Balance
 - Simplicity
 - Order
- Refining the talk
 - Revision
 - Highlighting organization

Delivery

- PSA
- Delivery
 - Breathing
 - Projection
 - Movement
 - Gestures

Q&A

I. Opening

II. Background

III. Findings

A. Finding #1

B. Finding #2

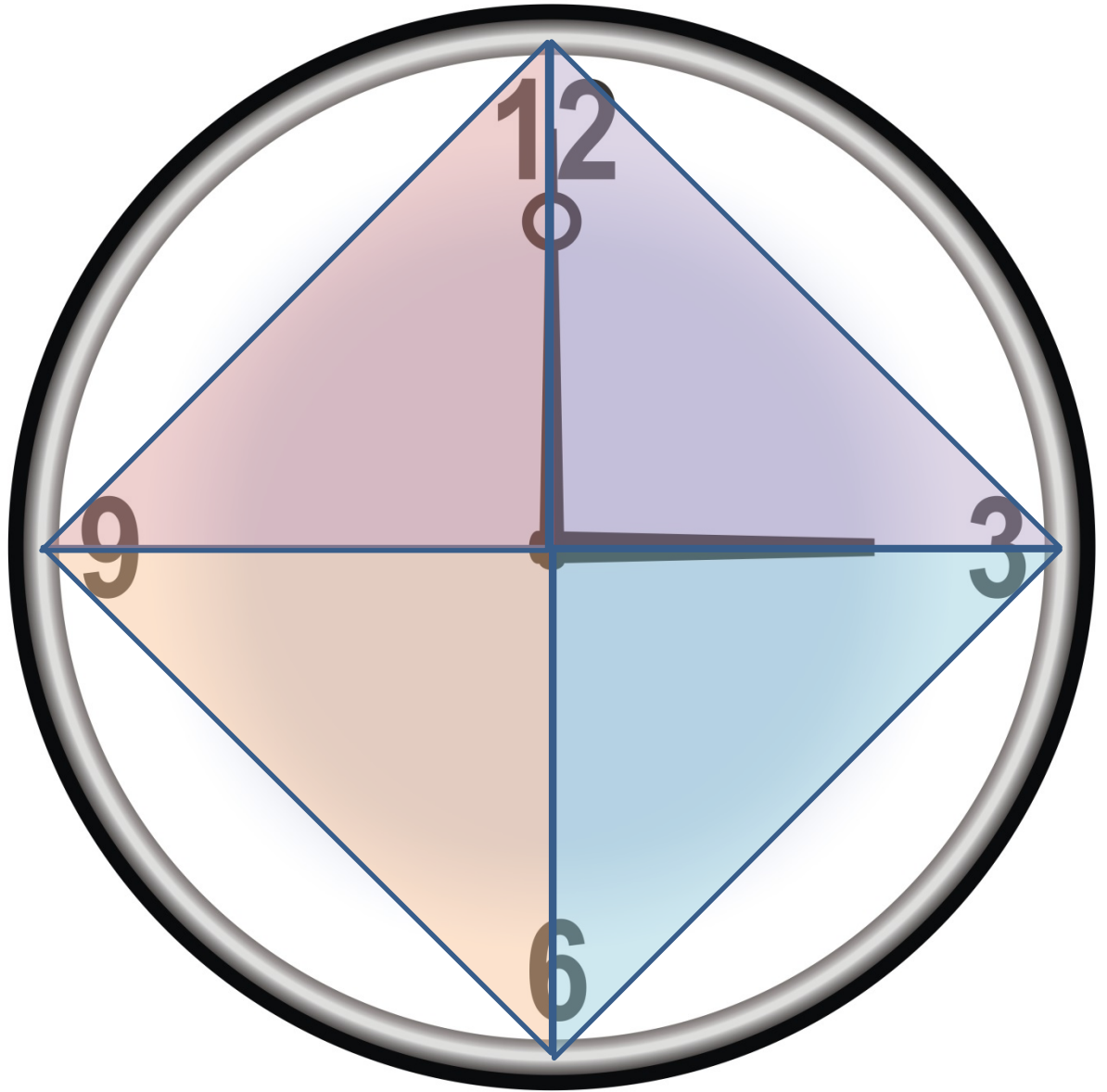
IV. Implications

A. Implication #1

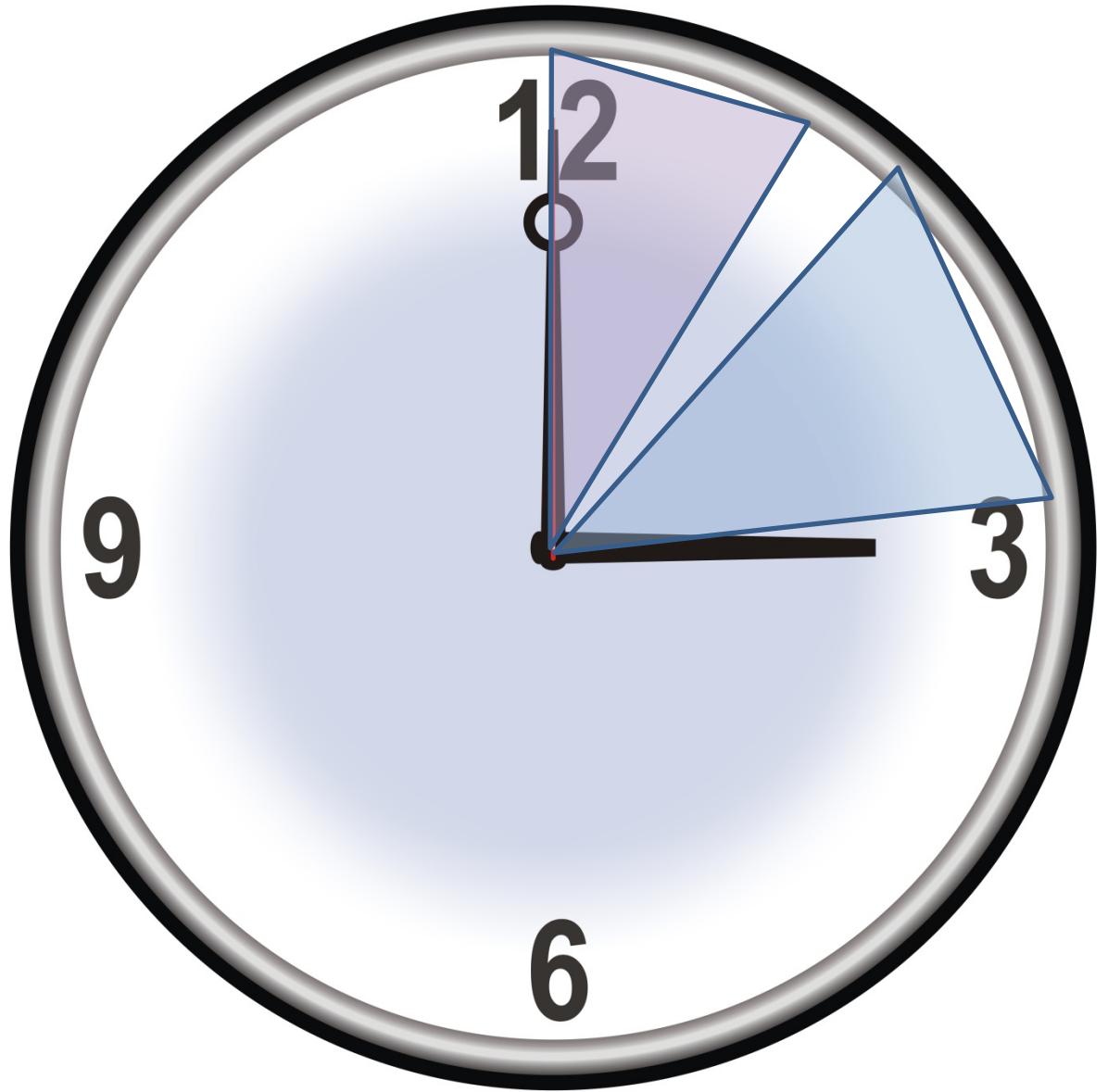
B. Implication #2

Project overview

Break up
the talk
into
chunks



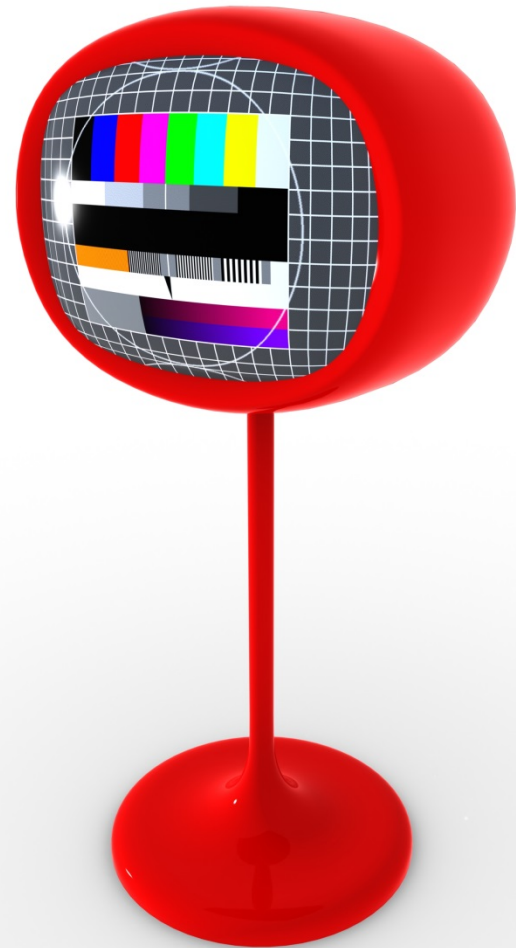
Break up
the talk
into
chunks





Ask the
audience
a question
and give
them
some
time to
think

Watch a clip or do
a demonstration



Pause for
questions



I. What happened to the middle class income?

A. Savings went down

- i. 1970's family put away 11% of their income
- ii. current families put nothing away

B. Revolving debt went up

- i. 1970s family carried 1.4% in debt
- ii. 2005 family carries 15.6% debt and saves $-.8\%$



Elizabeth Warren
Leo Gottlieb Professor of Law, Harvard
HOUSE



My prediction should still hold. After all, families are getting richer, in the sense of more income over time (slide change). What happened? **Savings went down in this same time period.** So, the one-income family in 1970 was putting away about 11% of their take home pay. Think about that. Week after week. Month after month. They're putting away about 11%. **By the year 2006 (slide change)... You notice that the line goes below zero?** This is a concept that only Allan Greenspan would love. Negative savings. The American family today puts away nothing. And, frankly, has been putting away nothing for the last five or six years. There's nothing there. **There IS NO savings....**

So, savings have gone down. **Revolving debt has gone up.** And it gives us this picture, if we put the whole thing together here. And that is the last slide (slide change). **1972, the family—blue—is saving 11% and carrying in debt about 1.4%. By the year 2005, is carrying credit card debt equal to one in every seven dollars it earns. 15.6%. And its savings rate is -.8%.** So, uh. Think about what that means. That means, over the last 30 years in terms of a shift, the family spent everything that mom's income added to the family fisc. Spent everything they used to save. That 11% that they used to put away. And went into debt another 15% of income on top of that. **They. Spent. It. All.**

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Paul Krugman
Noble Prize winning economist

Just getting back to normal levels of state and local of employment relative to population, ah, you can get 1.3 million workers. You can add 1.3 million people to employment right away. Just getting back to normal levels of state and local spending on real goods and services. You can get 300 billion a year...in..in aid to the economy. That's enough almost certainly to get us below 7% on unemployment. To get us into a much, much better economic frame. It's not.... It's not technically hard. Politically hard. No question about that.

Highlight and
explain your talk's
arrangement



Open your talk

Previews chart out
a path for the
audience



Transitions help the audience
know where you are



Reviews
amplify what
you have
addressed

Signal your
conclusion



Revise your 4-5 minute talk.

In different pairs,
practice giving your
talks.

We can experience PSA as
a **trait** (it's with us often)
and/or a **state** (certain
situations)



Types of PSA

Physiological

Cognition

Behavioral



Strategy types

Systematic desensitization

Cognitive modification

Skills training



Practice

Visualization

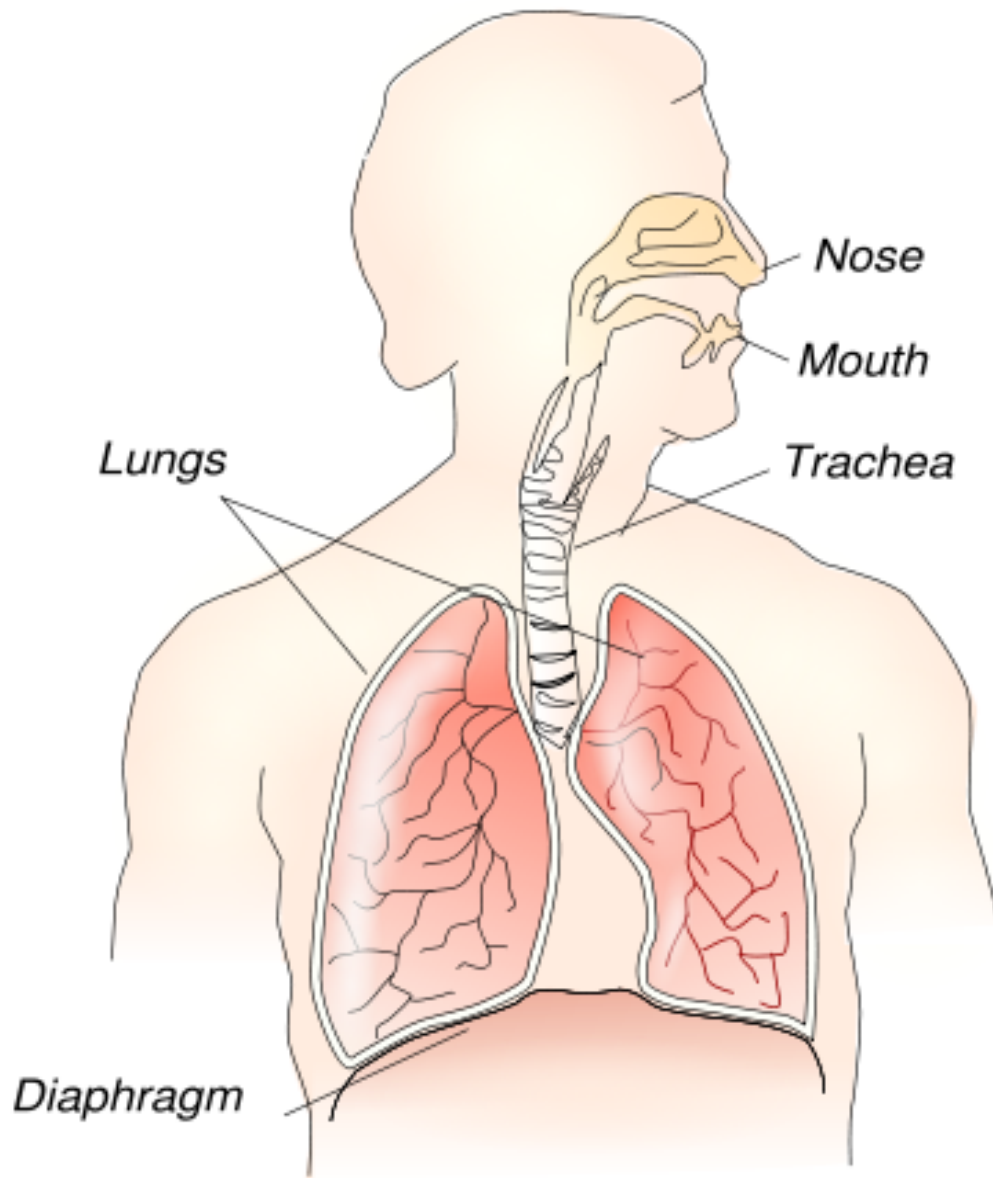
Repetition

BE NATURAL





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**Breath
from your
diaphragm**

Nasal Cavity

Palate

Oral Cavity

Lips

Tongue

Pharynx

Jaw

Epiglottis

**Larynx opening
into pharynx**

Larynx

Esophagus

**Project to be
heard by the
back of the
room**



Your pacing and vocal variety should help distinguish ideas from one another



AP

www.5news.com



EYEWITNESS NEWS

5 BUSINESS NEWS



**Imagine
someone
was trying
to replicate
your
outline in
their notes.**

**What would
you need
emphasize?**

**Where would
you need to
slow down?**

Have
purposeful
looking
gestures
and
movement





Revise your 4-5 minute talk.

In different pairs,
practice giving your
talks.

Determine the function of the slides
in your talk

Guide note
taking



Make an
impact



Keep slides
simple and
clean

Limit the
text

Assert a key idea

Explain with a graphic

Xenon headlights illuminate signs better than halogen headlights do

Halogen Headlight



Xenon Headlight

