



Science of behavior is not psychology

- Psychology is the science of the mind
- Behavior Analysis is the scientific study of behavior
- Since 1973 over 60,000 research studies have been reported
- What I present today has been studied in many countries (50+), many companies (in excess of 300) and with almost every job

Deceptively Simple

A: $B \Rightarrow C$

$E = mc^2$

3

In spite of the rapid advances in technology, the Laws of Behavior Remain the Same

The ABC Model

Antecedents: Behavior ➔ **Consequence**

(Setting Event) (Reinforced/Punished)

4

Some things we know about behavioral consequences

- There are four behavioral consequences
- Two increase behavior and two decrease behavior

BEHAVIOR ➔

Consequences that **INCREASE** Behavior

Get something you want

Escape or avoid something you don't want

Get something you don't want

Lose something you have and want

Consequences that **DECREASE** Behavior

R+ Positive Reinforcement

R- Negative Reinforcement

P+ Punishment

P- Penalty

© 2008 5

Some things we know about behavioral consequences (continued)

- Positive reinforcement produces higher rates of behavior than negative reinforcement

© 2008 6

Behavior is a function of its Consequences

© 2008 ADI


A: B → C

7

Some Things the Science of Behavior Has Taught Us

© 2008 ADI

1. Antecedents are necessary but not sufficient for behavior change.
2. Behavior is a function of its consequences.
3. Immediate and certain consequences are the most powerful.
4. Positive consequences are most efficient and effective.
5. Negative reinforcement and punishment are the most common and have negative side effects.
6. Consequences influence behavior regardless of whether they are intentional or unintentional



8

Antecedents vs Consequences in Behavior Change

© 2008 ADI

Training Components	Knowledge	Skill Demo	Use in Classroom
Theory and Discussion	10%	5%	0%
Demo in training	30%	20%	0%
Practice & feedback in training	60%	60%	5%
Coaching	95%	95%	95%

Bennett, B. (1987) The effectiveness of staff development training practices: A meta analysis
Dissertation Abstracts International, 48 (7), 1739

© 2012 9

PIC/NIC Analysis™

© 2008 ADI

BEHAVIOR	ANTECEDENTS	CONSEQUENCES	P/N	I/F	C/U
The Problem Pinpointed Performance	Nicotine addiction	Heart Disease	N	F	U
	Boredom	Lung Disease	N	F	U
	Stress	Cost	N	F	C
Smoking cigarettes	Meals	Dirty	N	F	U
	Alcohol	Stinks	N	F	U
	Coffee	Criticism	N	I	U
	Telephone	Holes In Clothes	N	F	U
	Driving	Fires	N	F	U
	Ash tray	Taste	P	I	C
	Going to bed	Good Smell	P	I	C
	Meetings	Stimulus	P	I	C
		Relaxation	P	I	C
		Fills time	P	I	C

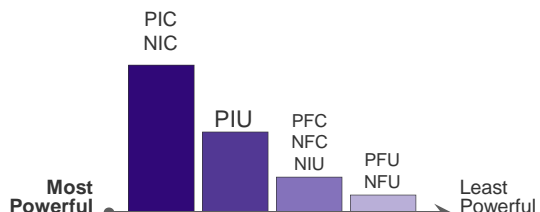
*Remember, consequences are from the point of view of the performer(s).

10

The Relative Power of Consequences

© 2008 ADI

- A small, immediate consequence has more impact on behavior than a large, future, and uncertain one

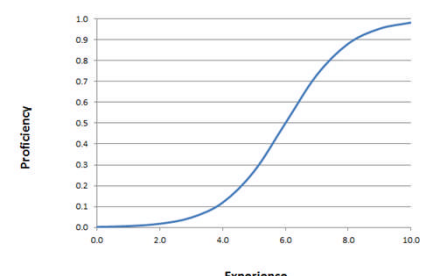


11

R+ produces exponential growth

© 2008 ADI

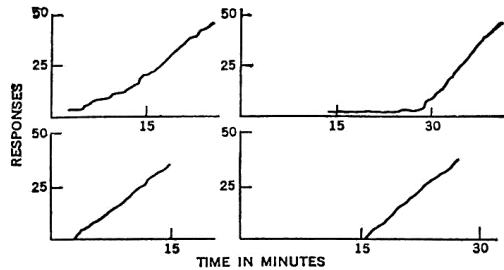
S or Sigmoid Curve



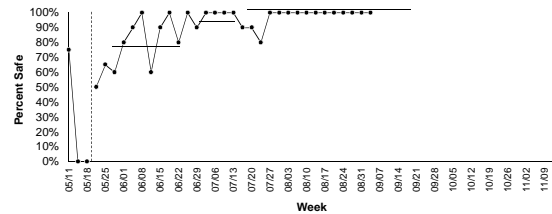
© 2008 ADI. All Rights Reserved. Permission is granted to copy for noncommercial use.

How long does it take to change behavior?

"Notice that conditioning is commonly 'instantaneous' and that response rate is steady." Keller and Schoenfeld *Principles of Psychology* (pg46)



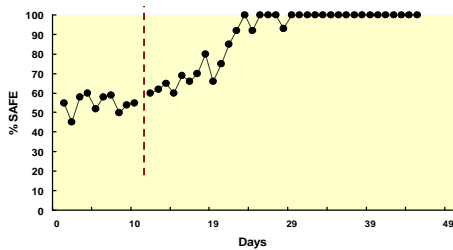
Wear Goggles When Handling Concentrated Chemicals



© 2014 14

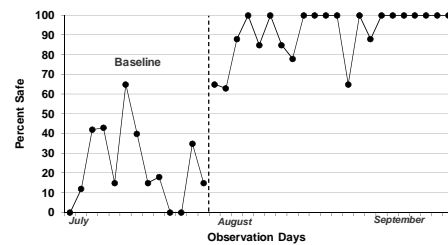
Behavior Pinpoint

Keeping Free Hand at Side Or
on Table When Sharpening Knife



© 2014 15

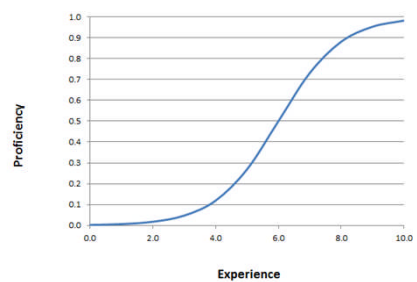
Distribution: Close Blade After Cutting Each Case



© 2014 16

R+ produces exponential growth

S or Sigmoid Curve



© 2013 Alan Petersen - permission to grant to ADI for noncommercial use

Getting Smarter Quicker – Walter Schneider

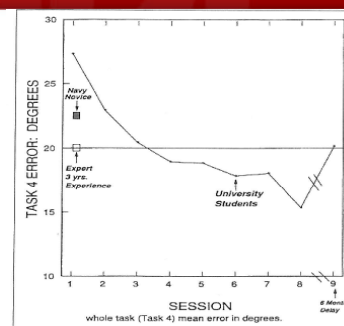
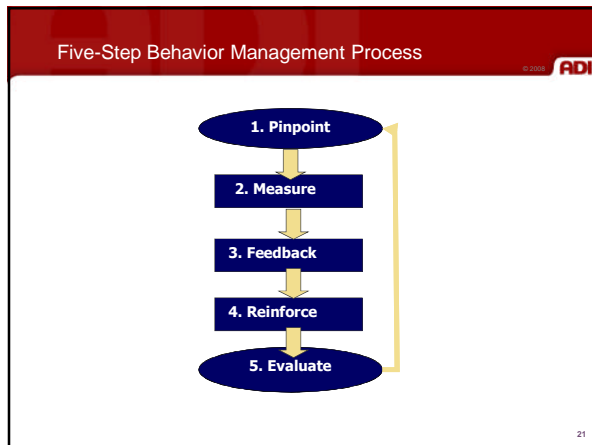
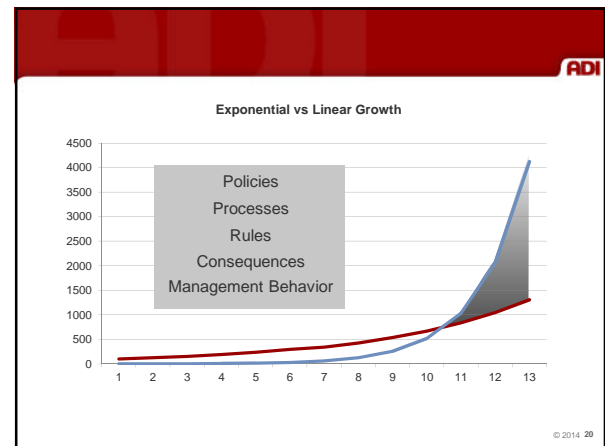


Figure 6.
Mean Error in Degrees

Herrnstein's Hyperbola – *The Matching Law*
(A Manager's Job Description)

$$B = \frac{kr}{r + r_e}$$

19



- The New Way to Work
- Manager and supervisor as coach.
 - Job of manager is to help employees to be more successful.
 - Tell what needs to be accomplished
 - How can we do it.
 - Ask more questions, less telling
 - Less confrontation
 - How would my behavior cause performer to want to do better?
 - Shape solutions

