

# Unit 2



## **Basic Concepts**

**BEHV 2300  
SPRING 2012**

# Objectives



## Define

- Behavior
- Operant
- Respondent
- Response
- Behavioral Definition
- Approaches to observing
  - self-report
  - direct observation
- Antecedent
- Consequence
- 3-term contingency

## Discriminate between

- Behavior & Response
- Operant & Respondent
- Self-Report  
& Direct Observation
- The elements of the  
3-term contingency



# Review



- \_\_\_\_\_ is the science.
- \_\_\_\_\_ is the philosophy that informs that science.
- \_\_\_\_\_ is the application of the science to socially significant problems.

# Review



- John's counselor explained his recent temper tantrums by saying that he feels angry about his parents divorce. Feeling angry is an explanation using a \_\_\_\_\_.
- However, John's dad explained the tantrums as being due to his mother giving John candy every time he throws a tantrum. This explanation highlights an \_\_\_\_\_ to explain John's tantrums

# NEW MATERIAL



# What is Behavior?



According to Miller.....

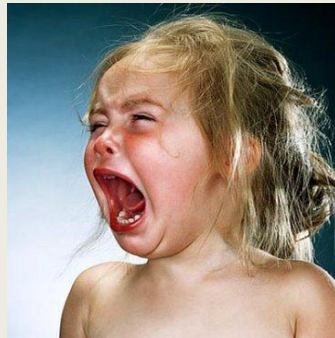
- Behavior is anything that a person \_\_\_\_\_.
- Behavior is \_\_\_\_\_ and it \_\_\_\_\_ to do something.
- Behavior is observable through the human \_\_\_\_\_ or through \_\_\_\_\_.
- Behavior is a concept restricted to the movement of living organisms

# What do we mean by function?



## Behavior changes the environment

- When we behave, our behavior produces changes within the environment.
- What environmental changes might these behaviors produce?



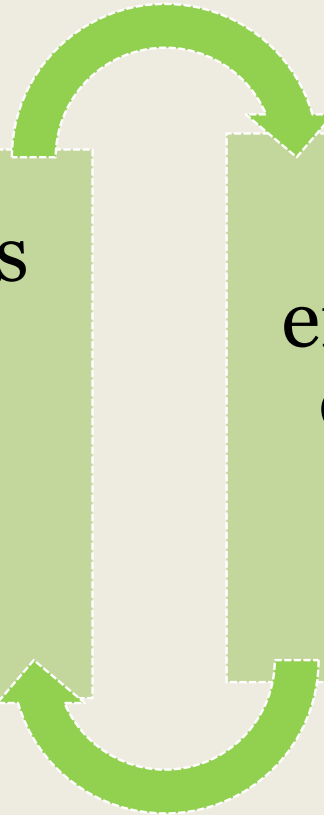


# Behavior



Behavior produces  
changes in the  
environment.

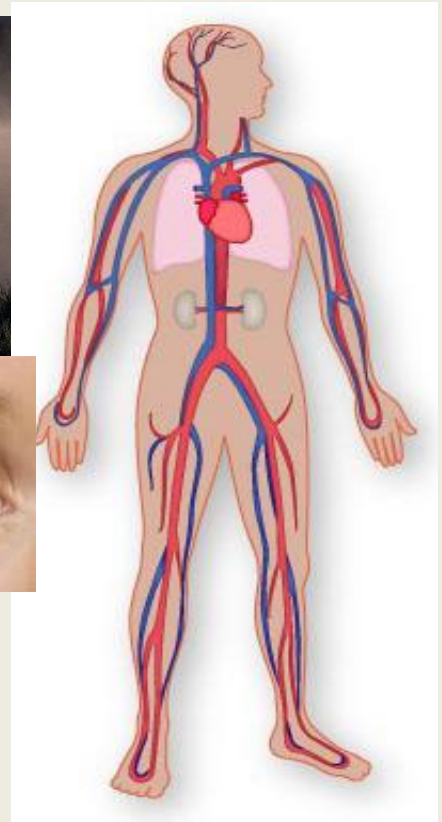
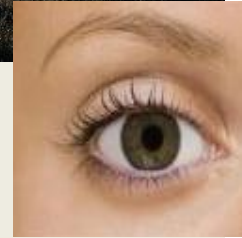
Changes in the  
environment produce  
change in behavior.



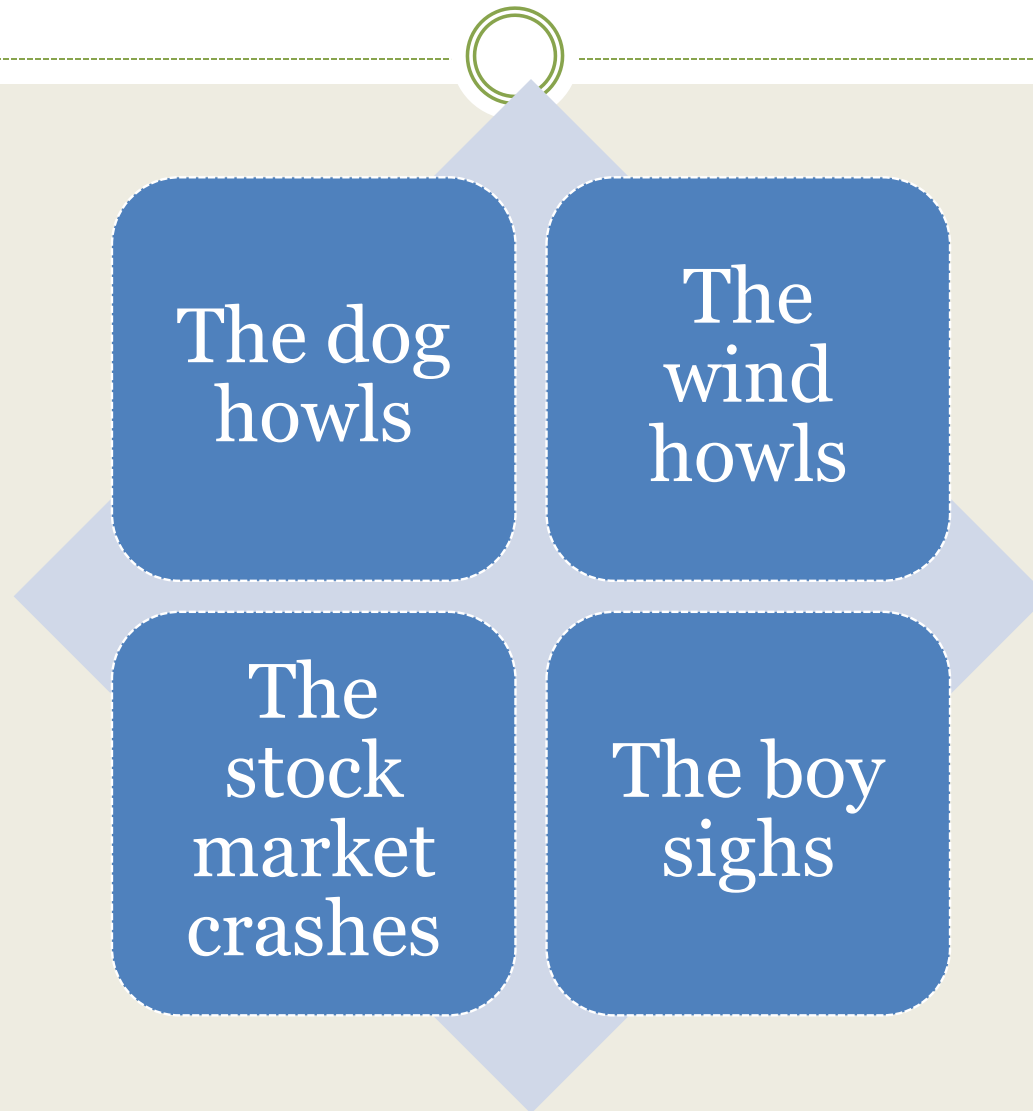
# What to look for.....



- Obvious body actions
  - Running
  - Swimming
- Subtle body actions
  - Blinking
  - Breathing
- Internal body actions
  - Heart beating
  - Release of adrenaline



# Are these examples of behavior?



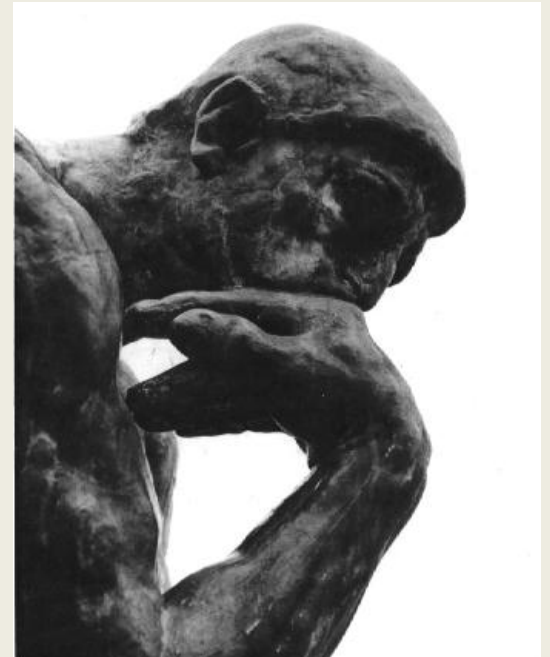
# Review



Yelling, smelling, singing, and even dreaming  
are all examples of \_\_\_\_\_

What is thinking?

How would we know?



# Response



Definition:

**A specific instance of a particular behavior.**

Examples

- Typing the letter ‘a’ on your keyboard at 2:30 PM
- Playing the ‘G’ chord on your friend’s piano on Saturday January 20<sup>th</sup>, 2012.
- Opening a bottle of water during lunch yesterday
- Feeling tired when I woke up this morning



An instance of behavior is called a

# Behavior or Response



- Playing Football
- Throwing a touchdown in the 3<sup>rd</sup> minute of the 4<sup>th</sup> quarter on November 19, 2012.
- Eating supper
- Taking a bite of salad at 6:30 P.M.

# What does “exercise” mean to you?



If I said I want to increase exercise we would all have a different idea of what I mean:





# How are we going to talk about behavior?



- Some behavior is difficult to describe
  - What do we mean by
    - ✦ Exercise
    - ✦ Study habits
    - ✦ Spring break fever

# Behavioral Definition



## Behavioral Definition:

A statement that specifies exactly what behavior to observe

- Identifies what's \_\_\_\_\_ and what's \_\_\_\_\_
- Provides clear \_\_\_\_\_ that allows  
\_\_\_\_\_

# Behavioral Definition



- **Objective**

- refers to behavior that can be observed
- environmental not private events  
e.g. not 'angry' but 'aggression towards...."

- **Clear**

- reliable and unambiguous  
e.g. can someone else paraphrase it?

- **Complete**

- details what should be included and excluded  
e.g. includes kicking and punching people, excludes aggression toward property

# A Behavioral Definition of Exercise



- Anytime I am doing yoga
- Anytime I am in a recognized yoga pose
- Anytime I am in my yoga clothes, on my yoga mat, imitating yoga poses shown on a DVD, App or XBOX game
- Includes balance poses off the mat, meditation poses
- Excludes yoga session that lasts less than 10 minutes, or where the meditation portion lasts more than 50% of the session

# Example from JABA - Good or Bad?



Lennox, D. B., Miltenberger, R. G., & Donnelly, D. R. (1987). Response interruption and DRL for the reduction of rapid eating. *Journal of Applied Behavior Analysis, 20*, 279-284.

The target behavior for all 3 subjects was an eating response defined as any contact of the hand or eating utensil to the food on the subject's plate.

# Example from JABA - Good or Bad?



Wilson, P. G., Rusch, F. R., & Lee, S. (1992). Strategies to increase exercise-report correspondence by boys with moderate mental retardation: Collateral changes in intention-exercise correspondence. *Journal of Applied Behavior Analysis, 25*, 681-690.

Use of exercise machines was the target behavior. Rather than specifically targeting proper use of each machine, the teacher and classroom aides provided informal instruction after students initiated use of a machine. To be considered an occurrence of exercise machine use, three conditions had to be met: (a) Use was not prompted, (b) operationally defined performance criteria were met, and (c) use began within 30 s of the onset of the opportunity to exercise.



Allison noticed that Barbie gets extremely anxious about the surprise part of surprise birthday parties. Before she talked to Barbie about this issue, Allison first created a detailed description of what she witnessed as anxious behaviors. What do we call the detailed description that specifies what is to be observed?





# Approaches to Observing Behavior



**Self-Report**

Reporting on  
your own  
behavior

After the fact  
recording –  
relying on  
memory

**Direct  
Observation**

Watching  
what happens

Immediate  
recording

# Approaches to observing behavior



## Self-Report

Interviews:  
questions about how  
it is now and how  
you'd like it to be

Surveys:  
fill in the answer,  
often Likert scale

## Direct Observation

Assessments:  
conducting specific  
assessments of the  
behavior

Checklists:  
checking to see if a  
behavior occurs  
under certain  
conditions

# Self-Report



- Reporting on one's own behavior.
- A useful starting point, and it's quick and cheap to conduct, but.....
- Three problems:

✦ \_\_\_\_\_

✦ \_\_\_\_\_

✦ \_\_\_\_\_ .



Kristi goes to a fitness trainer every week. Her trainer Kevin asks Kristi to estimate how many minutes on average she spent per day working out.



What approach to observing behavior is the counselor using?

# Direct Observation



The principle that involves the use of trained observers to:

1. Personally \_\_\_\_\_ or \_\_\_\_\_ the behavior
2. \_\_\_\_\_ it immediately



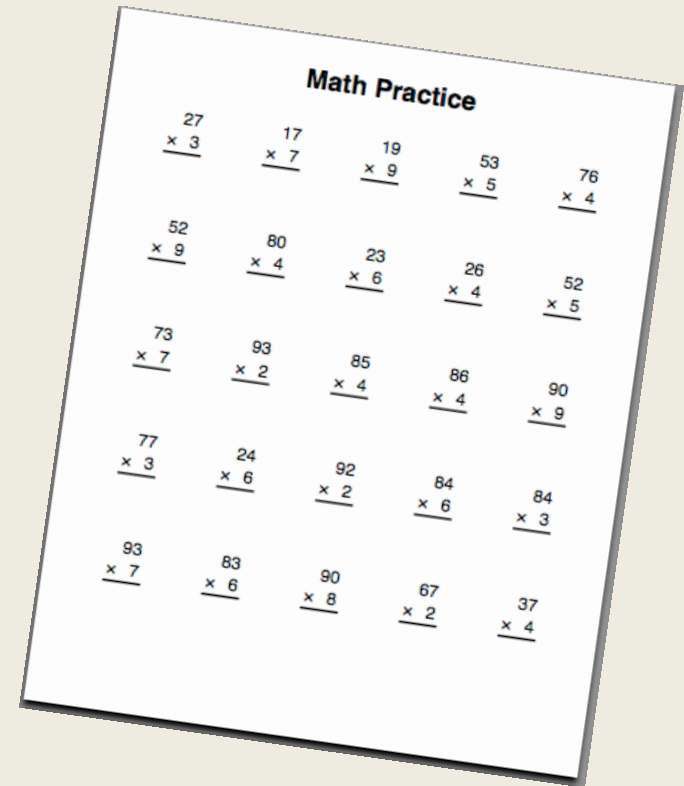
- Kevin is Kristi's personal trainer. Kevin watches Kristi and writes down how many push-ups, crunches, and lunges Kristi does while at the gym.
- He is using direct observation because he personally \_\_\_\_\_ the behavior AND \_\_\_\_\_ it immediately.



# One Exception



The observer records  
a physical \_\_\_\_\_ of the behavior



Anabel and Brad were at war when it came to washing the dishes.

Brad would observe Anabel doing the dishes and record it immediately (put a mark by Anabel's name).

This is \_\_\_\_\_.

Anabel would put a mark by Brad's name every time she arrived home and there were clean dishes on the drying rack. This is \_\_\_\_\_.



Dishes on the drying rack is a physical \_\_\_\_\_ of the target behavior.



# Which approach to observing behavior?



The teacher grades her students' quizzes after implementing a new teaching technique.

The doctor asked you to estimate how much your behavior improved after taking a new medication.

The counselor asks you to observe and record the number of times you initiate a conversation each day and record it immediately.

And now for something completely different...



# Definitions



**Antecedents:** (stimuli)

Environmental events that precede behavior in time.

**Consequences:** (stimuli)

Environmental events that follow behavior in time.



# BUT!



Not everything that precedes or follows our behavior affects our behavior

- Only those stimuli that precede our behavior and affect it are antecedents
- Only those stimuli that follow our behavior and affect it are consequences



What type of environmental events precede behavior in time?

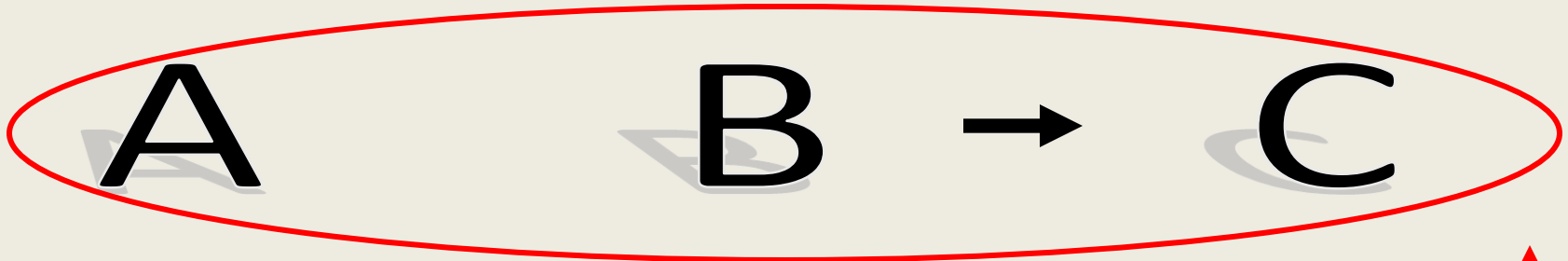


What type of environmental events follow behavior in time?

# 3-term Contingency



A \_\_\_\_\_ is a dependent relation between an antecedent stimulus class, a response class, and a consequent stimulus class.



Presence of Allison

Hi Allison!



Allison smiles



~~Presence of Allison~~

Hi Allison!



~~Allison smiles~~

Presence of Allison

~~Hi Allison!~~



Allison smiles



The relationship between an antecedent stimulus class, a response class, and a consequent stimulus class is called a



As Lindsey walked into Sam Moon, she sighed, “ooohh! So many beautiful bags to choose from!” She went into a shopping frenzy and bought a red leather shoulder bag, a beautiful jeweled clutch, and a soft fur purse.

The relationship between seeing a beautiful bag, giving the cashier money, and taking a bag home is called a

\_\_\_\_\_.

Jon used to make mean comments about his brother Dan every time that Dan was singing in the shower. Dan would always give Jon attention when Jon was making these kind of comments.

What do we call the relationship between listening to Dan singing, making mean comments, and receiving attention?

# Two Types of Behavior – Operant



- behavior is behavior that is affected by its consequences during an organism's lifetime.
  - The probability of an operant behavior occurring is determined by its history of consequences.
  - Makes up the majority of human behavior.
  - Examples of Operant Behavior:
    - ✦ Saying "Hi" to friends
    - ✦ Kicking a ball
    - ✦ Snowboarding



# Two Types of Behavior - Respondent



- \_\_\_\_\_ behavior is behavior that is elicited by antecedent stimuli.
  - Respondent behavior is not affected by consequences.
  - Examples of Respondent Behavior
    - ✦ Pupil contraction/dilation
    - ✦ Startle Response
    - ✦ Heartbeat

**S** → **R**

# Algorithm



1. Whose \_\_\_\_\_?
2. What \_\_\_\_\_?
3. Is there a \_\_\_\_\_?
4. Is there a change in \_\_\_\_\_ of the behavior?
5. What is the \_\_\_\_\_ asking?

# Algorithm



Jimmy loves eating ice-cream, when he buys ice-cream his friends all sit and talk to him. Now there is a Beth Marie's on campus Jimmy has started eating ice-cream every day. What's your favorite flavor ice-cream?

Whose behavior?

What behavior?

Is there a consequence, if so what is it?

Is there a change in the rate of the behavior, if so what?

What's the question asking?

## Algorithm to ABC Diagram

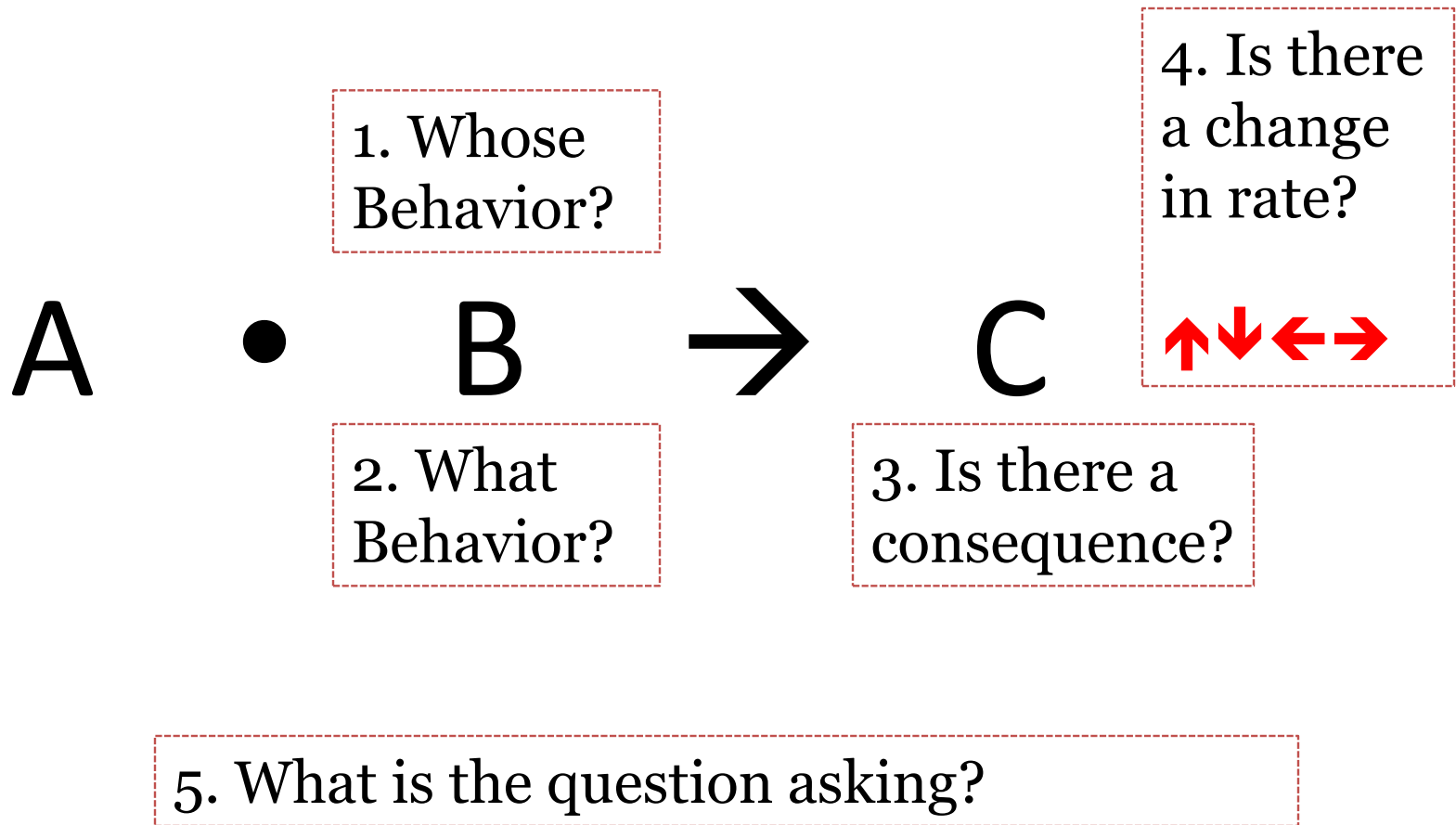
When little Anabel first started kindergarten she had few social skills. Therefore, one of the first skills that little Anabel's teacher taught her was how to appropriately gain the attention of her peers. Little Anabel's teacher instructed the other children to give her attention every time little Anabel said, "Hello", tapped her friends on the shoulder, or smiled at them. After only a few weeks, little Anabel was initiating appropriately almost all the time.

**A**

**B**

**C**

# ABC Diagram Outline – Using the Algorithm





# Key Terms



- Behavior
- Response
- Operant
- Respondent
- Behavioral Definition
- Approaches to observing
  - self-report
  - direct observation
- Antecedent
- Consequence
- 3-term contingency
- Know the algorithm
- Saw
- Recorded