Objectives

- Behavioral Model
  - Advantages and disadvantages
  - Direct versus indirect
  - Collaboration versus expert

- Designing a Behavior Measurement system

- School / Case entry
  - Learning about the system
  - Methods that may influence change

- Interview tips

Behavioral Model

- Assumptions
  1. Behavior is learned
  2. There are functional interactions between person and the environment that influence behavior
  3. Based on basic principles of behavior (ABC)
  4. Measurable overt behaviors that can be quantified
  5. Idiosyncratic process since learning histories vary
  6. Requires change in agent to change client behavior
  7. Consultee has some power to control and adjust reinforcing contingencies to change behavior for children
  8. Data driven decision making

Good points:

- An empirically based technology to change behavior that works
- Provides strategies to directly evaluate behavior change
- Clear objective treatment goals
- Adaptable to a wide range of different situations

Problems:

- Time consuming
- Acceptability issues:
  - Threat, resistance, effort, reactivity, jargon
  - Contradicts common beliefs
    - Inherently motivated, bribery, child intrinsic problem
- Reported that often hard to implement
- Need support / resource
**Problem Identification**

(Kratochwill and Bergan, 90)

**Goals:**
- Define the problem in behavioral terms
- Provide a tentative identification of behavior in terms of antecedent, situation and consequent conditions
- Provide a tentative strength of behavior (frequency, severity)
- Establish a procedure for collection of baseline data

**Problem Analysis Interview**

Goals:
- Evaluate and obtain agreement in the sufficiency and adequacy of the baseline data
- Discussion of Antecedents, consequent and sequential conditions
- Set the goal for behavior change
- Design Treatment plan
- Reaffirm measurement procedure
- Schedule a problem evaluation interview

**Plan Implementation**

Goals:
- Direct teacher to use the plan
- Review intervention progress weekly
- Revise a non working plan with the teacher
PLAN EVALUATION INTERVIEW

Purpose:
- Determine if the goals have been obtained
- Evaluate the effectiveness of plan
- Discuss strategies and tactics regarding the continuation, modification, or termination of the plan
- Schedule additional interviews if needed.

Advantages of BC model with a reliance on self-report

- Saves consultant time
- Increases Teacher input

Potential barriers to good child outcomes

- **Outcome barrier**
  - Focus on problem behavior versus behavior replacement
  - Focus on satisfying teacher which often leads to unrealistic goals which in turn leads to failure

- **Measurement barrier**
  - Reliance on teacher perceptions, memory
  - Decisions are based on subjective data
  - Lacks direct integrity measures
  - Lacks direct measurement of problem
**Contingency barriers**

- asking teacher to increase work load
- lack of adequate contingencies to ensure treatment gets done
- lack of consultant’s control for ensuring contingencies that promotes teacher integrity

**System barrier**

- told can’t do steps
- Lack of administration backing
- Lack of accountability
- Lack of training, finances, support and resources
- Perceptions (weak, child problem)

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**Incorporating fundamental principles to make BC more behavioral**

1. Use hybrid for direct objective measurements (less self report)
2. Assess and intervene in child’s environment → Direct
3. Train in child’s environment → Direct
4. Examine antecedent variables effecting consultee’s implementation → indirect and direct
5. Add consequences to increase/maintain consultee’s behavior → direct

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**4 Basic Stages of Consultation**

<table>
<thead>
<tr>
<th>Stage</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Identification</td>
<td>Does data show a behavior, academic, or classwide problem?</td>
</tr>
<tr>
<td>Problem Analysis</td>
<td>Did we observe why is child not learning or behaving and collected data that shows a way that the problem changes?</td>
</tr>
<tr>
<td>Plan Implementation</td>
<td>How do we get a treatment we have shown works used in the classroom?</td>
</tr>
<tr>
<td>Plan Evaluation</td>
<td>Does the data indicate that the treatment used and working? Do we fade treatment or generalize to other situations?</td>
</tr>
</tbody>
</table>
Various types of consultation models

Direct Consultation

Definition
- School psychologist provides services to a child
  - Teacher referral
  - Psychologist
  - Student

Goal: To change the child, provide skills

Activity Options. For example...

- **Direct—You...**
  - Assess child
  - Record review
  - Assess in class
  - Conduct therapy
  - Child Skill training
  - Train teacher
  - Fade plan

- **Indirect—Teacher**
  - Assess child
  - Assess in class
  - Implement intervention
  - Collect data

Others: target behavior change, obtain baseline, organize materials, design intervention steps with evaluation plan, pre-test the treatment, reinforce survey, graph data, evaluate and modify

Indirect Consultation

Definition
- School psychologist works with a third party who will implement a treatment for a student
  - Psychologist referral
  - Teacher
  - Treatment
  - Student

Goal: changing teacher skills or environment to increase child appropriate behaviors/skills while decreasing inappropriate behaviors/errors

Advantages of Direct

- Direct observation of skill ability
- By doing it, it gets done
- Immediate services for problem
- Low child/adult ratio
- Decrease teacher time

Validate a treatments before training adults/peers
Disadvantages for Direct

- Not enough school psychologists
- Lack of generalization to classroom
- Teacher may continue to have the problem with other children

Advantages of Indirect

- Adults control child’s daily environment
- Assess in environment that the child is functioning within
- Increases generalization since treatment is provided in natural environmental context
- Provides appropriate consequences, immediate prompts and feedback
- Teach skills to solve other problems
- More time to assist more children

Disadvantages for Indirect

- Dependent on third party to implement
  - May get high qualitative assessment, accurate problem diagnosis, effective plan but no service to child
  - May lack skills
  - May lack motivation
- Overcoming resistance
- Time changing adult behavior as well as child behavior
- Lack of resources / support
- Need to change beliefs
  - It’s “magic” vs hard work; the child has an internal problem
- Interference from system demands

Reality in schools

- Need both direct and indirect services but...
  - Presently in practice, 80% is spent on direct services
  - 2/3 of the time is related to activities for classification
  - A need for consultation services has increased but indirect activities slowly increasing in schools
Collaboration
- non-hierarchical
- mutual respect
- shared responsibilities
- co-equal
- freedom to reject and accept
- open communication
- confidential

Expert
- imparts specialized knowledge to relative novice
- hierarchical relationship
- Train skills to treatment agent needed to increase student outcome

Expert vrs Collaboration
Tough to operationally define "collaborative" construct, hence tough to study

Research findings:
- Teachers ratings show high satisfaction with the process
- Most favorable consultation outcomes occur when the consultee follows the lead of the consultant (Martins)
- Studies that measured number of times consultant controlled conversations & teacher prefer consultants who were less collaborative (Erchal)
- Consultation that is directive and "prescriptive" facilitated effective classroom interventions (Fuchs)

Expert vrs Collaboration
Research findings:
- Expert preferred → consultant gave expert advice and specific statements and questions
- Collaborative preferred → consultant problem solved with teacher with vague guiding statements / question (Graham)
- Level of participation in consultation did not predict reported preference between the two models (McKee)
- Overall, studies to not demonstrate that collaborative is superior to "expert" model
Is consultation voluntary?

- if rejection is an option, then consultation that fails to produce intervention implementation has little merit
- ignores student's legal rights to instructional modifications

Determining Target behavior measurement system

- What? to record
- When? how often you need to record record under what conditions?
- Who? will record
- How to store? the recorded data

Deciding on WHAT to measure

Target behavior will serve as the standard for judging whether or not improvement has occurred

Do you want to measure a decrease in “bad” behavior?  
Do want to measure an increase in “good” replacement behavior?

1st RULE: Consider treatment goal
Decide on what the child SHOULD be doing ....

- Discuss the appropriate replacement behaviors
- Discuss a mastery level or acceptable level of performance
- that results in an increase in
  - academic progress for child
  - natural positive reinforcement for child
  - positive social interactions for child
**Targeting appropriate bx**

**Check**
- Will it be useful to the client?
- Why do it? (Child needs to get something or avoid something otherwise will not do it)
- Will it provide enough reinforcement?
- Briefly test until make good consequences occur after bx (e.g., make sure child will get attention)
- Will others respond to it appropriately?
- Try to find a natural/common bx that others use
- Is this bx easy to do and in its simplest form?
  - Try breaking it down further. Want to make it easy to learn and little effort

**If NO**

**Deciding on WHAT to measure**

**2nd RULE:** Making it OBSERVABLE-
Operationally defining the behavior to be measured

**Vague Objective**
Student will understand the value of coins

**Behavioral Objective**
Student will point to a quarter, dime, nickel and penny and say it’s value with 100% accuracy

**3rd rule:** Making it COUNT

- Objective is to see dots go up or down
- Benefits of counting
  - unbiased
  - matters to people
  - easily understood
  - reliable and valid
  - results in low inference

**Deciding on WHAT to measure**

For a useful measurable target behavior, you will

1. See what child should be doing
2. Count it
3. Count the it the same way as the teacher (replicate)
4. Do it frequently
5. Easily do it
6. Use produce some type of permanent products
Deciding \textit{WHEN} to count

- Across the day
- During problem subjects or places
- Morning or afternoons
- Several 15 minute sessions across the day
- During specific activities such as lecture, independent seatwork, group work

Deciding \textit{WHO} counts

- During assessment
  - Consultant advantages:
    - can observe change in behavior during various antecedent conditions to predict when bx occurs
    - can collect systematic descriptive FA data
    - can collect peer comparison data
    - can observe classroom management
- During the intervention the teacher and/or student will count
  - To collect more consistently during problem times on a daily basis

\textbf{IF} teacher collects data
\textbf{What} are some considerations?

- What a teacher or student can do easily:
  - scatter plot
  - ABC charts
  - Likert scales
  - Frequency count
    - e.g., give points each time raise hand, check each time bother others, behavior charts
  - Collect permanent products such as work samples
  - Time
    - e.g., give points each time follow directions within 5 seconds, each time starts work within 10 seconds, each time completed work within 15 minute time limit
  - Momentary sampling
    - e.g., set timer, when rings mark if child is writing with no talking

\begin{tabular}{|l|l|l|l|}
\hline
\textbf{What} & \textbf{When} & \textbf{Who?} & \textbf{How?} \\
\hline
He is always angry & ? & ? & ? \\
She never pays attention & ? & ? & ? \\
He never listens & ? & ? & ? \\
She doesn’t get along well with others: No one wants to work with her & ? & ? & ? \\
Homework resistance & ? & ? & ? \\
Problem & ? & ? & ? \\
\hline
\end{tabular}

Did you meet the 6 “WHAT” to measure criteria. Write an appropriate replacement target behavior that can also be measured and evaluate it.
Deciding on **HOW to DISPLAY DATA**

- Use a simple AB line graph
  - Graphs verses charts often result in more changes in strategy by teachers
- Decide on a goal and time line
- Mark the goal and aim line on graph to show progress
- Record the dots as data is collected
  - Child and teacher can record daily

**Benefits of this graphic display:**

1. On going access to a complete record of an individual’s behavior under specific conditions.
2. Can explore and investigate variations of behavior under different conditions for that individual.
3. Helps to determine the significance of behavior change (level).
4. Helps to determine the trend in change of behavior.

**What is Visual Analysis?**

Inspecting the plotted data without reference to inferential statistics; the response is derived from a
1. history of data analysis,  
2. clinical or scientific experience, and
3. awareness of the significance of the data in relation to the experimental question.
Rationale for Visual analysis:

**Behavior**

- Is an individual phenomena and we work with the student that is not performing like the others (average)
- Is continuous, not static, so need to measure over time
- Variability is extrinsic due to the child's environment so we are interested in variability from the group (Variability exists within a group but looking at differences in mean so we do not know how referred child is performing)
- Change occurs for the child through environmental manipulations

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**Distinguishing single subject experimental design from typical group design**

<table>
<thead>
<tr>
<th>Group study</th>
<th>Single subject study</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. A lot of data because of N size</td>
<td>1. A lot of data because of repeated measure on individual</td>
</tr>
<tr>
<td>2. Experimental comparison is between subjects (control vs experimental)</td>
<td>2. Experimental comparison is within subject (baseline vs treatment)</td>
</tr>
<tr>
<td>3. Replication with new experiment</td>
<td>3. Replication within or across subjects</td>
</tr>
<tr>
<td>4. Data analysis is statistical</td>
<td>4. Data analysis is visual for social significant change in level</td>
</tr>
</tbody>
</table>

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**REVIEW OF SINGLE SUBJECT ANALYSIS**

1. **DATA points** represent the **behavior** that you are interested in changing. Also called the **dependent variable**. This is what you are measuring to see how it is dependent on the environmental variables that are being manipulated with treatment.

2. **PHASE or CONDITION** is your **independent variable**. This is what **YOU** are manipulating or changing and is a particular arrangement of environmental events. This is the different treatments that you are trying out.

3. **BASELINE**: First phase in which no treatment is implemented.

**Did a meaningful change in behavior take place?**

Need stats to find small changes. If you get enough points, then increase chance will find significant difference

**Verses**

Socially significant change that produces changes in environment
1. Current performance without treatment

2. DATA POINTS

3. PHASE LABELS
- Why baseline?
  - Indicates
    - Occurrence of bx in current environment
    - Comparison of "standard" level of behavior
    - What reinforcement is occurring
    - How frequently reinforcement is occurring
    - What reinforcement schedule is occurring for well behaved peers

4. PHASE CHANGE LINES

5. DATA PATH
- More data given, the more confident can determine story told by the data path

Interpret graph using VISUAL ANALYSIS
Did a meaningful change take place?

Analysis of 3 things:
1. Variability - extent data points in one data path differ from one another. The more stable, the more believable the record of behavior during a phase

2. Level - the value on the vertical axis scale around the data points converge within a phase (i.e., a mean level line showing the average value)
Setting a realistic aim

A) Increase in percentile (at least to 25%) that other children at the same grade level is performing at during the next semester.

E.g., Target child is reading in Fall at 28 words/min in 2nd 25% percentile score in spring: 55 words per minute
Goal for Spring: 60 words per min

B) OR Use ranges given in literature for a rough estimate

C) OR For short term:
   Expect to see increases within 5-7 data points.

**NOTE: For purposes of this class, we are not showing experimental control of behavior. We did not adequately show that behavior changed and only changed when we applied the independent variable. You do this by reversing back to baseline to show that behavior goes down. Then apply again to show behavior goes up with IV. This is more of a case study.
Deciding on how to store/collection data

- Use a folder to
  - Collect class work
  - Collect data observations sheets/notes
- Decide on designated place to store for easy collection of data

Entry into the schools

1. Introduce yourself to the system:
   a) Meet with organization administrators
   b) Develop "contract"
   c) Discuss confidentiality
   d) Introduction to staff
   e) Set up contact procedures
   f) Wait out transition period for acceptance
   g) Get to know territory
   h) Conduct workshop

2. Get to know the territory...meaning
   a. Leadership style of principal
   b. Effects of style of school
   c. Who functions as gatekeeper to resources
   d. Student makeup
   e. Physical layout
   f. Structure of day: problem times
   g. School climate: burnout, history with consultants, principal support, priorities
3. Assess school’s readiness for change

What resources are available?
   People, technical, financial, programs

What is the nature of factors pressing for or detracting from the integration of this program with other elements already in place at the school?

What is the perceived need for consultation?

What rewards or benefits are expected as a result of consultation?

4. Identify key school “players”

  counselors, principals, special ed teachers, lead teachers, school level teams

How do you view your school now? Write

Entry for a new Case

Introducing yourself when first working with teacher/parent

Discuss Roles/expectations
Get Agreement of action
Meeting times
Discuss Termination

Keep principal informed

Next,
List why did you enjoy working with a co-worker or supervisor?
How do we get change?

Which of the following skills would people do more work without consequences? Little research here

- Are there effective communication skills?
  - Body
  - Verbal
  - Actions

Attending?

SOLER
✓ straight towards talker
✓ open posture
✓ lean towards
✓ eye contact
✓ relax

Gaining acceptance?

- Treat others with respect
- Giving credit for ideas and accomplishments to others
- Willing to share information and to learn from others
- Clear role definition

Non-verbal?

- Proximity? 1.5 – 4 for casual conversations
  4-12 ft for business, impersonal
- Territory? Teacher’s classroom?
- Temperature (68 to 75) / lighting?
- Dress?
- Time management?
- Body language and affect
- Language: loudness, speed, pitch
- Vocal interferences: “ok” - “um”
- Respect property
Interpersonal skills?
• Establishing rapport
• Conflict resolution
• Enthusiasm
• Encouragement
• Respect and accepting
• Optimistic

Empathy? Assertiveness?
• Operationally define
• Review book for assertive steps

4 Basic Stages of Consultation
1. Problem Identification
2. Problem Analysis
3. Plan Implementation
4. Plan Evaluation

Problem Identification Interview
TO DO LIST
• 1. Greet and Inform teacher of general consultation expectations and process.
• 2. Begin interview
• 3. Define the problem behavior and replacement behavior
• 4. Begin deciding the treatment goal (expected behavior)
• 5. Start forming an hypothesis for function of the behavior
Step 1: The Greeting

- Why spend time on an initial greeting?
  - To initiate a good relationship
  - Explain rationale for intervention
    - the child behavior change will occur through a teacher's effort and that the child is unlikely to be removed from counseling
  - Inform them of the general process, what they can expect and the goals that will be accomplished
  - Obtain a preliminary commitment to this course of action with “Are you ready?”

Step 2: Begin Interview:

Use interview format to help you:

- 1. Questions about type of problem
- 2. Begin to formulate behavioral operational definitions that can be observed and measured. Lead towards observable problem behaviors
- Begin antecedents and consequences of infrequent or severe

Step 3: Defining the Problem Behavior

- 1. List problems to get general objective of consultation
  - Prioritize problems
  - Approximate frequency / strength of problem behavior
  - Determine problem settings, people, and tasks

Step 4: Setting a Treatment Goal

Decide on what the child SHOULD be doing:

- Discuss the appropriate replacement behaviors
- Discuss a mastery level or acceptable level of performance
- That results in an increase in
  - Academic progress for child
  - Natural positive reinforcement for child
  - Positive social interactions for child
TIP: Smooth interviews

• Be early and find a place
• Be prepared to be delayed
• Be prepared with materials
• Explain your role
• Add rationales and expectations
• Get consent if you are working on case
• Be prepared to refocus off-task times
• Watch time

TIP: Significant concerns during interview

• Self report is typically unreliable
• Consultee/Consultant time and effort
• Maintain a child outcome focus
• Realistic goals

TIP: Maintaining a behavioral focus during the interview

• What will I see in class that will tell me that there is a problem
• Show me permanent products
  - grades, work, discipline records
• What will I see a successful child do
• What can this child DO / strengths focus
• Summarize to clarify information given and to validate conclusions
• Delegate responsibilities with step by step procedures

Questioning to clarify (SIVES)

1. Specific
   (tell me more about.../ Tell me how often.../ Give me an example)
2. Check Inference
   (It seems to me... I hear...)
3. Validation of conclusions
   (Can we conclude that... We are in agreement that...)
4. Evaluation of perceptions
   (How do you feel about.../ what do you think...)
5. Summarization of understanding
   (let’s review my understanding of what’s going on)
Managing Resistance Proactively

- Enlist administrative support
- Actively involve teachers from onset with school-wide program/teams
- Id specific ways programs will help/support teachers at onset
- Learn values of classroom teachers and design program

DID YOU?

**Introduction:**
Establish clear roles/responsibilities
Give rationale why steps are needed

**Interview:**
USE SIVES:
Specify, Inference, Validate, Evaluate, Summarize

**Goal setting:**
Develop positive but real expectations

**Data Collection:**
Develop a simple plan
Adapt to teacher needs/skills/class structure
Discuss how to reduce effort
Discuss other resources

**Professionalism:**
Considered Time
Maintain Enthusiasm
Promise to follow through, set date and do it