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# Functional Behavioral Assessments & Behavior Intervention Plans

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# INTRODUCTION



# Functional Behavioral Assessment (FBA)

- Broad term for any combination of a variety of assessment techniques
- Intended to identify common triggers and maintaining consequences for a specific target behavior
  - Based on the assumption that all behavior serves a function: enables an individual to access or escape from something
- This information is in turn used to create a behavior intervention plan (BIP)



# Background

- Behavior analysts developed procedures later to be included in the FBA “toolbox” beginning in the late 1960s
- IDEA 1997 first mandated FBA /BIP for students receiving special education services who engaged in problem behavior
- IDEA 1997 (and subsequent updates) did not specify how FBAs were to be conducted
  - By some accounts, there are up to 17 tools available for use in the FBA process
  - This ambiguity can make it hard to determine whether an FBA is being conducted effectively



# Considerations

- FBA/BIP process is complex – developers were highly trained in behavior analysis and the study of operant learning
- Some teachers have been exposed to FBA/BIP during preparation; many have not
- Effectiveness of IEP teams at successfully conducting FBAs and designing BIPs is highly variable
- Behavior analysts specialize in this type of assessment
  - If a student has speech and language deficits, the team uses a speech-language pathologist
  - If a student has physical disabilities preventing them from participating in desired activities, the team uses an occupational therapist
  - If a student engages in problem behavior.....?



# Today

- Part I: Functional behavioral assessment
  - Major components
  - Common issues
  - What to contribute at IEP meetings
- Part II: Behavior intervention plans
  - Major components
  - Common issues
  - What to contribute at IEP meetings



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Part I

# **FUNCTIONAL BEHAVIORAL ASSESSMENT**



# Functional Behavioral Assessment (FBA)

- Purpose of FBA
- What are the potential outcomes of an FBA?
- When and for whom should an FBA be conducted?
- Components of a quality FBA
- Common problems
- Questions to ask during FBA-focused IEP meetings



# Purpose of FBA

- To identify
  - What events trigger problem behavior, such as...
    - Adult attention diverted or withheld
    - Delivery of instruction or demands
    - Unavailability or restriction of preferred items or activities
  - What events follow problem behavior, such as...
    - Access to desirable activities, items, or sensations
    - Escape from undesirable activities, items, or sensations
- To inform BIP design



# Possible outcomes of FBA

	Access to...	Escape from...
Social (external “stuff”)	Preferred activities, tangible items, or attention of preferred people	Non-preferred activities, tangible items, or attention of non- preferred people
Automatic (internal “stuff”)	Preferred sensations	Non-preferred sensations



# When should an FBA be conducted?

When a student consistently engages in behavior that...

1. Is dangerous to the student or to others
2. Is socially stigmatizing
3. Impedes the student's learning



# When, cont.

- Required by IDEA
  - FBAs must be conducted for students with disabilities who violate a code of student conduct and behaviors result in a change in educational placement
- Manifestation Determination
  - If it is determined that the behavior is a part of the student's disability, the IEP team *must* conduct an FBA and implement a BIP or review and modify a BIP that is already in place



# Running example: Bobby

- Problem: He has lengthy tantrums during class. As a result, his work is often incomplete, and his relationships with peers are damaged. His grades have slipped and he is performing poorly on quizzes and tests.
- This tantrum behavior impedes Bobby's learning, so his IEP team decides to conduct an FBA to help them design a BIP



# Bobby

- Team tried several things to prevent Bobby's tantrums, but was not successful
  - Fidget toy during work
  - Peer helper
  - Opportunity to earn a trip to the toy box when he has been able to stay calm the whole week
- Team wants to use an FBA to determine
  - What events “trigger” his tantrums
  - What events follow his tantrums that make them “work” for him



# Major components of FBA

1. Selection and definition of a single target behavior
2. Assessment
  1. Indirect assessment (**common** in schools)
    - Interviews (student, parent, teacher)
    - Rating scales (checklists)
  2. Descriptive assessment (**common** in schools; more valuable than indirect measures)
    - Antecedent-behavior-consequence data
    - Prevalence data
  3. *Experimental measures (uncommon in schools – you will probably not encounter this)*
    - *Functional analysis*
3. Hypothesis statement of outcomes of FBA
  1. Student engages in target behavior when (antecedent) happens in order to (access/escape) (tangible/activity/attention).



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# Bobby: Target behavior

- IEP team selects “tantrum” as target behavior to assess
- Defines it objectively:
  - Tantrum: Episode lasting 2 min or longer during which Bobby calls names, cries, pushes, hits, kicks, and/or otherwise forcefully contacts objects. Excludes isolated incidents of name calling, hitting or kicking objects.
  - This ensures everyone agrees upon exactly what the behavior of concern is – and what it is not



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# Bobby: Indirect measures

- Team conducts an interview with Bobby, both of his parents, his classroom teacher, and his special education teacher
- Interviews indicate that Bobby thinks math is hard and thinks the teacher never helps him in math. Bobby achieves poor scores in math, and Bobby's parents say math homework is difficult for him



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# Bobby:

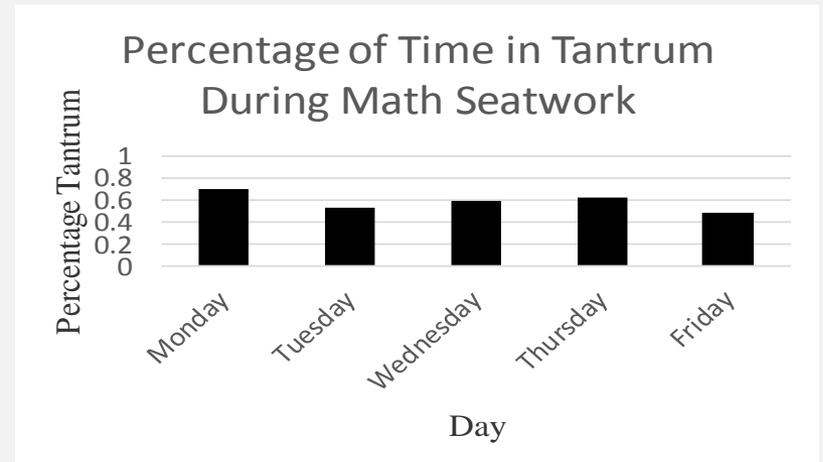
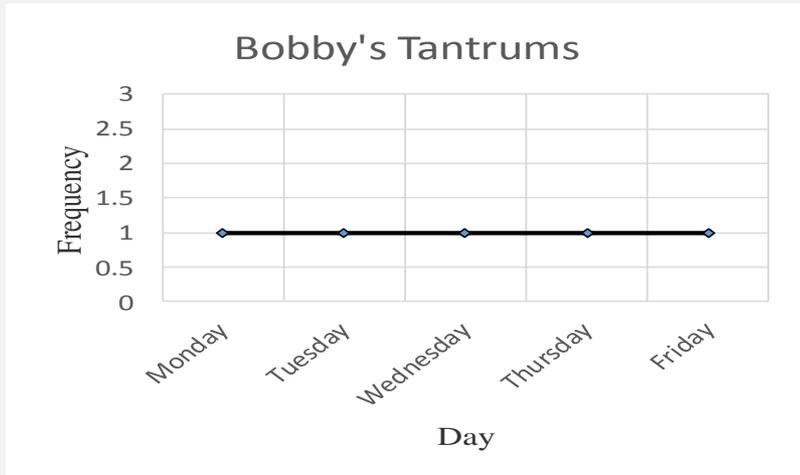
## Descriptive assessment

- Special education teacher collects antecedent-behavior-consequence (ABC) data
  - Bobby tantrums most often during math – particularly during independent practice
  - After tantrums, Bobby usually
    - Gets a soothing talk with his teacher
    - Gets her 1-1 support in finishing about ½ of the original assignment



# Bobby: Prevalence data

- Bobby's special education teacher observed him during math class every day for a week.
- During those observations, she recorded how many times Bobby engaged in a tantrum, and how long each tantrum lasted.





# Major components of FBA

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# Bobby: Hypothesis

Format: Student engages in target behavior when (antecedent) happens in order to (access/escape) (tangible/activity/attention).

Bobby engages in tantrums during *independent work time in math class* in order to **access attention** (*math help*) *from the teacher*.



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Questions about that process?



# Common problems

- No data or anecdotal data instead of quantitative data
  - Data must be able to be expressed in numbers
  - Data should be graphed over time (remember Bobby)
  - Exception: ABC data may be anecdotal, but should be summarized with percentages or in bar graph



# Common problems, cont.

- Subjective target behavior definitions
  - Use of words or phrases that can mean different things to different people
    - Appropriate/inappropriate
    - Rude/defiant/disruptive
  - Poor definitions make it difficult to collect valid data (and interpret data)



# Common problems, cont.

- Outcome or hypothesis statements are not linked to *function*
  - “Bobby engages in tantrums during math because he wants control.”
  - Better: “Bobby engages in tantrums during math to *access* teacher attention (help with work).”
  - “Joey engages in aggression during small-group reading instruction because she doesn’t like reading.”
  - Better: “Joey engages in aggression during small-group reading instruction to *escape* demands to read.”
- Look for key words *escape* or *access*



# Common problems, cont.

- Old assessment data
  - Sometimes, a team wants to use the FBA that was conducted last year and “update” it
  - Measures should be completed anew if there is any suspicion of
    - A change in environment
    - A change in student’s behavior
    - BIP’s failure to produce desired changes in behavior



# Common problems, cont.

- Sensory function
  - Access to or escape from sensory input is less likely to be a true function than access to attention/tangibles/activities or escape from work
  - If your team identifies a sensory function, be sure to review assessment data (interviews, ABC data) for indications that access to or escape from socially-mediated stimuli were be co-occurring consequences



# Questions for IEP meetings during FBA process

- What interventions has the team already tried to address this problem behavior?
- Can the team provide a graph of the prevalence of the problem behavior by X date or next meeting?
- Can the district provide a behavior analyst to support the team during the FBA/BIP process?



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Part II

# **BEHAVIOR INTERVENTION PLAN**



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# Behavior Intervention Plan (BIP)

- Purpose
- Key components of a quality BIP
- Common problems
- Questions for BIP-focused IEP meetings



# Purpose

- FBA identifies the potential function of a problem behavior
- BIP is designed to train a new behavior (in place of the problem behavior) to perform that *same function*

BIP is unlikely to be effective if not based on FBA results.

# Key components of a quality BIP

1. Replacement behavior
  1. Can't do vs. won't do
2. Behavioral objectives
3. Plan for meeting behavioral objectives:
  1. Reduce the need for the problem behavior
  2. START reinforcement of replacement behavior using the maintaining consequence identified via FBA
  3. STOP reinforcement of the problem behavior using the maintaining consequence identified via FBA
4. Plan to continue prevalence data collection

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# Key components of a quality BIP

- ★ 1. Replacement behavior
  - 1. Can't do vs. won't do
  - 2. Plan for teaching
- 2. Behavioral objectives
- 3. Plan for meeting behavioral objectives:
  - 1. Reduce the need for the problem behavior
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# Selecting a replacement behavior

- According to FBA results, is the problem behavior more likely the result of a skill deficit (can't do problem) or a performance deficit (won't do problem)?
- Replacement behavior
  - Must be something the student is capable of doing
    - If not, it should be explicitly taught
  - Meet same function as target behavior



# Recall Bobby's FBA

## Indirect measures:

- Team conducts an interview with Bobby, both of his parents, his classroom teacher, and his special education teacher
- Interviews indicate that Bobby thinks math is hard and thinks the teacher never helps him in math. Bobby achieves poor scores in math, and Bobby's parents say math homework is difficult for him



# Bobby

- Potential skill deficit - not engaging with work because he doesn't know how to do it
- Potential performance deficit – raising hand to ask for help
- Replacement behavior
  - Hand-raising
    - Must meet same function as target behavior – access to teacher attention/support
  - In order for Bobby to engage appropriately with work, he will need additional instructional support
    - This support should be addressed in the IEP itself with accommodations and modifications

# Key components of a quality BIP

## 1. Replacement behavior

1. Can't do vs. won't do
2. Plan for teaching

## ★ 2. Behavioral objectives

## 3. Plan for meeting behavioral objectives:

1. Reduce the need for the problem behavior
2. START reinforcement of replacement behavior using the maintaining consequence identified via FBA
3. STOP reinforcement of the problem behavior using the maintaining consequence identified via FBA

## 4. Plan to continue prevalence data collection



# Behavioral Objectives

- Behavioral objective
  - a goal with clear specifications of the context within which the replacement behavior is to occur, including the setting, materials, personnel, etc.
- Based on prevalence data
  - Criteria should not be arbitrary



# Components of the Behavioral Objective

- Learner
- Target behavior
  - Use prevalence data
- Context
  - Consider the conditions and limitations under which the desired response is to occur
  - Where, with what, when, or how the response is to occur
- Criteria



# For example...

- Good:
  - Sarah will interact with her peers with no hitting, kicking, biting, punching, or verbal taunting for 30- min. lunch periods for 5 consecutive days
- Bad:
  - Arnold will behave in gym class



# Bobby: Behavioral objective

- Bobby will raise his hand to request help at the beginning of independent math work time 4/5 days per week.
- Bobby will work without tantrumming during independent math work time for five consecutive days.



# Behavioral objectives

- Once a replacement behavior is selected, its use should become an objective
  - This objective should be recorded not only in the BIP document, but also in the IEP itself under social/emotional behavioral goals

# Key components of a quality BIP

1. Replacement behavior
  1. Can't do vs. won't do
  2. Plan for teaching
2. Behavioral objectives
3. Plan for meeting behavioral objectives:
  - ★ 1. Reduce the need for problem behavior
  2. START reinforcement of replacement behavior using the maintaining consequence identified via FBA
  3. STOP reinforcement of the problem behavior using the maintaining consequence identified via FBA
4. Plan to continue prevalence data collection

# Bobby: REDUCE the need for problem behavior

- At start of independent work, teacher will review skill with Bobby
  - Model, guided practice, independent practice
- When Bobby can complete 2-3 problems independently, he may continue to work without teacher support
  - Unless he raises his hand to request further support!

# Key components of a quality BIP

1. Replacement behavior
  1. Can't do vs. won't do
  2. Plan for teaching
2. Behavioral objectives
3. Plan for meeting behavioral objectives:
  1. Reduce the need for the problem behavior
  - ★ 2. **START** reinforcement of replacement behavior using the maintaining consequence identified via FBA
  3. STOP reinforcement of the problem behavior using the maintaining consequence identified via FBA
4. Plan to continue prevalence data collection

# Bobby: *START* reinforcing the problem behavior

- Teacher will remind Bobby at the start of independent math work to raise his hand to ask for help
- When Bobby raises his hand, his teacher *will immediately provide support*
  - This is the hard part – here the teacher must adhere to the plan
  - Bobby will not raise his hand if it does not result in immediate teacher support
  - Plan must make tantrums inefficient and ineffective compared to hand raises
  - This plan may have to describe “support” in more detail – specifying what kind of help teacher provides and for how long

# Key components of a quality BIP

1. Replacement behavior
  1. Can't do vs. won't do
  2. Plan for teaching
2. Behavioral objectives
3. Plan for meeting behavioral objectives:
  1. Reduce the need for the problem behavior
  2.  START reinforcement of replacement behavior using the maintaining consequence identified via FBA
  3. **STOP** reinforcement of the problem behavior using the maintaining consequence identified via FBA
4. Plan to continue prevalence data collection



# Bobby: STOP reinforcing the problem behavior

- When Bobby tantrums, his teacher will
  - Verbally prompt him to raise his hand
    - “Bobby, when you raise your hand, I will help you.”
  - Teacher *will not* provide support until Bobby raises his hand
- *Again, the goal is for the tantrums to become an inefficient and ineffective way for Bobby to get help*

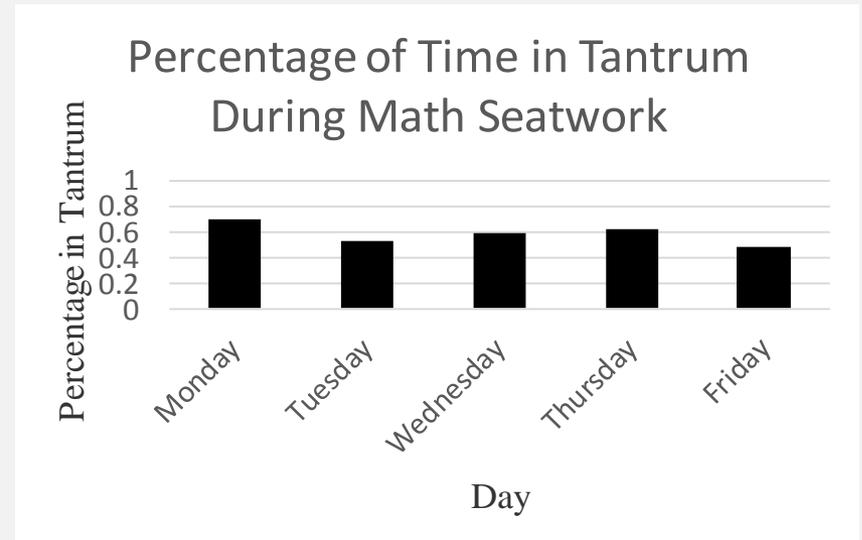
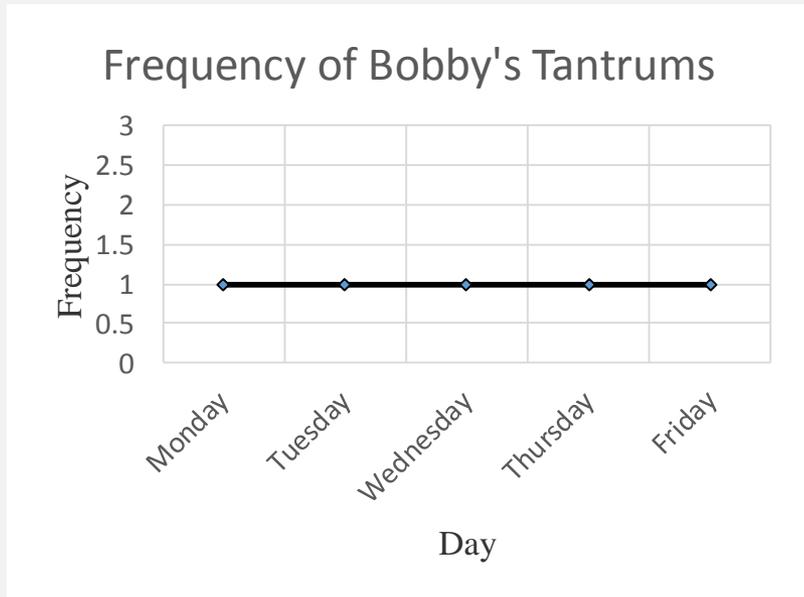
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- ★ 4. Plan to continue prevalence data collection



# Bobby: Prevalence data

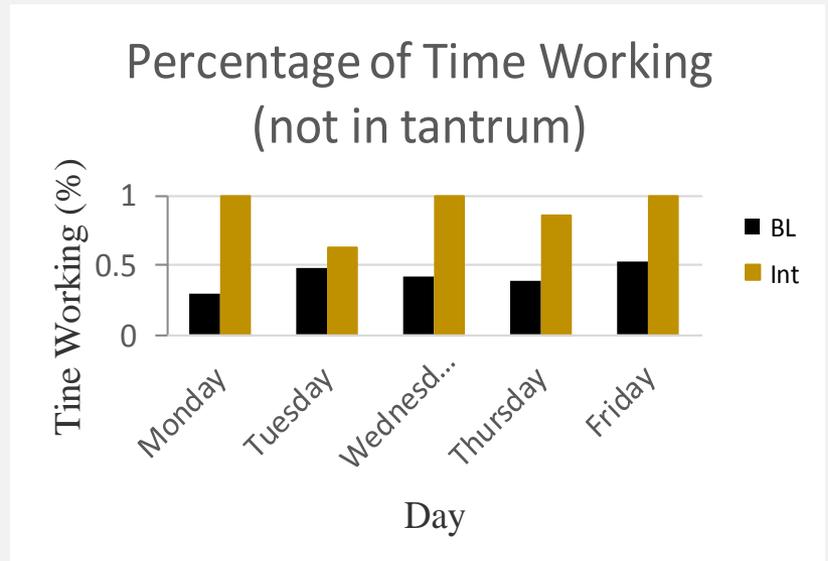
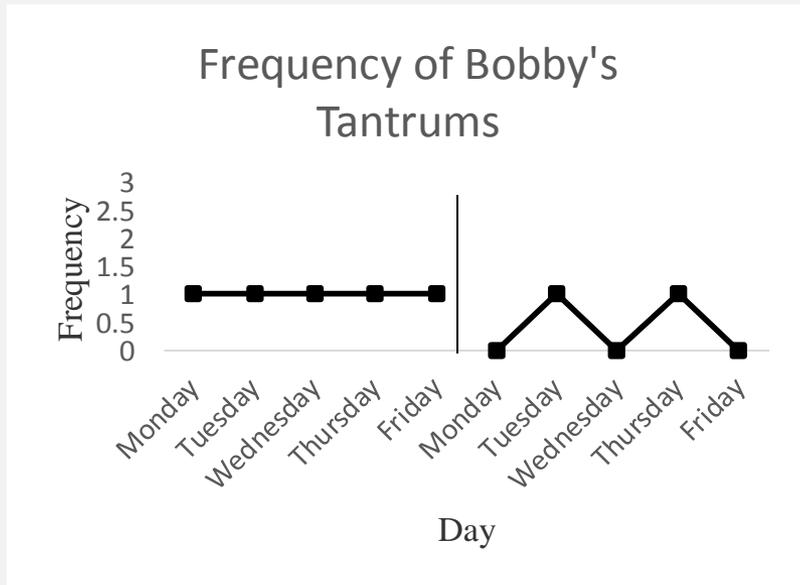
- Data collected during FBA (below) will be used as a baseline for comparison to data collected during implementation of the BIP





# Bobby: Prevalence data

## Were interventions effective?





# Criteria for an Effective Intervention Plan

- The plan must be implemented as written
  - Observe in the classroom!!!
  - Ask for fidelity data
- The plan must be revised as often as needed
- If the plan isn't working, change the plan
  - Look at data to determine whether it's working



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# Common problems

- No data
  - Cannot tell whether the plan is working



# Common problems

- Consequences/rewards for replacement behaviors are
  - Not function-based
    - If a student leaves his seat to escape work he cannot do, access to a treasure box contingent upon staying in seat will not result in his being able to complete his math
  - Too infrequent
    - Timing should be based on students' ages and cognitive features
  - Too distal
    - Timing should be based on students' ages and cognitive features



# Common problems

- Plan is not implemented or not implemented the way it was written
  - If nothing changes in the environment or does not change appreciatively, *then nothing will change in the behavior*



# Common problems

- Plan is not implemented for long enough
  - “We already tried that and it doesn’t work.”
    - Make sure the team gives any intervention a good-faith, several-week attempt
    - Data should support claim that plan was not effective over several weeks



# Questions for IEP meetings during the BIP process

- How did you select the frequency of rewards?
  - Should be data based
    - Bobby received teacher attention for each tantrum (1:1)
    - Bobby's plan requires teacher attention for each hand raise (1:1)
      - Can be faded later, but must start out matching or exceeding the probability of reinforcement of target behavior
- What is a good time for me to come observe the intervention being implemented?
- Can we schedule a date to reconvene and review the data to determine the outcomes of the BIP?



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# Questions for me?

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