



Differential Reinforcement

Be Me Services

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What is differential reinforcement?

- Differential reinforcement is used to reinforce certain responses while withholding reinforcement for other responses.
- The rationale for differential reinforcement is that interfering behaviors will decrease by either:
 - Reinforcing the nonoccurrence or decreased occurrence of interfering behaviors *or*
 - Reinforcing behaviors that are more functional or incompatible with the interfering behavior



Application of differential reinforcement

- Differential reinforcement was found to be effective for both reducing interfering behaviors and increasing adaptive behaviors, as well as in skill acquisition programs.



Types of DR

- Differential Reinforcement of Alternative behaviors (DRA)
- Differential Reinforcement of Incompatible behaviors (DRI)
- Differential Reinforcement of Other behaviors (DRO)
- Differential Reinforcement of Lower or Higher rates of behavior (DRL and DRH)



DRA

- DRA involves reinforcing a behavior that serves as an alternative to the inappropriate behavior
- Target behavior to reinforce is pre-determined and serves the same function as maladaptive behavior
 - Example: Teacher responds when the student raises hand, but not when they call out



Interactive break

- Can you provide examples of alternative behaviors for the following inappropriate behaviors:
 - Screaming to get an item
 - Hitting peers
 - Eloping



DRI

- DRI is reinforcing a behavior that is incompatible with the inappropriate behavior (i.e. it can't occur at the same time with problem behavior)
- The target behavior to reinforce should be pre-determined and serve the same function as the problem behavior
- Example: the teacher praises the student when they remain seated, and ignore them when they are out of seat



Interactive break

- Can you provide examples of incompatible behaviors for the following inappropriate behaviors:
 - Screaming to get an item
 - Hitting peers
 - Eloping



DRO

- DRO is reinforcing the absence of problem behavior during a specific amount of time
- There are no pre-determined behaviors to reinforce
- This is a timed procedure, the reinforcement is provided at the end of the specified interval if no problem behaviors occurred during the interval
- DRO is effective for behaviors with high frequency
- Example: giving a child a playdoh if they go 2 min without hitting others



DRL and DRH

- DRL is reinforcing gradually decreasing rates of behavior. It's used to reduce behaviors without eliminating them.
 - Example: reinforcing lower rates of repetitive questions
- DRH is reinforcing gradually increasing rates of behavior. Is used to increase the desired behavior.
 - Example: reinforcing a child when they raise their hand more often



Interactive break

- The strategy of reinforcement, when reinforcement is provided for engaging in any behavior other than target behavior for the established period of time is _____
- The student engages in speaking out of turn behavior 20 times per hour. To reduce the number of times the child speaks out of turn, the best strategy to use would be _____



Implementation steps

- Define the target behavior
- Identify the function of the target behavior
- Choose reinforcers
- Collect baseline data
- Determine schedule of reinforcement
- Prepare materials
- Follow the procedures
- Generalize and monitor



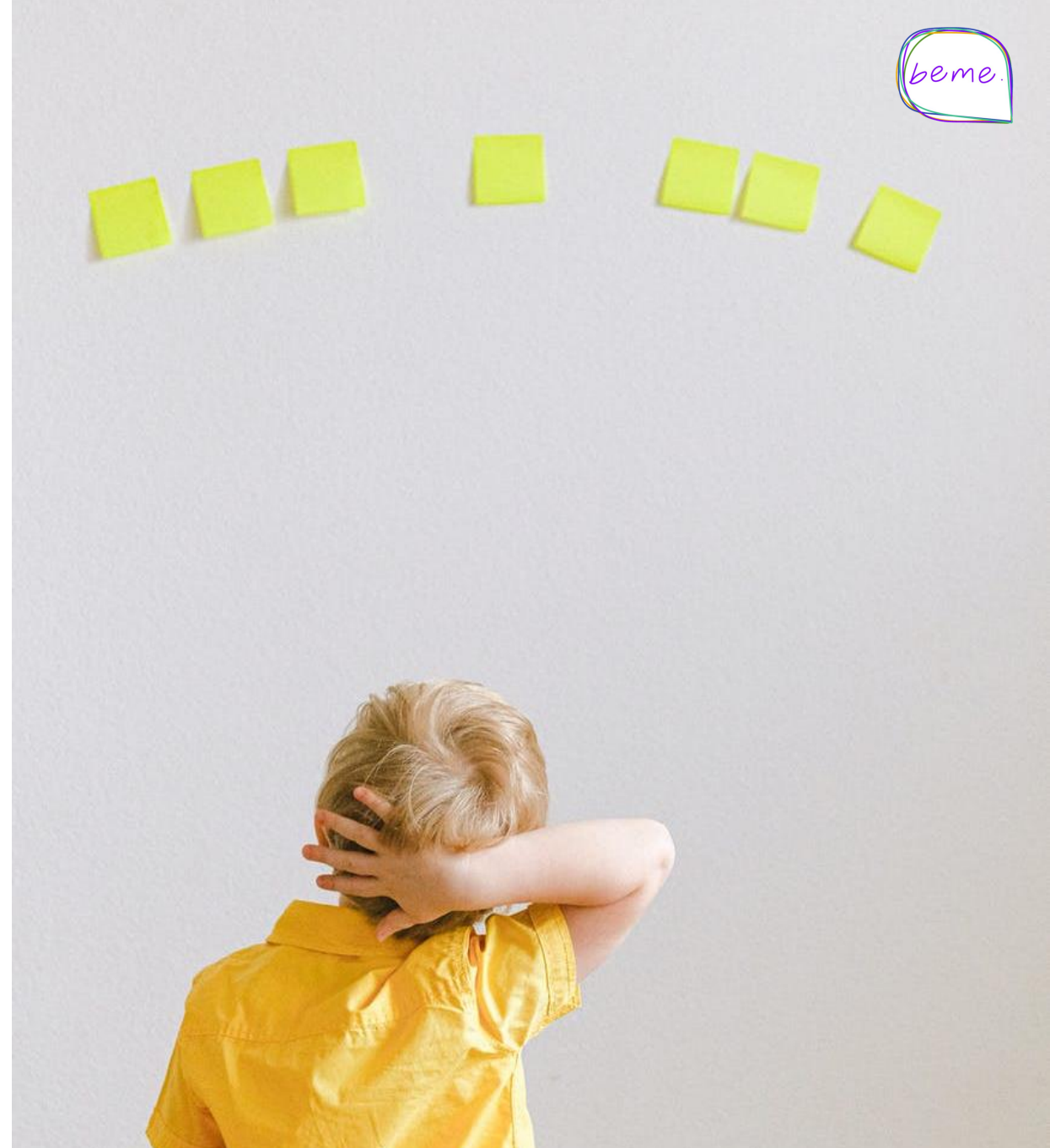
Identify interfering behavior

- The behavior definition should be clear, precise, and complete
- This is important for consistency in implementation and monitoring
 - Example: Kicking – using the foot or leg to kick (make forceful contact with) another person
 - Non-example: Aggression



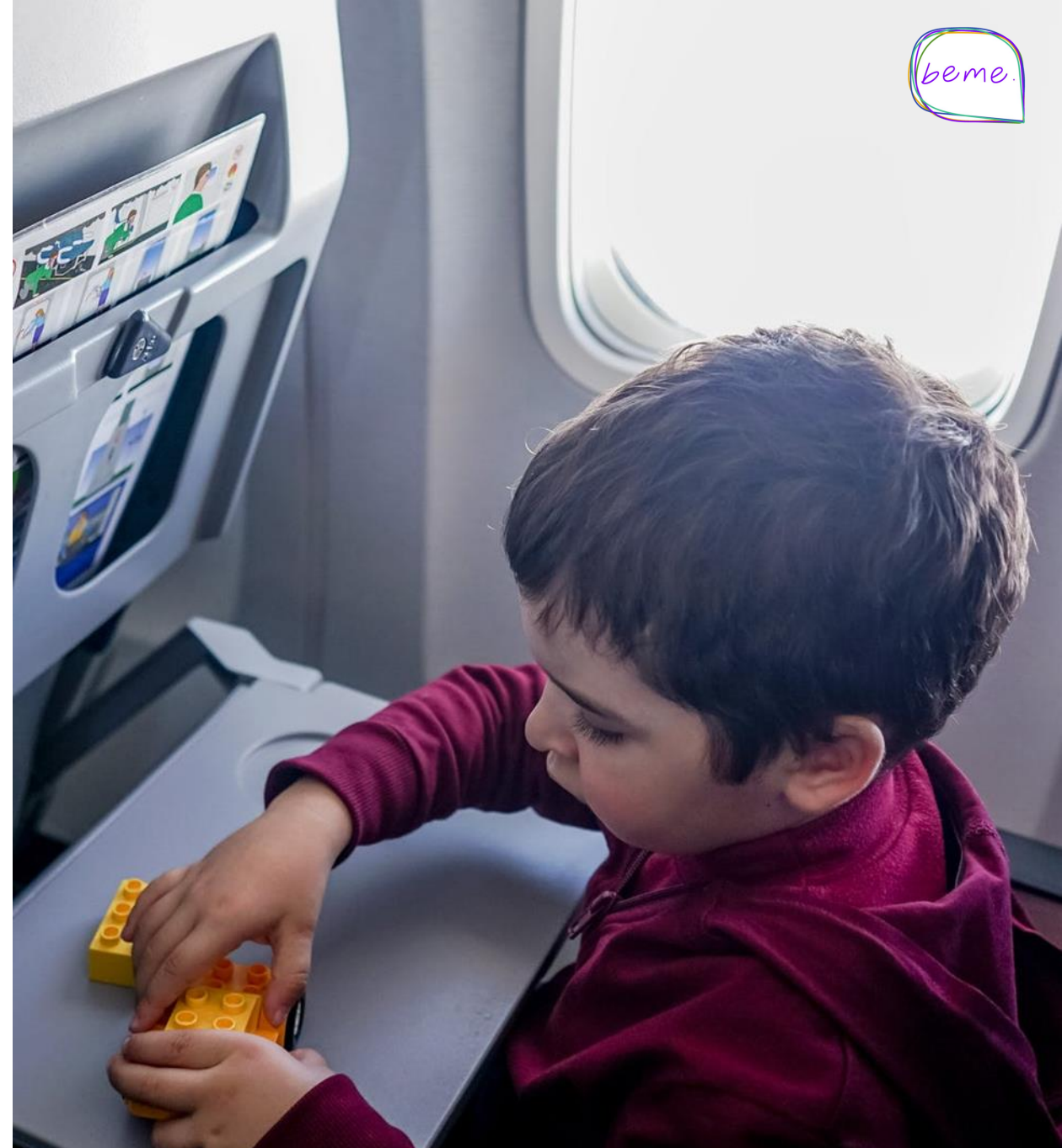
Identify the function

- Knowing the function will allow to identify the replacement behaviors correctly
- The purpose is teaching the child to get what they want in a more appropriate way
- Functions: attention, escape, tangible, automatic



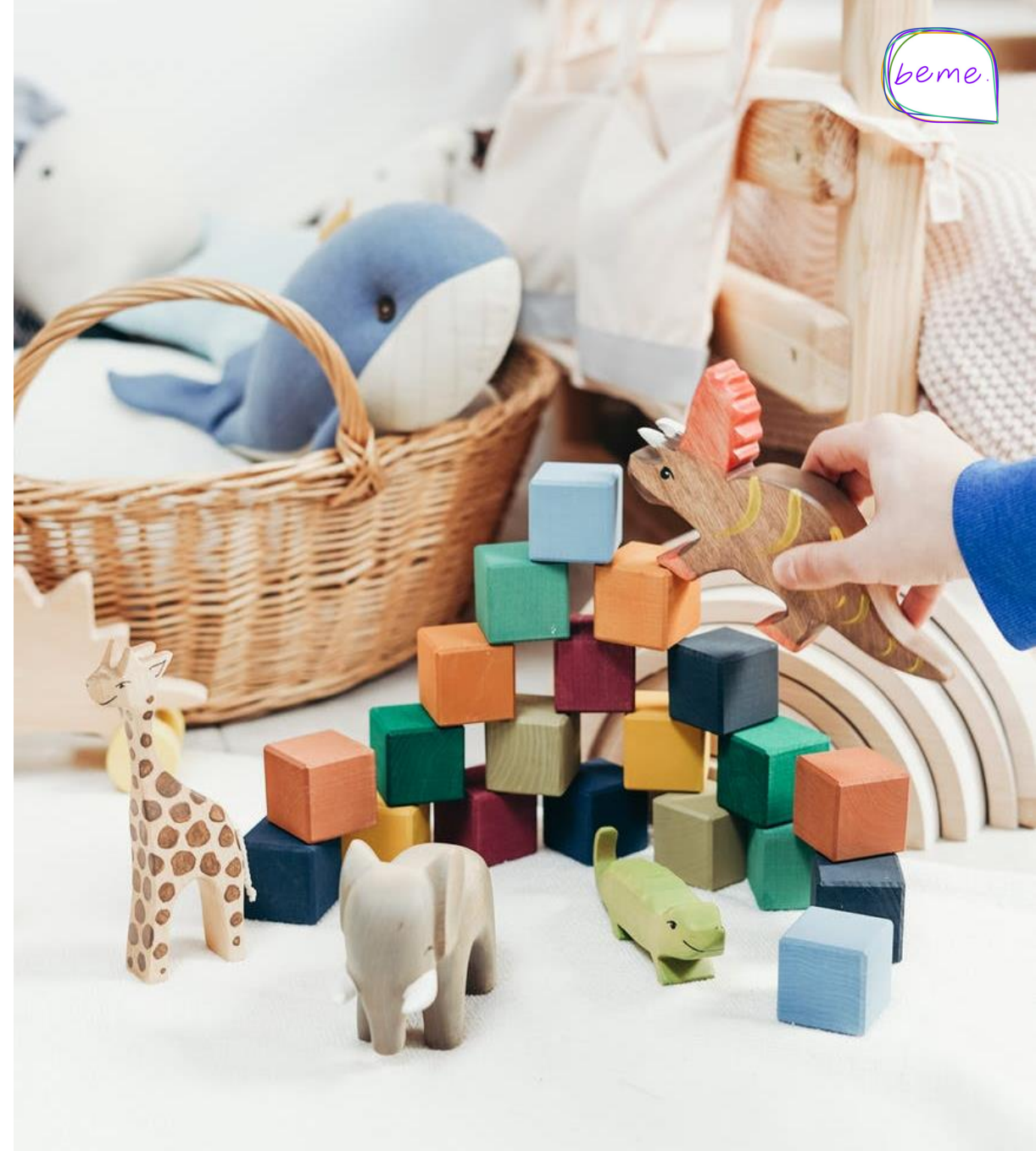
Identify the replacement behavior for DRA and DRI

- It should serve the same function as the problem behavior
- It should be defined precisely



Identify reinforcers

- The reinforcer should be of the same strength and motivational value as the one currently maintaining the behavior
- The reinforcers should serve the same function
 - Example: when the child screams for iPad, we can use DRA and reinforce appropriate requesting for iPad, where the iPad is still a reinforcer



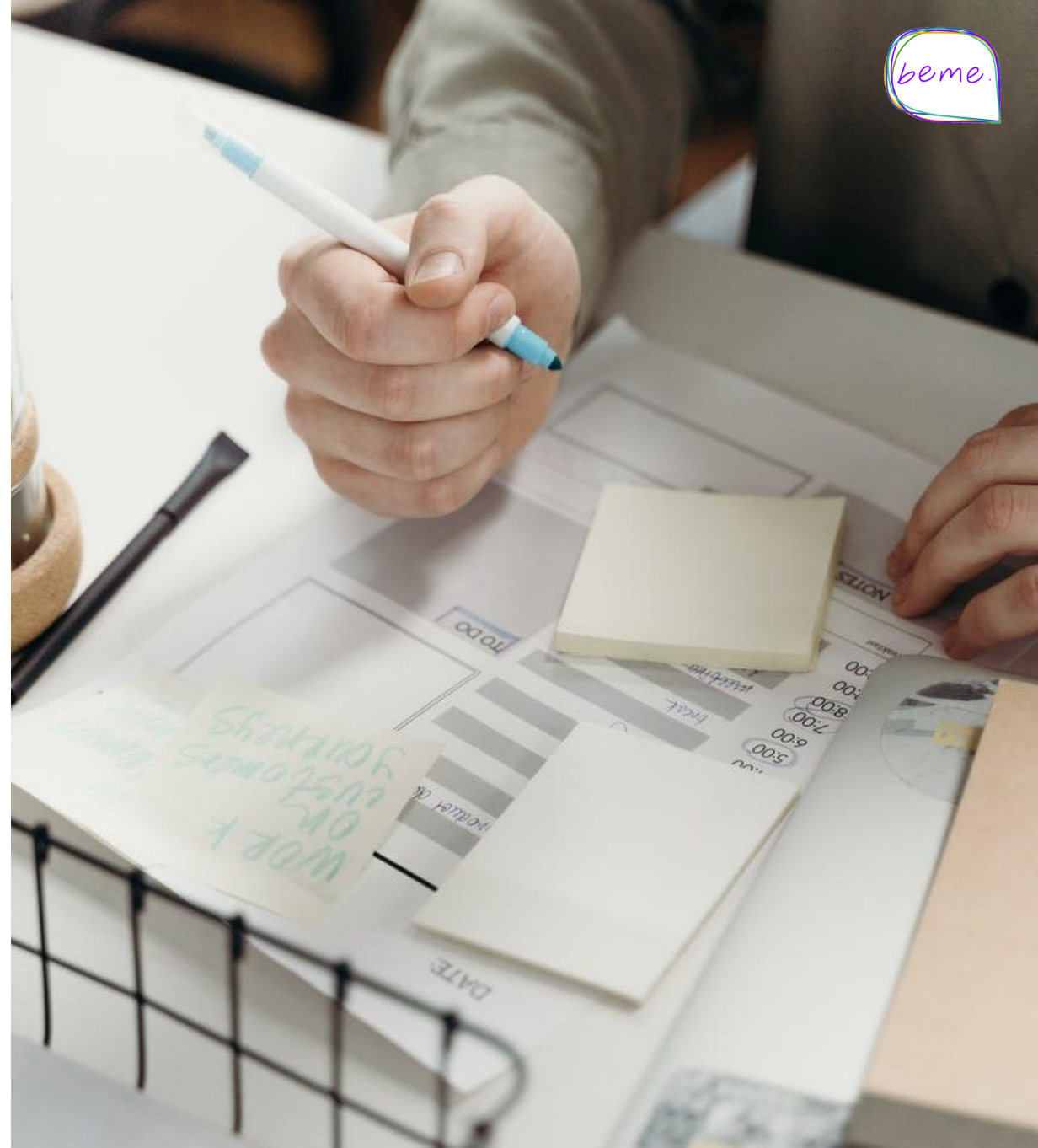
Collect baseline data

- Baseline data will be the starting point of the intervention
- Baseline data will help evaluate the intervention
- It will allow to establish correct reinforcement criteria (length of the interval for the DRO, rate of behaviors to reinforce for DRL/DRH etc.)



Determine schedule of reinforcement

- For DRA and DRI, start with continuous reinforcement, i.e., reinforce each occurrence of target replacement behavior, then gradually thin the schedule
- For DRL and DRH, start the reinforcement at the rate equal to the average rate from baseline
- For DRO, start with the interval slightly smaller than the average from the baseline



Prepare materials

- Data collection sheets
- Reinforcers
- Timers
- Visuals
- Token boards



Define and follow the DR procedure

- All steps of DR procedures should be thoroughly described in order to be implemented consistently



Generalize and monitor

- When the problem behavior is reduced to the predetermined criterion, the DR procedures will be used in new settings and with new people in the natural environment
- Continue to collect data to evaluate effectiveness of the intervention across time





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Thank you!

