



# Goals of Webinar

Where does academic motivation come from?

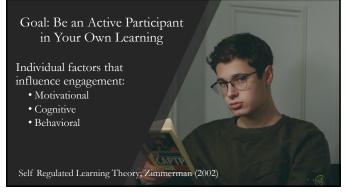
How does ADHD interfere with academic motivation?

What can educators do to build self-motivation in students with ADHD?

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Student Motivation and Learning

# Kevin 14 years old, 8th grade, loves video games Making a mix of Bs, Cs, and Ds due to missing and low-quality work Diagnosis of ADHD, takes ADHD medication Rarely studies, sometimes reads over study guides the day before a test Mostly tells parents he did his homework at school, teachers say he rushes through Parents want him to advocate for himself more with teachers. He says nothing can help him, school's just not my thing. Says school is boring and that he is learning nothing useful. Wants to run a You'l'ube channel after he graduates.











Does ADHD Influence Academic Engagement?

#### Motivational Factors- Intrinsic

- · ADHD is associated with abnormal anticipatory dopamine response
- Experience lower levels of endogenous pleasure during learning
- Students with ADHD report lower levels of interest in academics
- Find lengthy assignments aversive
- · Lower experiences of novelty, curiosity, enjoyment
- Repetitive and complex tasks are hardest for students with ADHD
- Students with ADHD experience mental discomfort during tasks with delayed rewards (i.e., long-term project, final exams)
- Explains student preference for immediately rewarding activities (video games, social media)

Carlson, Booth, Shin, and Canu, 2002; Morsink et al., 2017; Oudeyer, Kaplan, Hafner, 2007; Volkow et al., 2011; Sonuga-Barke, Sergeant, Nigg, & Wilcutt, 2008

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## Motivational Factors- Extrinsic

- Built in preferences for immediate reinforcement (delay discounting deficits) prevent valuation of grades (long-term, symbolic reinforcer)
- Students with ADHD show insensitivity to negative consequences
- Reduces day to day motivation to avoid negative consequences (retention, suspension)
- Students with ADHD report lower valuing of academic achievement and mastery compared to peers

Barron et al., 2006; Colomer, Berenguer, Roselló, Baixauli, & Miranda, 2017; Gut, Heckmann, Meyer, Schmid, & Grob, 2012; Olivier & Steenkamp, 2004; Zentall & Beike, 2012; Scheres et al., 2006; Toplak, Jain, & Tannock, 2005

## Motivational Factors- Self-Efficacy

- Students with ADHD receive years of continuous criticism from peers, parents, teachers, and self
- Can develop negative beliefs about the self
- Students with ADHD may exert lower academic effort if they believe they are unlikely to be successful even with effort

Newark, Elsasser, & Stieglitz, 2016

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# Cognitive Factors

- Response inhibition (i.e., ability to suppress urges to engage in problematic behaviors)
- Cognitive flexibility (i.e., ability to shift from one strategy to another according to the demands of a new situation)
- Interferes with goal-directed academic behaviors
- Individuals with ADHD show difficulties with goal setting and goal

Castellanos et al., 2006; Sonuga-Barke, 2003; Hoza, Waschbusch, Owens, Pelham, & Kipp, 2001; Nyman et al., 2010

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## Behavioral Factors

- Students with ADHD often lack the adaptive skills to apply themselves

  - Study skills
     Materials management

  - Communication skills with peers and adults

Langberg et al., 2013; Kent et al., 2011

How to foster self-motivation in	
students with ADHD?	

#### 1. Harness Natural Interests

- Create opportunities for the student to make choices about areas of work and play that interest them most
- Find out what they are interested in. Weave natural interests into learning tasks.
- For older students: consider helping the student identify educational tracks or paths that connect to their interests
- What can you do to maximize the student's curiosity and enjoyment in your classroom? Students with ADHD need this most.

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## 2. Build self-efficacy

- Social encouragement: catch them doing things well and acknowledge their efforts
- Create visual monitoring of progress so students can see themselves advance, learn, and grow (levels systems, graphs, sticker charts)
- Avoid shaming and blaming
- Set fair expectations, that match their ability level so incremental success is celebrated
- · Communicate that you value effort more than achievement
- Celebrate successes
- Ensure you have a <u>2:1 ratio</u> of positive feedback to negative feedback to your students about their academic work

## 3. Enhance desirability of positive academic behaviors

- Help student identify personally meaningful benefits of academic engagement
- Consider implementing an extrinsic rewards system when natural motivators cannot be identified
- - Elementary: Classroom behavior games, school-home rewards system, and token economies can be effective

  - High School: Social reinforcement from peers (peer mentorship model) can be

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# Behavioral Contingency Systems: Classroom

- Flip Card System (Stop-Light)

  - Visual board where each child has a green, yellow, & red card
    All children start on "green"
    Children are asked to change their card when classroom rules are broken

  - Important that children are able to earn cards back
    Resetting cards to "green" after every period (or half-day)
    Ability to go back to "prelow" or "green" for positive behavior
    Different rewards for green vs. yellow day/period



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## Behavioral Contingency Systems

- Token Economy
  - Point system (use tokens/chips)
  - Earn/lose points for **specific** behaviors
  - Use points to earn daily rewards
  - For younger children tangible tokens/poi







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# Group Contingency: Classroom

#### **Good Behavior Game**

- Identify target behavior (e.g., classroom rule; raise your hand)
- Divide children within the class into teams
- Teams earn points for following the rule
- Teams lose a point for breaking the rule
- At the end of the activity/day, tally the points for teams
- Winning team earns a reward/privilege



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# Daily Report Card

- Allows parent and teacher to communicate
- Lists daily target behaviors at school
- Teacher indicates whether child met target behavior goals
- Parent provides rewards at home when target behavior goals are met
- Daily (rather than weekly) reports are needed because children with ADHD need immediate and consistent feedback on their behavior

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# Daily Report Card: Select Goals

- Involve parents and teachers
- Determine child's greatest areas of difficulty
- Think about peer relations, classroom rule-following, behavior toward adults, and academic performance

# Daily Report Card: Define Goals

- Make sure the behavior is meaningful
- Clear definition so parent, teacher, and child understand
- Needs to be observable and measurable (i.e., it can be counted)
- DRC should have 3 to 5 target behaviors
- Examples:
  - No instances of teasing a classmate
  - Completes all homework
  - Breaks two or fewer classroom rules

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# Daily Report Card: Criteria

- Establish baseline behavior.
  - How often does child perform each target behavior?
  - How severe is the behavior?
- Goal should be a 20% improvement from current functioning
  - Ensures that goals are realistic for the child
- Allow child to miss one goal and still get reward (no one is perfect)

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# Daily Report Card: Explain to Child

- Explain DRC in a positive manner
- Will help child focus and overcome difficulties
- An opportunity to earn rewards
- Make sure child understands how DRC works

## Daily Report Card: Establish Home Rewards

- Child and parent should select rewards together (ensures that child likes the rewards)
- Rewards should be natural (electronic device, play time) instead of artificial (gifts, money)
- Menu of rewards can be used to keep child interested
   Child chooses one reward off the menu each day
- Long term rewards can be added when there is consistent good performance on the DRC (i.e., bigger weekly or monthly rewards)

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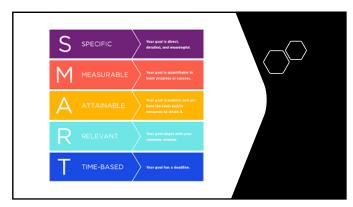
#### For Older Students:

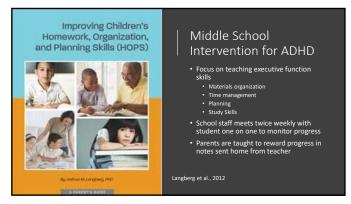
- Offer a rationale for why the requested task is necessary
  - I would like you to spend at least 30 minutes on homework each day so that we can make sure you pass the class
- Acknowledge that the task is dull or boring
  - I know that this class is not as interesting to you as other classes, and that you aren't happy about this request.
- When the student doesn't see a point, acknowledge rather than argue
  - I get that this is an area we see differently on, so I am willing to offer you a deal
    to help us compromise (ex: if you turn in a hw assignment completed, I will give
    you extra credit on your participation grade for that day).

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# 4. Model and Encourage Goal Setting.

- Help student think about their priorities.
- Goal setting can promote the pursuit of priorities.
- Goals can be short-term or long-term:
  - By the end of the week, I'd like to finish my science project.
  - $\bullet$  By the end of this study session, I'd like to make 50 flashcards
- Help students identify steps to meet their goals
- Track progress on goals visually
- · Consider using reinforcement (social or tangible) for meeting milestone







# Kevin • Help Kevin identify courses that interest him as he moves to high school • Use an intervention like HOPS to promote skills, executive functions, and Involve home reinforcement that may include extra video game time for meeting academic expectations—limits when work isn't done yet • Set SMART goals in alignment with class instruction Find small opportunities to provide encouragement and reinforcment

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#### Conclusions

- Students with ADHD are at risk for motivation and executive function deficits at school
- Strategies to address motivational challenges include:
  - Structuring tasks to harness intrinsic motivation Building student self-efficacy

  - Use of Reinforcement Systems

  - Use of Goal Setting
    Interventions for older students that combine

    - Behavioral skills
       Cognitive Strategies
       Reinforcement strategies to build motivation

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