

THE EVOLUTION OF AN ONLINE AOD INTERVENTION: From Conceptual Model to Scalable Intervention with an Eye toward Optimization

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With special
thanks to:



NIDA # R44
DA023735-02A2

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John Dziak

Outline

- Overview of *myPlaybook*
- Overview of MOST
- Component Selection Experiment #1
- Revising *myPlaybook*
- Component Selection Experiment #2
- Questions we faced
- What we've learned from MOST

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Why Student-Athletes?

- Participation in college sports is a **protective factor** against:
 - depression (Proctor & Boan-Lenzo, 2010; Armstrong & Oomen-Early, 2009)
 - suicidal behavior (Brown & Curtis, 2002)
 - sexual victimization (Fasting, et al., 2008)
 - physical inactivity (Greenleaf et al., 2009; Wyshak, 2003)
- However, college student-athletes are at **high-risk** for:
 - heavy alcohol use
 - use of performance enhancing substances
 - smokeless tobacco (Doumas et al., 2007; Ford, 2007; Yusko, et al., 2008)

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Compared to other students, student-athletes who drink ...

- Consume **more** alcohol
- Drink **more** frequently
- Have **more** negative consequences including
 - Driving under the influence
 - Unsafe sexual behaviors
 - Criminal offenses

Brenner & Swanik, 2007; Hildebrand, Johnson, & Bogle, 2001

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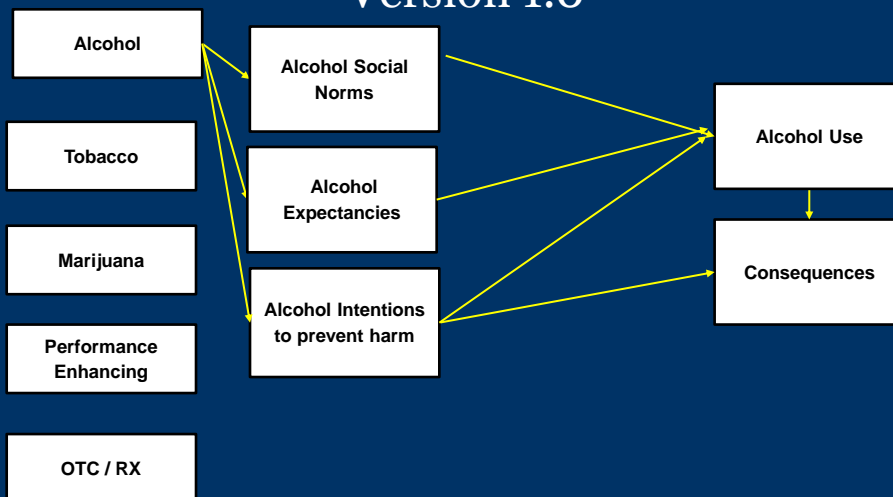
What is.....

myPlaybook

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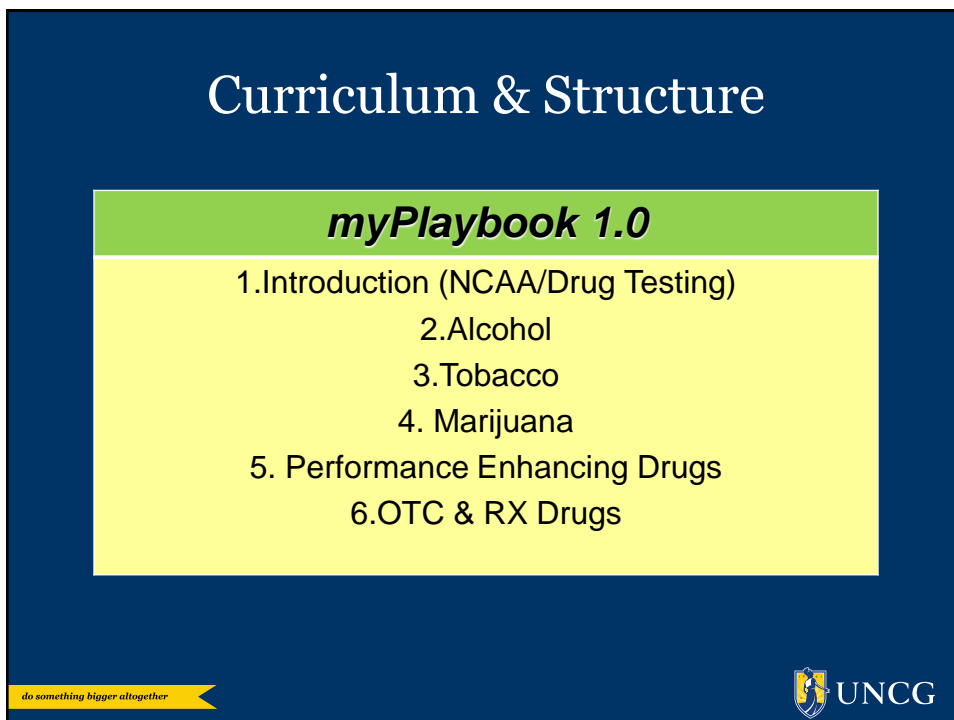
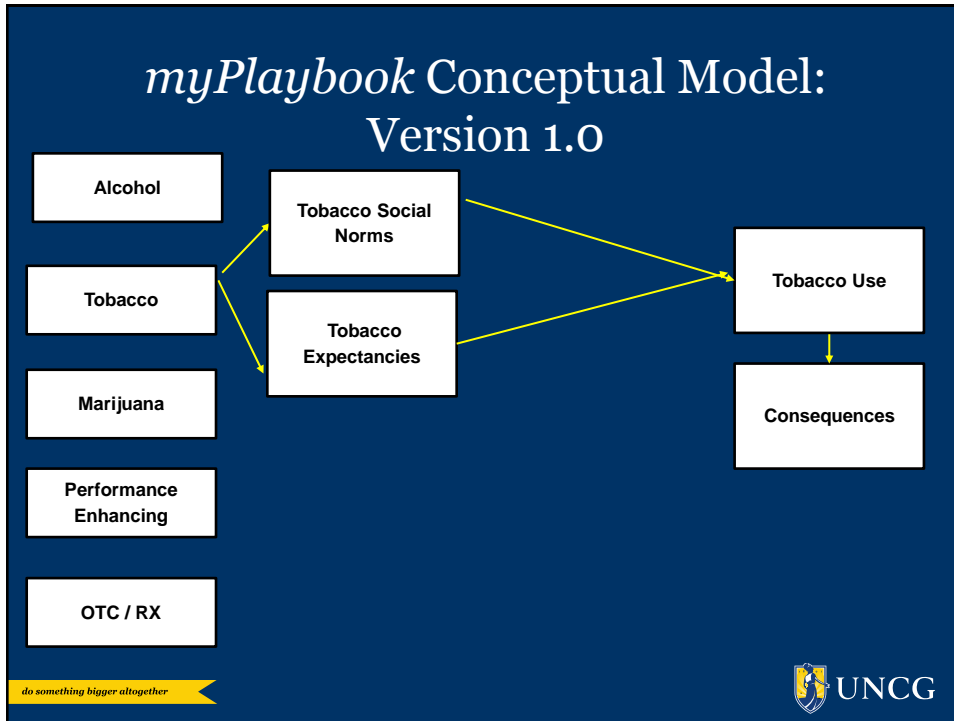


myPlaybook Conceptual Model: Version 1.0



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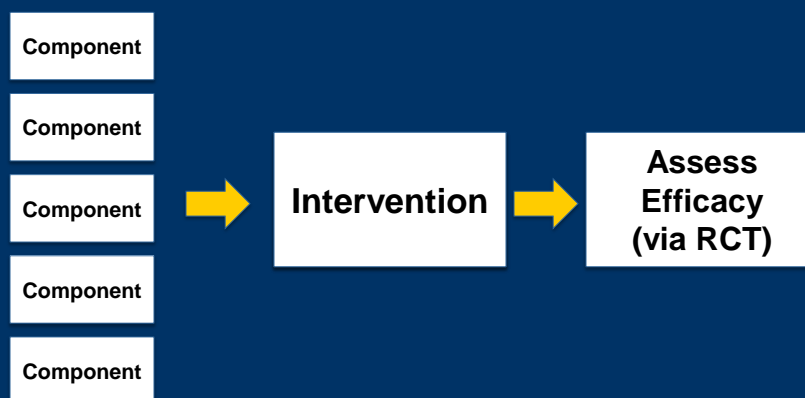
Why the Multiphase Optimization Strategy (MOST)?

- Study showed the average NREPP Model and Promising interventions had very small effect sizes
- Our Belief: Big leap to move from *myPlaybook Version 1.0* to full intervention without further testing
- Our Conclusion: We want to engineer a more potent AOD intervention

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Comparing the Classical Approach to the Multiphase Optimization Strategy (MOST)**

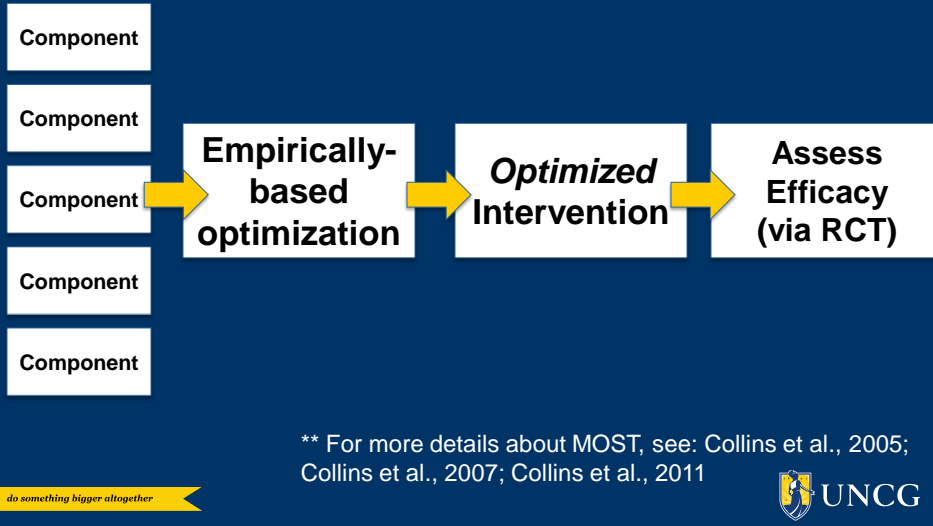


** For more details about MOST, see: Collins et al., 2005; Collins et al., 2007; Collins et al., 2011

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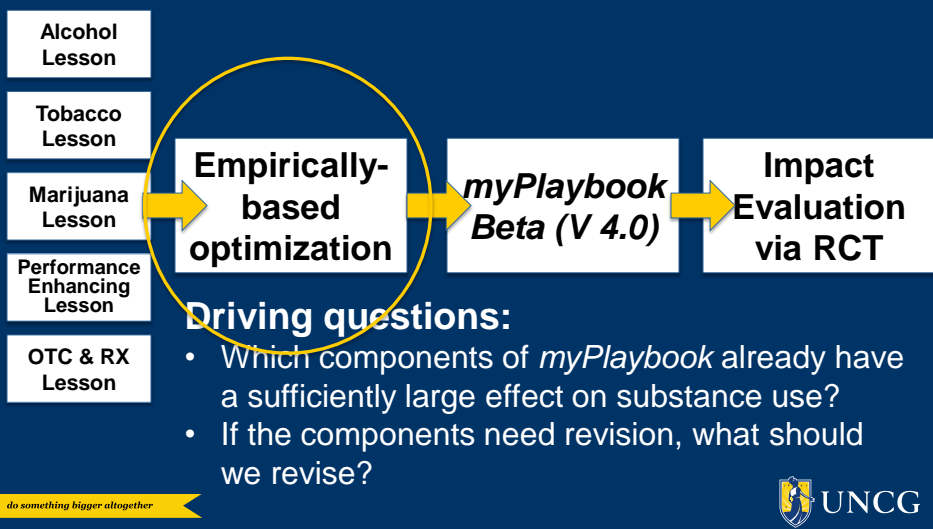
Comparing the Classical Approach to the Multiphase Optimization Strategy (MOST)**



Overarching study goal:

Optimize *myPlaybook*

Largest effect we can have in 2 rounds of revisions



Factorial Study Design

5 lessons, with 2 possibilities for each (received lesson or did not receive the lesson)



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Component Selection Experiment # 1: Study Design: Fractional Factorial

| Condition Number | Intro | Alcohol | Tobacco | Marijuana | Performance Enhancing | RX & OTC drugs |
|------------------|-------|---------|---------|-----------|-----------------------|----------------|
| 1 | Yes | No | No | No | No | Yes |
| 2 | Yes | No | No | No | Yes | No |
| 3 | Yes | No | No | Yes | No | No |
| 4 | Yes | No | No | Yes | Yes | Yes |
| 5 | Yes | No | Yes | No | No | No |
| 6 | Yes | No | Yes | No | Yes | Yes |
| 7 | Yes | No | Yes | Yes | No | Yes |
| 8 | Yes | No | Yes | Yes | Yes | No |
| 9 | Yes | Yes | No | No | No | No |
| 10 | Yes | Yes | No | No | Yes | Yes |
| 11 | Yes | Yes | No | Yes | No | Yes |
| 12 | Yes | Yes | No | Yes | Yes | No |
| 13 | Yes | Yes | Yes | No | No | Yes |
| 14 | Yes | Yes | Yes | No | Yes | No |
| 15 | Yes | Yes | Yes | Yes | No | No |
| 16 | Yes | Yes | Yes | Yes | Yes | Yes |

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Component Selection Experiment # 1: Participants

- N = 54 schools
- N = 3,932 freshmen & transfer college student athletes at time 1 (response rate = 66.3%)
 - N = 2220 (56.5%) completed all 3 surveys
 - 51.5% male
 - 85.2% in first year of eligibility
 - 84% were 18 or 19 years old
 - 56.3% were in season athletes
 - 73% White, 12% Black, 7% Other, 8% 2 or more races,

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Component Selection Experiment # 1: Decision Tree

| | |
|---------|--|
| | 30-day Follow-up: Behavior Is $\geq .3$? |
| Alcohol | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |



No further revision needed



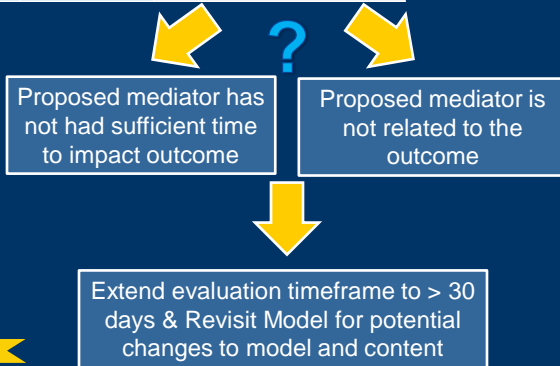
Assign component to myPlaybook Beta

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Component Selection Experiment # 1: Decision Tree

| | 30-day Follow-up: Behavior Is $d \geq .3$? | 30-day Follow-up: Mediators Is $d \geq .4$? |
|---------|--|--|
| Alcohol | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Social Norm <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | Positive Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | Negative Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | HP Intentions <input type="checkbox"/> Yes <input type="checkbox"/> No → |

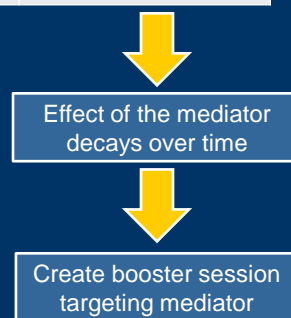


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Component Selection Experiment # 1: Decision Tree

| | 30-day Follow-up: Behavior Is $d \geq .3$? | 30-day Follow-up: Mediators Is $d \geq .4$? | Immediate Post-test: Mediators Is $d \geq .4$? |
|---------|--|--|--|
| Alcohol | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Social Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | Positive Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → | Positive Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | Negative Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → | Negative Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | HP Intentions <input type="checkbox"/> Yes <input type="checkbox"/> No → | HP Intentions <input type="checkbox"/> Yes <input type="checkbox"/> No → |



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Component Selection Experiment # 1: Decision Tree

| | 30-day Follow-up: Behavior Is $d \geq .3$? | 30-day Follow-up: Mediators Is $d \geq .4$? | Immediate Post-test: Mediators Is $d \geq .4$? |
|---------|--|--|--|
| Alcohol | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | Positive Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → | Positive Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | Negative Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → | Negative Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | HP Intentions <input type="checkbox"/> Yes <input type="checkbox"/> No → | HP Intentions <input type="checkbox"/> Yes <input type="checkbox"/> No → |

No initial impact on
the proposed mediator

Revise content
targeting this mediator

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Component Selection Experiment # 1: Statistical Model

- General Form:

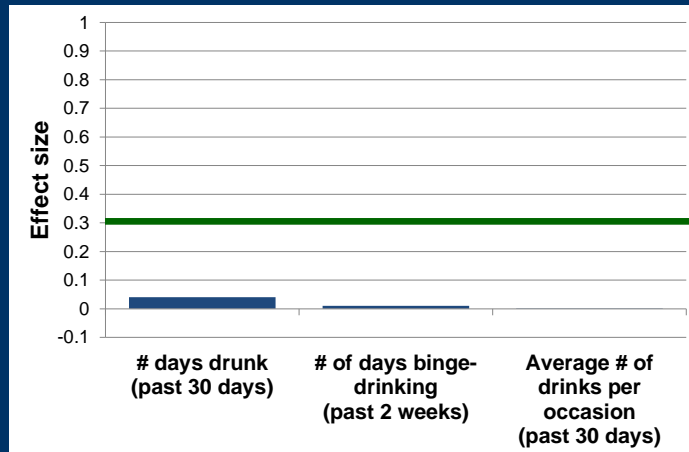
$$\text{Time3Outcome} = \text{Time1Outcome} + \text{Main Effects for each lesson (component)} + \text{All 2-way interactions among lessons}$$
- Example:

$$\begin{aligned} \text{DrunkPast30Days}_3 = & \\ & \text{DrunkPast30Days}_1 + \\ & \text{ALC} + \text{TOB} + \text{MAR} + \text{PER} + \text{OTC} + \\ & \text{ALC} * \text{MAR} + \text{ALC} * \text{TOB} + \text{ALC} * \text{PER} + \text{ALC} * \text{OTC} + \text{MAR} * \text{TOB} + \\ & \text{MAR} * \text{PER} + \text{MAR} * \text{OTC} + \text{TOB} * \text{PER} + \text{TOB} * \text{OTC} + \text{PER} * \text{OTC} \end{aligned}$$
- Notes:
 - Used effect coding (-1 = did not get lesson; 1 = got lesson)
 - School at level 2

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Component Selection Experiment # 1: Results for Alcohol Component (Behavior)



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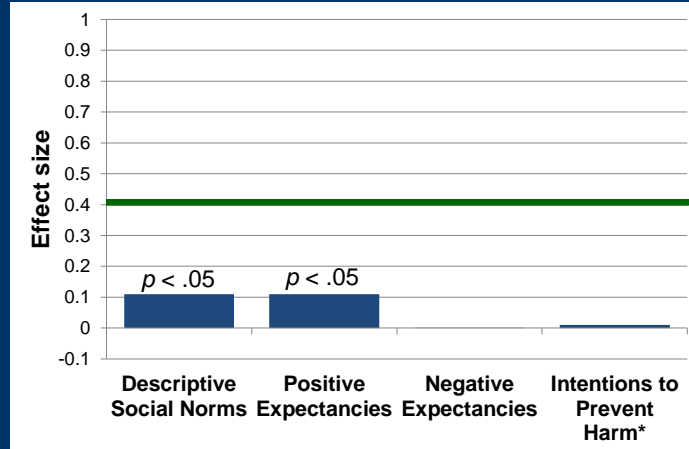
Component Selection Experiment # 1: Alcohol Component (Behavior)

| | 30-day Follow-up: Behavior Is d ≥ .3? | 30-day Follow-up: Mediators Is d ≥ .4? | Immediate Post-test: Mediators Is d ≥ .4? |
|---------|--|---|---|
| Alcohol | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Social Norms <input type="checkbox"/> Yes <input type="checkbox"/> No → | Social Norms <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | Positive Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → | Positive Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | Negative Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → | Negative Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | HP Intentions <input type="checkbox"/> Yes <input type="checkbox"/> No → | HP Intentions <input type="checkbox"/> Yes <input type="checkbox"/> No → |

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Component Selection Experiment # 1: Alcohol Component (30-day Mediators)



*Only asked of those who intend to drink alcohol in the next 30 days

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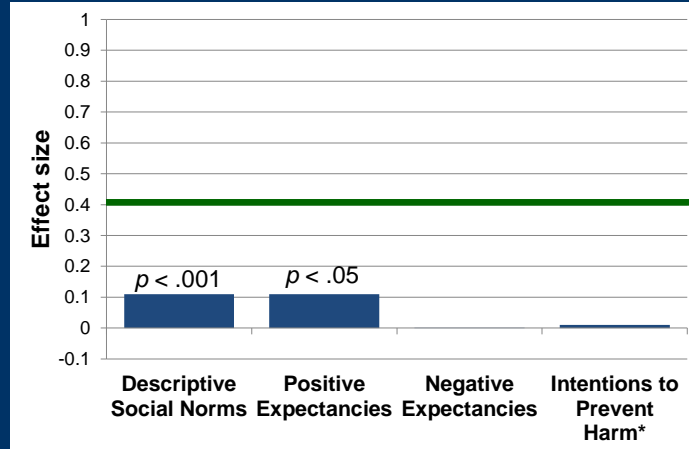
Component Selection Experiment # 1: Alcohol Component (30-day Mediators)

| | 30-day Follow-up: Behavior Is $d \geq .3$? | 30-day Follow-up: Mediators Is $d \geq .4$? | Immediate Post-test: Mediators Is $d \geq .4$? |
|---------|--|--|---|
| Alcohol | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Social Norms <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | Positive Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Positive Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | Negative Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Negative Expec <input type="checkbox"/> Yes <input type="checkbox"/> No → |
| | | HP Intentions <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | HP Intentions <input type="checkbox"/> Yes <input type="checkbox"/> No → |

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Component Selection Experiment # 1: Alcohol Component (Post-test Mediators)



*Only asked of those who intend to drink alcohol in the next 30 days

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Component Selection Experiment # 1: Alcohol Component (Post-test Mediators)

| | 30-day Follow-up: Behavior Is $d \geq .3$? | 30-day Follow-up: Mediators Is $d \geq .4$? | Immediate Post-test: Mediators Is $d \geq .4$? |
|---------|--|--|--|
| Alcohol | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | Positive Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Positive Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | Negative Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Negative Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | HP Intentions <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | HP Intentions <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |



Revise content targeting each of these mediators =
Revise alcohol lesson

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Component Selection Experiment # 1: Have we met our bar?

| | 30-day Follow-up: Behavior Is $d \geq .3$? | 30-day Follow-up: Mediators Is $d \geq .4$? | Immediate Post-test: Mediators Is $d \geq .4$? |
|--------------------------|--|--|--|
| Alcohol | <input type="checkbox"/> Yes | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | <input checked="" type="checkbox"/> No | Positive Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Positive Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | Negative Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Negative Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | HP Intentions <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | HP Intentions <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| Tobacco | <input type="checkbox"/> Yes | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | <input checked="" type="checkbox"/> No | Positive Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Positive Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | Negative Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Negative Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | | |
| Marijuana | <input type="checkbox"/> Yes | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | <input checked="" type="checkbox"/> No | Positive Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Positive Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | Negative Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Negative Expec <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | | |
| Performance Enhancing | <input type="checkbox"/> Yes | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | <input checked="" type="checkbox"/> No | Pos Exp (Steroids) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Pos Exp (Steroids) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | Pos Exp (Stimulants) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Pos Exp (Stimulants) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | Neg Exp (Steroids) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Neg Exp (Steroids) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | Neg Exp (Stimulants) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Neg Exp (Stimulants) <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | | | |
| Rx and OTC | <input type="checkbox"/> Yes | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → | Social Norms <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No → |
| | <input checked="" type="checkbox"/> No | | |

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So... Now What?

- Full *myPlaybook* package may be efficacious, but individual lessons (components) do not have the desired effect sizes
- Where does this leave us? Revisions needed across all components.

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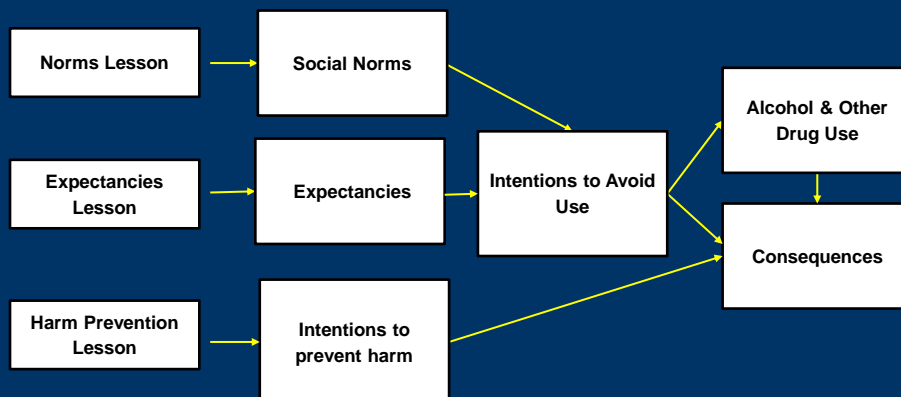
Revision process

- Step 1: Use information from multiple sources to determine what and how to revise
 - Quantitative data (e.g., analyses testing conceptual model)
 - Advisory panel (prevention scientists)
 - Instructional design team (online and intervention scientists)
 - Focus groups with student-athletes
- Step 2: Revise myPlaybook lessons

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Revisiting *myPlaybook's* Conceptual Model 2.0



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Curriculum & Structure

myPlaybook 2.0

1. Introduction (NCAA/Drug Testing)
2. Normative Perceptions Lesson
3. Expectations Lesson
4. Harm Prevention (self & others) Lesson

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Participants

- N = 47 schools
- N = 3,284 freshmen & transfer college student athletes at time 1 (response rate = 66.3%)
 - N = 2158 (65.7%) completed all 3 surveys
 - 49.3% male
 - 87.4% in first year of eligibility
 - 85% were 18 or 19 years old
 - 56.5% were in season athletes
 - 80% White, 11% Black, 4% Other, 5% 2 or more races,

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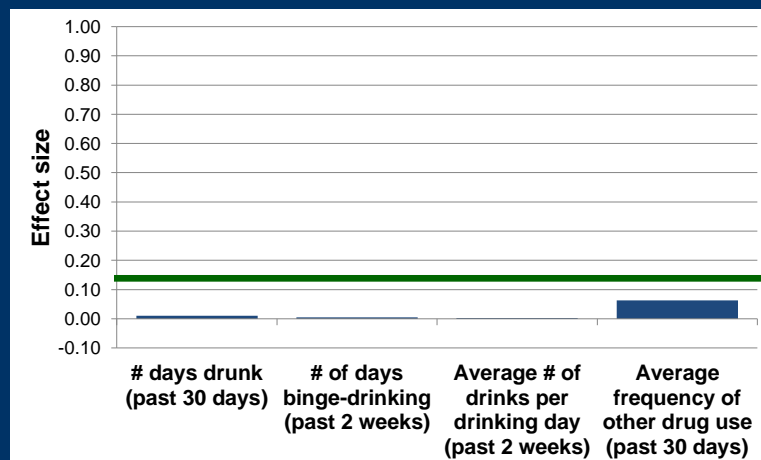
Component Selection Experiment # 2: Statistical Model

- General Form:
Time3Outcome = Time1Outcome + Main Effects for each lesson (component) + All 2-way and 3-way interactions among lessons
- Example:
DrunkPast30Days_3 =
DrunkPast30Days_1 +
NORM + EXP + HARM +
NORM*EXP + NORM*HARM + EXP*HARM + NORM*EXP*HARM
- Notes:
 - Used effect coding (-1 = did not get lesson; 1 = got lesson)
 - School at level 2

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Component Selection Experiment # 2: Social Norms Component (Behavior)



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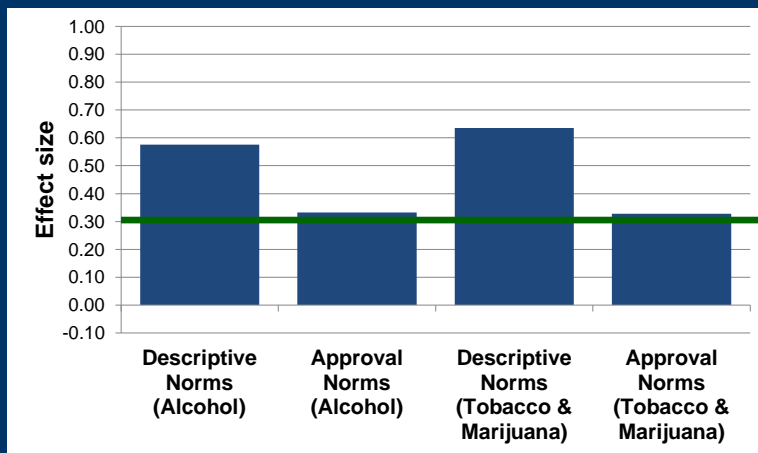
Component Selection Experiment # 2: Social Norms Component (Behavior)

| Lesson | 30-day Follow-up Is $d \geq .2$? | 30-day Follow-up Mediators Is $d \geq .3$? | Immediate Post-test Mediators Is $d \geq .3$? |
|--------|--|--|--|
| Norms | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Alcohol Descriptive Norms <input type="checkbox"/> Yes <input type="checkbox"/> No | Alcohol Descriptive Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Alcohol Approval Norms <input type="checkbox"/> Yes <input type="checkbox"/> No | Alcohol Approval Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Other Descriptive Norms <input type="checkbox"/> Yes <input type="checkbox"/> No | Other Descriptive Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Other Approval Norms <input type="checkbox"/> Yes <input type="checkbox"/> No | Other Approval Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |

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Component Selection Experiment # 2: Social Norms Component (30-day Mediators)



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Component Selection Experiment # 2: Social Norms Component (30-day Mediators)

| Lesson | 30-day Follow-up: Behavioral intentions Is $d \geq .2$? | 30-day Follow-up Mediators Is $d \geq .3$? | Immediate Post-test Mediators Is $d \geq .3$? |
|--------|--|---|--|
| Norms | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Alcohol Descriptive Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Alcohol Descriptive Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Alcohol Approval Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Alcohol Approval Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Other Descriptive Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Other Descriptive Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Other Approval Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Other Approval Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |



Proposed mediator is not as strongly related to the outcome as expected



Revisit Model for potential changes to model and content

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Component Selection Experiment # 2: Summary of Results

| Lesson | 30-day Follow-up Is $d \geq .2$? | 30-day Follow-up Mediators Is $d \geq .3$? | Immediate Post-test Mediators Is $d \geq .3$? |
|-----------------|--|--|--|
| Norms | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Alcohol Descriptive Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Alcohol Descriptive Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Alcohol Approval Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Alcohol Approval Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Other Descriptive Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Other Descriptive Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Other Approval Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | Other Approval Norms <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Expectancies | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Alcohol Positive Expect. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Alcohol Positive Expect. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| | | Alcohol Negative Expect. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Alcohol Negative Expect. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| | | Other Positive Expect. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Other Positive Expect. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| | | Other Negative Expect. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Other Negative Expect. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| Harm Prevention | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Harm Prevention Intentions <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | Harm Prevention Intentions <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| | | | |
| | | | |

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Questions we faced: What if the intervention has essential content?

| Condition Number | Intro | Alcohol | Tobacco | Marijuana | Performance Enhancing | RX & OTC drugs |
|------------------|-------|---------|---------|-----------|-----------------------|----------------|
| 1 | Yes | No | No | No | No | Yes |
| 2 | Yes | No | No | No | Yes | No |
| 3 | Yes | No | No | Yes | No | No |
| 4 | Yes | No | No | Yes | Yes | Yes |
| 5 | Yes | No | Yes | No | No | No |
| 6 | Yes | No | Yes | No | Yes | Yes |
| 7 | Yes | No | Yes | Yes | No | Yes |
| 8 | Yes | No | Yes | Yes | Yes | No |
| 9 | Yes | Yes | No | No | No | No |
| 10 | Yes | Yes | No | No | Yes | Yes |
| 11 | Yes | Yes | No | Yes | No | Yes |
| 12 | Yes | Yes | No | Yes | Yes | No |
| 13 | Yes | Yes | Yes | No | No | Yes |
| 14 | Yes | Yes | Yes | No | Yes | No |
| 15 | Yes | Yes | Yes | Yes | No | No |
| 16 | Yes | Yes | Yes | Yes | Yes | Yes |

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Questions we faced: Is the # of participants prohibitive?

- Power analysis:
 - Assumed 80 freshmen students per school at follow-up; Need 56 schools for 90% power
 - For us: Schools, rather than individuals, are limiting factor

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Questions we faced:

Is the # of experimental conditions prohibitive?

- Comp. Selection Exp. #1: 5 components



- Comp. Selection Exp. #2: 3 components



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Questions we faced:

What if the primary outcome must be measured months or years later?

| Lesson | 30-day Follow-up Is $d \geq .2$? | 30-day Follow-up Mediators Is $d \geq .3$? | Immediate Post-test Mediators Is $d \geq .3$? |
|--------|---|--|--|
| Norms | <input type="checkbox"/> Yes <input type="checkbox"/> No | Alcohol Descriptive Norms <input type="checkbox"/> Yes <input type="checkbox"/> No | Alcohol Descriptive Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Alcohol Approval Norms <input type="checkbox"/> Yes <input type="checkbox"/> No | Alcohol Approval Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Other Descriptive Norms <input type="checkbox"/> Yes <input type="checkbox"/> No | Other Descriptive Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |
| | | Other Approval Norms <input type="checkbox"/> Yes <input type="checkbox"/> No | Other Approval Norms <input type="checkbox"/> Yes <input type="checkbox"/> No |

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What we've learned from MOST:

- MOST tells us **what** to revise but not **how** to revise
 - *myPlaybook Beta* will only be as good as the revisions we make
 - Focusing on components forced us to be more thoughtful about revisions and our conceptual model
- Not meeting the high bar we set \neq Failure
 - Opportunity for incremental improvement
- Optimization \neq An endpoint
 - Always room for improvement

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What we've learned from MOST:

- Building a better intervention.... Priceless!

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Thanks!

Special thanks to:

NIDA # R44 DA023735-02A2

Linda Collins,

Melodie Fearnow-Kenney,

Jeffrey Milroy

Deirdre Dingman

John Dziak

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