**Title:** NationalDrug and Alcohol IQ Challenge

**Project Introduction:**

Experimentation with alcohol and drugs during adolescence is common. However, teenagers do not have the decision power to understand what is best for them or the consequences that their actions might bring in the future. Using alcohol and tobacco at a young age has negative health effects. Some teens will experiment and stop, or continue to use occasionally without significant problems. Others will develop a dependency, moving on to more dangerous drugs and causing significant harm to themselves and possibly others. It is difficult to know which teens will experiment and stop and which will develop serious problems. Teenagers at risk for developing serious alcohol and drug problems don't fit in or are out of the mainstream.

Drugs are available legally, like alcohol, prescribed medications, inhalants and over-the-counter cough, cold, sleep, and diet medications. Therefore, it is easy for teenagers to have access to these to try them.

**Project Overview:** HSTA CRAs will provide a PowerPoint presentation for high school students to use for their intervention with high school or middle school students. This PowerPoint presentation will give HSTA students a guide for their intervention to run smoothly so they can perform a more sufficient statistical analysis of the data that will be collected from this project. HSTA CRA’s will also create a pre- and post-test for students to use for data analysis.

**Data will be collected with:** [The National Drug and Alcohol Drug IQ test](https://drive.google.com/file/d/1u_srLb_V9AzKA1ArG33HeE8e7DGxTZvZ/view?usp=share_link) given in two parts: a pre-test and a post-test.

**Materials and summary of procedures:**

* **Materials**
	+ PowerPoint presentation for guided intervention as provided by HSTA CRA’s
	+ Pre- and post-test as provided by HSTA CRA’s
	+ Printed copies of the National Drug and Alcohol Drug IQ pre-test (one for each participant)
	+ Printed copies of the National Drug and Alcohol Drug IQ post-test (one for each participant)
	+ Manilla folder/envelope labelled “Pre-Test”
	+ Manilla folder/envelope labelled “Post-Test”
* **Populations**
	+ Middle school students (10-14 years old)
	+ High school students (14-18 years old)
* **Data comparisons**
	+ Differences among gender
	+ Differences among age group
	+ Differences among students at different schools
* **Possible controls**
	+ Gender
	+ Grade level
	+ Using students from a different school

**Recruitment/Cover Letter Script:**

Hello! My name is [insert name here]. I am a [insert school year here] at [insert high school here] who is working on a project for [insert HSTA region here] Health Sciences and Technology Academy (HSTA). The project I am conducting this year is an intervention exploring the drug and alcohol knowledge of my peers. I will be providing an intervention to [middle school or high school students] at [insert school name here]. This intervention will include a pre- and post-test in order for me to collect data to see [make research questions you selected into a statement and insert here]. The intervention should take around 30 minutes, with each survey taking around 5-10 minutes each. No personal data will be collected and each participants’ identity will be protected. Any participant may opt out of participating in the intervention at any time. This research project will allow me to educate my peers about drug and alcohol prevention education. Thank you for your participation.

**Draft Procedures:**

1. Read through the project outline, National Drug and Alcohol Drug IQ pre/post-test, and supplemental PowerPoint provided by your CRA.
2. Recruit 30 participants for the intervention. Use the recruitment/cover letter script when recruiting folks to participate in your intervention. Be sure to record how you recruited these participants (social media, word of mouth, online survey sent via text, etc.)
3. Practice presenting the supplemental intervention PowerPoint with your HSTA teacher before attending the intervention session.
4. Print a copy of the pre-test for each individual participant and place them in the appropriately labelled “Pre-Test” manilla folder/envelope.
5. Print a copy of the post-test for each individual participant and place them in the appropriately labelled “Post-Test” manilla folder/envelope.
6. At the intervention session, present the supplemental PowerPoint slides to your participants.
	1. **(Slides 1-6)**: When all of your participants are gathered, introduce yourself and begin presenting the supplemental PowerPoint until you get to the “Pre-Test” slide (slide 6).
		1. Remove the printed pre-tests from the manilla folder/envelope labelled “Pre-test”.
		2. Provide each participant with one copy of the pre-test.
		3. Give your participants 5-10 minutes to complete the pre-test.
		4. Collect the completed pre-tests and place them in the manilla folder/envelope labelled “Pre-Test”.
	2. **(Slides 7-12)**:The educational content to be included in this intervention are provided on slides 7-12. Avoid reading the slides word for word - expand on the content provided in the slides. Slide 12 contains a link to an educational activity (Kahoot!) that should be completed with participants. (Note: Participants will need to have access to a cell phone to be able to participate in the Kahoot! activity.)
	3. **(Slide 13-14)**: When you reach slide 14, participants will complete the post-test.
		1. Remove the printed post-tests from the manilla folder/envelope labelled “Post-test”.
		2. Provide each participant with one copy of the post-test.
		3. Give your participants 5-10 minutes to complete the post-test.
		4. Collect the completed post-tests and place them in the manilla folder/envelope labelled “Post-Test”.
	4. **(Slide 15)**: After collecting the post-tests, allow your participants to ask questions, make comments, and clarify any confusion they had during your presentation. Be sure to thank the participants for participating in your study and the teacher(s)/school administrators for allowing you to conduct your study in their classroom(s).
7. Following the completion of the intervention, use the answer key (provided as the last page of the pre-test/post-test template) to score participants’ pre-tests and post-tests. Enter your results in your data collection table.

**Possible research questions and data analysis:**

* After an educational intervention on drug and alcohol knowledge, will there be a statistically significant difference in knowledge among females in fifth grade who attend ABC Elementary School?
	+ Independent Variable
		- Educational intervention
	+ Dependent Variable
		- Change in test scores
	+ Control
		- No control group
	+ Inclusion Criteria
		- Gender (female)
		- Grade level (fifth grade)
		- School (ABC elementary school)
	+ Data Analysis
		- T-test to compare post-test scores with pre-test scores for those who participated in the intervention
* After an educational intervention on drug and alcohol knowledge, will there be a statistically significant difference in knowledge between male and female students attending ABC Junior High School?
	+ Independent Variable
		- Gender
	+ Dependent Variable
		- Change in test scores
	+ Control
		- No control group
	+ Inclusion Criteria
		- Gender (male/female)
		- Grade level (7th-8th grade students)
		- School (ABC Junior High School)
	+ Data Analysis
		- T-test to compare the change in pre-test and post-test scores between male and female students attending ABC Junior High School who participated in the intervention
* After an educational intervention on drug and alcohol knowledge, will there be a statistically significant difference in knowledge between 6th, 7th, and 8th grade students attending ABC Middle School?
	+ Independent variable
		- Grade level (6th, 7th, and 8th grade)
	+ Dependent variable
		- Change in scores
	+ Control
		- No control group
	+ Inclusion Criteria
		- Grade level (6th, 7th, and 8th grade students)
		- School (ABC Middle School)
	+ Data analysis
		- ANOVA to compare change in scores across 6th, 7th, and 8th grade students who participated in the intervention

**References:**

American Academy of Child & Adolescent Psychiatry. (2018). Teens: Alcohol And Other Drugs. <https://www.aacap.org/AACAP/Families_and_Youth/Facts_for_Families/FFF-Guide/Teens-Alcohol-And-Other-Drugs-003.aspx>

National Drug and Alcohol Facts Week." National Institute on Drug Abuse. Advancing Addiction Science. <https://nida.nih.gov/research-topics/parents-educators/national-drug-alcohol-facts-week/get-activity-ideas>