

# ALL Game Evaluation Research Report

December 2010



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THE  
**CENTURY**  

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**COUNCIL**  
DISTILLERS FIGHTING DRUNK DRIVING  
& UNDERAGE DRINKING

# Contents

- **Background, Objectives, & Methodology**
- Executive Summary
- Detailed Findings
  - Pre-Post Gaming Survey Results
  - Student Gaming Evaluations
  - Teacher Evaluations
- Demographics

## Promoting healthy lifestyles among the youth

- As part of its continued commitment to youth, The Century Council and its partner, PE4Life, have developed an Ask, Listen, Learn (ALL) video game program to be played on the XaviXPort system.
- The program has six games within it; four of the games have specific questions/probes embedded in them that are designed to quiz and inform players about healthy lifestyle choices and the dangers/consequences of underage drinking.



## Measuring the impact of ALL Game educational tools

- TCC would like to determine whether the Ask, Listen, Learn video games are effective in delivering their *no-underage-drinking* message as a part of a healthy lifestyle to their target, 5<sup>th</sup>-7<sup>th</sup> grade school children (aged 10-13).
- Therefore, TCC asked TRU to conduct research to:
  - Gauge the knowledge and awareness of the dangers of drinking alcohol prior to participating in the gaming activities.
  - Measure any increase in knowledge of these dangers after the gaming has taken place.
  - Understand how students and teachers rate this as an educational activity used in schools.



## Pre-post survey among middle school students

- TRU conducted a total of 1,298 interviews among 5<sup>th</sup> – 7<sup>th</sup> graders.
  - Interviews were conducted on a pre-post basis.
    - 665 interviews were conducted prior to any gaming activities.
    - 633 interviews were conducted by the same students after participating in the gaming activities.
  - Interviews were conducted in five different schools (listed on the next slide) and were administered by teachers.
  - Each interview was approximately 5 – 10 minutes in length.

1,298 student interviews (pre- and post-test)			
	Males	Females	Total
5 <sup>th</sup> graders	196	187	383
6 <sup>th</sup> graders	112	95	207
7 <sup>th</sup> graders	353	355	708
Total	661	637	1,298

## Pre-post survey among middle school students

- Five different schools participated in the survey and gaming activities.

<b>1,298 student interviews (pre- and post-test)</b>			
	<b>Pre-wave</b>	<b>Post-wave</b>	<b>Total</b>
<b>Kirksey Middle School (6<sup>th</sup> – 7<sup>th</sup> graders)</b>	238	225	463
<b>Arlington Science Focus Elementary (5<sup>th</sup> graders)</b>	62	60	122
<b>Julia Randall Elementary (5<sup>th</sup> graders)</b>	76	73	149
<b>Frontier Elementary (5<sup>th</sup> graders)</b>	55	51	106
<b>Sierra Vista Junior High (7<sup>th</sup> graders)</b>	238	220	458
<b>Total</b>	<b>669</b>	<b>629</b>	<b>1,298</b>

- Interviewing and gaming took place in the months of October and November, 2010.
- In addition, teachers who administered the program and the survey were probed about the experience in separate 10-minute phone interviews; responses from these teachers are captured in this report.

## How to read the comparison data

- Significance testing has been conducted for data comparisons between the pre-test and post-test responses.
  - A capital letter indicates a significant difference at the 95% confidence level.
  - A lower case letter indicates a significant difference at the 90% confidence level.
  - The absence of a letter indicates no significant difference.

### Example:

<i>Pre-test (A)</i>	<i>Post-test (B)</i>
56	76 A
50	54 a
53	52

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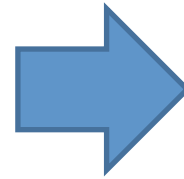
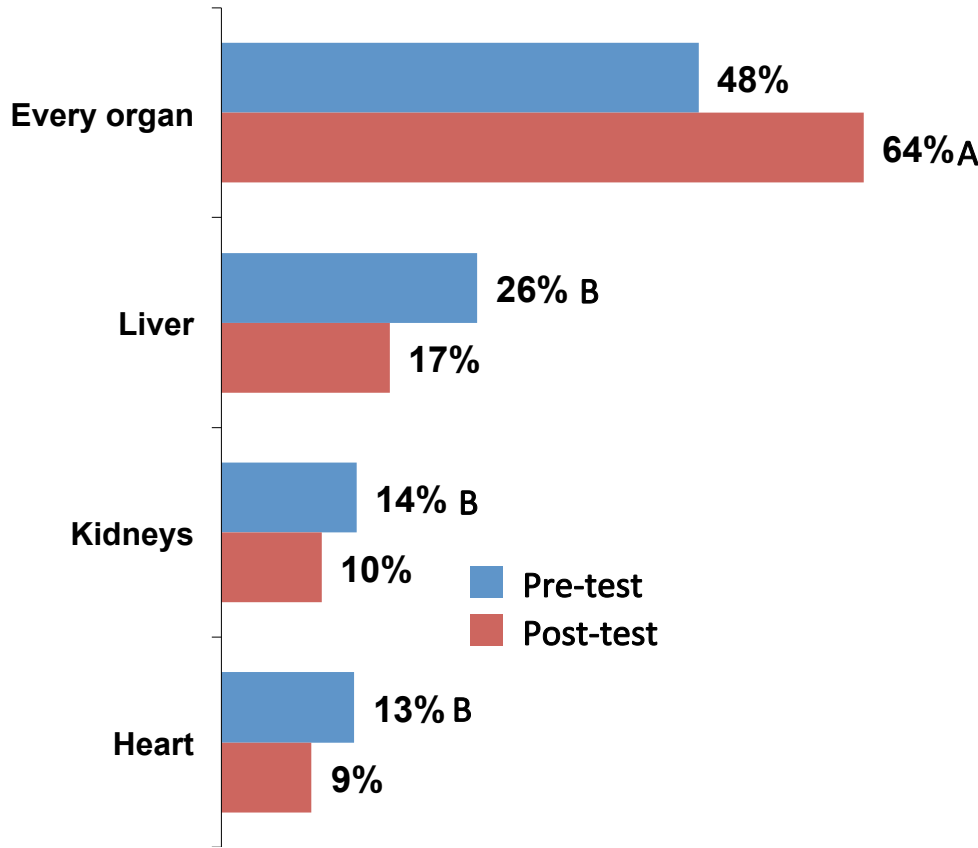
	Overall	By school
<b>Survey Scores:</b>	<ul style="list-style-type: none"> <li>Overall, these games appear to be an effective means of raising awareness and knowledge of the dangers of drinking alcohol.                             <ul style="list-style-type: none"> <li>Significant increases from the pre- to the post-wave were observed on nearly all questions.</li> <li>Though some students remain unsure of some of the details of alcohol's effect on the body, almost all recognized the outward effects of alcohol, including mental and social consequences.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Overall, these games may be best suited toward younger students, as the 5<sup>th</sup> graders scored higher and showed the most pre- to post-wave improvement.                             <ul style="list-style-type: none"> <li><u>Science Focus (5<sup>th</sup>)</u> - Exhibited the highest post-wave scores, as well as the most improvement from the pre- to the post-wave.</li> <li><u>Frontier / Julia Randall (5<sup>th</sup>)</u> – These 2 schools were fairly even in the number of correct scores and pre- to post-improvement.</li> <li><u>Kirksey (6<sup>th</sup>-7<sup>th</sup>)</u> – Came in second for the most correct scores, but exhibited less improvement from the pre- to the post-wave.</li> <li><u>Sierra Vista (7<sup>th</sup>)</u> – Exhibited the fewest correct scores with little, if any, pre-post improvement.</li> </ul> </li> </ul>
<b>Survey Evaluations:</b>	<ul style="list-style-type: none"> <li>Post-evaluations confirmed that most students found this to be an effective and enjoyable way to learn about the dangers of drinking.                             <ul style="list-style-type: none"> <li>Most admitted they learned from these games and claimed it made them “stop and think” about the dangers of drinking.</li> <li>They also rated them as enjoyable and fun as an educational tool used within schools.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>In all but one case, the schools with the highest scores also gave the highest rating of the ALL game experience.                             <ul style="list-style-type: none"> <li><u>Frontier (5<sup>th</sup>)</u> – Provided the most positive evaluation of the ALL game experience, followed closely by <u>Julia Randall (5<sup>th</sup>)</u>.</li> <li><u>Science Focus (5<sup>th</sup>)</u> – Despite the most correct scores and the highest improvement, they exhibited slightly less positive evaluations than the schools above.</li> <li><u>Kirksey (6<sup>th</sup>-7<sup>th</sup>)</u> – Gave second lowest evaluations.</li> <li><u>Sierra Vista (7<sup>th</sup>)</u> –SV provided the least positive evaluation of the ALL game experience.</li> </ul> </li> </ul>

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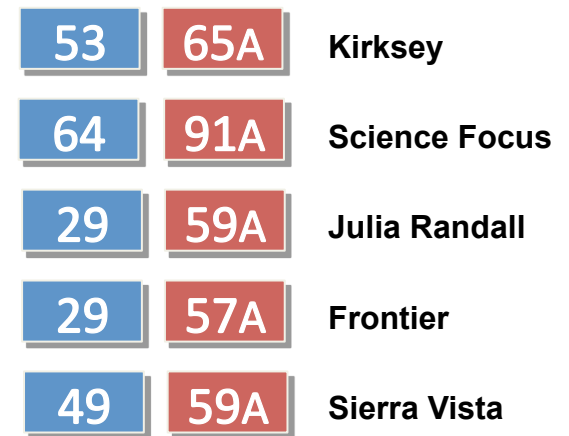
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After participating in the gaming exercises, nearly 2 out of 3 students became aware that alcohol can affect every organ in the body

*Body organ affected by alcohol*

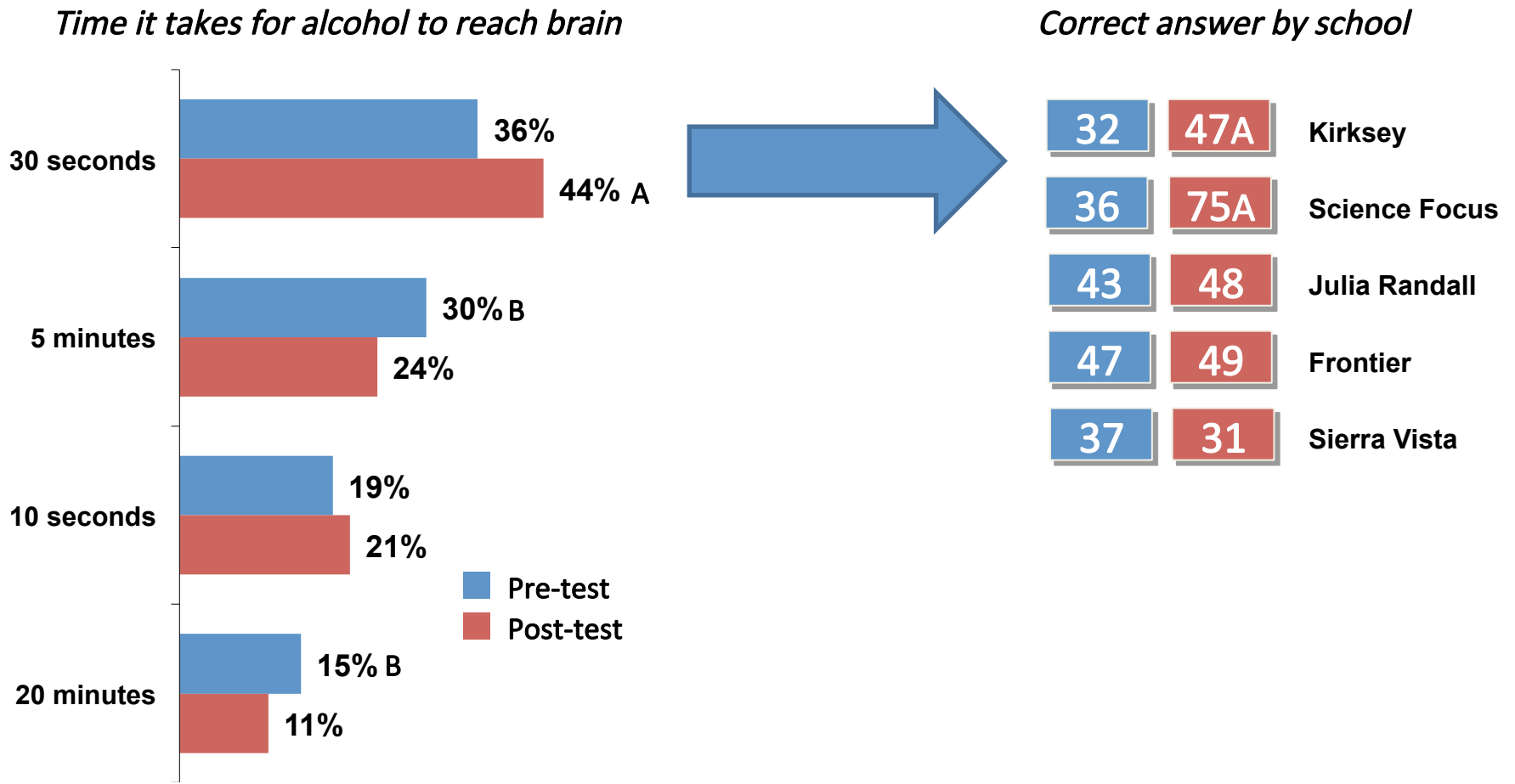


*Correct answer by school*



Q.4 Which organ in the body can be affected by drinking alcohol?

# Just under half of the students correctly identified the time it takes for alcohol to reach your brain

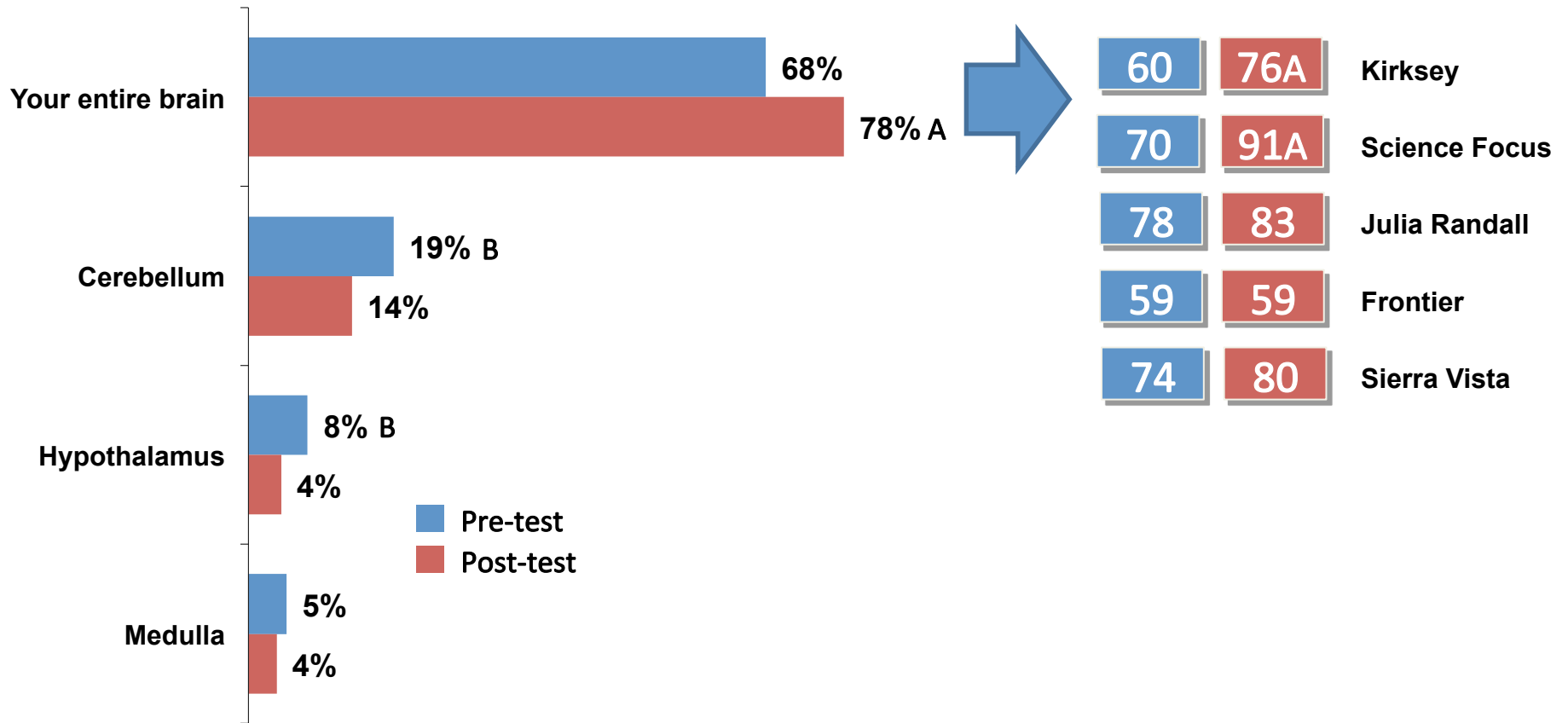


Q.5 How long does it take for alcohol to move through your blood stream and reach your brain?

# Post-gaming, more than 3 out of 4 students correctly responded that the *entire brain* is affected by alcohol consumption

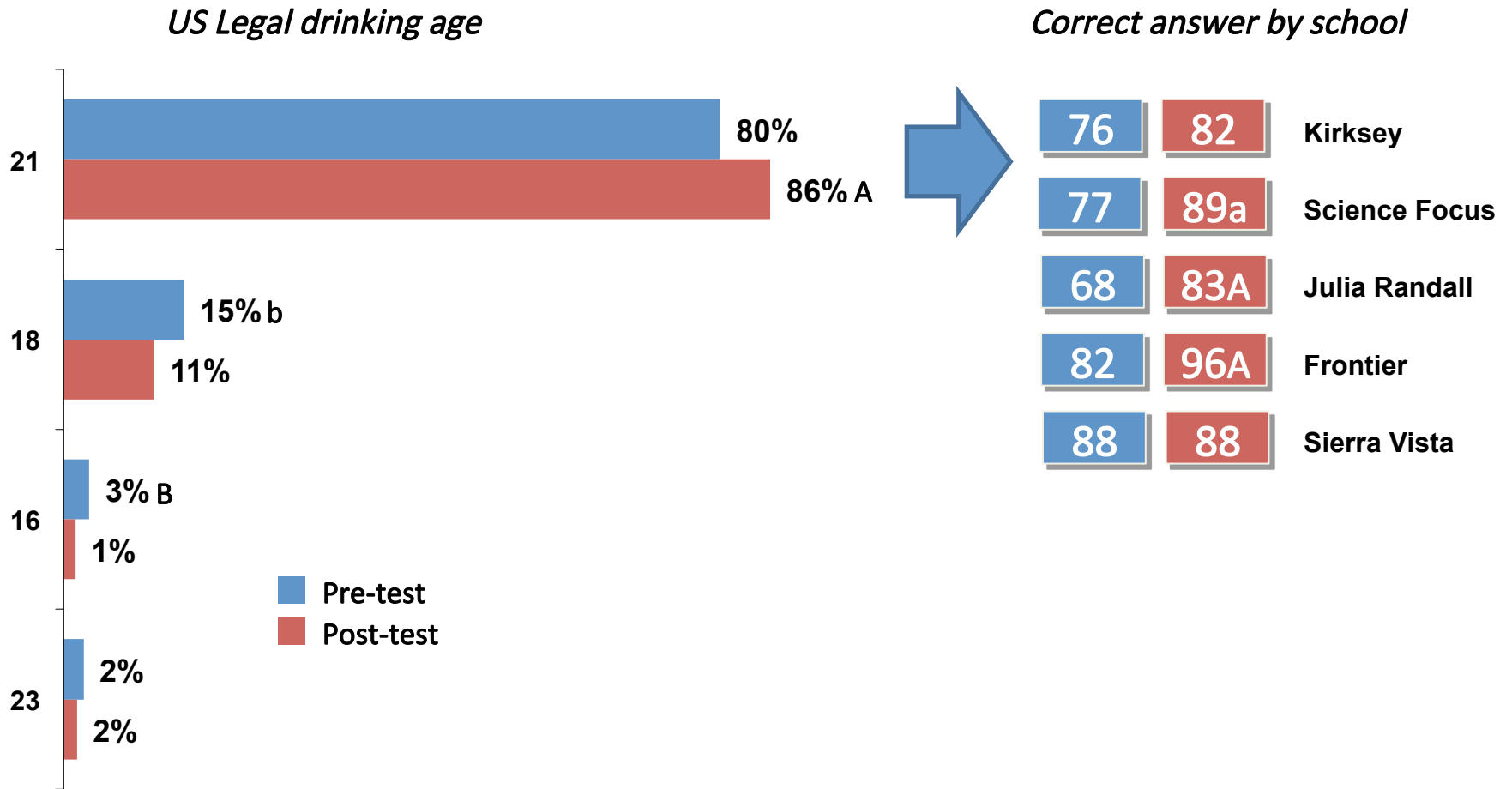
*Part of brain affected by alcohol*

*Correct answer by school*



Q.6 Which part(s) of your brain would be affected if you drank alcohol?

The majority of students recognized 21 as the legal drinking age in the US, with significant increases visible post-gaming

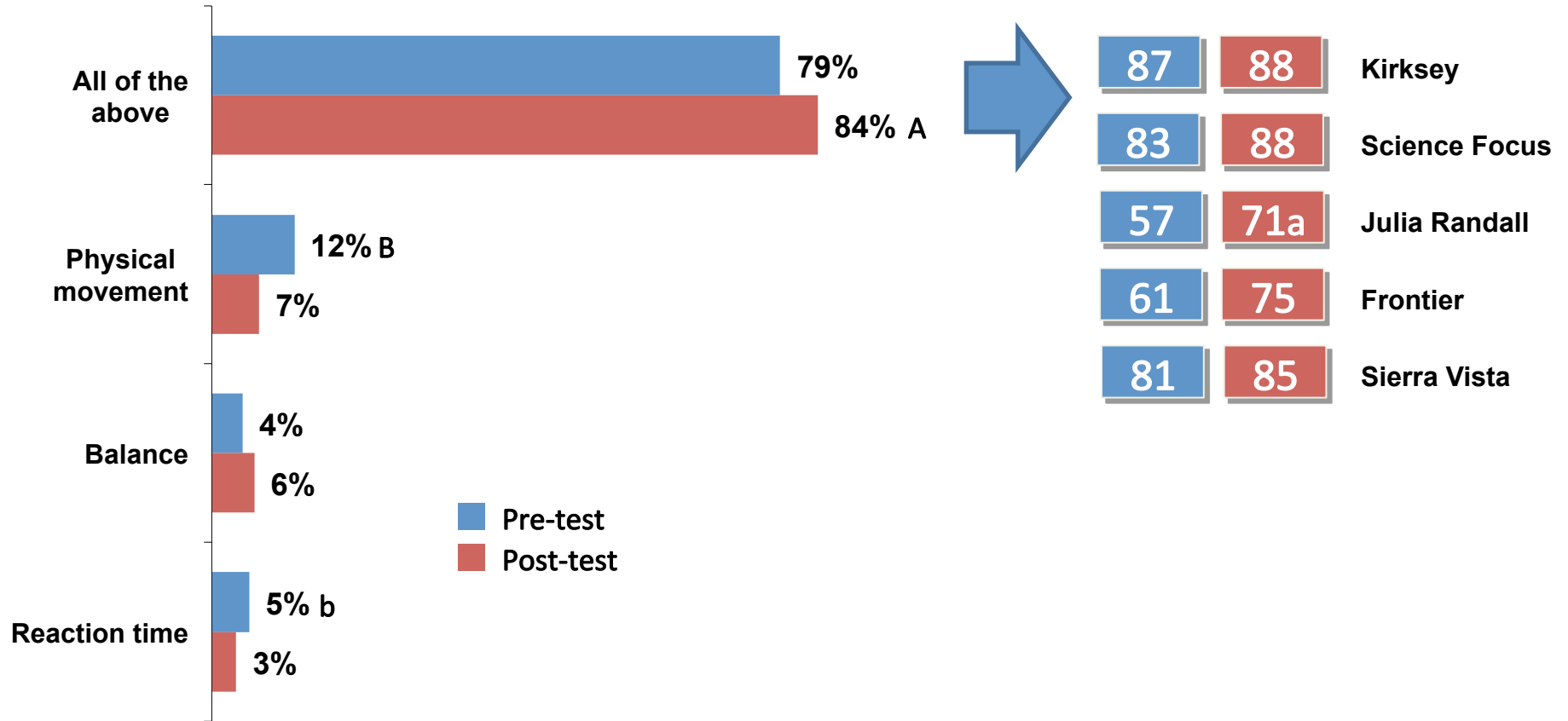


Q.7 What is the legal drinking age in the USA?

The majority also acknowledged that the brain controls multiple functions of the body, again with significant increases post-gaming

*Controlled by Brain*

*Correct answer by school*

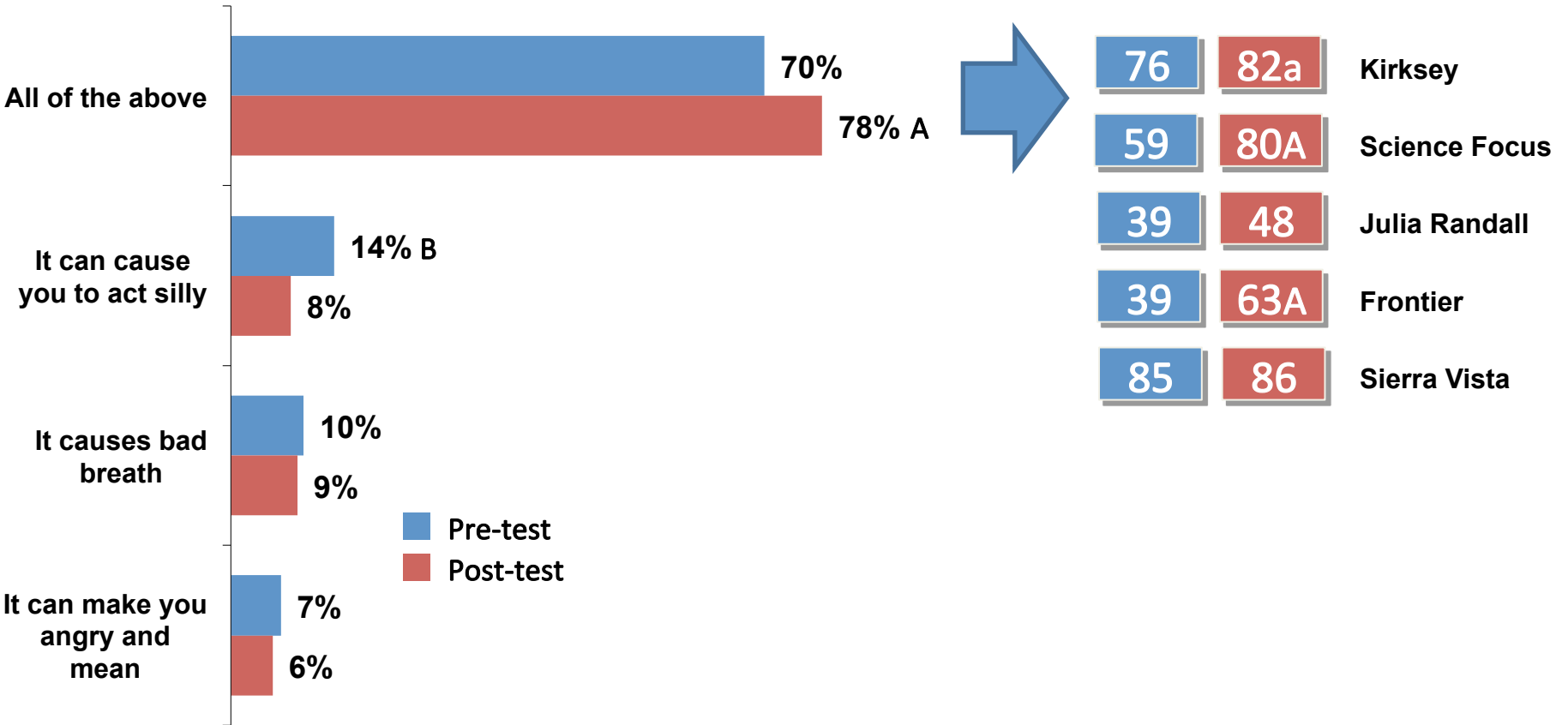


Q.8 Which of the following is controlled by your brain?

# The gaming activities appear to have increased students' awareness of the multiple short-term effects of alcohol

*Short-term effects of alcohol*

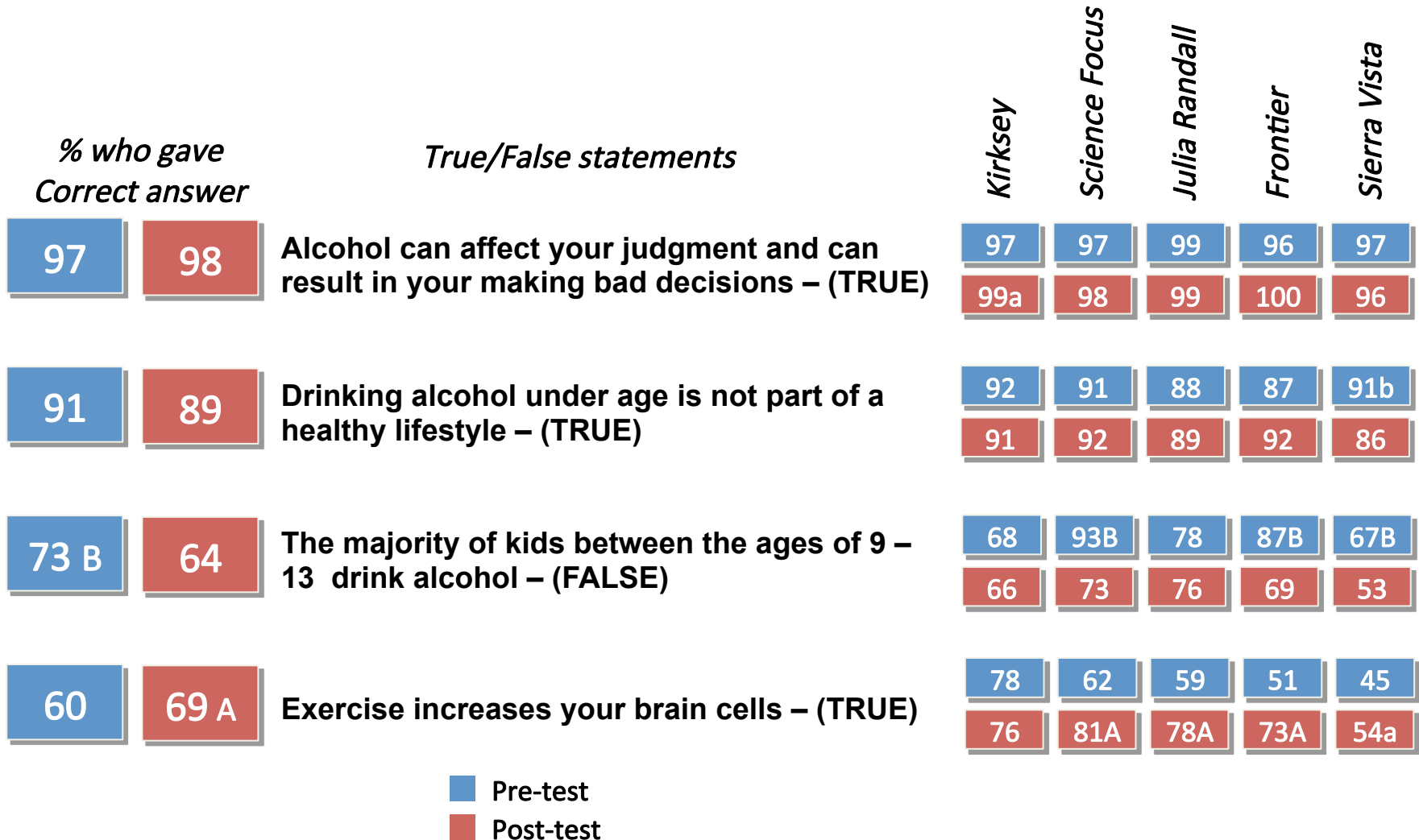
*Correct answer by school*



Q.9 Which of the following is a short-term effect of alcohol?



# Gaming activities increased awareness on many dangers of alcohol, though confusion on the incidence of underage drinking persists



Q.10 Please answer "True" or "False" for each of the following statements.

The average quiz score increased significantly by 4.4 percentage points from the pre-wave to the post-wave

*Pre-gaming test score*

**70.0%**

<b>71.8%</b>	<b>Kirksey</b>
<b>72.0%</b>	<b>SF</b>
<b>63.3%</b>	<b>JR</b>
<b>63.6%</b>	<b>Frontier</b>
<b>71.2%</b>	<b>SV</b>

*Post-gaming test score*

**74.4%**

<b>76.3%</b>	<b>Kirksey</b>
<b>84.7%</b>	<b>SF</b>
<b>72.3%</b>	<b>JR</b>
<b>73.1%</b>	<b>Frontier</b>
<b>70.5%</b>	<b>SV</b>



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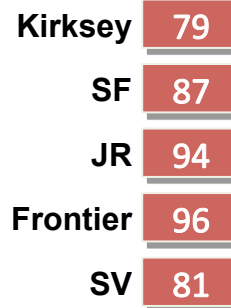
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The majority of students claimed the games were educational and, hence, rated them positively as an educational tool



**84%**

Positively rate this game as an educational activity used in schools

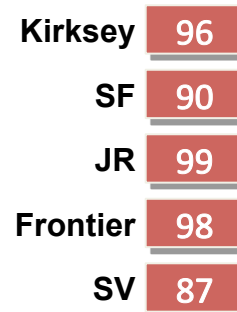


**48%** Excellent rating

**35%** Good rating

**93%**

Learned something about the dangers of drinking alcohol



**61%** Learned a lot

**32%** Learned a little

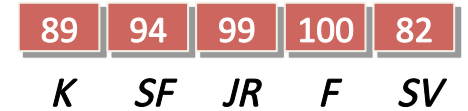
Q.11 How much did you learn about the dangers of drinking alcohol from these games?

Q.16 Overall, how would you rate this game as an educational activity used in schools?

## The games were effective at getting students to “stop and think”

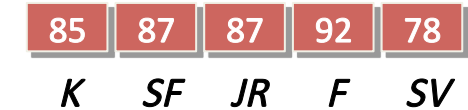
89%

The games make me think about making healthy choices in my life



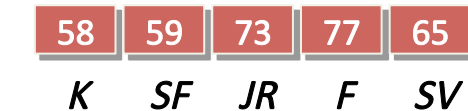
84%

The games make me stop and think about the dangers of drinking alcohol



64%

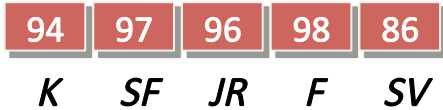
The games make me think about talking to my parents to learn more about the dangers of drinking alcohol



# Most saw this as an enjoyable way to learn about this information...

92%

Enjoyed playing these games

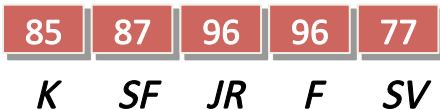


60% Enjoyed it a lot

32% Enjoyed it a little

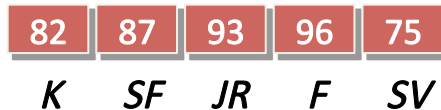
This is a cool way to learn about the dangers of drinking alcohol

85%



It was fun to learn about this information while exercising

83%



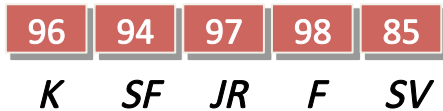
Q.12 How much did you enjoy playing these games?

Q.14 Thinking of the games you played, please answer "True" or "False" for each of the following statements.

...One they would recommend to other kids

92%

Say these games make it easier to teach kids their age about the dangers of drinking alcohol

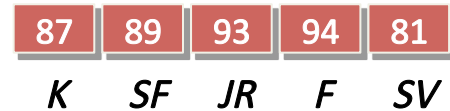


60% A lot easier

32% A little easier

87%

Would recommend that other kids play these games to learn about the dangers of drinking alcohol



Q.13 Do you think these games make it easier to teach other kids your age about the dangers of drinking alcohol?

Q.14 Thinking of the games you played, please answer "True" or "False" for each of the following statements.

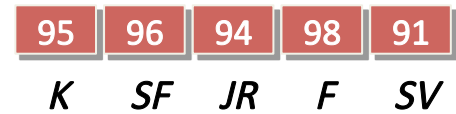


# After playing the games, nearly all say it's important to wait to drink alcohol until they are old enough



**95%**

Say it's important to wait to drink alcohol until they are old enough



**85%** Very important

**10%** Somewhat important

Q.15 After playing these games, how important do you think it is to wait to drink alcohol until you are old enough?



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## Teachers found game format to be fun, easy, highly appropriate

*“Playing was very easy – they are used to doing ‘Dance, Dance, Dance Revolution.’ And it was easy for them to move through the levels in the games.”*

– Donna Moore, Julia Randall Elementary / Frontier Elementary

*“These kids are so familiar with gaming consoles; it was easy and they were excited to do it in the beginning.”*

– Jim Yurwitz, Kirksey Middle School

*“It is particularly good to get this learning on a gaming system – this is what they are used to.”*

– Jennifer Hall, Arlington Science Focus

*“It is more interesting to them when it is interactive, and they retain more information, I believe....It hits all the different learning styles – kinesthetic, auditory, visual.”* – Jennifer Hall, , Arlington Science Focus

## Teachers also found game content to be appropriate

*“The education component was very good; they need this so they can resist peer pressure.”*

– Jennifer Hall, ,  
Arlington Science  
Focus

*“Perfect time to integrate this information – 5<sup>th</sup> grade – before they are actually facing the dangers that come later in middle school; really good time for intercession.”*

– Donna Moore, Julia Randall  
Elementary / Frontier Elementary

*“Yes I thought the content was great – though the questions repeated themselves too often – kids notice that right away. I think you can come up with lots more questions.”*

– Jim Yurwitz, Kirksey Middle School

## In terms of activities: archery on target, shopping less so

*“The favorite game seemed to be archery – especially with the boys. It’s a short game with a burst of speed, and it challenges them and gives them instant feedback.”*

– Jim Yurwitz,  
Kirksey Middle  
School

*“My kids really liked archery – this is a bow hunting area. They loved to shoot; it was intense.”*

– Donna Moore, Julia Randall Elementary /  
Frontier Elementary

*“The kids noticed that the shopping list was geared not to choose alcohol, but there really weren’t good nutrition choices.”*

– Jennifer Hall, Arlington Science Focus

*“The shopping trip was the least favorite because it is boring. When beer and milk pop up it’s funny to them to choose beer.”*

– Jim Yurwitz, Kirksey Middle School

Teachers felt that their students learned a lot from the games, and the games almost always inspired further classroom dialog

*“They really, really learned a lot and we always had a small classroom discussion after.”*

– Donna Moore, Julia Randall Elementary / Frontier Elementary

*“Apollo Ono came last spring and we used the game and talked about it in class afterward. We talked about after we used it ever since, and after the post-test, we talked about the difference (in what they knew).”*

– Jennifer Hall, Arlington Science Focus

## Approach extendable to other content areas – variety is welcomed

*“This approach could be used for other curricula like conservation of nature (which is important here), or respect for self and others.”*

– Donna Moore, Julia Randall Elementary / Frontier Elementary

*“The drawback is that it is the same game over and over. Kids are excited at the beginning and at the end don’t really want to play any more.”*

– Jim Yurwitz, Kirksey Middle School

*“If you could change the games up to include different drugs or nutrition that would be great.”*

– Jim Yurwitz, Kirksey Middle School

*“I think this could be applied to topics like nutrition, tobacco use, or just healthy lifestyles.”*

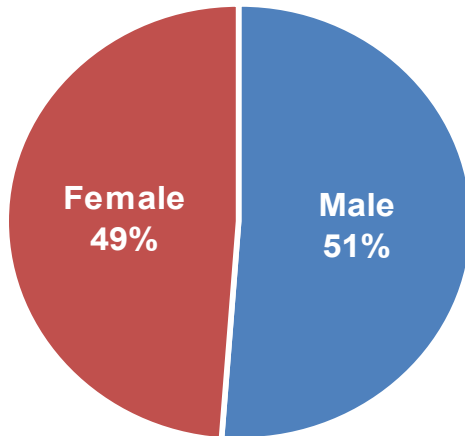
– Jennifer Hall, Arlington Science Focus

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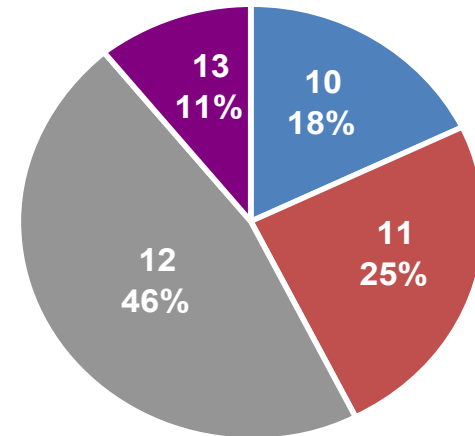
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## Gender, age, grade

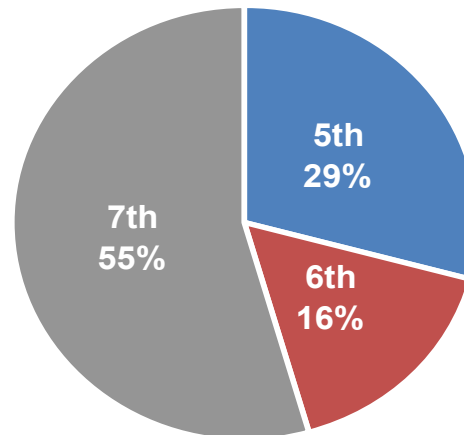
*Gender*



*Age*



*Grade*



Q.1 Are you male or female?

Q.2 How old are you?

Q.3 What grade are you in?





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Thank you!

Questions, Comments, Ideas?

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