



**I PRO 351: COMBATING
UNDERAGE DRINKING AND
DRIVING**



PROBLEM



75% of seniors in high school
have consumed alcohol



60% of juniors and seniors
say they have ridden with a
drunk teen



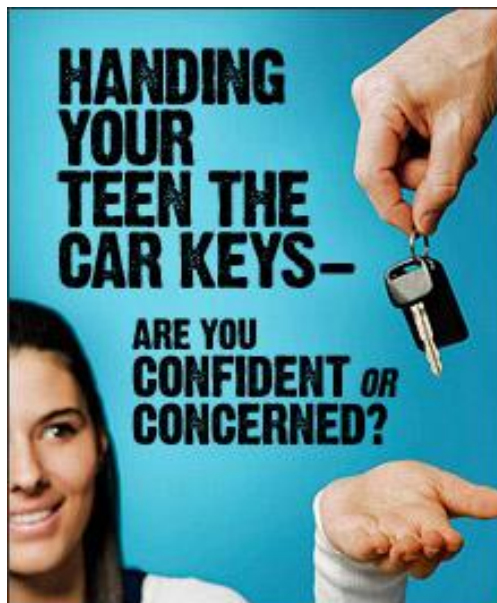
48% of teens who drank in
the past year were said to be
'nondrinkers' by their parents



PREVENTION

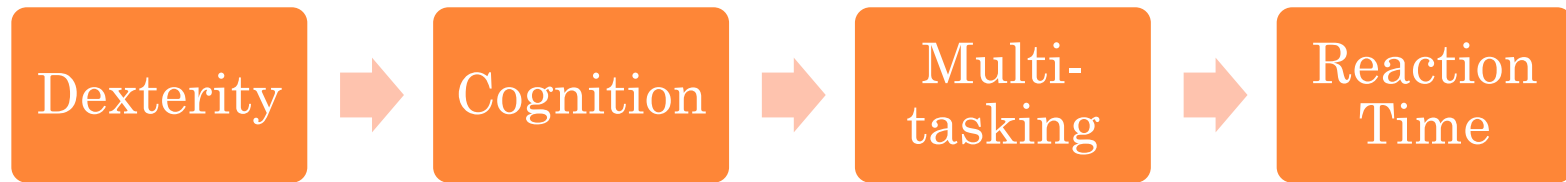
- The Surgeon General's *Call to Action* states:

Parents are the best resource to prevent children from drinking and driving.

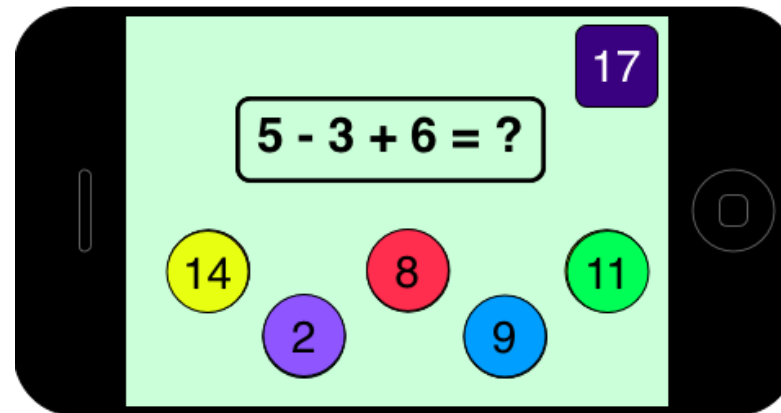


SOLUTION

- iPhone application games that measure key impairments when intoxicated including:



- Less intrusive, cost effective, alternative method to current solutions (breathalyzers, interlock devices, etc.)



PROJECT GOALS

App Development

- Design games that measure impairment
- Develop at least one

Testing Protocol

- Design a protocol that is valid and reliable

Product Validation

- Conduct surveys and focus group to gauge consumer interest

“Clue-Me-In”

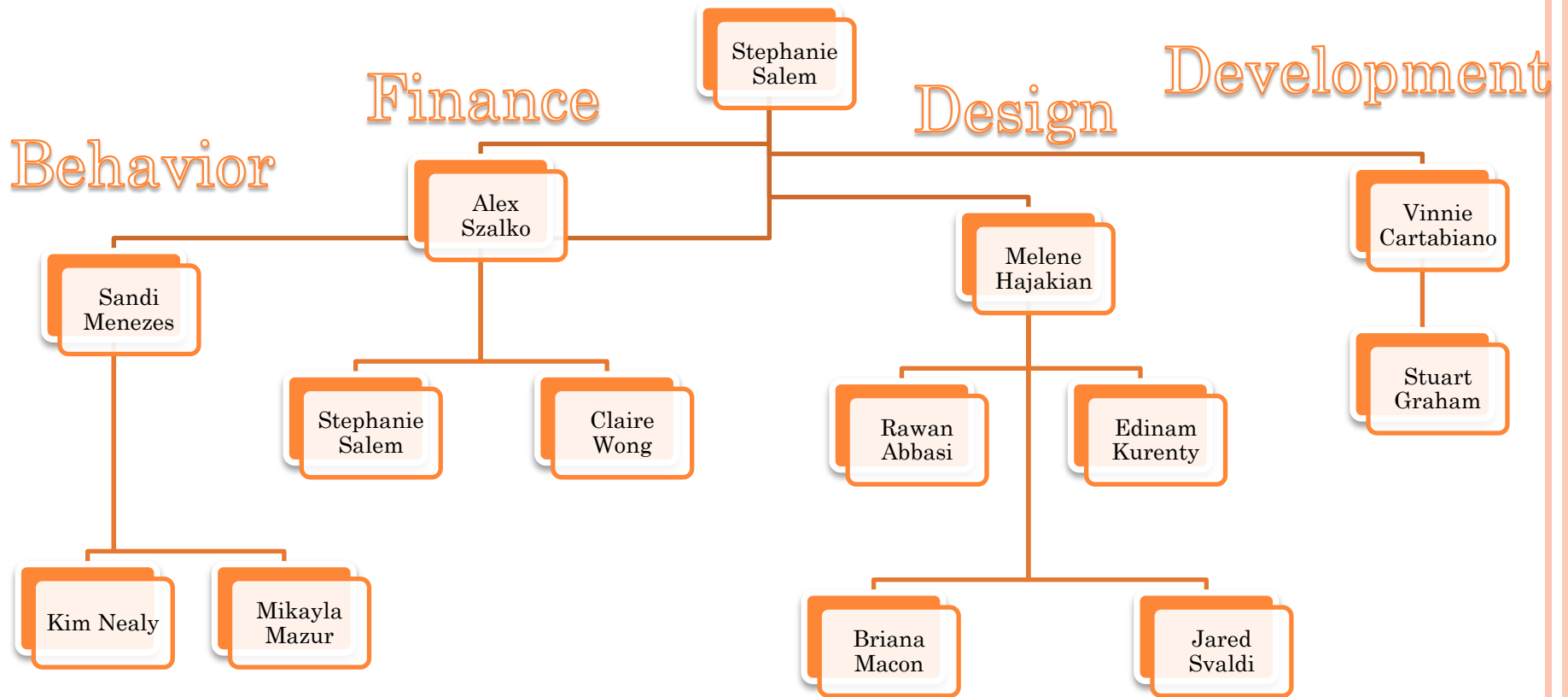
- Design and develop parental informant that increases parent/child communication

Finance

- Forecast key financial information
- Costs and app pricing



TEAM ORGANIZATION



CURRENT PROGRESS

Solidified game ideas for apps

Outlined iPhone development process

Worked with Danny Gandara to design testing protocol

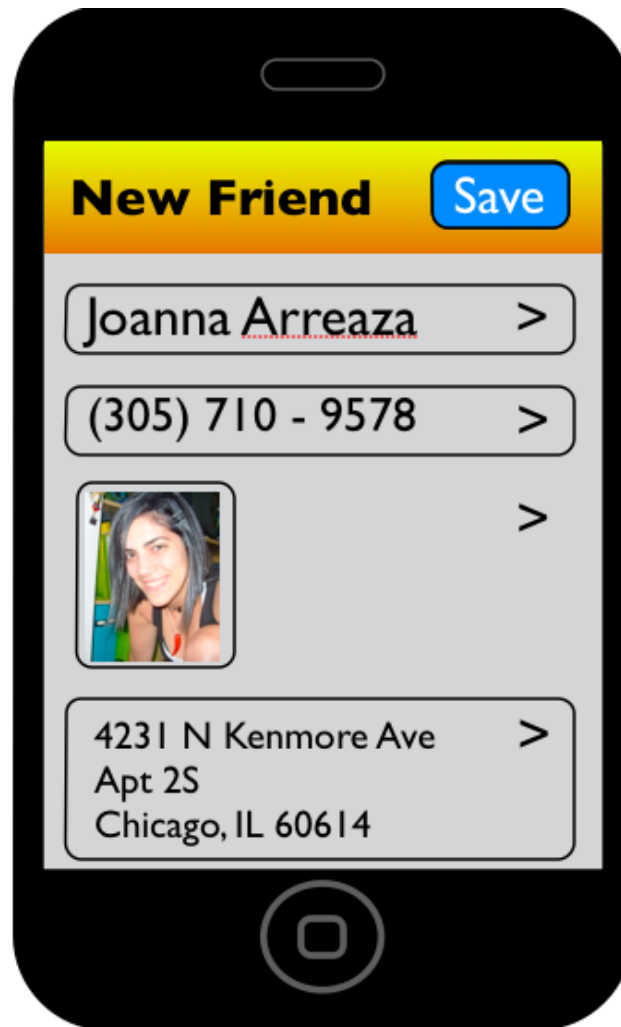
Created surveys for both teens and parents

Developing marketing mix and competitive advantage

Design template completed for “Clue-Me-In” app



“CLUE-ME-IN” APP



MAJOR OBSTACLES

- Going through and understanding the extensive research completed last semester
- Reaching a consensus on IPRO direction
- No psychology majors on the team (for designing a testing method)
- No computer science majors on the team (for developing the apps)



MAJOR CHALLENGES

Testing Protocol

- Limitation on human subject testing
- Legalities and liability

App Development

- Design games
- Complete development for 1+

Intellectual Property

- Create our own games while accurately measuring impairment



NEEDS/QUESTIONS/REQUESTS

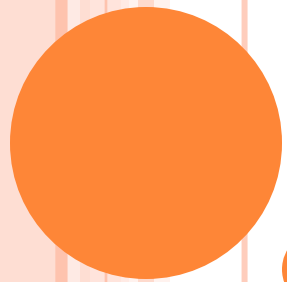


App development
professional or IIT
app development
class



Contact with
psychology professor
to help design testing
method





QUESTIONS?

Game Idea:	Measures:
Memory card game	Cognition, memory, reaction time
Word/color match game	Visual processing, cognition, reaction time, multitasking
Identify X colored car as it passes	Visual processing, cognition, reaction time
Organize number bubbles	Cognition, visual processing
Math games	Cognition, reaction time
Math obstacle course	Dexterity, cognition, multitasking, visual processing, balance
“Secret hand shake” game	Balance, memory
DDR game for fingers	Reaction time, visual processing
Spelling/word games	Memory, cognition

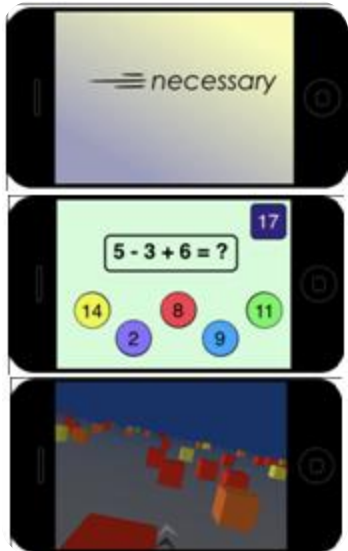
Substance	Symptoms								
	Impaired Memory	Impaired Cognitive Thinking	Poor Balance	Blurred Vision	Slurred Speech	Slowed Reaction Time	Poor Concentration	Drowsiness/ Sedation	Pupil Constriction/ dilation
Alcohol	X	X	X	X	X	X	X	X	X
Recreational Drugs	X	X	X		X	X	X	X	X
Prescription Drugs	X	X	X		X		X	X	
Sleepiness	X	X	X				X	X	X

ALCOHOL MEASUREMENT DEVICES

Technology	Direct	Indirect	Invasive	Non-invasive	Intoxication	Impairment
Near-Infrared Spectroscopy		x		x	x	
Multispectral imaging (finger printing)		x		x	x	
Breathalyzer		x		x	x	
Interlock		x		x	x	
Oculomotor and Pupil Tests	x			x		x
Field Sobriety Test	x			x		x

DRIVING PREVENTION

3 App tests



Interface

Failed tests
informs parents



Connect2Car prevents
child driving

