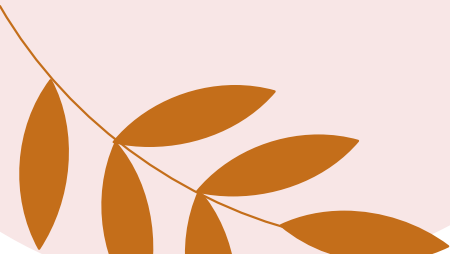


CS377G P3 Sugar Showdown

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Introduction



Overview/Premise

Welcome to the Sugar Showdown - the ultimate battle between healthy and junk food!

In this fast-paced strategy game, you'll play as one of two opposing teams: the Health E. Elementary School, a champion of healthy eating and good choices, or the SugarCo Company, a big bad corporation that wants to dominate the school food system with sugary snacks and drinks.

Your goal? To win the hearts and minds of the five most influential stakeholder groups in the school: the cafeteria staff, parent-teacher association, school administration, district board, and food vendors. But beware - each group has different motivations and priorities, and not all of them are easy to win over.

To succeed, you'll need to use your wits and your resources to strategize, outmaneuver your opponents, and get the majority of stakeholder support on your side.

So what are you waiting for? Join the Sugar Showdown and fight for your side! Will you be a champion of healthy living, or a sugar-coated villain? The choice is yours.

How to Play? - Part I

How to Win

There are two types of resources available in this game: money tokens and support tokens. The winning team is whoever gets influence from **three of the five stakeholder groups** first.

Each stakeholder group costs different amounts of support and money tokens.



**Parent Teacher
Association**

3 money
5 support



**Cafeteria
Staff**

5 money
3 support



**District
Board**

4 money
4 support



**Food
Vendors**

4 money
4 support



**School
Administration**

4 money
4 support

How to Play? - Part II

Set up the game

1. Divide players into two teams: Health E. Elementary School and SweetCo Company.
2. Place the support tokens, money tokens, and stakeholder cards in the center.
3. Place the team cheatsheets in front of each team.
4. Distribute **3 support tokens** to the school team.
5. Distribute **3 money tokens** to the company team.
6. Each team shuffles their respective deck of strategy cards and places it next to their team.

How to Play? - Part III

1. To start the game, both teams roll the 6-sided die. Whichever team rolls a **higher number** starts the first round of the game.
2. The game is played in rounds until a team wins. A round consists of **1 turn per team**.
3. To start the round, one team rolls a 6-sided die. **The team that rolls the dice alternates each round.** If you roll:

1	The school faces bureaucratic hurdles! The school cannot use any strategy cards this round, including Block cards.
2	An act around sugar usage in schools is now effective! The company cannot use any strategy cards this round, including Block cards.
3	The community rallies behind the school's efforts to promote healthy eating, providing additional resources! The school can take two actions during this round.
4	The company forms a strategic partnership with a powerful organization, giving them more resources to combat the school's efforts! The company can take two actions during this round.
5	The school receives a money token, a grant from the government!
6	The company receives a support token, a gift from venture capitalists!

How to Play? - Part IV

4. At the beginning of a team's turn, teams can spend money and support tokens to acquire **Stakeholder cards**. Stakeholder cards can only be obtained at the start of your turn. This is not considered an action.
5. Then, teams can play one of the following actions on their turn:
 - **Use a strategy card from your team's hand.** After use, place the strategy card in a discard pile for your team. If a team has discarded all their strategy cards, they can reshuffle their discard pile as a new deck to draw from.
 - **Purchase a strategy card for 3 money tokens or 3 support tokens.** After purchase, add the strategy card to your team's hand.
 - **Health E. Elementary School only:** Add 2 support tokens to your team's hand.
 - **SugarCo Company only:** Add 2 money tokens to your team's hand.
6. On a team's turn, they can also exchange resources **once**. This is not considered an action. To exchange, **4 support tokens => 1 money token** and **4 money tokens => 1 support token**.

How to Play? - Part V

7. Block cards are a type of strategy card that can block a strategy card played by your opponent. **Block cards cannot block other block cards.** Block cards can be played at any time, with two exceptions:
 - If a **1 is rolled by the die** in the current round, Health E. Elementary School cannot play any strategy cards, including Block cards.
 - If a **2 is rolled by the die** in the current round, SugarCo Company cannot play any strategy cards, including Block cards.

Artistic Overview



Artist Statement

In our game, we explore the intricate competition between candy corporations and schools vying for the support of stakeholders in providing nourishing meals for children. Our ecosystem models the dynamic interplay between marketing tactics employed by candy companies to encourage sugar consumption and the grants and educational initiatives implemented by schools to foster healthy dietary habits.

By simulating the fun of fellowship and challenge, we aim to educate players about the complex issues surrounding childhood nutrition and the competing interests that influence the food choices available to children. We want to raise awareness about the harmful effects of excessive sugar consumption and the importance of promoting healthy eating habits in schools.

By immersing players in a virtual ecosystem where they must make decisions about children's diet from the perspective of either competing side, we hope to foster a deeper understanding of the real-world implications of these issues and encourage players to take an active role in advocating for positive change.

Intended Audience

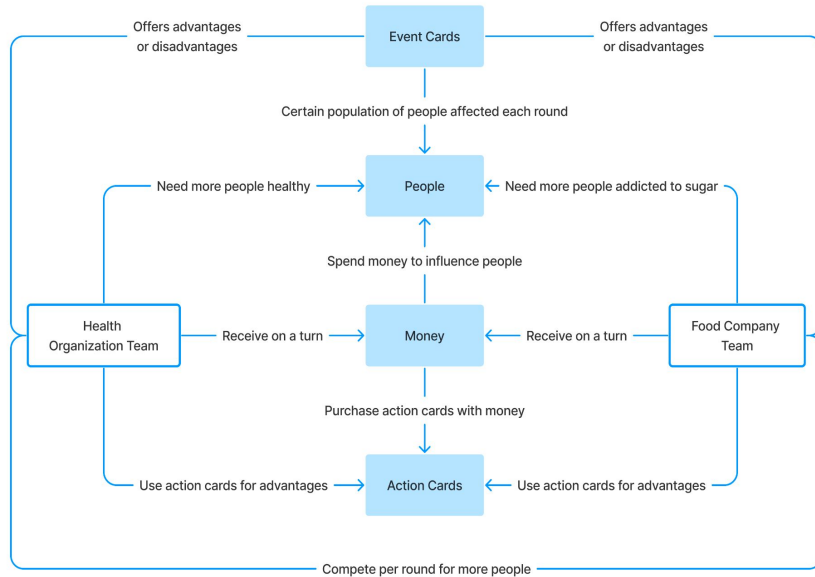
- The target audience is teenagers and young adults looking for some more involved and challenging forms of fun
- The game is very applicable to people familiar with U.S. culture as it deals with the sugar industry and its impacts on schools, an ongoing issue
- Because this game involves systemic thinking and strategy, it may not be suited for younger children and some of the themes may go over their head
- In line with that, the message would likely be most impactful for young adults

Learning Assessment

What do we want players to learn?

We hope that people develop a greater awareness about sugar marketing from food companies and how sugar affects health in reality, so that they can more easily differentiate false promotions in advertisements and packaging. Our players will also learn more about the tension and collaborations between the sugar industry and the schools including various strategies that both sides take to maximize profits or achieve public education goals.

Initial Concept Map



The concept map represents the relationships and actions that players can take in the game. It includes different nodes or elements such as food companies, health organizations, people, and sugar addiction, which are connected by lines or arrows to show how they interact with each other. The map highlights different gameplay mechanics and objectives for each team, as well as feedback loops that show how the actions of each team affect the nodes and relationships in the game. The game simplifies the concept of addiction by focusing on sugar as the addictive substance and children as the people in the game to reflect their reduced agency in their environment.

Formal Elements Evolution

Element Name	Initial	Final
Players	Players are separated into two teams, two people per team.	Same
Rules	Players attempt to buy the most “people” cards using “money”.	Teams make decisions as a whole and use resource (money, support) to get stakeholder groups’ influence.
Resources	Money	Money, support
Procedures	Each player takes turns to do actions. A round starts with a randomly drawn event that will give one of the teams some advantage or disadvantage, and ends if 15 people cards got acquired by the teams.	Two teams take turns to do actions. Two turns per round, a round started with a team rolling a die to determine a random consequence for the round.
Outcome	The team with the most “people” cards wins.	The team that gets 3 out of 5 stakeholder groups wins.
Conflict	Two teams compete against each other and the random disadvantaged event for the goal.	Same
Boundaries	The rules and the goals are applied only in the game.	Same

Values

Promoted marketing from food companies, which includes false promotions in advertisements and packaging, are affecting people's perspective about healthy lifestyles. The public needs to raise bigger awareness for the issue.

There is a strong tension between the sugar industry and schools, the former would like to maximize profits as possible while the latter would take to achieve educational outcomes. Both sides take various strategies for their goals.

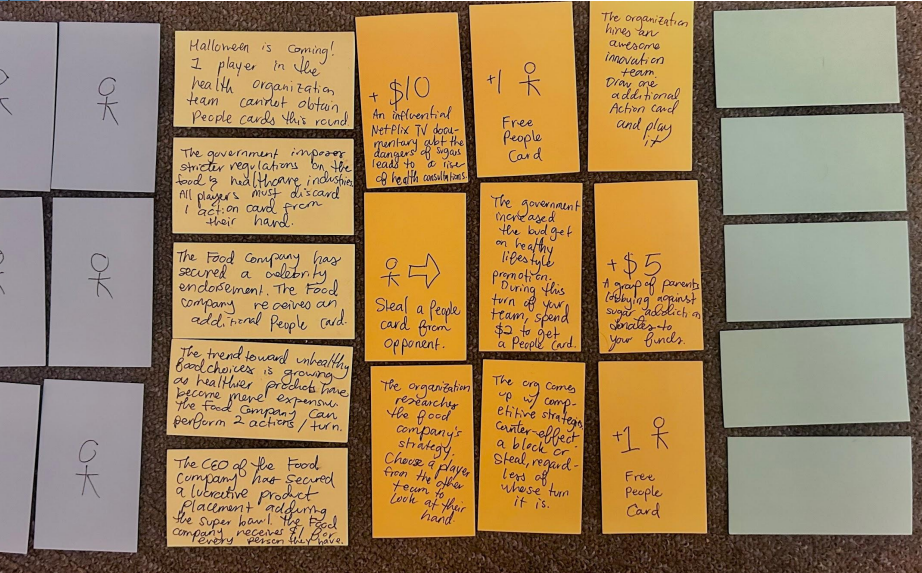
Schools usually gets lots of support and short of money, while the food industry might get lots of investment but need to seek support through marketing.



Playtest iterations

- Playtest 1
- Playtest 2
- Playtest 3
- Playtest 4
- Playtest 5
- Final Tests

Playtest #1 Paper Prototype



Playtest #1 Feedback

Pros

- The players enjoyed the collaboration aspect of the game
- The rules were easy for the players to understand and follow

Cons

Our first batch of players gave lots of feedback on how to make the game flow more smoothly.

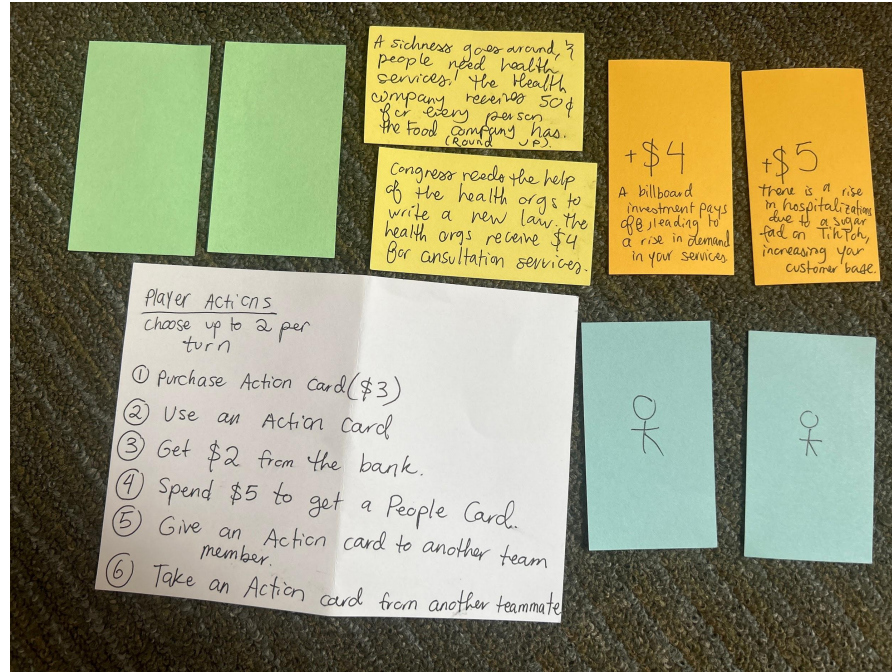
- 15 people cards are too many in one round, and one event card for the entire round is too long. Alternatively we did one event card per every player takes a turn, but we realized that a team can easily avoid the disadvantages (e.g. cannot play action cards) given.
- The effect time of the event cards can be clarified (immediately? Before/after a players turn?)
- Since each player can only take one action per turn, they could not do much, and the turns went by very quickly without changing the board much.

Playtest #1 Reflection

Changes we made

- We shortened each round such that it ends when either team gets 3/5/7 cards in the first/second/third round. This also make the event cards replaced more frequently.
- We decided to let the players take up to two actions per turn instead of one so that more interesting things can happen during a round, hopefully giving a more smooth dynamic of the future gameplay.

Playtest #2 Paper Prototype



Playtest #2 Feedback

Feedback:

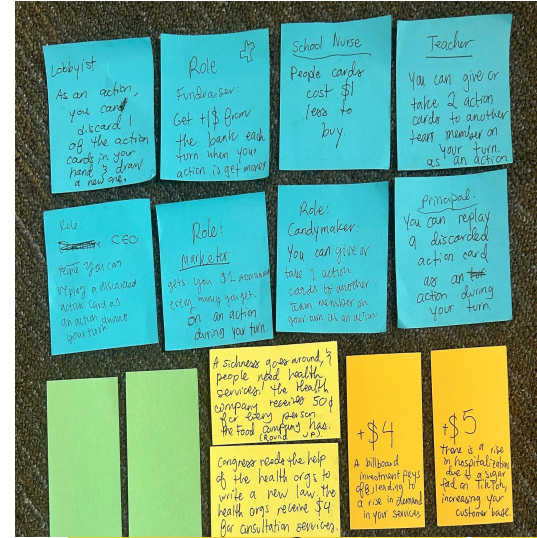
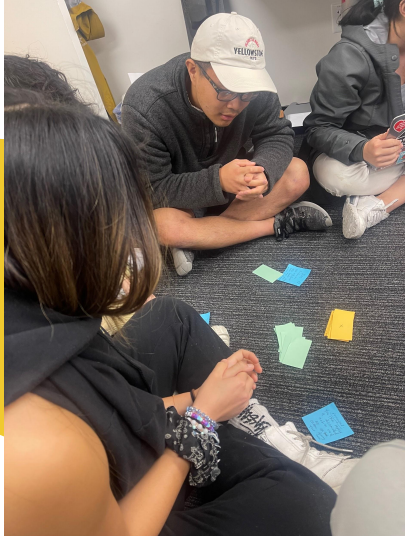
- Pros:
 - The team dynamic is fun!
 - People were sharing money with each other while playing.
- Cons:
 - No incentive to buy people when you can accumulate money
 - Add: narrative. What's the goal of the health organizations?
 - Add: the customers you get can generate money

Playtest #2 Reflection

Changes We Made

- Added roles to add more types of actions to the game specific to players.
- Only keep half your money in the next round.
- Add that the more customers you get, the more money you get.
- Create a narrative that ties the objectives of the game together.
- Choose up to two actions that you can play per turn.

Playtest #3 Pictures & Documentation



Playtest #3 Feedback

Feedback:

● Pros:

- Players are asking questions about game mechanics and clarifications, showing they are engaged with the game and interested in learning
- The game seems to be creating a fun and lighthearted atmosphere, as evidenced by the laughing and joking
- Both teams seem to be invested in winning, indicating that the game is engaging and competitive

● Cons:

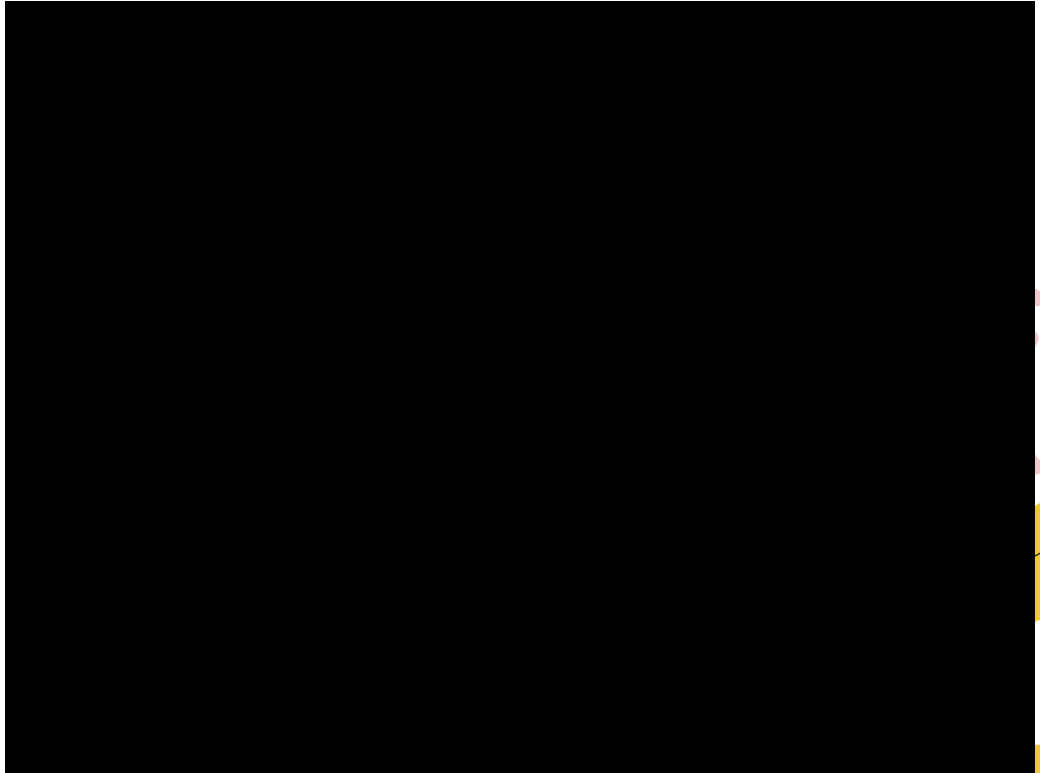
- Confusion on how many actions each player/team gets per round
- Concern over potentially insensitive language, such as the use of the term "buying children"
- A lot of deliberation and debate, which could suggest that some aspects of the game are unclear or need to be streamlined to reduce confusion
- Both teams having similar action cards and canceling each other out could be seen as an issue with game balance or lack of variety in game mechanics
- Only one round was played

Playtest #3 Reflection

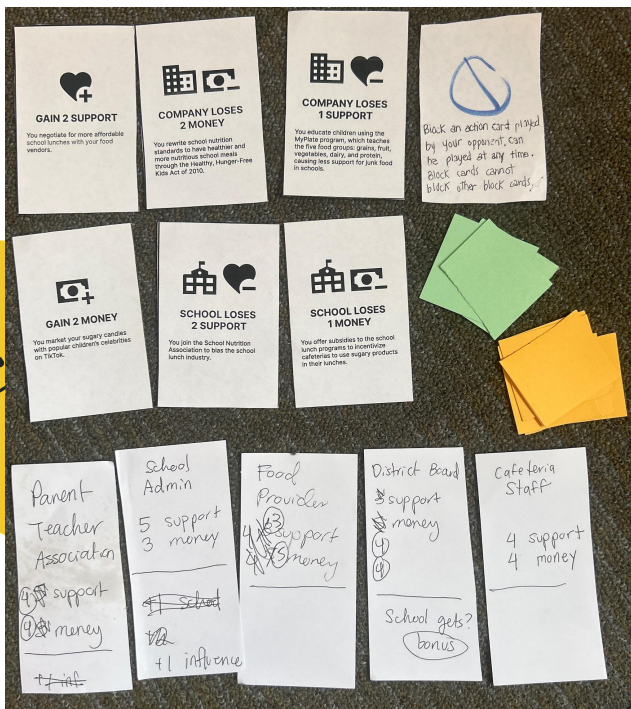
Changes We Made

- Introduced different roles or abilities for each team to differentiate them and reduce the chance of them canceling each other out
- Shortened rounds to only one
- Provided more context for action cards to reduce confusion and promote strategic decision-making
- Removed or balanced the "steal people" cards to prevent them from dominating gameplay and making other actions seem less useful








Playtest #4 Documentation



Playtest #4 Pictures



Section 1

 <p>SCHOOL LOSES 2 SUPPORT</p> <p>You apply for grants to provide training and technical assistance for child nutrition food service professionals and support stronger school nutrition education programs.</p>	 <p>SCHOOL LOSES 1 MONEY</p> <p>You apply for grants to provide training and technical assistance for child nutrition food service professionals and support stronger school nutrition education programs.</p>	 <p>COMPANY LOSES 1 SUPPORT</p> <p>You apply for grants to provide training and technical assistance for child nutrition food service professionals and support stronger school nutrition education programs.</p>	 <p>COMPANY LOSES 2 MONEY</p> <p>You apply for grants to provide training and technical assistance for child nutrition food service professionals and support stronger school nutrition education programs.</p>
 <p>GAIN 2 MONEY</p> <p>You apply for grants to provide training and technical assistance for child nutrition food service professionals and support stronger school nutrition education programs.</p>	 <p>GAIN 2 SUPPORT</p> <p>You apply for grants to provide training and technical assistance for child nutrition food service professionals and support stronger school nutrition education programs.</p>	 <p>BLOCK</p> <p>Block an action card played by your opponent. Can be played at any time. Block cards cannot block other block cards.</p>	

Playtest #4 Feedback

Pros

Mapping to the real world was more evident

- “We [the school] don’t get any money, and you [the company] don’t get any support, just the real woorld” - Gilbert
- Easy for the school to get support but not money, inverse for company
- Players predicted the actions of other team but were able to react differently based on resources

Game was conducive to comraderie

- Discussion facilitated sense of connection and unity on a team
- Competition brought high-fives when other team got bad news
- Teams would conspire and discuss, and then also interact with each other, which seemed like fun

Cons

Balance could be improved

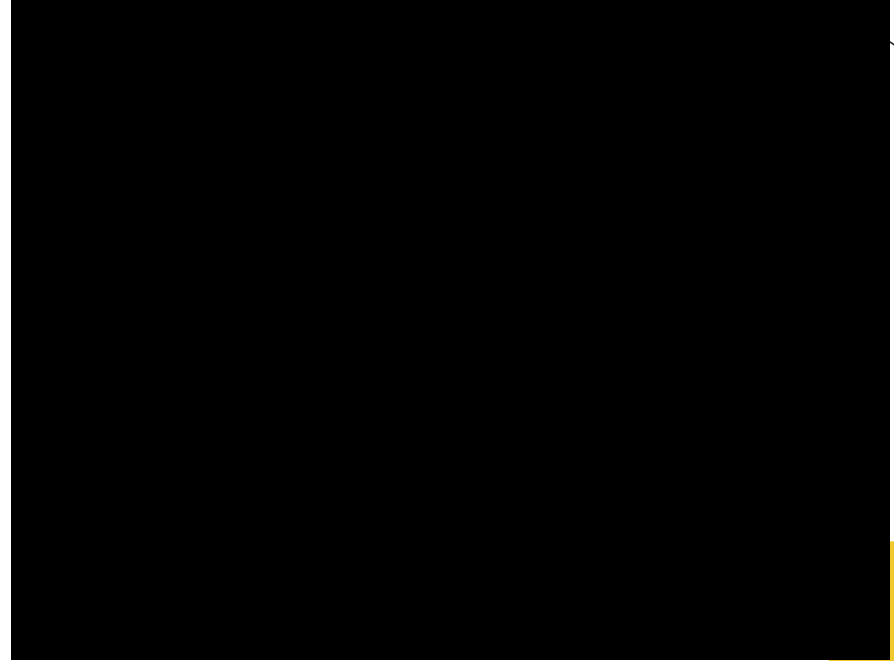
- To much incentive for changing actions; a suggestion was to make ratio 4:1 instead for converting stuff
- Clarifying the rules around block cards was important
- Choice felt limited with a role of the dice and limited action cards

Playtest #4 Reflection

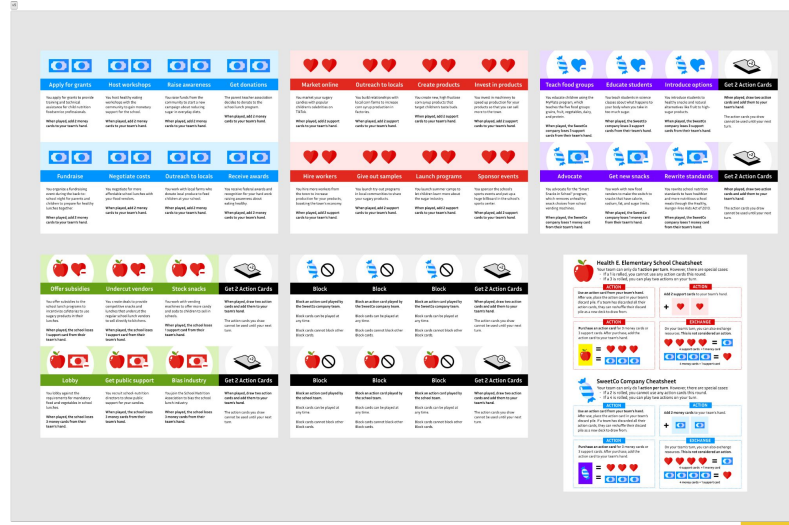
Changes we made

- We changed the ratio from 3:1 to 4:1 for exchanging cards
- Clarified the turn-taking for teams in the rules
- Fleshed out the design of more cards
- Added more events to the dice roll: roll X for two turns.
- Created cheat sheets for players
- Changed design of the cards
- Added some more actions for the sake of increasing the diversity of possible action cards (draw 2 action cards)

Playtest #5: Documentation



Playtest #5: Photos



Playtest #5 Feedback

Pros

- **Realistic role-based play:** Players seemed to dive into their roles.
 - When collecting money, the company team would comment how "We got passive income cards!" or how "I'm down to buy an action card now, so we can bill up a big amount of money so we can bank up a lot of actions."
 - The school approached getting support by "Let's start saving early on" and "Save this for a crucial moment later on." The teams that people chose also influenced how the players played the game.
- **Modeling the system:** Players commented how "This game is actually hella intuitive when you play it" and how "I'm not sure it's binary how things are in real life, but I still like the game dynamic. I like that there's two different currencies that only certain teams can interact." or "You really think about what you have to do and how to play your cards."
- **Dice rolls:** Players loved interacting with the dice rolls like real-world events to create strategies and how "I think the dice roll is interesting and adds a level of randomness you can predict." For example, players commented how "We don't have two turns to secure the dub rn" and waited until strategic moments to take actions.

Playtest #5 Feedback

Cons

- **Clarifying the rules:**
 - There was some confusion about when a team could get the stakeholder cards' influence, wondering whether "Getting the stakeholder card should be considered an action or not?"
 - Additionally, people kept confusing action cards with actions on your turn.
 - Players also exchanged all their money to support at the end which prevented people from being able to attack their team.
 - Players weren't sure when they could block other teams.
- **Game balance:**
 - Certain cards didn't feel balanced with taking away support or money from the other team. A team commented how "They get two every time, you can only take 1 with this card."
- **Game length:** Although players appreciated that the game took ~1 hour to play, which seemed realistic as a co-op game, certain parts of the game felt slow due to the loss of action cards, saying "Not being able to slow down an action card is already a large penalty. Feel like this game moves slowly." However, they liked that this prevented their opponents from blocking their actions.

Playtest #5 Reflection

Changes we made

- Rename action cards to strategy cards to make it less confusing between an action in your turn vs. action card
- Players can only exchange once once on their turn
- Rename money cards / support cards to money tokens / support tokens
- Add dice roll events to give your team valuable resources
- Create stakeholder card design
- Balance the game for attacks between players
- Clarify rules for blocking and getting stakeholder cards.



Final Tests

Our hard work towards making this game fun and meaningful finally paid off :)

Apply for grants
You apply for grants to provide training and technical assistance for child nutrition foodservice professionals.
When played, add 2 money cards to your team's hand.

Host workshops
You host healthy eating workshops with the community to gain monetary support for the school.
When played, add 2 money cards to your team's hand.

Raise awareness
You raise funds from the community to start a new campaign about reducing sugar in everyday diet.
When played, add 2 money cards to your team's hand.

Get donations
The parent teacher association decides to donate to the school lunch program.
When played, add 2 support cards to your team's hand.

Fundraise
You organize a fundraising event during the back-to-school night for parents and children to prepare for healthy lunches together.
When played, add 2 money cards to your team's hand.

Negotiate costs
You negotiate for more affordable school lunches with your food vendors.
When played, add 2 money cards to your team's hand.

Outreach to locals
You work with local farms who donate local produce to feed children at your school.
When played, add 2 money cards to your team's hand.

Receive awards
You receive federal awards and recognition for your hard work raising awareness about eating healthy.
When played, add 2 money cards to your team's hand.

Market online
You market your sugary candies with popular children's television on TikTok.
When played, add 2 support cards to your team's hand.

Outreach to locals
You build relationships with local farmers to increase farm-to-school production in future.
When played, add 2 support cards to your team's hand.

Create products
You create new high-taste candy products that target children's taste buds.
When played, add 2 support cards to your team's hand.

Invest in products
You invest in machinery to speed up production for your products so that you can sell more in the town.
When played, add 2 support cards to your team's hand.

Hire workers
You hire more workers from the town to increase production for your products, boosting the town's economy.
When played, add 2 support cards to your team's hand.

Give out samples
You launch try-out programs in local communities to share your sugary products.
When played, add 2 support cards to your team's hand.

Launch programs
You launch summer camps to let children learn more about the sugar industry.
When played, add 2 support cards to your team's hand.

Sponsor events
You sponsor the school's sports events and get a huge billboard in the school's sports center.
When played, add 2 support cards to your team's hand.

Teach food groups
You educate children using the MyPlate program, which teaches the five food groups: grains, fruit, vegetables, dairy, and protein.
When played, the SweetCo company loses 3 support cards from their team's hand.

Educate students
You teach students in science classes about healthy alternatives like fruit to high-sugar products.
When played, the SweetCo company loses 3 support cards from their team's hand.

Introduce options
You introduce students to healthy snacks and reduced alternatives like fruit to high-sugar products.
When played, the SweetCo company loses 3 support cards from their team's hand.

Get 2 Action Cards
When played, draw two action cards and add them to your team's hand.
The action cards you draw cannot be used until your next turn.

Advocate
You advocate for the "Smart Snacks in School" program, which removes unhealthy snack choices from school vending machines.
When played, the SweetCo company loses 1 money card from their team's hand.

Get new snacks
You work with new food vendors to make the snacks in your school more nutritious and healthier through the Healthy Hunger Free Kids Act of 2010.
When played, the SweetCo company loses 1 money card from their team's hand.

Rewrite standards
You rewrite school nutrition standards to have healthier and more nutritious school meals through the Healthy Hunger Free Kids Act of 2010.
When played, the SweetCo company loses 1 money card from their team's hand.

Get 2 Action Cards
When played, draw two action cards and add them to your team's hand.
The action cards you draw cannot be used until your next turn.

Offer subsidies
You offer subsidies to the school lunch program to incentivize attendees to use sugary products in their lunches.
When played, the school loses 1 support card from their team's hand.

Undercut vendors
You create deals to provide competitive prices and lures that undercut the regular school lunch vendors to sell directly to kids.
When played, the school loses 1 support card from their team's hand.

Stock snacks
You work with vending machines to offer more candy and soda to children to sell in schools.
The action cards you draw cannot be used until your next turn.

Get 2 Action Cards
When played, draw two action cards and add them to your team's hand.
The action cards you draw cannot be used until your next turn.

Lobby
You lobby against the requirements for mandatory food and vegetable in school lunches.
When played, the school loses 2 money cards from their team's hand.

Get public support
You recruit school nutrition directors to show public support for your candies.
When played, the school loses 3 money cards from their team's hand.

Bias industry
You join the School Nutrition Association to bias the school lunch industry.
When played, the school loses 3 money cards from their team's hand.

Get 2 Action Cards
When played, draw two action cards and add them to your team's hand.
The action cards you draw cannot be used until your next turn.

Block
Block an action card played by the SweetCo company team.
Block cards can be played at any time.
Block cards cannot block other Block cards.

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Block an action card played by the SweetCo company team.
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Block an action card played by the SweetCo company team.
Block cards can be played at any time.
Block cards cannot block other Block cards.

Get 2 Action Cards
When played, draw two action cards and add them to your team's hand.
The action cards you draw cannot be used until your next turn.

Block
Block an action card played by the school team.
Block cards can be played at any time.
Block cards cannot block other Block cards.

Block
Block an action card played by the school team.
Block cards can be played at any time.
Block cards cannot block other Block cards.

Block
Block an action card played by the school team.
Block cards can be played at any time.
Block cards cannot block other Block cards.

Get 2 Action Cards
When played, draw two action cards and add them to your team's hand.
The action cards you draw cannot be used until your next turn.

Health E. Elementary School Cheatsheet
Your team can only do 1 action per turn. However, there are special cases:
- If a 3 is rolled, you cannot use any action cards this round.
- If a 4 is rolled, you can play two actions on your turn.

ACTION
Use an action card played by your team's hand.
After use, place the action card in your team's discard pile. If a team has discarded all their action cards, they can reshuffle their discard pile as a new deck to draw from.

ACTION
Add 2 support cards to your team's hand.
+ 2 support cards = 2 support cards

EXCHANGE
On your team's turn, you can also exchange resources. This is not considered an action.
3 support cards = 1 money card + 1 support card
1 money card + 1 support card = 3 support cards

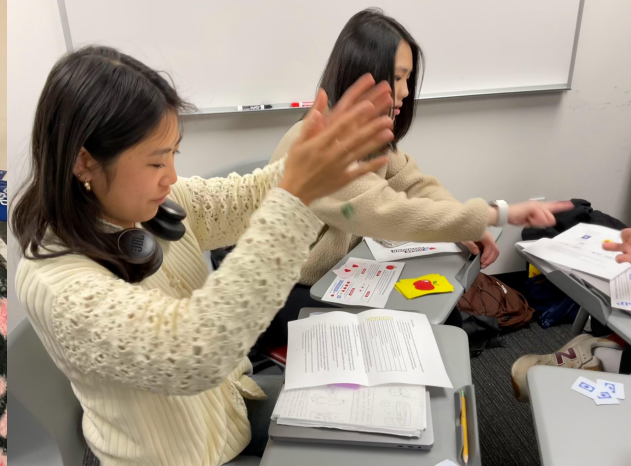
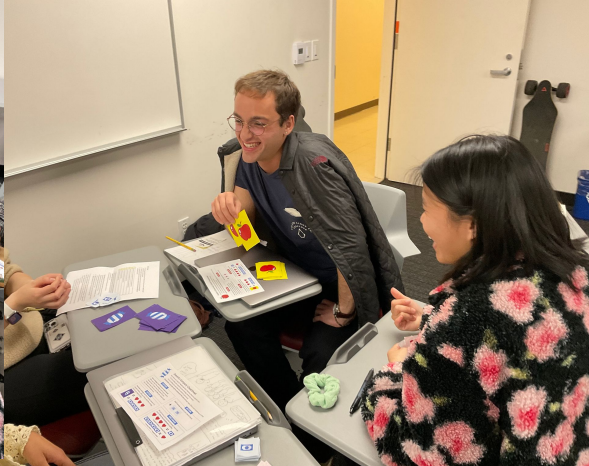
SweetCo Company Cheatsheet
Your team can only do 1 action per turn. However, there are special cases:
- If a 2 is rolled, you cannot use any action cards this round.
- If a 4 is rolled, you can play two actions on your turn.

ACTION
Use an action card from your team's hand.
After use, place the action card in your team's discard pile. If a team has discarded all their action cards, they can reshuffle their discard pile as a new deck to draw from.

ACTION
Add 2 money cards to your team's hand.
+ 2 money cards = 2 money cards

EXCHANGE
On your team's turn, you can also exchange resources. This is not considered an action.
3 support cards + 1 money card = 1 money card + 3 support cards
1 money card + 3 support cards = 3 support cards + 1 money card

Playtest #6 Documentation



Playtest #6 Feedback

Pros

- A lot of laughter in the game! :) We heard people having the most fun with dice rolls since the outcome was unpredictable.
- The die-rolling mechanics give more playability to the game. To make it better, we adopted Gilbert's suggestion to thematize the rolls (e.g., you roll a 3, the government decides to support the school more this round, so the school can make 2 actions.)

Cons

- The alternating turns and dice rolling were confusing to people. We decided not to alternate anymore!
- The "Get 2 Strategy Cards" cards are very powerful, especially when our players drew all three of them in a row. We may want to reduce the number of those cards.
- The exchange part of the cheatsheet is a bit confusing because of the "=" sign. Our players thought they can use one resource in exchange for four other resources. We should definitely change it to "=>" instead.

Next Steps

If we have a chance to continue developing our game, potential next steps include

- Developing a stronger aesthetic sense and narrative
- Experiment with the balance of stakeholders a bit more
- Potentially re-introduce roles and special abilities



Thanks for readin'!



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