Two Wins to Win

Final Report

EXECUTIVE SUMMARY

Two Wins to Win is a game designed by an interdisciplinary team composed of artists, designers, a computer scientist, and a business professional. The game is designed to transform the way current college students, recent graduates, or any job seekers approach salary negotiations in their job offers. Through our initial research we discovered that 84% of Gen Z workers aged 18-24 and 74% of Millennial workers aged 25-34 accepted the first salary they were offered[1]. We hope that, through the gameplay experience and post-gameplay reflection, players will be able to approach professional salary negotiation with more confidence by learning strategies and terminology used in practice and through practice from the board game.

This game is a two-player cooperative/competition board-based card game, where players figure out how to apply negotiation strategies in order to achieve their interests and maximize their scores. The caveat being, both players must have positive scores in order for any of the players to be declared a winner. The players act out scenarios as a recruiter and recruit, trying to achieve an offer fit to their best interests while maintaining a win-win situation.

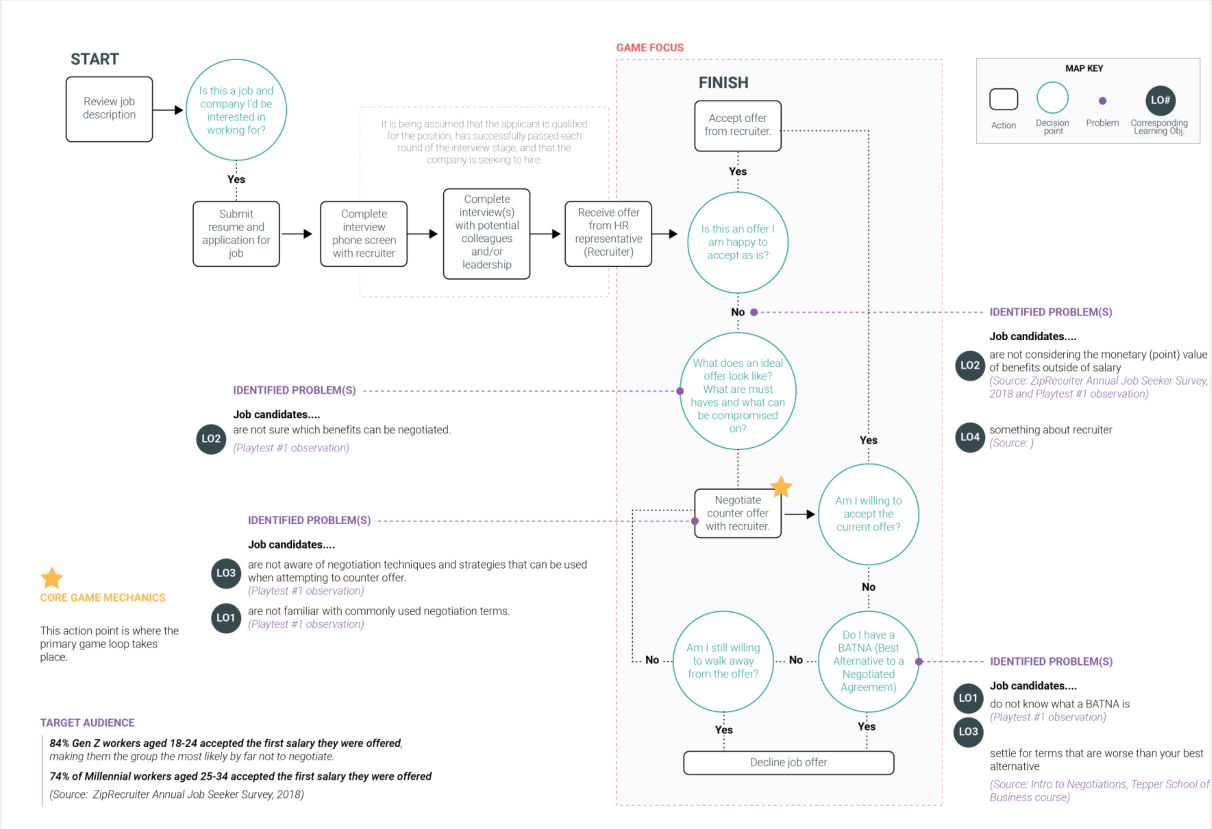
Currently in this prototype, there is one set of personas, a HoverCraft Designer and a job recruiter from HOVER, Inc.©, a hovercraft company. We imagine, with further iteration, there would be multiple personas that players can pick from to role-play different circumstances.

[1] *The Zip Recuiter 2018 Annual Job Seeker Survey*. (2018, December 13). The Zip Recuiter. https://www.ziprecruiter.com/blog/ziprecruiter-2018-annual-job-seeker-survey/

LEARNING GOALS

In the early stages of brainstorming, we found ourselves wondering if we could develop a game that would help our peers (and even ourselves), to more confidently navigate the complex and often intimidating process of job interviews and offer negotiation. As we mapped the process from interview to accepting and offer, we suspected that the offer negotiation especially possessed a unique opportunity for learning. Then upon reading that 84% of Gen Z workers aged 18-24 and 74% of Millennial workers aged 25-34 accepted the first salary they were offered[1] our interest became concrete. Finally, in conversations with peers, many of whom fell directly into our target audience, our suspicions confirmed that there was a level of discomfort when it came to negotiating job benefits.

Upon establishing our subject area, we were eager to identify problem areas that our target audience may experience in the negotiation process from which we could use as a basis to derive our learning objectives. (Seen below in *Job and Negotiation Map*)



Job and Negotiation Map

Link to full-size image

As our game development progressed and our early rounds of playtest and feedback were completed, it became clear that we needed to shift our mindset to what the player would be able to do *after the completion of the game*, rather than what objectives they would meet during. We also found with regards to quality, we would need to increase the specificity of the objectives, pointing to specific terms and strategies rather than using more vague, overarching language.

We also found in the early stages of researching how the skill of negotiation was being taught, particularly to students learning interest-based negotiation skills, that it was often exercises rather than fully gamified situations that were being utilized. Additionally, these exercises were very clearly meant for use in educational settings and often with companion curriculum and/or instructor facilitation.

On the other end of the spectrum, existing games that we did find aiming to teach the player about negotiation avoided focusing on the specific setting of a job offer. A major concern we had with this route was the reduced potential transfer for that setting. We also believed that taking it too far out of the professional setting created potential for our players to see negotiation as a battle, where you try to get what you want purely at the experience of the other player, which would be a detriment when negotiating in a professional setting. Therefore, we felt that there was a place to bridge these two extremes and create a game which takes an innovative approach on negotiation.

Influence on Learning Objectives

The initial establishment of learning goals for *Two Wins to Win* was greatly influenced by the objectives of 45-840 Negotiations, a course offered through the Tepper School of Business at Carnegie Mellon. This particular course was especially influential as a member of our development team had first hand experience taking the course.
However, through the evolution of our game design and through our reflection upon feedback, we became aware that our learning goals would benefit from further iteration and more research. What we found was that many universities offered curriculum on negotiation from which we could draw influence.

For example, an offering on Interest-Based Negotiation from Syracuse University's Maxwell School, emphasized the importance of relationships and acknowledged the dependency that both parties in a negotiation have on each other 'to achieve a common goal or objective."[2] This was a significant influence to our fourth learning objective (*LO4:Role-play as a human resources professional "recruiter" to better understand the role of the*

[2] *Interest Based Negotiation*. (1995). https://www.maxwell.syr.edu/. https://www.maxwell.syr.edu/uploadedFiles/parcc/cmc/Interested-Based%20Negotiation%20NK.pdf

company representative in the negotiation process.) We believe the achievement of this learning objective, following the completion of playing Two Wins to Win, puts players in a position to recognize the value of their counterpart, emphasize with the situation they are in, and more quickly recognize the value that they bring to the negotiation. This idea of having a valued partner to reach a "mutually acceptable outcome" with, would ultimately be a primary theme within our game.

An additional example of the influence our research had on our learning objectives is found in learning objective one (*LO1:Identify concepts associated with the practice of negotiation and the role they play, for example: logrolling, anchoring effect, and BATNA.*) As discussed in the Harvard Law School, Program of Negotiation's *Report on Understanding Role-Play in Negotiation*, "students who participate in multiple simplified simulations that highlight logrolling opportunities can compare and contrast their experiences,which can help them extract an understanding of logrolling principles[3]." Within our game, we wanted to provide an opportunity for players to do just that.

Integration

When considering the integration of our learning goals into the game mechanics and game experience. We identified opportunities to utilize the **application** principle by challenging players to put their newly acquired knowledge, via tip cards, immediately into use with their scripted prompts. These tip cards also drew on the influence of the **variation** principle as the players would experience varied scenarios and utilize a number of different strategies as they practiced the abstract concepts. Given the extremely unlikely possibility of players finding themselves in two identical scenarios in the real world, it was important to prepare players to apply their knowledge in all the varied situations of life.

A final and major component to the integration techniques used within the game, is the effort to provide an **anchored learning** experience, to simulate the near real world salary negotiation between the recruit and recruiter. This engages the player in realistic problem-solving, and in turn, emphasizes the connections between the game and the real world. All being said, the influence of these principles were top of mind when developing our experience goals, discussed in greater detail below. Through the process of iterating and playtesting our game, we modified and clarified these experience goals and mechanics to ensure that the player experiences which arose from gameplay enabled our learning objectives.

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[3] Phillips, M. (2020, May 7). *Teaching Negotiation: Understanding The Impact Of Role-Play Simulations*. PON - Program on Negotiation at Harvard Law School. https://www.pon.harvard.edu/freemium/teaching-negotiation-understanding-the-impact-of-role-play-simulations/

Learning Objectives	
LO1	Identify concepts associated with the practice of negotiation and the role they play, for example: logrolling, anchoring effect, and BATNA.
LO2	Identify negotiable benefits commonly included in a job offer including: salary, signing bonuses, PTO, work location, work hours, gym membership, moving reimbursements, pet care, daycare, childcare, and more.
LO3	Identify and implement negotiation strategies such as Interest-Based Negotiation, Logrolling, and Generate Option Strategy.
LO4	Role-play as a human resources professional (recruiter) to better understand the role of the company representative in the negotiation process.

Final Learning Objectives

EXPERIENCE GOALS

When we were initially brainstorming the player experience, we had a lot of ideas about hidden information mechanics in our gameplay. This was inspired by existing social deduction games, since we were hoping to mimic the hidden information that people withhold from each other during negotiation. However, after prototyping and playtesting, we refined our experience goals to focus more on creating a low-risk game environment where players would be able to comfortably practice win-win negotiation skills, which better aligned with our revised learning goals.

Additionally, we added experience goals to attract players who may not inherently find negotiation interesting, by incorporating creative roleplay, competitive, and cooperative experiences. We believe that the balance between competition and cooperation is an interesting gameplay experience, which isn't commonly seen in negotiation games. Furthermore, we developed new mechanics based on the tip cards to facilitate roleplay. Tip cards provide short snippets of dialogue, to guide the player in applying a negotiation skill to their conversation while still allowing for the player to creatively decide what to say and practice applying their skills.

Final Experience Goals (EGs):

EG1: Semi-competitive: Negotiation is all about working together with your counterpart and creating a win-win situation. Therefore, we would like to create a game where both players care about each other, not just aiming to win at the expense of another. Ultimately, we want them to be thinking about how to achieve both their own interests and the interests of the other player.

EG2: Cooperation & Problem Solving: By the end of the game, players should reach a resolution where they agree on the final deal, meaning that the process of the game guides them towards that resolution.

EG3: Roleplay & Experimentation: In real life, people get anxious about salary negotiation. While simulating that anxiety in the game would make it feel more real, we would rather give the player an environment to freely experiment with negotiation strategies without the real-world consequences for failure. Therefore, we have designed this game so people who don't have experience in salary negotiation, e.g. college students, could have an opportunity to experience and familiarize themselves with the salary negotiation process within a fictional setting. We emphasized this goal by providing the persona cards (recruit and recruiter) to both players.

EG4: Humor: Building off of the previous experience goal, much of the peer feedback mentioned that one of the most fun and interesting parts of playing a role-playing game is humor. We introduced humor into the roleplay aspect of our game so people could enjoy the game with comfort.

EG5: Progressive Information Disclosure (and Non-Disclosure): Another important aspect of negotiation is trying to understand the underlying interests of the other side. In the beginning of the game, both players keep hidden information from the other player, such as their top priority, and work towards achieving their interests while uncovering the hidden information from the other player to attempt to ensure a win-win agreement.

Key Game Components and Design Decisions:

1. Interest Card

Relevant experience goals: Hidden Information (EG5), Cooperation & Problem Solving (EG2)

This component mimics how in negotiation, the interests of the negotiating parties are not disclosed at the beginning, but rather are discovered during the conversation. In our first prototype, each player had 3 hidden interest cards. However, during playtesting we saw that this mechanic clashed with the modifier cards (which we later replaced with tip cards). At the time, we included a mechanic where players could draw more modifier cards if they revealed an interest card, but we found that players didn't understand how this would have a negative impact on their ability to achieve those interests later.

In the final version of the game, we decided that players would only have 1 top priority interest card, placed face down on the table, and would keep 2 more interest cards in their hand during gameplay. Players now draw tip cards independently, so interest cards aren't flipped face up during the game. Instead, players may discover the interests of the other player more organically, based on the conversation itself. In addition, the 2 interest cards which remain in the player's hand help the player gain points in a situation where they fail to achieve their top priority, which reduces the pressure on achieving the top interest and allows them more flexibility in gameplay strategy.

2. Offer Card
Relevant experience goals: Semi-competitive (EG1), Cooperation & Problem Solving (EG2)

The offer card provides a platform for the players to keep the current offer visible to both players. Originally, the offer cards were played in the active negotiating zone for each offer category. After playtesting, we found that tracking the current position of offers and points on the card was quite difficult, and it distracted players from the main learning objective of this game--the negotiating process.

Therefore, we revised how offers are represented by introducing the long card with a moving scale component, a slider. This new format gives a more obvious visual indicator of each player's current offer position to reduce the mental load on the players to remember it themselves. We also add the base point, which conflicts between 2 players, so that both players need to negotiate, solve, and get the optimal deal for themselves.

3. Tip Cards
Relevant experience goals: Cooperation & Problem Solving (EG2), Roleplay & Experiment (EG3), Humorous (EG4)

In the previous version, we have the modifier cards which were designed to tie the negotiation mechanics and approach to the core gameplay. Each modifier card would have a verb such as increase, decrease, relocate, offer, etc., representing how it would modify the offer that was being played against while negotiating. However, as we previously described, the modifier cards faced the same issues of position tracking after stacking. Additionally, players would draw modifier cards which went against their own objectives and strategy, which led to frustration.

As a result, we decided to replace the modifier cards with tip cards, which are more versatile and less specific than the modifier cards. Tip cards give more explicit advice on negotiation approaches and strategies, including a prompt for them to say out loud as they play the card. This card is also a way for us to introduce role playing and humor since players can improvise how they choose to say the quote on the card.

4. Extra Benefits
Relevant experience goals: Cooperation & Problem Solving (EG2), Humorous (EG4)

In negotiations, people should always look for creative solutions. In this game, we introduced 8 extra benefits as the other additional creative ways on which the recruit can earn more points and think outside of the box. It also brings the fantasy elements such as petting the dragon or working on Mars to the game, making the role-playing part feel more entertaining. At first, we put the extra benefits alongside the interest cards, however, we decided to explicitly separate them as their own unique components so that players don't feel obligated to cope with them. Also, having the extra benefits on the board, instead of hidden cards, reminds both sides to think about the other way around to sweeten the deal.

5. Point System
Relevant experience goals: Semi-competitive (EG1), Hidden Information (EG5)

The scores are hidden to include a competitive element and increase the bargaining power of players during negotiation. The original point system design of players achieving the condition in the interest cards to gain points and score multiplier/penalty consistently stays the same throughout our design. However, we iterated many ways of where the points should be on which card type (interest card, modifier card, etc). During the playtesting, we found that having the points in action cards complicated the calculation

and the point tracking. Now in the current iteration, only interest cards and offer cards have scoring mechanics to simplify the scoring system.

IDEATION/PROTOTYPING

Brainstorming

Throughout our design process we used three platforms to brainstorm and ideate the card mechanics, board design, and card designs.

- See the Miro Brainstorming Board
- See Prototype Figma Link (Page: Iteration)
- See Prototype 1 for Playtesting Session 1
- See Final Prototype

We began by brainstorming several ideas for the topic our educational game would cover. Some of our initial ideas included: financial budgeting, adobe illustrator tools, color theory, empathy, collaboration, and sign-language. After honing down on three potential topics, the group decided on interviews and salary negotiations, due to the potential for unique mechanics.

Once the topic was settled on, we began our initial research on negotiation strategies and potential card mechanics that could tackle these strategies. Our initial list of card type ideas included: scenario cards (e.g. startup company), roles (recruiter/recruit), skills and experiences, circumstances (e.g. location change), pay and benefit cards (e.g. salary, bonuses, PTO, etc.), and negotiation techniques. After significant development we were able to produce an initial prototype which included “Action Cards” (currently Tip Cards), “Passive Cards” (currently embodied in the Personas), “Wants and Needs” (currently Interest Cards), and Priority Tokens (currently Top Priority Slot). The gameplay in the initial prototype featured a back and forth of “Active Cards” (e.g. add $10k salary, increase/decrease PTO by 10 days, etc.) in an attempt to come to an agreement to a final salary, PTO/Vacation days, and work locations.

Prototyping / Playtesting / Iteration

From our first playtest we noticed a fair amount of issues that we needed to tackle to create a remotely *playable* game. To tackle some of these major issues, we came up with these following solutions:

1. Players drew Modifier cards that they couldn't use

To fix this issue, we simply replace the Modifier cards with a new card type called Tip cards. The Recruit and the Recruit have separate decks of Tip cards which they draw from, to ensure that they won't only draw cards which are detrimental to their own points.

2. Little Negotiation Support

After user-testing and further iteration, the core mechanic of the back and forth of "Active Cards" was modified to incorporate a more verbal communicative element to the game through Tip Cards. The new Tip Cards include Negotiation Strategies and scripted dialogue on how to use the card. After our playtest, we found that roleplaying was a very interesting aspect of the gameplay. Hence, we wanted to create cards that guide and prompt players on what to say, to make them more comfortable with adopting the role the game has provided them. Additionally, the Tip Cards better integrates our learning objectives by providing negotiation strategies, which allows players to actually learn and practice negotiation skills.

3. Difficult to Keep Track of the Current Offer

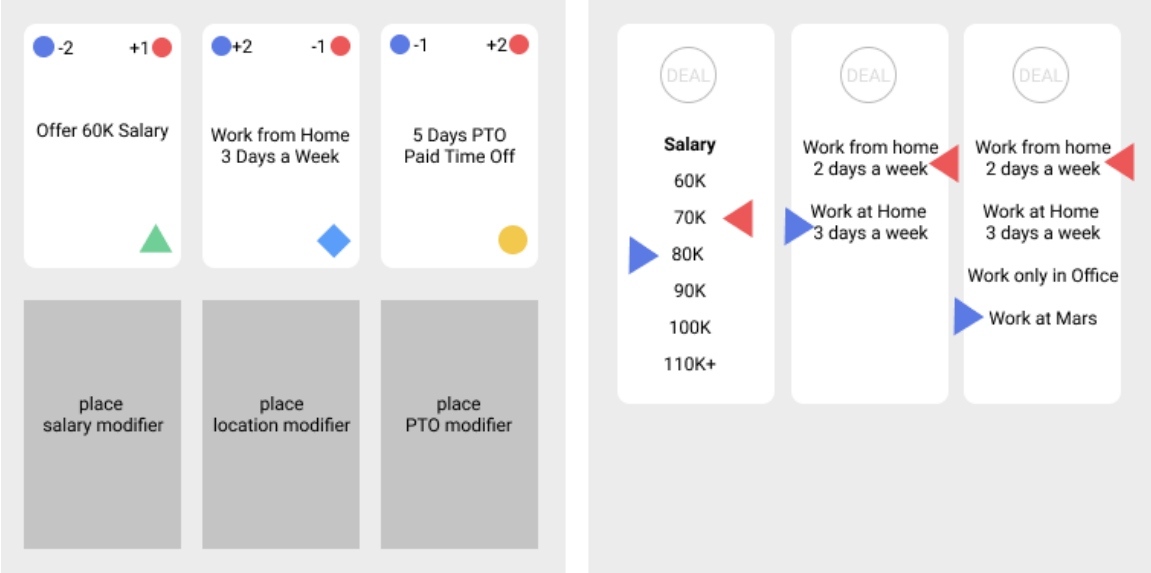
In our initial prototype, each card showed an increase or decrease in points for both players. This got complicated with modifier cards since players spent too much time calculating the scores before they placed down a card. Hence, in our second prototype, we only have the points shown on the Interest Cards. Players can gain these points if that specific interest is in the final benefits package. In addition, we changed the offer cards to a long card with a recruit slider and recruiter slider. The two sliders help keep track of the current offer for both players and give a visual indicator of where and by how much their offers differ.

During our second playtest session, we noticed that the players were still having difficulty keeping track of their own points and progress in the game. In order to create more clarity for the players, we further developed the board design to display all of the potential scores the players had (outside of the interest cards). Moreover, due to the confusion of the two priority slots with different multiplier values, we decided to stick with just one top priority slot which would significantly ease the point tally system.

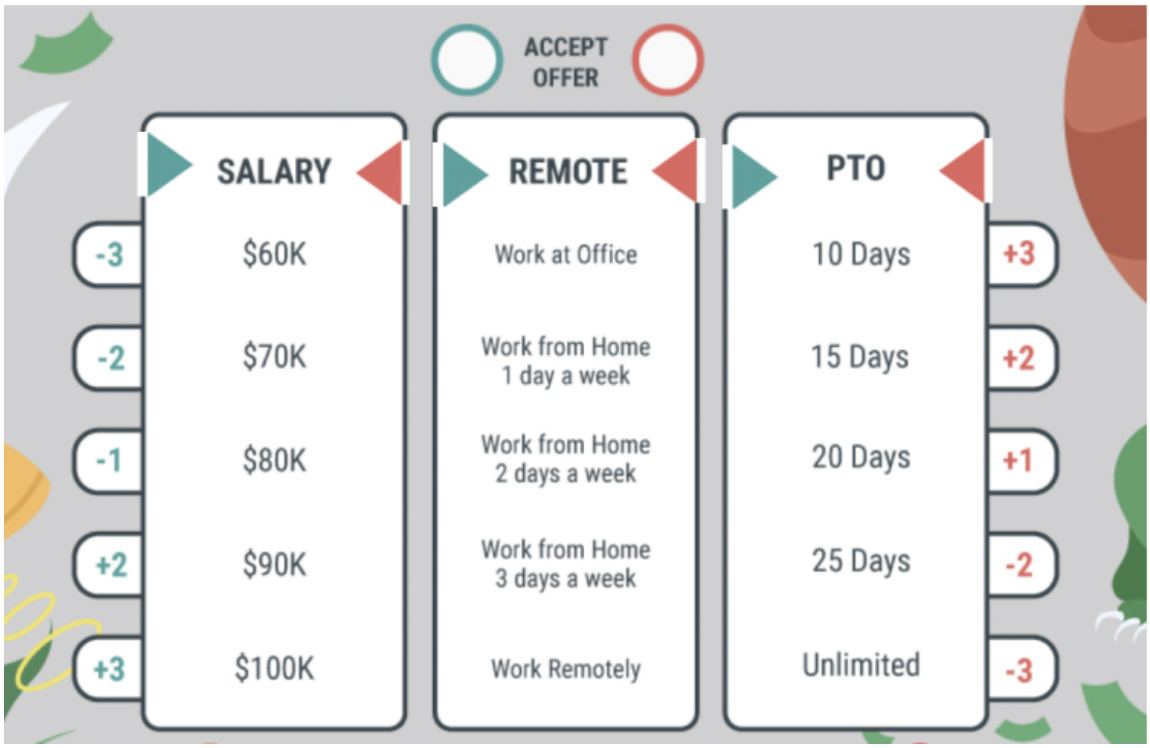
Our final design incorporated the following elements: Offer Cards (to reflect the current job offer), Interest Cards (to reflect personal interests job seekers *and* job recruiters could have), Tip Cards (to incorporate negotiation strategies and vocabulary into the core gameplay loop), and Extra Benefits (to efforts to bring a sense of levity into the game to provide comfort in gameplay).

Offer Cards

Interations



Final

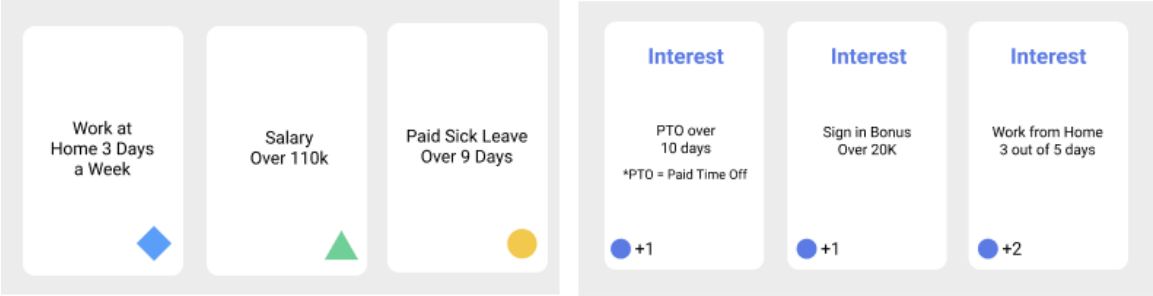


- **Initial**
  - Deck of Offer Cards, with points for each player
  - Players place Modifier cards under Offer Cards and calculate the points
- **Iterations**

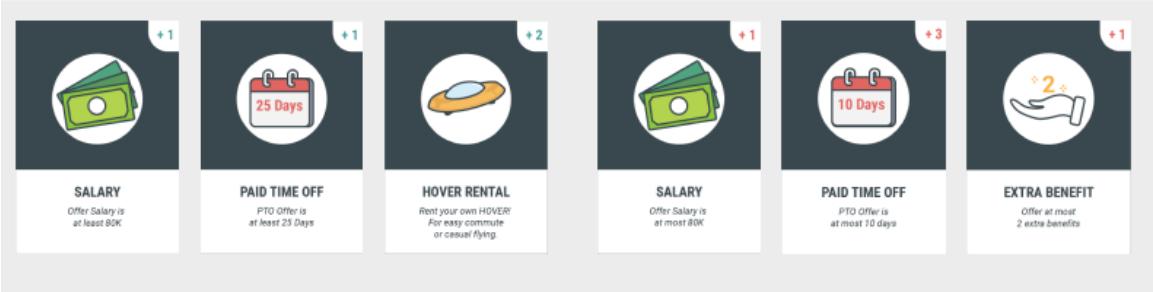
    - Got rid of points on the Offer Cards because it was difficult to calculate scores during and after the negotiation
    - A long card with all the offers
    - Recruit and Recruiter sliders to keep track of each Offer Card
- **Final**
    - Added base point values for the recruit and recruiter
    - One “Accept Offer” token per player (on top of the Offer Card)
    - 5 values per offer card

Interest Cards

Iterations



Final

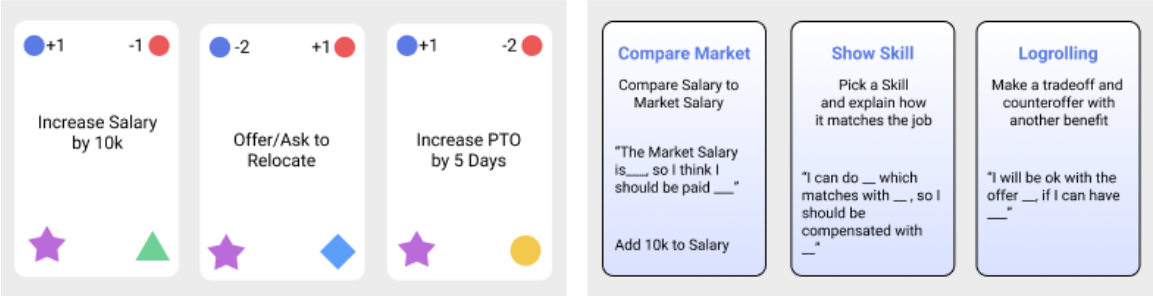


- **Initial**
    - Offer Category icon on the bottom right (Salary, Location, PTO)
- **Iteration**
    - Got rid of Category Icon
    - Color Coded Cards, Recruit (blue) and Recruiter (red)
    - Added player points on the bottom of the card
- **Final**
    - Added icons/images
    - Added Interest Cards related to the extra benefits on the board
    - Interest Cards have a Dark Background while the Tip Cards have a White Background

- it is easier to distinguish between the cards

Tip Cards (Modifier)

Interations

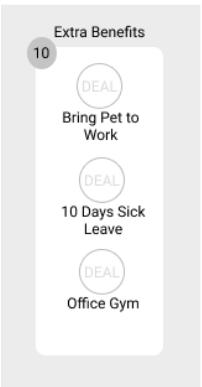


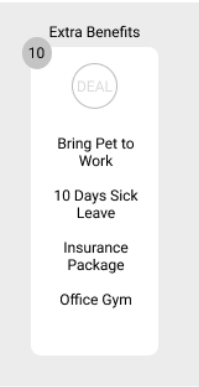
Final

- **Initial**
  - Modifier cards change the offer and points of the Offer Card
  - Points at the top, Offer Category on the bottom
  - Specific changes with numerical values (ie. increase salary 10k)
- **Iteration**
  - Got rid of Points and Offer Category
  - Added Negotiation Tips and Starter Script
  - Separate Tip Card piles for Recruit (blue) and Recruiter (red)
  - Colored differently than the Interest cards so that it is easier to distinguish
- **Final**
  - Distinguished the Tips and the Script with the text bubble

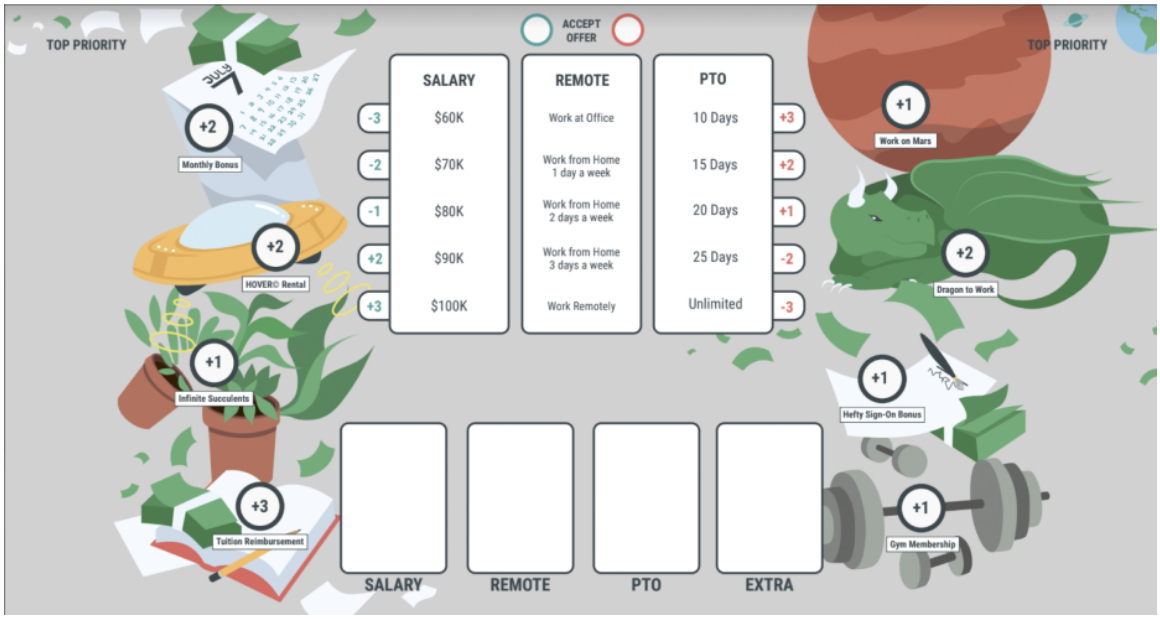
Extra Benefits

Iterations





Final



- **Initial**
  - A One-catch-all Extra benefit card
  - Recruiter draws a random Extra benefit card that has a set of benefits
- **Iteration**
  - Difficult to fit all the extra benefits on one card, and it also feels awkward to have only 3 extra benefits on a single card
    - All extra benefits scattered across the board with some complementary images
- **Final**
  - Extra Benefits around the board with images and points

PLAYTESTING/EVALUATION

We conducted playtests with a group of friends and acquaintances who fall into our target audience of individuals who are or will be searching for employment and are likely to find themselves in the position to negotiate a job offer. This included the in-class playtesting.

During playtesting, we introduced the players to the mechanics of the game and gave them their roles. We asked them to think-aloud as they played through our game. Afterwards, we asked questions such as: What was the most interesting aspect of the game, What was the most frustrating part?

We integrated their feedback into our revised learning goals, experience goals, and prototypes. Refer to these sections for the details of our playtest notes and insights.

Following are some of our notes from playtesting and what we did to address each issue:

Notes/Issues	**Solutions**
Roleplaying is most interesting aspect for some players	• Changed gameplay to spark negotiation ○ Changed modifier cards to tip cards • Added more detail to Persona Cards
Negotiation Tips not integrated into the gameplay	• Changed modifier cards to tip cards • Added negotiation tips onto Tip cards
Difficult to start negotiation	• Added basic script to tip cards
Difficult to calculate points	• Base points are all shown on the board • Extra points are on the interest cards • Reduced the amount of priority cards
Points are unbalanced	• Created and ran a program that tests out different point values • Made adjustments to point values accordingly
Difficult to keep track of current offer	• Changed offer card to a long offer card with a slider
Difficult/Restrictive to use Modifier Cards	• Got rid of Modifier Cards • Replaced it with Tip Cards, which is more versatile

In addition to traditional playtesting, we additionally used an algorithm to evaluate our game. One critical issue we needed to consider when designing our game was ensuring that it's always possible for players to reach a mutually beneficial arrangement, since we have both experience and learning goals which relate to players negotiating an offer they both benefit from. As a result, we needed to test our mechanics to ensure that no matter which interest cards the two players drew, it would always be possible for them to reach a winning arrangement, i.e. one where both players had a non-negative score.

During the Check-in 2 Presentations in class, we heard that another group had written a program to simulate games in order to check their point values. After hearing this, we realized that using an algorithm was an ideal way to test our mechanics, since it simply isn't feasible for human playtesters to check every single combination of interests and offers for viability. Additionally, by simulating games programmatically, we could iterate and test different versions of scoring and interest card mechanics much more quickly than if we needed to create a new prototype each time. Once we had used the algorithm to ensure that the mechanics were viable, we were then able to move on to playtesting with actual players.

THE GAME

Below is a list of links that provide access to the final game (via playingcards.io), game instruction manual, and other game assets (persona cards and cards).

There were limitations provided by the platform we were using to prototype the game in a remote setting. However, one fantastic feature we played with included automation. Playingcards.io requires players to manually move and draw cards, however with the help of the automation feature we have incorporated a reset button at the top left corner of the board that resets all the cards back into their home decks.

1. Final Game
2. Game Guide
3. All Game Assets (Cards, Boards, etc.)