



PLAY
PEOPLE
FOR
SKILLS

PLAY FOR PEOPLE SKILLS

A guide with 10 heuristics for
educators to create engaging
learning experiences teaching
high school students people
skills through play.

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Contents

Context	3
Heuristics	11
1 — Give teens freedom and autonomy	13
2 — Give sense of anticipation and surprise	15
3 — Keep stakes low	17
4 — Play first, explain later	19
5 — Make it fun and silly	21
6 — Stimulate social connection	23
7 — Give sense of anticipation and surprise	25
8 — Respect teens for their maturity	27
9 — Leverage love for competition	29
10 — Promote active thinking during gameplay	31
A Case Study: Terrible Workers	35
Overview	35
Applicable scenarios	38
Application of heuristics	39
Learning outcome	41
Classroom Facilitation Guide	43
Resources	49
About	53

Thriving Beyond Grades: Embracing Personal Growth in Schools

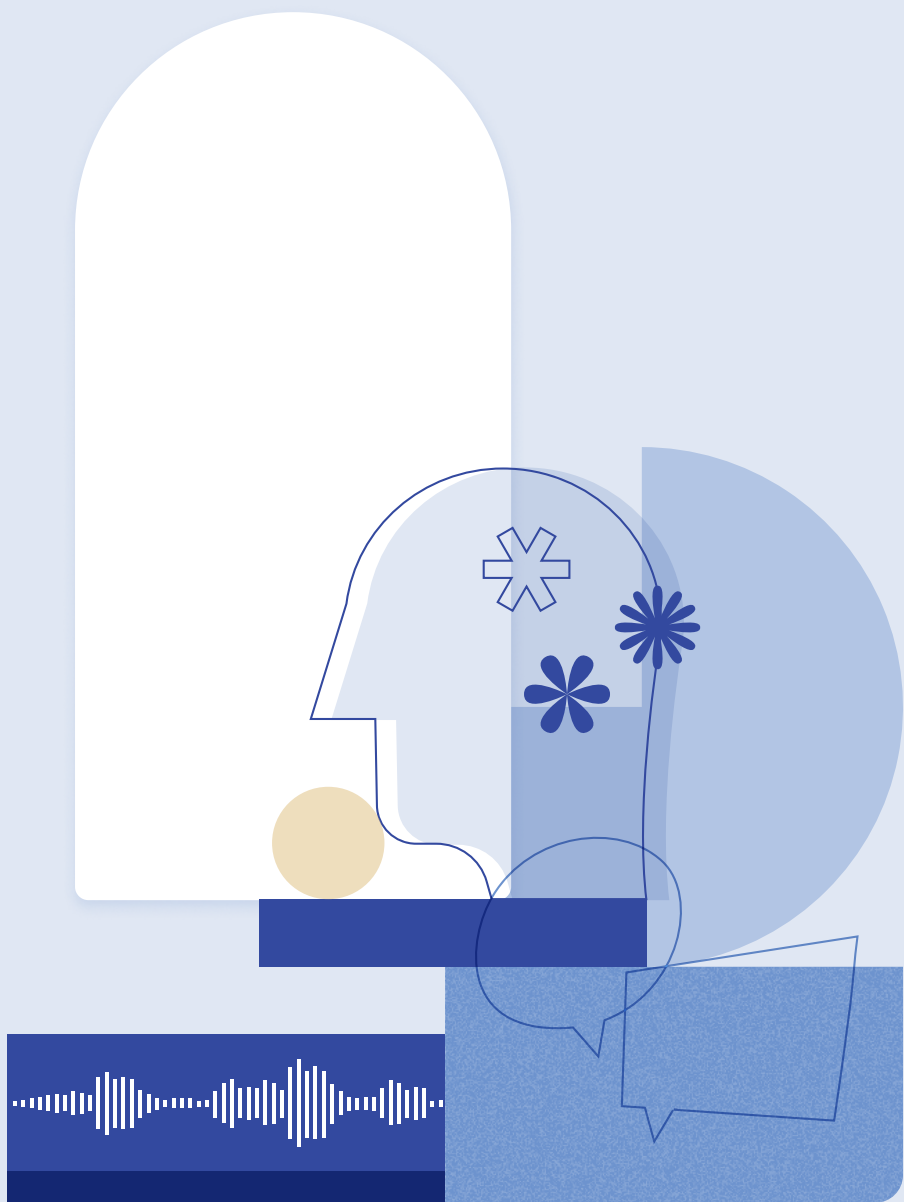
The current education system needs more people skills

Today, we live in a constantly evolving, innovation-driven world. While the education system does excel at shaping the minds of high-achieving and determined students, we must acknowledge a serious drawback: high school students tend to be motivated solely by grades and college applications.

As a result, students are book smart and have a checklist mindset towards learning.



In modern society, where there are no exams but fast-evolving industry standards, there is an urgent need for people skills and self-motivated learning.



People skills lead us one step closer to the ideal future...

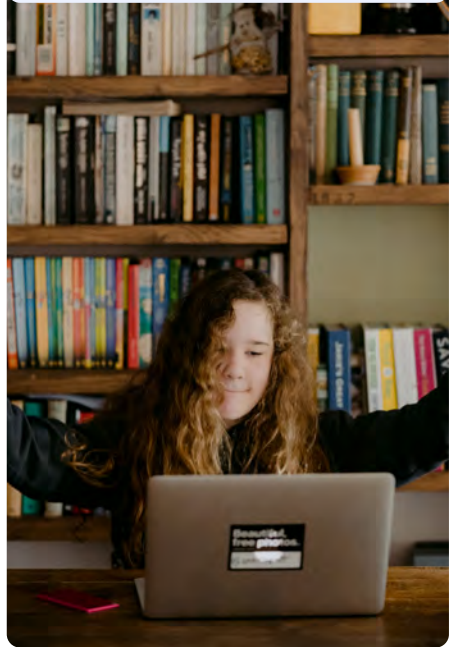
where students are
self-determined.

Empower students with autonomy and choice based on their values, interests, and desires to achieve success in a constantly changing landscape of metrics.



where students
iteratively improve.

Effectively reflection is an indispensable part of future education, as it facilitates self-direction and iterative improvement, paving the path to success.



where we have shared
experiences.

Balancing individual and community growth is crucial. Overemphasizing personalization hinders empathy and collaboration. Yet, neglecting students' personal hopes creates factory-like schools.



where learning is no
longer a chore.

Schoolwork is often viewed as a tedious task to be checked off and forgotten. How can educators make schoolwork enjoyable rather than tedious?



Yet, barriers stand in the way of reaching a better tomorrow.



Reflection activities are perceived as tedious due to rigid essay formats and little personalization and enjoyment.



Educational games are viewed as uncool and students feel forced to engage in them.



The education system resists change due to numerous stakeholders and regulatory complexities.



Teachers lack support to bring about change, leaving students confined to traditional learning environments.

We are here to help block-bust!

Through 7 months of rigorous research in collaboration with domain experts, teachers, and students, we have confidently identified 10 design heuristics to enhance students' people skills for success.

These heuristics empower educators and administrators to design effective in-class and out-of-class experiences, fostering holistic student development in interpersonal aspects of life and preparing them for the ever-changing innovation driven economy.

Heuristics

This page presents our 10 heuristics. The rest of this section will provide detailed insights into each heuristic, offering actionable recommendations and explaining their significance.



#01
Give teens freedom and autonomy



#02
Create distance from daily life



#03
Keep stakes low



#04
Play first, explain later



#05
Make it fun and silly



#06

Stimulate social connection



#07

**Give sense of
anticipation & surprise**



#08

Respect teens for their maturity



#09

Leverage love for competition



#10

Promote active thinking



HEURISTIC 1/10

GIVE TEENS FREEDOM AND AUTONOMY

OVERVIEW

Students have an intrinsic psychological need to feel like they have control over their lives and are able to make choices on their own.

When students feel forced into something, it can create mental resistance, turning an activity into a boring chore instead of an authentic engagement.

RECOMMENDATION 1

Try to refrain from framing activities as “homework” or something that is mandatory

Significance

- When something is enforced on a student, it becomes a chore
- Some teens have perception that if something is forced on them, it is “uncool”

RECOMMENDATION 2

Give students freedom in how they want to approach an activity

Significance

- By getting flexibility and control over how exactly they want to do something, students get a sense of autonomy, which is key to self-motivation
- Students feel like they have arrived at a learning conclusion on their own, through their own merits
- Students get a sense of freshness and novelty compared to everyday school lessons



CREATE DISTANCE FROM EVERYDAY LIFE

OVERVIEW

If serious issues are tackled in a literal, explicit manner, it can come off as confrontational. This explicit approach has been proven by research to be less effective than a subtler, implicit approach.

Instead of tackling an issue in an explicit way, one should create distance from everyday life to maintain psychological safety.

RECOMMENDATION 1

Use metaphors and narratives to put things in a third-person perspective, rather than directly criticizing behavior

Significance

- If one is aware that someone else is trying to change their behavior, it is likely to make them feel threatened
- By making a game in which the student plays a role or observes a character, there is a sense of psychological safety which makes the student more receptive to having their attitudes shift subconsciously

RECOMMENDATION 2

Where possible, make educational experiences less serious and “work-related” by embedding make-believe elements

Significance

- This create a learning environment that primarily seems fun and whimsical rather than serious and academic, making students more likely to want to come back and revisit the experience
- This makes the experience feel less threatening and invasive, thus, making it less likely to trigger psychological aversion to change



KEEP STAKES LOW

OVERVIEW

Create a safe and supportive environment that allows students to explore, experiment, and learn without the fear of failure or negative repercussions.

This freedom to explore and immerse themselves in the experience enables creativity, deeper understanding, and genuine learning to occur.

RECOMMENDATION 1

Keep activities short

Significance

- Students already have a heavy workload and feel short of time
- This generation has a low attention span

RECOMMENDATION 2

Refrain from grading

Significance

- Grading can reduce the motivation of low-performing students to participate
- Students will tie these activities/games to school, causing them to view them as burdensome chores rather than enjoyable experiences

RECOMMENDATION 3

Avoid keeping score

Significance

- Keeping score can reinforce the grade-focused mindset that students already have
- Keeping score can lead students to only value the end goal of scoring higher



PLAY FIRST, EXPLAIN LATER

OVERVIEW

Emphasize hands-on, experiential learning before explaining the educational aspects of the activity/game.

Students are less likely to participate in an activity termed as "educational." Such an approach allows students to enjoy the activity more and discover concepts on their own.

RECOMMENDATION 1

Allow students to reflect upon the activity individually before explaining it to them

Significance

- This fosters a deeper understanding and personal connection to the activity
- This approach maintains an inclusive environment, enabling both introverted and extroverted students to express themselves comfortably.

RECOMMENDATION 2

Provide students freedom to reflect using any medium (text, sketch, audio, video, etc.)

Significance

- This encourages more authentic responses from students.
- This avoids monotony, especially since students have already grown weary of repetitive written reflection tasks.

RECOMMENDATION 3

Follow the “yes, and...” principle: acknowledge and appreciate the student’s remark and add to it

Significance

- This creates a positive classroom atmosphere and makes the students feel empowered and respected
- This practice strengthens the bond between students and teachers



MAKE IT FUN AND SILLY

OVERVIEW

When a learning experience is light-hearted and makes students joke and laugh, they don't see it as a chore and would willingly come back to it.

A fun environment also lowers stakes, which matters because students should learn that perfectionism is never the goal. We all make mistakes, learn, and get better.

RECOMMENDATION 1

Do not make the learning goal explicit right away

Significance

- Students have a stigma against educational games/ anything a teacher or parent wants them to do
- Students need a mental break from the constant schoolwork and grade-oriented mindset

RECOMMENDATION 2

Give students an opportunity to laugh and make jokes

Significance

- This makes the experience more memorable
- Playfulness strengthens the bond students have with their friends

RECOMMENDATION 3

Help students be okay with failing

Significance

- Students need to reframe setbacks and failures as stepping stones to success
- Providing different avenues and choices to succeed is a safety net from failing
- It's important that students who aren't getting good grades are not less respected



HEURISTIC 6/10

STIMULATE SOCIAL CONNECTION

OVERVIEW

Students desire greater social connections in their daily school routine, as a sense of belonging boosts motivation and fosters appreciation for diversity.

However, with technology-based socialization, they might feel disconnected or experience comparison and fear of missing out. Hence, technology usage should be approached with careful awareness.

RECOMMENDATION 1

Help students feel more connected with the people around them

Significance

- A sense of belongingness fuels student motivation. Social connections provide opportunities to interact with diverse individuals.
- The influence of friends encourages students to try new things. Friends aid in identifying achievements, goals, strengths, and weaknesses.
- Distractions from technology can hinder success and exploration of new endeavors.

RECOMMENDATION 2

Try to avoid pushing kids too hard (ex: talk to total strangers) — make it a challenging, yet fun experience

Significance

- This ensures that students with low social comfort feel heard and included
- It's important that all students are able to participate
- This gives students a safe space to step outside their comfort zone

RECOMMENDATION 3

Help students from different social bubbles mingle

Significance

- Students fall into a hierarchy of “status” and selectiveness based on regular vs. honors classes
- Social bubbles are shaped by personal interests and being in classes together



GIVE A SENSE OF ANTICIPATION AND SURPRISE

OVERVIEW

Replayability is an aspect to consider in order to move away from a rigid and routine-based approach to learning people skills.

A sense of surprise leaves students wondering about what all the possibilities in the game are. They wish to come back and find out.

RECOMMENDATION 1

Build in moments of surprise

Significance

- Building opportunities for students “create their own” aspects (like Uno wild cards) gives them the power to customize gameplay
- Surprises evoke moments of emotion with higher highs and lower lows
- Surprises leave room for interpretation

RECOMMENDATION 2

Create elements that encourage students to play again

Significance

- Variety avoids things feeling repetitive
- The satisfaction of “leveling up” with a gradual and appropriate increase in difficulty keeps students coming back
- Appropriate time durations and frequency of play need can be leveraged



HEURISTIC 8/10

RESPECT TEENS FOR THEIR MATURITY

OVERVIEW

Respect teenagers as individuals during their crucial phase of seeking autonomy and independence.

Avoid infantilizing activities — these can be demotivating, leading to disengagement and loss of interest.

RECOMMENDATION 1

Avoid using excessively bright colors, “cute” animated visuals, or patronizing language

Significance

- These attributes signal to teenagers that a game/activity is for young children (for example, their little siblings)
- Teenagers can feel insulted when asked to play a game that is for young children

RECOMMENDATION 2

Avoid stereotyping

Significance

- This is a crucial part of providing autonomy. Refraining from making assumptions based on age, gender, or appearance allows teens to be treated as individuals with unique qualities and talents.



HEURISTIC 9/10

LEVERAGE LOVE FOR COMPETITION

OVERVIEW

Incorporate light competition to enhance excitement and challenge for teenagers, captivating and engaging them for longer periods.

Competitive games promote critical thinking, quick decision-making, and a sense of purpose with clear objectives and goals.

RECOMMENDATION 1

Establish clear rules and guidelines for the game

Significance

- Ensuring that all participants understand the rules encourages players to compete with integrity and respect for others

RECOMMENDATION 2

Offer a fair and balanced level of challenge

Significance

- This will ensure that the game is inclusive and avoid situations where some players feel overwhelmed or excluded due to excessive difficulty

RECOMMENDATION 3

Prioritize enjoyment over winning

Significance

- Making sure that the game is enjoyable to play (and the competitive aspect enhances the overall experience) means teenagers can experience the learning goals in a positive atmosphere



HEURISTIC 10/10

PROMOTE ACTIVE THINKING DURING GAMEPLAY

OVERVIEW

Create engaging activities/ games that promote strategic thinking, decision-making, collaboration, and the application of knowledge to achieve specific objectives.

When fun gameplay is blended with educational elements, students can develop essential interpersonal skills without feeling disengaged or bored.

RECOMMENDATION 1

Introduce time-sensitivity

Significance

- This encourages quick thinking and prioritization of actions
- This introduces an element of healthy competition and makes the gameplay experience more exciting

RECOMMENDATION 2

Scaffold the complexity of gameplay challenges

Significance

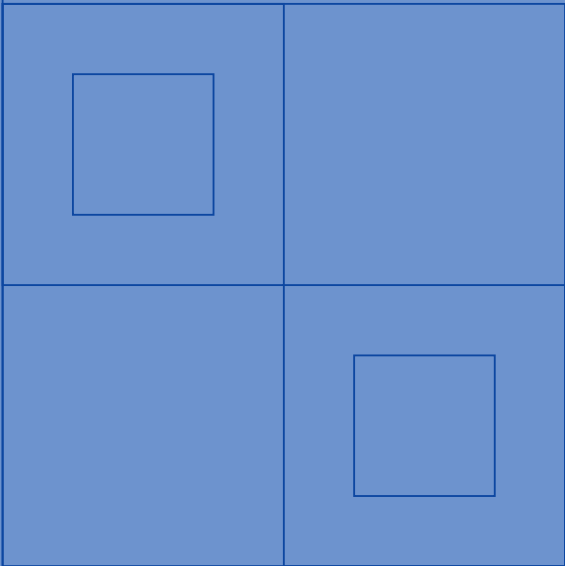
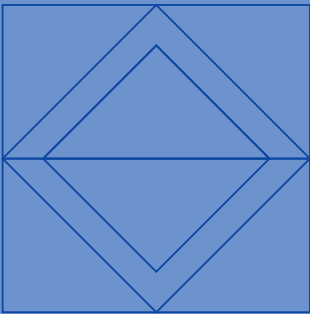
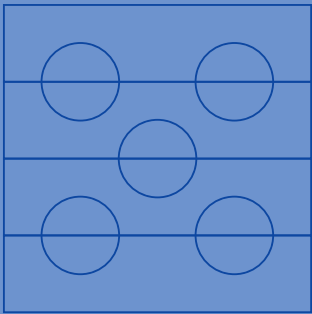
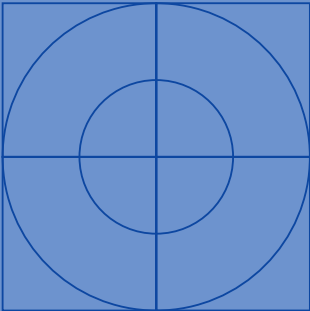
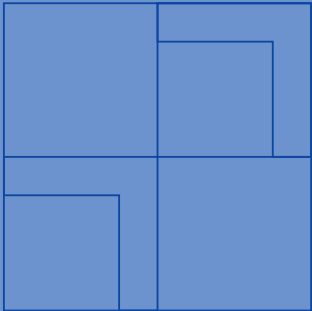
- This ensures that all students can participate and progress gradually
- Monotony in the game is avoided and students' interest is maintained due to a sense of accomplishment

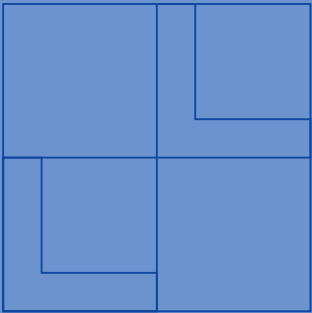
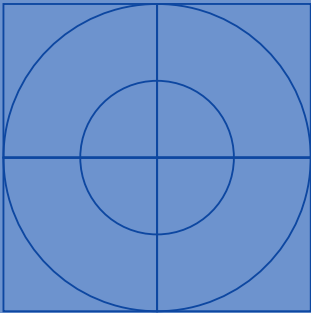
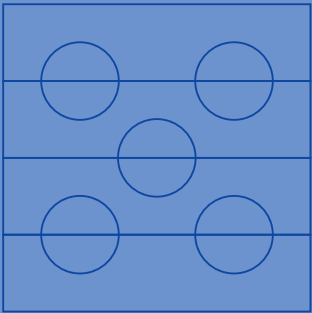
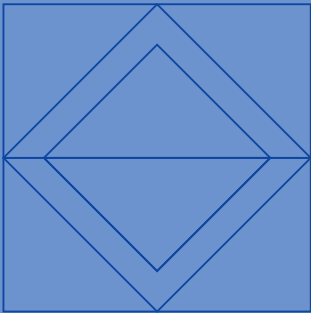
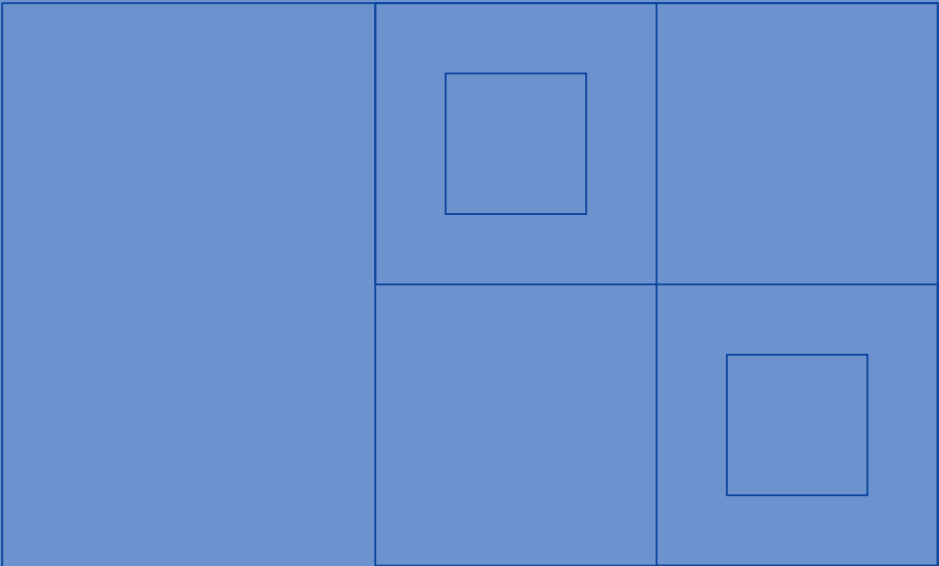
RECOMMENDATION 3

Incorporate real-life scenarios with a balanced approach

Significance

- Light real-life scenarios make the experience more relevant and applicable for students
- Overly realistic scenarios can lead to disengagement





A Case Study: Terrible Workers

Overview

Terrible Workers is a game we designed that demonstrated our heuristics.

The game encourages students to bring out the best version of themselves by pitching to be hired for diverse kinds of jobs (from a vice president to a pirate!). Such fictional scenarios ensure enough psychological distance from daily life and create a fun, low stakes environment to engage in active thinking and self reflection. Raising students' awareness of people skills is the first step to their actively practicing and getting better at these. **Terrible Workers** is sure to bring out playful competition, social connection, excitement, and lots of laughter.



Scan for the rules & more

SETTING

In class,
at school,
at home

PLAYERS

2-5 players
per card set

TIME

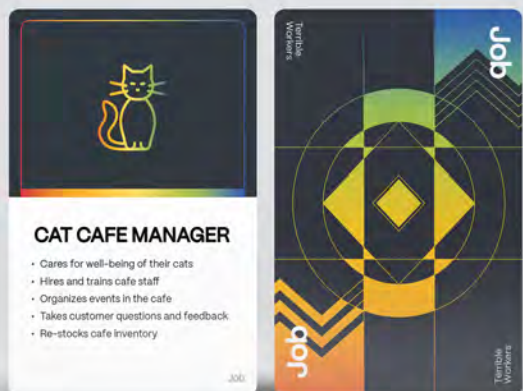
20-40min

TECH USE

No tech

Play test session with students from South Fayette High School





A variety of applicable scenarios

Ideally, students should have a variety of games or activities to choose from in an unmoderated environment. For ideas on where to place the game, here are some suggestions:

- **During entry:** An icebreaker for incoming freshman
- **Before exit:** An introduction/ice breaker to career counseling (before students start considering options for college and beyond)
- **At school, in class** (end of quarters, team building exercises)
- **At school, outside of class** (cafeteria, study hall,...)
- **Made available for check out**
- **Summer camps/workshops**

As a parent, teacher, or educator, you can choose to lead a small discussion in class after gameplay on what each student thought the goal of the game was. The different interpretations and perspectives that students bring to the conversation will promote a rich learning experience. Refer to the Classroom Facilitation Guide section ahead for more tips on how to facilitate Terrible Workers and the post-play discussion!

↑ Job cards that details what the players are pitching for a round

↓ Skill, Trait and Sabotage cards that students play to make the most ideal candidate for a certain job

Application of heuristics



Give teens freedom and autonomy

The game is optional, not mandatory in classes, and uses peer influence to encourage participation.



Create distance from everyday life

Job interviews aren't part of student's daily life and provide a break from academic pressures, letting them fully enjoy the play.



Keep stakes low

Winning or losing has no real-life impact, with a new winner and a changing job role in each round.



Play first, explain later

The game intentionally lacks an explicit educational purpose. Teachers using it in classrooms can follow our facilitation guide.



Make it fun and silly

Humorous skills, traits, and sabotage cards add silliness. The game also has job cards like 'Pirate' and 'Mattress Tester' to make it fun.



Stimulate social connection

The game requires no tech use and 3-6 participants (who need not know each other). It's perfect for bonding with friends or ice-breaking.



Give sense of anticipation and surprise

Players draw unknown cards to form a fictional "candidate," adding surprise. Wildcards unleash imagination.



Respect teens for their maturity

Simulating job interviews prepares students for real-life experiences and respects/recognizes students' maturity.



Leverage love for competition

Each round has a winner selected by the 'Boss,' driving student engagement and investment in their pitch and debate.



Promote active thinking during gameplay

Players strategize their cards based on the job, keeping them constantly thinking about valued skills.

Learning Outcome

Intended Learning Outcome

We want students to understand that there is more to real-world job success than academic knowledge, and that people skills are just as important (or more important) for real world success.

- Bad interpersonal traits can overshadow good technical skills
- People will tend to choose to work with you for your people skills over your technical skills, or at least it will be a combination
- Other's perception of you is incomplete with just technical skills. Interpersonal traits make up a vivid part of how others perceive you
- Strengths and weaknesses can co-exist, and that's normal
- Exposure to different types of interpersonal skills

Student's Point of View

Every individual has a unique perspective on experiences they have. By obfuscating or hiding the true learning goal of the activity, a benefit is that each student can draw their own conclusions and form more meaningful learning outcomes. When we tested our game, we uncovered these key takeaways from students, some of which were different than our intended goal, but all lead to the same core goal of being aware of and practicing people skills.

- **Awareness of difference between interpersonal traits and technical skills**
- **Communication skills:** debate, improvisational speaking, persuasion and interview skills
- **Perspective taking:** understanding what “positive qualities” mean to different people
- **Collaboration:** discuss with others
- **Leadership:** recognize leadership qualities
- **Decision making and business skills:** marketing, advertising skills
- **How to self advocate:** pitching yourself and self-advocating is important, understand how to make ourselves stand out of the crowd
- **Reframe negative traits in a growth mindset:** negative traits and weaknesses should not bring you down, can get better at it and spin it in a positive way
- **Self confidence:** how you present yourself is up to you, you should not be brought down by other’s perception of you. pitch yourself to the best with what you have and who you are

Classroom Facilitation Guide

Terrible Workers is versatile and can be used in various settings, not just classrooms. If you want to use this game for teaching, we offer a classroom facilitation guide. It provides step-by-step tips to effectively guide students in learning interpersonal skills through the game.

BEFORE THE GAME

Prepare cards, form groups

- Prepare card sets based on class size.
- Initially, let children play with familiar friends. Once they grasp the rules and enjoy the game, mix groups with less familiar classmates.



DURING THE GAME

Listen in!

- As mentioned in our heuristics, refrain from immediately discussing the educational significance of the game.
- Feel free to play with the students, but be aware that the fun often involves the "throw shade" aspect, and your participation might affect their comfort level.
- Listen to students' pitches to use them as examples during the later discussion.

“

I loved how
everyone laughed
and it was so fun.

“

This was a very fun
game and encouraged us
to collaborate as a
team as well as play
for ourselves!

“

I loved when we had to
come up with speeches on
the spot because although
it was challenging, it
turned out I be funny.

AFTER THE GAME

Guide discussion, watch for nuanced changes

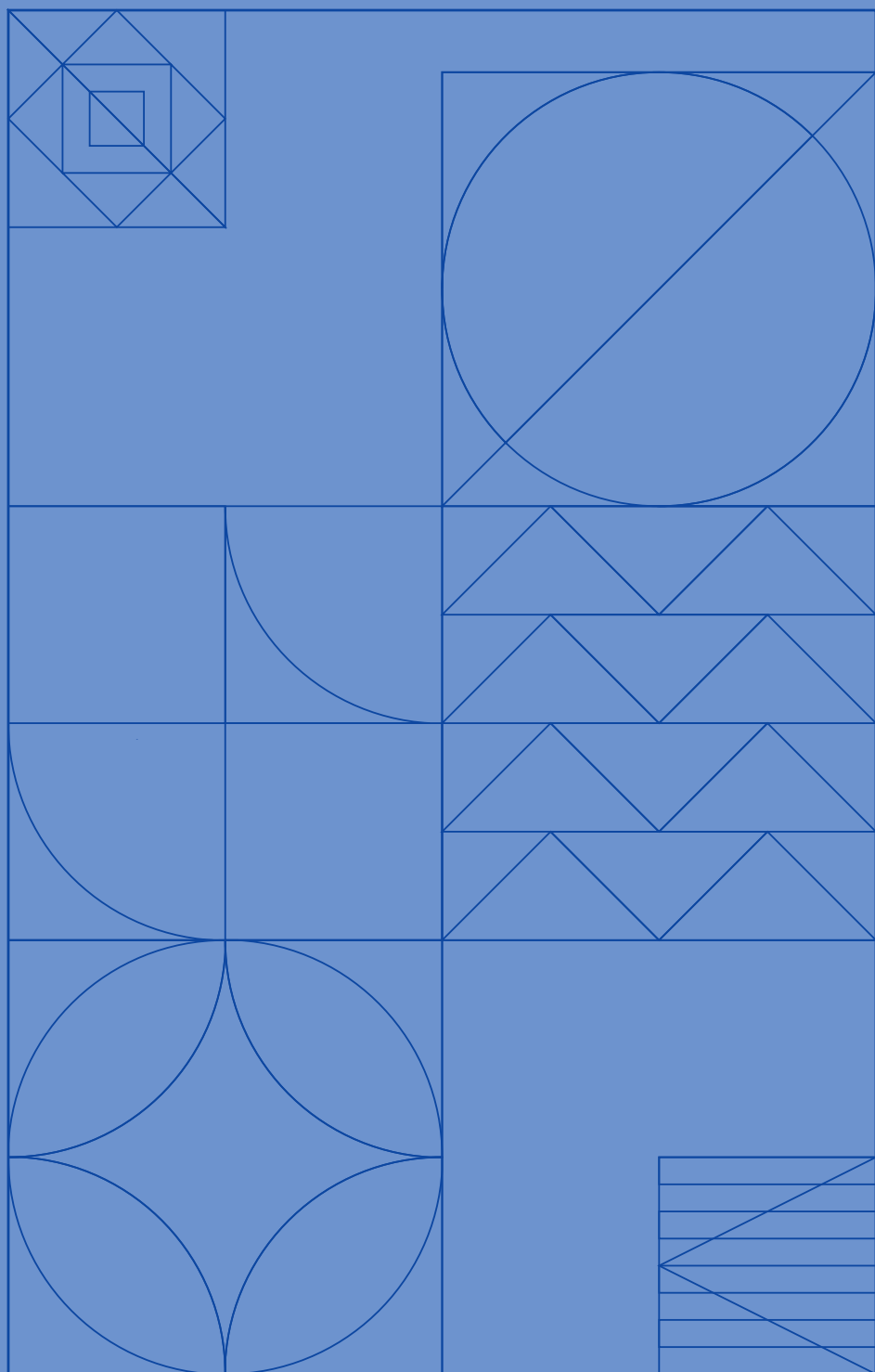
- After the play session, ask students their takeaways from the game. The teacher can then express their viewpoint, being attentive to differing perspectives.
- Avoid assigning written reflections or formal discussions and refrain from grading them. Associating the game with school work may lead to resistance in future classroom activities or games.
- Interpersonal skill development is slow and challenging to measure. Multiple gameplay sessions aim to foster students' recognition of the importance of people skills and encourage ongoing development.
- Methods exist to measure short-term impact of a single game on students. Refer to the research report on the resource page for detailed research methodology and data.

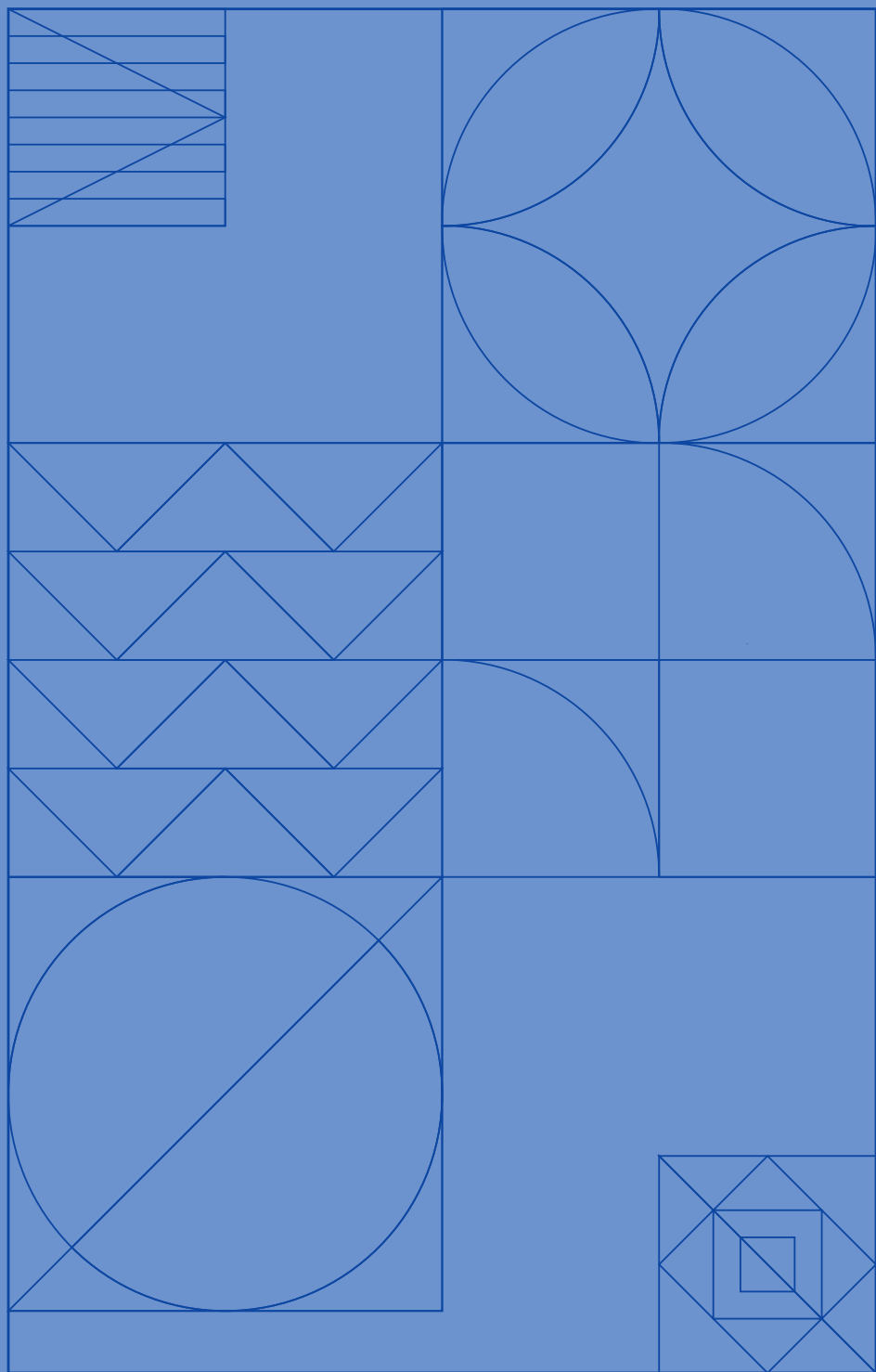
Resources

If you want to dive deeper into the research process behind our heuristics, please scan the QR code and visit our website for further reading.



Scan to access on web





About Us

This project is part of Master of Human-Computer Interaction (MHCI) program at Carnegie Mellon University.

The MHCI program is the world's first dedicated to preparing professionals for careers in human-computer interaction, user experience design, and user-centered research. Integrating service and design thinking into a rigorous HCI curriculum, it equips students to shape the future of human-technology interactions.

Since its first graduating class in 1997, the program has produced over 1,000 MHCI graduates. They now lead as user researchers, experience designers, product managers, entrepreneurs, business owners, and software developers. Most importantly, they drive technology's future in companies worldwide.





Meet the Team

We are a diverse team of MHCI students. Over the course of this seven-month research project, we not only applied our professional expertise but also honed our UX skills. Each of us actively participated in research, synthesis, and design during our collaboration with South Fayette School District.



Simran Chawla

BACKGROUND

CMU MHCI

EXPERTISE

UX Design, Product Design, UX Research, Service Design



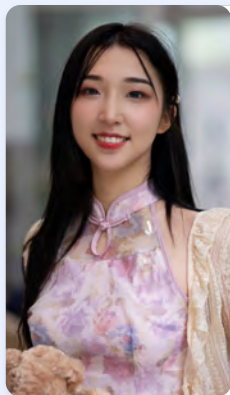
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Prototyping, Information
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Advisors

We are grateful for the direct guidance provided by the two faculty members throughout our project. Their valuable advice and support greatly contributed to our UX research and our approach for information synthesis.



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Special thanks to

CARNEGIE MELLON UNIVERSITY

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Stacie Rohrbach
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SOUTH FAYETTE SCHOOL DISTRICT

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Erin Crimone
Emily Sharro
Chuck Herring

All students, teachers and
parents who supported us and
participated in our research

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Michael Bridges

