

Analysis of Thrive 'N' Shine

Overview

Pros:

- Strong visuals, audio, and theme
- Solid gameplay loop
- Thoughtful integration of financial elements

Cons:

- Minigames are inconsistent, often too difficult
- Narrative voice also inconsistent
- Gating issues; long stretches of play with no new content
- Messaging/Tutorials occasionally unhelpful

Open Questions:

- Does the moment-to-moment game-play support the educational goals of the game?
- Does the theme/environment of the game reflect players' real-life challenges to gaining good financial habits?

Design Analysis

Thrive 'n' Shine has a simple but effective game play loop: Players balance working on minigames to earn money, skill, and rep. Money allows players to pay for food, rent, or entertainment, so that they can keep their mood up. High moods translate to higher rewards on minigames. Keeping a high mood is almost always the right strategic move, given how much it increases minigame rewards. Letting mood drop too low bars a player from the best minigame rewards (even for exemplary performance,) and thus represents a significant long-term drain on a player's efficiency. Skill unlocks new minigames with better rewards tiers, and rep eventually unlocks a general bonus to all minigame rewards.

In general, skill and rep seem well balanced against each other; the threshold costs for rep rise in such a way that it becomes prohibitively time consuming to gain another full level of rep without unlocking higher reward minigames by increasing skill. At the same time, players must ensure that they have enough money to cover their daily expenses, or risk having significant fees levied against their character.

As players progress, they must also fulfill a series of quests, which offer both small, immediate rewards and, when enough quests in a chain have been completed, significant upgrades or changes to the environment of the game. These changes include opening new options for food or entertainment, or changing game elements like earned interest rates in the in-game savings account.

One of the main goals of Thrive 'n' Shine is to teach players strong financial habits by making them familiar with banking products like savings accounts. Players deposit any extra cash they make in a savings account, where it accrues interest, and can then be withdrawn later to cover players' bills.

Minigames

One of the main design features of Thrive 'n' Shine is the minigames. These form the meat of the moment-to-moment game play, and are the mechanism by which players can accumulate the resources present in the game. Minigames are differentiated by which resource players are targeting for collection.

Unfortunately, this structure feels fairly divorced either from the rest of the game, or from the realities of work. I will address my specific issues with the design of the minigames first, and then discuss my problems with the ways that the minigames stand in for actual job practice.

The minigames, as presented, are always essentially the same game: Random job icons spawn at a relatively consistent rate, and players must use the touch-screen interface to sort those icons into the correct hoppers at the top of the screen. One icon is always the "collected resource," and the other two icons are, essentially, worthless in each game. From a gameplay perspective, this means that, given an even distribution of icons and perfect play (i.e. a player puts each icon in the correct hopper as soon as it comes out,) a little less than two thirds of your actual moves don't advance your goals at all. Two special cases do apply: A "Variety Bonus" if a player specifically manages to get one of each of the two non-collected icons in, followed by the collected icon; and a "Combo Bonus" which applies if a player can deposit two or more icons in extremely rapid succession. (It was unclear to me whether getting a Combo Bonus on an uncollected icon did anything.)

In general, while I understood the function of the minigames as they were presented, I found them extremely frustrating to play. The randomization of the icons meant that it was not guaranteed that I would get enough of the collected icon to actually score any points off the minigame, much less get the best reward. This meant that I failed the minigame, occasionally despite perfect or near perfect play. Some of the boards allowed for some interesting strategies, but generally, I found that the increasing complexity of the minigames became more frustrating over time, rather than more engaging. Often I felt that the minigames had been insufficiently tested, as I was unsure of how players were meant to consistently perform well in them.

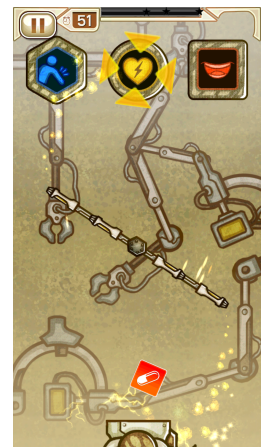
My final concern about the minigames has to do with whether or not they serve the larger purpose of Thrive 'n' Shine. The player spends the majority of their time playing these minigames, but I'm not sure that they reinforce the financial habits that the game is trying to build. I'll talk more about this in the final section of this analysis.

System Design Concerns

One element that is, I believe, meant to overcome the problems caused by having random job icons spawn is the two special cases, the “Combo Bonus” and the “Variety Bonus.” These elements give players some strategic leeway in how they use their icons. My issue with these has to do with how quickly they fade: Because of the touchscreen interface, it’s extremely difficult to manipulate more than one job icon at once. Thus, both these bonuses get applied effectively at random, since the player has to wait for the correct sequence of icons to come out of the hopper to engage the various bonuses. I picked up the strategy of trying to “juggle” several icons at once, in order to try to trigger the bonuses as often as possible, but I found it to be extremely challenging to do so. The “Combo Bonus” timing is punishingly tight, with icons needing to be fed with less than a second’s time between them. This means that, in practice, I only triggered a “combo bonus” at random, or after the “armored” icons were introduced (see below.) The “Variety Bonus” was also difficult to trigger, though more forgiving. I found that if I didn’t get exactly the correct sequence of icons from the spout, however, then it was nearly impossible.

Level Design Concerns

Level design also felt inconsistent. In the level shown to the right a rotating bar uses pendulum timing to swing across the entire middle of the level. The bar is slowest when it is horizontal, and during this time, icons can not get around the edges of the bar. This means that, for about 50% of the time that the level is active, the hoppers at the top are completely inaccessible. Given the random nature of the appearance of icons, this means that my chances of actually having the right icon appear at a time when I can move it to the hopper are extremely slim. I have only managed to win a gold star on this level when I had two incredibly fortuitous Variety Bonuses appear in rapid succession. If I didn’t get at least one Variety Bonus, I rarely made even a bronze star on the level.



Similarly, in the level to the right, large, spiked jaws close in a diamond pattern on the top and bottom of the level. When the spikes are closed, they immediately destroy most of the icons that appear from the bottom, and they make it impossible to sink icons into the hoppers at the top, and the blue and red icons are inaccessible 80% of the time. This level introduces “armored” icons, which are groups of icons that are bundled together and must be broken apart in order to be used. The only way I’ve learned to get a gold star on this level is to take every armored parcel to the top and wait for the spikes to mash it, and hope that it contains enough yellow (collected) icons to trigger a combo bonus and give me full stars. It was unclear to me whether this was the strategy that I was meant to use to win, or if I had found a loophole.



In both of these cases, the strategies that the game had already encouraged me to pursue were mostly unworkable, and I had to find alternate methods of beating them. This isn't necessarily a bad thing, but both levels are pretty early in the game, and I worry that players who have less experience than I do would become frustrated. Values for getting the correct icon in the hopper or getting "Variety" or "Combo" bonuses felt inconsistent across levels, which contributed to the feeling of not really knowing how best to beat levels.

Pacing and Progression Issues

One thing I noticed right away about Thrive 'n' Shine is that the pacing can be quite arduous. Very quickly after starting play, I found myself stuck in an endless loop of debt, not making enough money to cover either rent or entertainment, but needing to spend money on both to get good minigame outcomes. (To be clear, rent is mandatory, but entertainment is nominally optional.) This was frustrating, but also confusing. As I dug my character deeper and deeper into debt, I realized that the game didn't have any kind of useful advice about how I should actually go about extricating myself, which seems odd for a game about building good financial habits. The most I got was a daily admonishment: "You're spending more than you have. Maybe don't?" Which was not helpful advice besides being, frankly, cruel. Given that it's not possible to spend less than a specific threshold, the game seems disingenuous when it demands that you spend less.

After spending many game days furiously working to dig myself out of debt, I finally managed to do so, only to discover that I now needed to pay income tax, which overwhelmed my narrow margin and sent me right back into debt again. Finally, after several MORE days of play, I managed to get enough breathing room to work on my skills and rep, thus giving me access to better jobs that would pay out more, and finally enabling me to get out of debt. It brought up an important question, though: Is there a "lose" condition in Thrive 'n' Shine? At one point I was more than \$100 in debt, and yet the game allowed me to continue playing. When I would get overdraft fees at the end of the day, a red light would appear at the top of the screen, but it wasn't clear to me if this was a "life" counter, or just an indicator that I had fees.

Unfortunately, even when I was out of debt, the game didn't really progress much. The quest-tree structure meant that I needed to wait several days to finish key quests (such as not getting charged overdraft fees for 2 or 4 days,) gating my progress further. I know that there's more content in the game, based on the fact that I need equipment to do my most valuable jobs, but I haven't been able to unlock the quest that even lets me buy that equipment. In general, it seems like it makes more sense to unlock elements of play earlier on, and then encourage players to build up enough money, rep, or skills to use them, rather than relying on the quest system, because the quest system is a little bit more removed from the fundamental gameplay loop, and thus players' experiences of when certain things unlock might vary wildly. Alternately, parsing the quest system quickly to figure out the longest possible playthrough it might take someone to go through it would give Mindblown a baseline for reworking some of the benchmarks for progression.

Also, some of the elements that WERE unlocked felt underdeveloped. A good example of this is the “fishing spot,” which opens up at one point. While I appreciate the fact that the game gave me an option to eat for free, the fact that it took up a time-segment made it basically useless. When eating for no time is \$5, you are almost always better off eating for \$5 and spending the time you saved working, especially since, by the time I had the fishing hole open, I would be making ~\$25 on average, fishing almost never made sense.

Narrative and Tutorial Inconsistencies

In general, I found the narrative voice, especially in the quest descriptions, to be funny and snarky and engaging. I felt that that that started to work against the game when the game started taking me to task for my inability to hit my financial goals. (see above) This is one area where the game could stand some significant improvement. If the goal is to teach students good financial skills, then it might make sense to start them in debt and have them climb out, or otherwise make sure that the game recognizes and gives supportive feedback for players who have managed to get themselves in debt.

The larger narrative is a little confusing. Unlike games like Animal Crossing, where the town is a vital part of the game, there didn’t seem much to encourage me to interact with townspeople in Thrive ‘n’ Shine. Funny quips, sure, but people didn’t offer help, or have quests I could accomplish, or anything.

The tutorial system is pretty good, although if players don’t put in the code to unlock the full game, the tutorial system stops functioning after a certain point. One problem is that the tutorial system is designed around specific levels, rather than being flagged by specific player behaviors. Thus, I didn’t learn about “Combo Bonuses” until after I had already seen them in play, because I didn’t put the code into the game until after the level that triggers the “Combo Bonus” tutorial. When I went back to replay that level, I finally saw the tutorial text block.

Educational Goals Analysis

My biggest question about Thrive ‘n’ Shine has to do with whether or not the game play supports the educational goals set forth by Mindblown Labs. In general, designers of educational games seek, as much as possible, to make the moment-to-moment gameplay BE the educational goal. Thus, the archetypical educational game, Oregon Trail, does a good job of teaching about the trials of westward migration precisely by making those trials the meat of the game play. Even the hunting minigame folds into that larger moment-to-moment experience of watching your little pioneer family wander across America, only to be met with broken bones and dysentery. (It’s important, by the way, that Oregon Trail was so hard to beat: It made it clear how few people actually survived all the way to Oregon.)

Thrive ‘n’ Shine does some things really well: Savings and interest rates, overdraft charges, rent. Those elements of a persons life are important, and learning to manage them is crucial to building good financial habits. But the minigames section of Thrive ‘n’ Shine doesn’t feel

like it reinforces this. I felt like I got better and better at getting higher scores, which bolstered my feelings of progress, but I didn't see how it necessarily helped me make better financial decisions. Additionally, the division of work into money, skill, and rep felt artificial, especially because working on one meant that you didn't get either of the other two. This doesn't feel like it reflects peoples' real experiences with work, and feels confusing.

There are a variety of ways that Thrive 'n' Shine could change that might reinforce the targeted financial skills. One thing that makes this challenging is that these financial skills are the kinds of things that only give rewards over time, so asking players to play through and test their financial skills over several long playthroughs may not be practical for either players or educators. With both of those said, and understanding that full designs for these features are outside the scope of this document, here are some off-the-cuff suggestions of game elements that might help reinforce the core curriculum present in the game:

- Allow the player more leeway in choices over food, rent, and entertainment. Possibly, add elements like clothing purchases or transportation to influence health and/or job performance.
 - Reasoning: Shifting some of the game play over towards asking players to balance a budget might be one way to reinforce financial skills, especially if they have to set the budget at the beginning of a series of days and then only change it after a set portion of time has passed (teaching planning, etc.)
- Add an events system, with players having to save to cover emergencies (medical, housing repairs, etc.) as well as their normal cost of living.
 - Reasoning: Teaches players to be aware of their potential future financial liabilities, as well as their current situation.
- Add a set of goals for players to work towards (new house, new car, charity donations, starting their own business, etc.)
 - Reasoning: Right now, all the savings players are doing feel like a goal in and of themselves, but people generally save towards something. Anchoring that savings in a future goal helps to make the logic of saving money more clear.
 - In the most extreme case, give the players a lifespan, and force them to try to make enough money to survive retirement.
- Let players see the effects of making different choices. Either by having other game characters whose financial situations are visible to players, or by connecting players to one another.
 - Crucially, it's important not just to show players other people who might be doing better or worse than them. Instead finding ways to visually display the different choices that players are making, and how those are panning out for them, will give players a better sense of the impacts of choices, rather than just ranking players according to their current status.

Of course, all of these suggestions would have to be evaluated according to the game's release schedule, asset production, etc. And it's entirely possible that the game, as is, does a

great job of teaching the fundamentals that Mindblown Labs is looking to deliver, which would make these suggestions “solutions in search of a problem.” That said, if I were to add design elements to the game from where it is now (again, without the benefit of Mindblown’s exact curriculum, resources, or expertise,) this is where I would start.