Play-To-Earn: A Study on Scholarship Viability

The success of Axie Infinity has sparked the P2E revolution, but can other existing games follow suit? Join us as we attempt to uncover if scholarships are the way to go for other P2E games.

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With the parabolic growth of [Axie Infinity](#) in recent months, more and more people are starting to notice and are keen on getting in on the action. Not just because of its entertainment value but also as a viable source of income, since the tokens earned from playing the game, [Smooth Love Potion (SLP)](#), can be sold for fiat or other cryptocurrencies. Yet, for many, the first step is much easier said than done.

For the uninitiated, you would need to acquire a team of 3 Axies before you can start playing the game, but the prices of these battle-ready pets have skyrocketed, making it much more difficult for newcomers to enter unless they have sufficient capital to purchase them. As of the time of writing, a team of Axies that are decent enough for PVP battles could set you back by a **minimum of $1,500**, well beyond the reach of many lesser-developed countries such as Malaysia or The Philippines.

As a result, a particular revenue-sharing system known as scholarships has dramatically increased in popularity. Essentially, Axies are provided by a 'manager' to prospective 'scholars' to play the game. The earned tokens are then split based on an agreed ratio between the Axie providers and the scholars. As a result of this, the Play-to-Earn movement, or P2E, blossomed as the number of scholarships grew exponentially, allowing players to earn money just by playing the game.

This leads us to an interesting question; will a similar structure work for other P2E games, and more importantly, will they be able to capture the level of hype and attention that has been achieved by Axie thus far?

In this article, we'll be taking a look at other P2E games, such as [Cryptoblades](#) and [Cometh](#), to see whether a scholarship program makes sense for these respective titles.

How Does Axie's Scholarship Model Work?

To elaborate more on how a scholarship operates, it is basically giving other players access to a team of Axies by sharing their account credentials. In most traditional games, this would violate the terms of service, but not Axie Infinity. To ensure that the manager's accounts are well protected against malicious behavior, access to the game and the account's assets are separated.

When these accounts are loaned out to the scholars, only the email and password are provided to log in to the game. Scholars cannot access the account's assets since they are tied to the manager's Metamask or Ronin Wallets. In other words, scholars will not be able to transfer the Axies or Smooth Love Potion (SLP) from the account, but they can still play the game.

#	Scholarship Provider	Country Of Origin	Profit Sharing Model	Amount To Player	Estimated Earnings ($ and SLP)	Links
1	Newfound Nation	USA	Percentage	75%	$23.47 (112.5 SLP)	
2	Anarchy Racing Scholarship	USA	Percentage	70%	$21.91 (105 SLP)	
3	Axie University	PH	Percentage	70%	$21.91 (105 SLP)	
4	AxieIndo	ID	Percentage	70%	$21.91 (105 SLP)	
5	Bread Winners Guild | BWG	USA	Percentage	70%	$21.91 (105 SLP)	
6	Hodl Scholarships	USA	Percentage	70%	$21.91 (105 SLP)	
7	Hooga Gaming	MY	Percentage	70%	$21.91 (105 SLP)	
8	Iron & Rhine Axie Club	USA	Percentage	70%	$21.91 (105 SLP)	
9	Real Deal Guild	PH	Percentage	70%	$21.91 (105 SLP)	
10	Stake University	PH	Percentage	70%	$21.91 (105 SLP)	

Source: https://www.coingecko.com/en/coins/smooth-love-potion/axie_scholarship_guide#panel

Depending on the scholarship, the SLP generated would be tallied and paid out on a biweekly or monthly basis, and scholars receive anywhere from 50% to 70% of the earned amount. Before the recent reward changes, players could easily make at least 150 SLP on any given day. Now, players can only reach half the SLP from daily quests, amounting to around $12 as of August 2021. If the price of 3 Axies were to remain at $1,500 for the foreseeable future, a scholar would only have enough to purchase their own team after at least 8 months in a scholarship program, assuming they receive a 50% cut.

As it stands, the ratio of scholars to scholarship providers is at an all-time high, which already poses an additional challenge for newcomers to secure a slot in any scholarship program. On top of that, the recent reward changes favoring PvP have pushed the demand for more skillful players and also expensive, competitive Axies. The barrier to entry is driven even higher, which reinforces the validity of the scholarship model as the de-facto way for new users to start playing.

Now that we've established a framework of how the Axie scholarship model works, we will take a look at other P2E games to see if a similar model could work. Some of the key factors that we will be looking at are the cost of entry, potential earnings, and accessibility.

CryptoBlades

CryptoBlades is a browser-based NFT role-playing game based on the Binance Smart Chain network that allows players to recruit heroes and battle enemies by forging weapons with rare attributes. The game caught significant attention among many play-to-earn enthusiasts as Axie Infinity's popularity surged, resulting in a 3,000% price increase of its in-game token, SKILL.
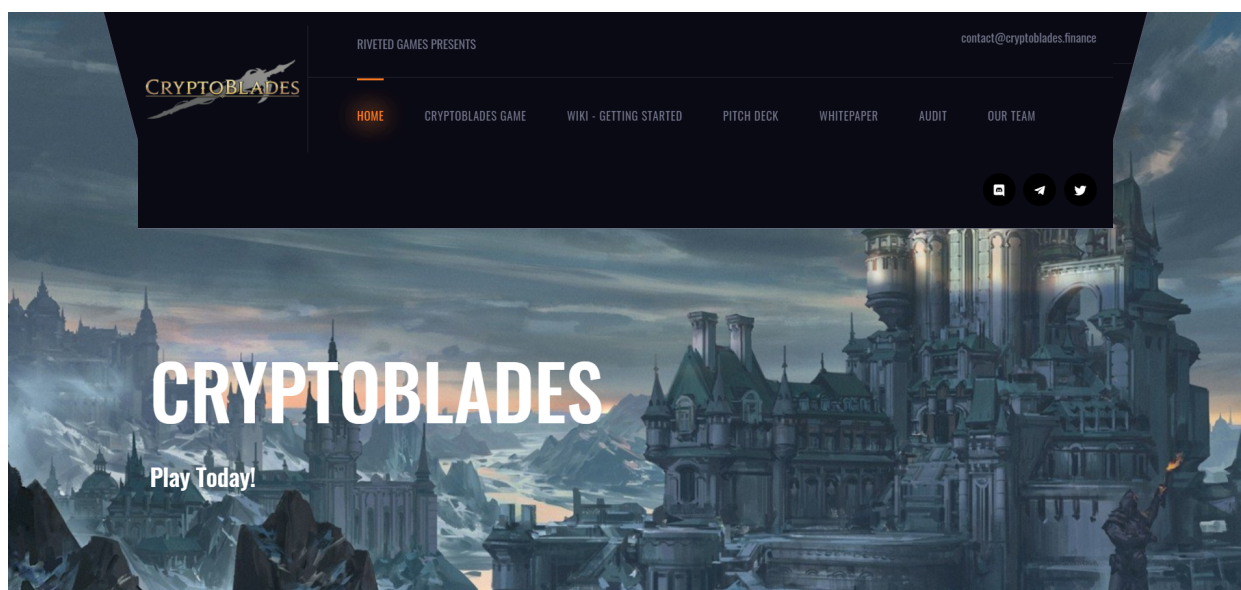
SKILL is required for players to recruit characters and to forge new weapons. Each time an enemy is defeated, players will receive SKILL based on the enemy's level as well as their own character's level. The outcome of each battle is determined by randomized player and enemy rolls, derived using Chainlink's Verifiable Random Function. To perform all these actions

Gameplay

The range of the enemy's rolls is based on a combination of the character's traits, weapon attributes, and the weapon's bonus power. To put it simply, you will have a higher chance of winning if you have a weapon that matches the element of your character. Also, you will have an advantage or disadvantage against enemies of other elemental types, as shown below.

If you're eager to jump in, you have to get some SKILL to recruit your first random character, which comes with a free weapon. You can have up to a maximum of 4 characters, each with up to 200 stamina to battle opponents. A minimum of 40 stamina is required to participate in a battle, and on any given day, you can battle up to 7 opponents per character.

Transaction costs to initiate a battle can be anywhere from 20 to 30 cents, depending on the price of Binance Coin (BNB). To save on these costs, you can opt to commit varying amounts of stamina to a single battle, allowing you to receive amplified rewards. For example, using 40 stamina grants you the base rewards for a single battle, while using all 200 stamina points will reward you with 5x the amount of SKILL and experience points while only paying transaction fees once.
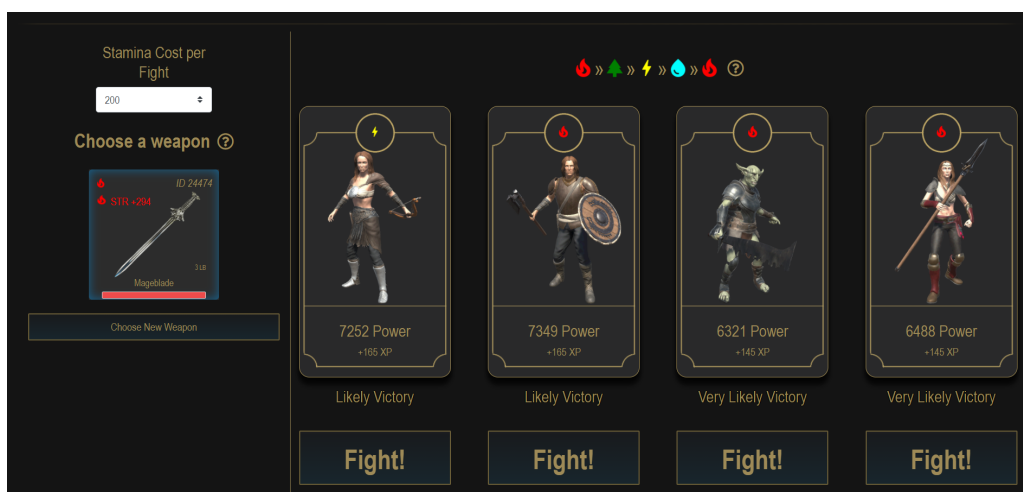
Unlike characters, you can have an unlimited number of weapons in your account. Weapons are not bound to any character and can be shared between them. Upon forging a new weapon, the unique NFT received comes with a random element and rarity. Weapon rarity is determined upon minting and is divided into tiers, from 1-star weapons to 5-star weapons. As a rule of thumb, a weapon with a higher rarity will tend to have much better stats.
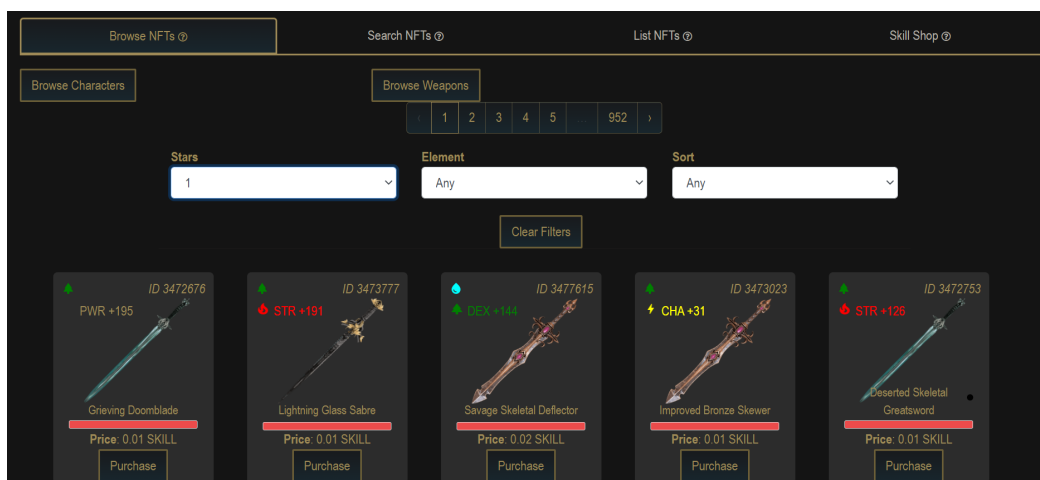
If randomness is not something you would prefer, you can opt to head to the marketplace to purchase characters and weapons from other players. However, purchasing an item on the marketplace will incur an additional 10% tax, and you must wait at least 24 hours before you can relist or trade them. Otherwise, you can often find highly undervalued items as well as cheap characters and weapons to begin your CryptoBlades journey.

All in all, the game itself is relatively easy to play and does not require much skill. **What you are really betting on is whether the outcome of the roll is in your favor**, making it **more of a luck-based game** rather than a skill-based one. On top of that, all transactions within the game, from forging weapons to battling enemies and collecting experience points, incur additional transaction costs. Nonetheless, it is still a Play-to-Earn game in a sense, but how is it faring so far?

Potential Earnings

As of 6th August, it takes about 0.45 SKILL to recruit a character and forge a weapon. At $50 per skill, it cost **just about $23** to start playing. Using the earnings calculator provided on the CryptoBlades interface, the daily and monthly profits for various wins per day are shown below. Note that losing battles will not net you any experience points or SKILL.

At the moment, we can already see that you could **only break even after playing for more than two months**. Of course, that is assuming you win every single battle. If luck is not on your side, you may even be losing money.

Yet, this is based purely on the upfront costs of the player. By finding cheap characters and weapons on the secondary market, it is possible to start playing with just half the amount of SKILL required, which makes it easier for you to begin profiting from CryptoBlades. On top of that, leveling up will grant you a higher amount of SKILL after winning each battle.

Though, the **real concern here is on the price of SKILL itself**. Since there are clearly defined fixed costs (costs of the character and weapon) and variable costs (transaction costs) for each battle, it may not be economically viable to even play the game should the transaction costs itself exceed the value of SKILL received. However, new features such as the upcoming Player vs. Player Arena could be a more lucrative alternative.

In short, the **barrier to entry is much lower** compared to Axie Infinity; thus it **does not seem that a scholarship system is necessary for now**. Even though transaction costs make up a significant portion of the game, the fact that it is on Binance Smart Chain makes it more palatable for retail and casual gamers. Security is also a valid concern as a Metamask account is required to access the game, and it is tied together with your in-game assets.

Cometh

Moving away from the fantasy genre, Cometh.io is a space-based P2E game that has put its own unique spin on the popular yield-farming concept from DeFi. The game can be played directly from your browser without any additional downloads or even without a Metamask wallet!
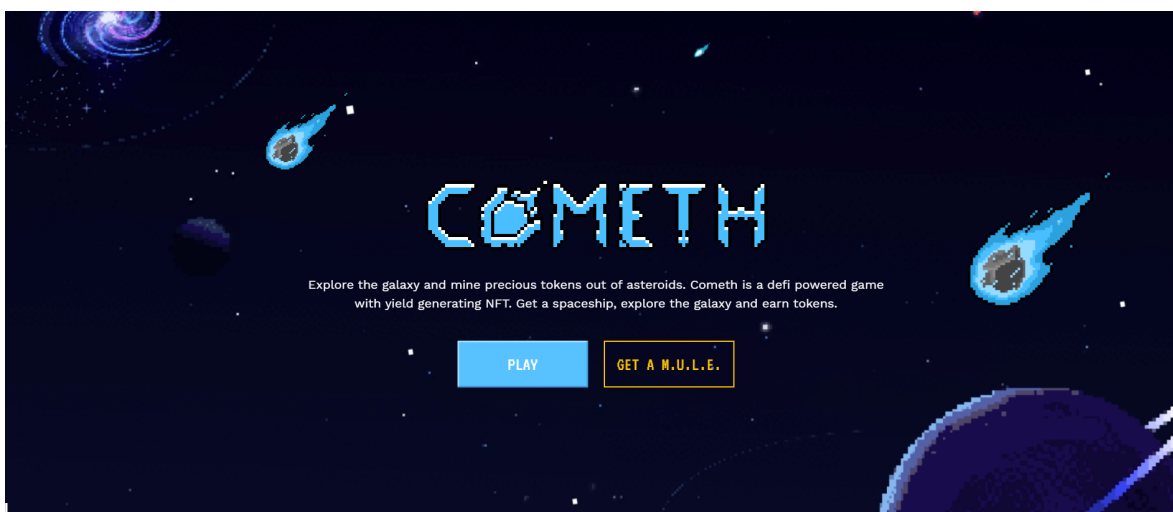
All you need to start playing is a spaceship NFT, their in-game token known as MUST, as well as some MATIC to pay for transaction fees. The objective of the game is to use a variety of spaceships with different abilities to mine passing asteroids and comets for token rewards.

Gameplay

Let's start off with the most crucial aspect of the game - the spaceships. On the Polygon network, these are represented as yield-generating NFTs, and each vessel has its own unique characteristics. Among these attributes are the ship's mining power and range, which will determine the proportion of mining rewards received by your spaceship and the size of your ship's mining area, respectively. The ship's mining capabilities can be further upgraded with other NFTs such as drills and engineers.

To obtain your very own ship, you can purchase a starter kit directly from the Cometh Shop, which comes with a certain amount of MUST to perform in-game moves. Prices range anywhere from 10 MATIC to 30,000 MATIC but note that the cheapest kit, which includes the MULE training ship, cannot be used for mining and serves to help players familiarize themselves with the game before committing to a larger and better ship.

Otherwise, you can also choose to purchase a ship off the secondary market on OpenSea, but you would have to acquire some MUST on your own before you can start mining. Besides that, you can also stake your MUST tokens in the Tube, which will generate another form of currency called DUST. DUST can be used to mint rare and exclusive spaceships in collaboration with other projects such as Stake DAO and APY Vision.
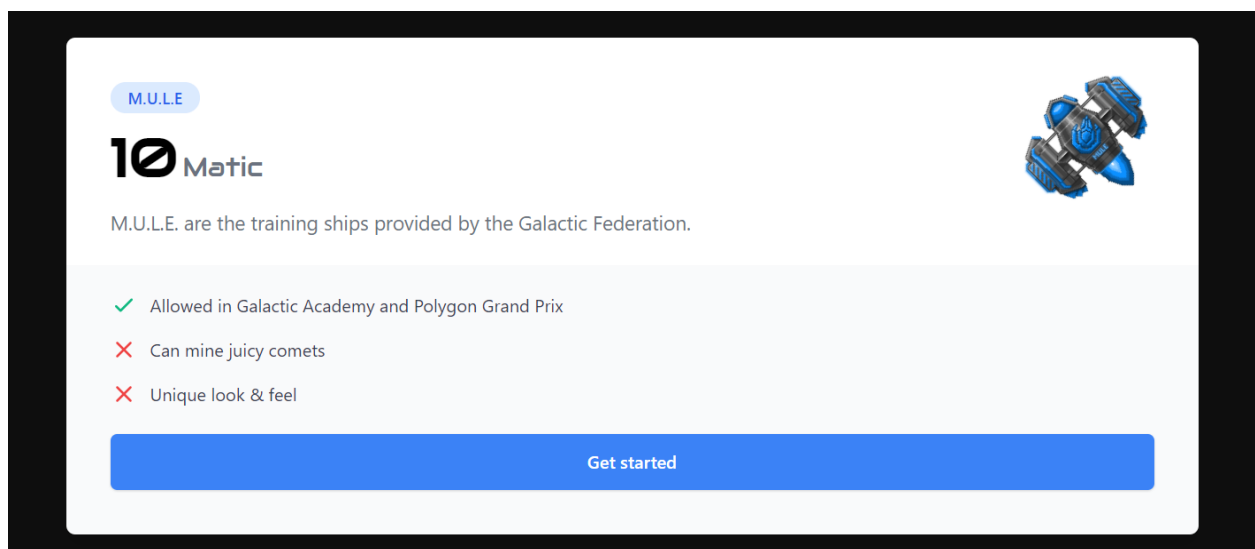
Once you have a spaceship ready, it's time to head into the game. Upon entering, you will be greeted with a bird's eye view of the current galaxy you are in. There will be hundreds of other spaceships in the same galaxy, represented as colored dots orbiting the sun. Your own ship is represented as a large dot orbiting a red line while the comets' orbits are light blue.

To travel and change the course of your ship's movement, you would have to pull your ship halfway towards other players' vessels in the vicinity. The ultimate goal here is to pull yourself towards other spaceships to get as close to the comets as possible, but these actions are not free and must be paid for using MUST. Depending on the players, the pulling price can range anywhere from 0.0005 MUST to 0.01 MUST.

Before you select a comet to chase after, it would be wise to calculate how many pulls it would take to reach their orbit. In most cases, you would have to jump through multiple other ships before you could chase it. To see if it's worth your while, you can also view each comet's details, such as the amount and type of rewards received. For example, this comet grants you GHST/MUST LP tokens as a reward.
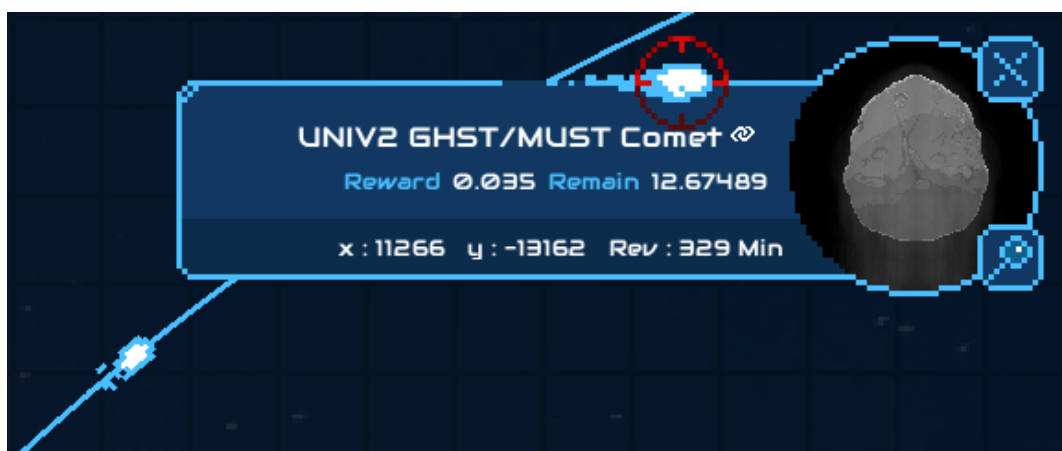
Upon reaching the comet's trajectory, you can zoom onto your ship to view its mining area, as determined by the aura surrounding your ship. You need to position your spaceship so that the comet flies through your spaceship's aura, which will open a prompt for you to mine the comet. Once the transaction is verified, you will receive your mining rewards!

However, other comets require a more complex form of mining. For certain radioactive comets, you need to deposit a rover onto the comet and retrieve it back later to collect the mined rewards. You can only deposit one rover per ship, but you can still mine the basic comets normally. The rover continuously accrues tokens every second once deployed; however, do be aware of the remaining rewards that have yet to be claimed from the comet. Once it runs out, the comet will be destroyed, and your rover will return empty-handed!

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In certain solar systems, radioactive comets appear much more frequently than regular comets, but they are much harder to mine, simply because you need to pass the comet twice to reap your harvest. If the comets in your area are not up to par, you can travel to other solar systems through designated portals near the sun. Like mining, your ship needs to be in the portal's aura to initiate travel, which will cost 0.001 MUST.

Potential Earnings

Since the game's native token is also required to perform in-game actions, the costs of playing the game regularly become much harder to predict as it is affected by various factors. Assuming that you enter the game with a starter kit, your initial investment already includes some MUST for you to begin chasing comets.

For example, the cheapest starter pack costs 200 MATIC, or around $254, as of 11th August. The pack comes with approximately 0.48 MUST, about $49, which could last anywhere from 160 to 1600 jumps, so you're really paying only around $205 for a spaceship. Compared to spaceships on OpenSea that are currently selling for 0.06 ETH (≈$190), a starter kit would seem like a better deal, but it also highly depends on how active you are as well as your skill level.

If the cheapest vessel is still far beyond your budget, you may also consider renting a spaceship, which is very similar to an Axie scholarship, minus the application forms. Cometh's rental system allows ship owners to lend out their more powerful ships, while borrowers can enjoy playing with them without committing a hefty upfront payment. For each rental contract, the owner stipulates the loan duration and percentage of mining rewards received by the owner. 100% of the ship's pull fees are received by the borrower.
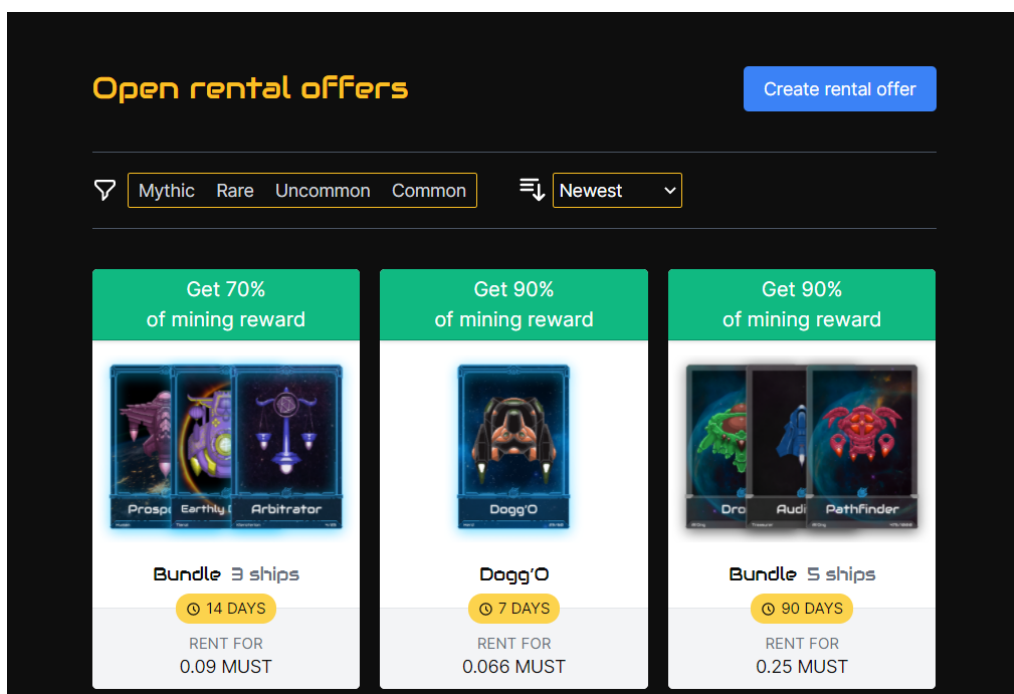
Unlike CryptoBlades and Axie Infinity, the gameplay of Cometh is somewhere in between, where you can be passive, but you can also play it in an active manner. You could pro-actively jump to other ships to catch every comet or slowly adjust your trajectory to reach a particular comet after some time. Timing paths towards a comet can be tricky at first, and it is highly likely that you will lose some money while learning the ropes.

As such, learning how to jump efficiently and accurately will make a difference in mining costs. In the beginning, you could jump well over 5 to 10 times to catch a juicy comet, only to watch it barely slip past your ship's mining area. Therefore, the **costs for each mining expedition could differ vastly based on the number of jumps taken**. Of course, another option is to wait for your ship to slowly travel along its orbit to a better position before jumping, but do note that other ships are also constantly moving and updating their pull prices, which would affect your strategy.

Since players can expect to find various tokens based on the comets they've mined, your **yield tends to fluctuate based on token price, but the risk is diversified**. Receiving token rewards that are exogenous to the game's ecosystem helps to remove much of the risk in the event of a 'death spiral'. For example, if players continuously sell their native token rewards, this would

result in a smaller yield. Subsequently, players will be less incentivized to play, further lowering demand. Although different tokens are exposed to a wider variety of risks, it is much less concentrated within the game's ecosystem itself should the game fail to take off.

A comet-catching expedition could always end up in flames, but how do you actually know whether you're in the green? Luckily, Cometh has provided an in-game user interface that shows your jump expenses as well as your earnings from comets and pulls.

Fleet Statistics

Jumps	100
Pulled	2
Comets mined	1
Yield	-95%
Jumps expense	19.58 $
	0.18729277464 MUST
Pull earning	0.00 $
	0.000002 MUST
Comets earning	0.89 $
	see more...
Total	-18.69 $

Leaderboard

All in all, Cometh is a game that is highly **accessible to newcomers**, offering a seamless browser experience with the added option of using email logins. This makes it even easier for non-crypto natives to test it out. The gameplay is more casual and slow-paced, which may not be for everyone, but the training ships are an affordable way to test the waters and see if it suits your tastes.

Cometh's $200 price tag for one of its lower-tiered ships, could spark the need for a scholarship model to exist, but Cometh's rental system already does just that. The rental model bears some similarities to Axie Infinity's scholarship model, especially from the revenue sharing aspect, but it has some key differences:

- Unlike Axie Infinity, which uses only one dedicated scholarship account per scholar, **Cometh players may use their personal accounts** to rent any number of spaceships.

    However, there are no upfront costs that have to be paid to acquire an Axie scholarship, while Cometh requires several fees such as the rental fee and the 5% protocol fee. Additionally, players would need to have their **own supply of MUST** to pay for in-game actions, while Axie Infinity does not require additional currencies to play the game.

- Cometh provides a **dedicated platform for revenue-sharing**, where both parties can claim their respective earnings or have them automatically sent to them upon the completion of the rental agreement.

  On the other hand, Axie scholarship providers still retain control of the scholar accounts, so they must actively claim the earned SLP and send the scholar's share to their personal accounts.

  In other words, Cometh **removes much of the micromanaging issues** that may otherwise arise if the earnings are bound to the ship's owner.

- Axie scholars usually have to meet a daily or weekly quota of SLP earnings to keep their position in the program. They are subject to the scholarship provider's requirements, which may result in unfair treatment.

  In Cometh, the rental agreement cannot be terminated prematurely unless both parties agree. After expiry, the contract will continue unless either party chooses to close it. Here, the **contract terms are dictated clearly and cannot be changed** at the lender's discretion.

Final Thoughts

Most P2E games today would want to be as inclusive as possible by inviting everyone to play their game and start making money. Yet, it is inevitable that as the game begins to rise in popularity, the rising costs of entry will act as a deterrent for many newcomers. Having a scholarship-like system does help more people to play the game without investing a large sum of capital upfront. However, these are some things to keep in mind when considering **whether a scholarship model will thrive or succeed for a particular game**.

Firstly, the barrier for entry needs to be **high enough for a scholarship model** even to exist. It doesn't make much sense to give out scholarship slots if you only need about $5 to start playing, but it can work if the game promotes better results through more expensive in-game items. In other words, the game becomes 'pay-to-win' where you can win more battles or receive higher yields from mining if you purchase the best Axies or spaceships. This particular environment is where the scholarship model can provide access to better equipment for users who cannot afford them.

v.1st Mar									
Pickles	Radar	Mining Area	Drill	Mining Power	Machinery	Cooldown	Rover Power	Total Modifier	Rarity	Supply
Pickle	-2	9	2	140	2	180	140	2	Unco	50
Slice	6	33	0	100	-4	540	20	2	Unco	50
Sandwich	1	19,5	4	220	-1	390	70	4	Rare	5
The Mason Jar	1	21	8	420	-3	660	10	6	Mythic	1

v.22nd Mar									
Badger	Radar	Mining Area	Drill	Mining Power	Machinery	Cooldown	Rover Power	Total Modifier	Rarity	Supply
Anakuma	0,5	16,5	1,5	130	0	300	100	2	Unco	100
Mellivora	-0,5	12,75	5	250	-0,5	345	85	4	Rare	5
Leucurus	0,5	17,25	3	190	0,5	255	115	4	Rare	5
Capensis	1	21	3,5	240	1,5	120	160	6	Mythic	1

V.7 April									
Alchemix/ Wizards	Radar	Mining Area	Drill	Mining Power	Machinery	Cooldown	Rover Power	Total Modifier	Rarity	Supply
Croissant	1	18	2	140	-1	360	80	2	Unco	50
Friendmaker	1	19,5	0,5	115	2,5	75	175	4	Rare	5
Space Crab	0	15	5	250	-1	390	70	4	Rare	5
Liberator	7	57	3	220	-4	780	10	6	Mythic	1

Next, we have to consider the **state of the game's economy and whether it can remain sustainable**. If rewards are sold off more than are cycled back into the ecosystem, then it will be challenging to maintain a scholarship once it no longer becomes profitable. As we've seen in CryptoBlades, players were given free SKILL to be used in-game upon joining, resulting in a mass character and weapon minting situation.

An increase in supply for these assets will quickly drive down the prices, making it even easier for new players to enter the game, but at the cost of lowering the native token's demand on the market. As more players collect and sell their earnings while the demand for SKILL declines, it will ultimately result in lower yields until you cannot 'play-to-earn' any longer.

Besides that, the game's existing **infrastructure should be able to accommodate the needs for a scholarship** to succeed. Games on alternative chains such as Binance Smart Chain and Polygon are finding moderate success due to faster transaction times and lower fees. While games on Ethereum are possible, the high transaction costs will price out many players from participating.

There should also be a **clear separation of control between the asset owners and borrowers**, where users can access the game with the assets while control of the assets still rests in the owner's hands. By having a dedicated scholarship platform or using only email and QR code logins, players can still access the game without actually controlling the linked wallet. In Cometh's case, owners can choose to terminate the contract upon expiry to reclaim their assets.

However, this would not be possible without the **support of the game's development team**. SkyMavis have been very supportive of Axie Infinity's scholarship program, which has led to many more programs opening and increasing their player base. However, this is not the only solution as developers have also added new features to pre-emptively combat high entry barriers.

For example, Plants vs. Undead (PVU), an upcoming NFT tower defense game, introduced a new farming mode to lower the barrier, allowing players to start earning with only 5 PVU tokens or about $75, as of 20th August 2021. Although the main game will require you to purchase plants that start from as low as 92 PVU, this mode does not require any plants and is an excellent way for newcomers to participate in the ecosystem before the official launch.
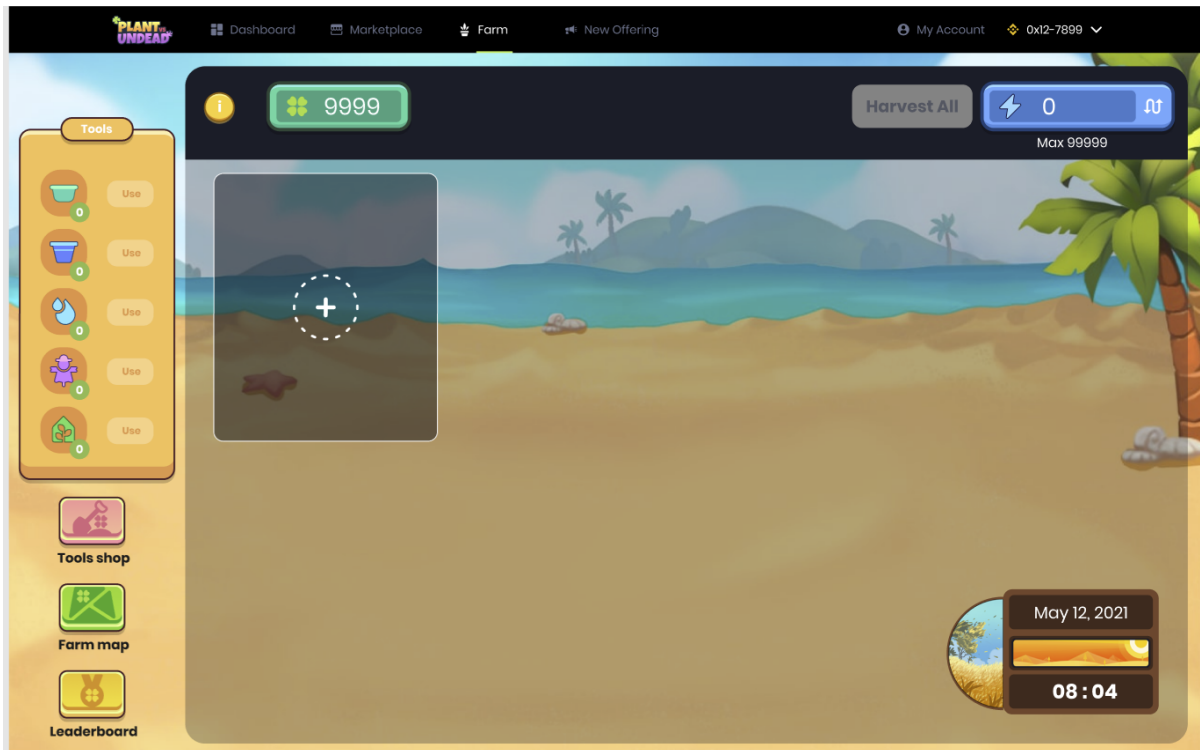
Last but not least, the game should be **enjoyable and quick to learn**. If it is too difficult to play, players may be less inclined to play, even if they could earn money from it. A learning curve that is too steep may result in discouraged players, but a game that is not fun at all will result in no players. Ultimately, a game is only as strong as its community, and developers should prioritize their audience's concerns more than anything else.