

Pixelmon

Game Design Document

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Summary

This document is here to suggest ideas on how to improve the current Pixelmon and provide insight into how these ideas could be implemented.

Currently, I believe there are three main reasons players play Pixelmon:

1. Collection/Training Pixelmon
2. Battling verse Players and NPCs
3. Building with Pokemon in mind

These three reasons are what bring players on to servers to play Pixelmon.

We also have the advantage of attracting fans of VintageBeef, but to keep them staying I do believe we need to improve the three reasons given above.

Currently I believe these are problems with the current setup:

1. Way to many features for players right from the beginning. Very difficult for new players to join at first.
2. No simple way to fight other players.
3. Not many ways to interact with other players

The goal with my suggestions is to adapt the server to help improve the three main reasons and the problems highlighted above with an experience that players feel are close to the game/anime.

Suggested Features:

- To allow for players to not get crowded instantly with features. Have a staggering system for unlocking each feature. These unlocks would happen via a completely simple tutorial related to the feature. After completing all current unlocked features, unlock a new set. (Go to here to see how this is suggested to run)
- Creating a better progression system to accompany fighting gyms to better simulate the game's experience. Including a Rival system (Battle a Rival that progresses with you to earn overall gym rewards.
- Improving the current PVP system to allow for more competitive players to fight each other with less hassles.
- Improving Player gyms by letting any player register their place is a gym and selecting creating their own set of pokemon and gyms.
- Creating a Pokemon Champion that the server can fight for via a system similar to 24/7 KOTH

Suggested Improvements

- UI for the Battle Pass (Go here for details)
- Gym UI doesn't work (VIA /menu)
- Allow players to warp to gym from /menu

Improving Player Gyms

The goal with these improvements would be mainly around letting creative players showcase their builds in a pokemon themed way.

Summary:

The goal with this would be from the /gyms player menu you could see a list of all the different player gyms. Players can create a gym by creating a npc inside their claim with a command. This would pop up a menu where a player can select what type of rule set they want. Showcases the pokemon that will be in the gym (the players 6 current pokemon) and the ability to rename the gym. A player can set a specific type for the gym but players can pick any to allow for creative freedom for the player to design the gym how they want. Players can upvote a gym allowing for a better sorting system in the menu for popular gyms to be displayed first. Although a player can sort by other things then just upvotes (New, Old, visits, Win/losses)

How will this work

There are two important perspectives to take care of.

Gym challengers

- Navigating the menu
- Ease of Challenging
- Rewards

For the Navigating menu not much needs to be changed from how it currently is displayed.



Changes made to how it currently is displayed includes moving the Show Categories to the left corner and renaming it Back to Categories. There will also be a '!' item in the middle which will be where players can see information about how players can create their own gym. For the badge icons players will either see a preselected gym badge or the players head. Hovering over will show the exact same thing that is displayed now. The size of the gui should also be changed to be a double chest.

For the ease of challenging players will be able to quickly warp to the gym or they can see in the menu if a player is currently challenging the gym or not. The queue system will also help to allow players to quickly select the gym they want and then not need to wait on the screen/at the gym for a player to leave.

To also improve the ease of challenging players at the gym will see text above the npc head with the following text:

Currently Battling (%num_of_queued_players% in queue)
Next up: %Player_Name%

Currently, I believe the only way to reward players would be a progression check (Get reward for completing X num of Gyms) as allowing players to set rewards/entrance fees might cause problems. **Subject to change**

Gym Creator/Leader

- Gym creation
- Gym updates

For Gym creators, the goal is to simplify the process for builders to easily create an attraction while also allowing for players who are more competitive to set up a challenging battle.

To activate a gym a player only needs to create the npc. It doesn't matter if the player has a massive gym or it's in the middle of nowhere that is up to the creator. To do this a player would run a command:

- /gym create (name) would pop up a menu to begin setting up the gym at the position of the command

When inside the GUI the following things should be displayed:

- Name Tag to edit the Gym name
- The ability to change the icon for the gym (Opens a catalog to select any badges or the players head) could add custom badges for donator ranks etc
- 6 Slots showcasing the 6 pokemon the player (On creation would display the pokemon the player currently has. If possible would be nice for players to be able to select one of these slots then select from there computer
- Options for Combat rules (Max Level, Max Pokemon, etc)

For updating a Gym, creators should be able to re open the menu they see in /gym create (name). Allowing them to change all the settings. **Subject to change.** This would be done via a command like /gym edit (name) only allowing the creator or someone with admin permission to edit.

Feature Tutorials

The goal with updating the Features menu is to be able to provide a little more hand holding for when players first join (especially new players). This allows for players to understand what each feature does with a simple quest that explores the major feature of it.

Summary:

When first joining players do not have every feature unlocked. Players will have a select few from the menu and to unlock other features the player has to complete a simple quest for the features currently unlocked.

For example when the player joins they have these 3 features unlocked:

- Those being Daily Quest, Quests and Battlepass
- Each one of these had a quest to complete IE Daily Quest just needed you to collect the next reward. For Quest the player needs to start a quest and for Battlepass collect lvl 1 reward.
- Once all three quests are unlocked the next three are unlocked.

These quests shouldn't be difficult and shouldn't push the player from how they would play anyways.

How this would work:



How this would be set up would be slightly modifying the Menu to display any unlocked features the same but locked features would show up as the Barrier item. If you hover the barrier you'll see the following:

ItemName

Unlock this feature in X amount of feature quest completes

For players to know what quests are currently available they can either click on a non unlocked feature or hover on the item in the top row in the middle (Unsure the item to be displayed). This item will display all current quests and how many quests have been completed.

Note some features do use xp etc like Battle Pass XP, pokedex etc. Anything like this would still record and change before the feature is 'unlocked' but will not be able to claim rewards before unlocking it. (Can not complete a feature quests before unlocking the feature).

Elo System

The Elo system would provide a system to allow for players to be able to get quick matches with other players while also providing a way for more competitive players to have a reason to create the best team possible.

Summary:

Players can fight other players by running a simple duel command to queue up. Players will earn points if they win and lose points if they lose. Providing a simple way for online players to verse other online players and motivating them to stay competitive.

How will this work?

The main area of focus is how we distribute elo. A few things I'm considering when deciding how I believe the Elo system should work:

- How will it handle low entrants
- How will new players who hop in feel
- How will major level differences affect elo growth or decrease
- How will the system when there are repeats

With these problems highlighted I'd like to suggest two different ways of handling that should be focused on in more detail:

Using the Chess Elo System

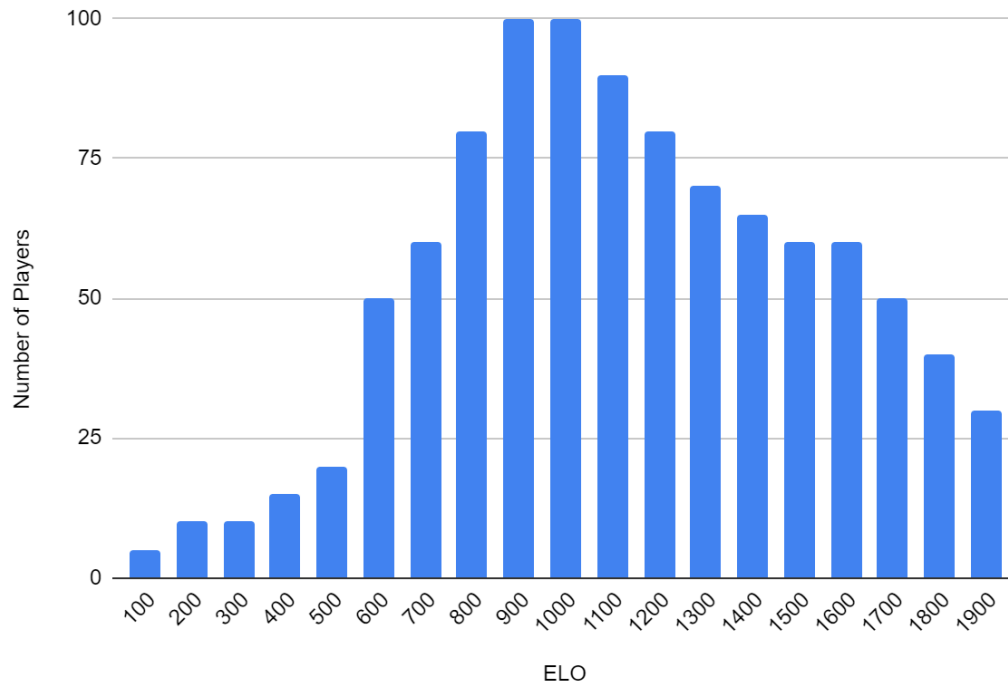
- The same system Pokemon Showdown uses (Online competitive Pokemon duels). In calculating the elo of the player it judges by looking at the differences between the two. (Look at the Calculation to understand the equation [LINK](#))
- This allows even low entrants/a wide range of elo to have fair elo gains for both sides.
- We'd still ensure priorities around queuing players together who are close play together first before creating larger gaps
- This is a very competitive format. It rewards players for winning more against higher players. Could be a problem at creating a unenjoyable experience for players.

Using the Combination of the Chess Elo System with a Fixed gains and losses for lower elos

- Inspired by a system similar to what was used in SF6 Elo system
- At lower ranks players who are at a 50% win rate would be at a +X fixed gain at least. This does result in a larger group in the middle of the elo but allows for players to feel more achieved while also providing space for more competitive players to grind once

they hit a certain point where there is no more fixed gain. IE below is a example of how this who distribute players (Numbers are all examples and not prediction

Number of players at each percentile



- For players 'smurfing' or on win streaks players will still need to be able to advance quickly experientially before normal players would hit the point where fixed gains are still around. This can be done via skipping ELO groups (From example skipping 800 from 799 to 900)
- Players who play a lot but are at a 50% win rate are rewarded more than the player who plays less but is winning more isn't showcased to be a better player at lower elos.

Queues and joining games

To help simplify the process players will only need to do a one word command (IE /pvp). The command will open up a one row gui with some information about what is about to happen.

First item: Contains quick information about the duel type, the max level, etc.

Second Item: Warns to prepare your team before commencing team as once the queue pops they can not leave.

Third Item: Warns that leaving the game before finish will give you a 30 second timer (**To be decided**) and if they do not return in time they will automatically lose.

Forth Item: Shows there current elo and the elo range that the player is most likely to face

Fifth Item: Players can click this item to close the gui and start the queue

Sixth Item: Allows players to toggle this menu opening up when doing /pvp and instead instantly starting the queue.

This will send them into the matchmaking queue. Players will then be set inside a group and once a player is found (Look below for information around how matchmaking occurs) in the time they are waiting players can still freely play minecraft while they wait for the match to begin. Once the system finds another player to match with, both players are sent a message to confirm that they are ready. To confirm players can either click a box in chat saying they are ready or do a command to confirm they are ready. The message should include any warnings for anything that may occur once they are teleported out. Once players are teleported, they commence the fight immediately.

Improving PvE progression

The goal is to create a similar progression experience to what the player would experience in the Pokemon Games.

Summary:

Updating gyms so that only one gym is unlocked at a time. Updating to include a weekly' elite four that players can battle each week for rewards after defeating all the gyms.

How will this work? (Gyms)

Not much needs to be changed to the current GUI except for any gym that currently is locked should have the block changed to a barrier block. To determine what is unlocked/locked I suggest using permissions. Permission also allows us to stop them from using /warp (name) and With unlocked gyms should also now display their suggested level.

After defeating a gym players will unlock the next one and it will now be warpable.

After defeating all gyms the current versions of them are all available for players to defeat with one time rewards.

Rewards to be determined.

How will this work? (Elite four)

For players who have defeated all gyms at least once are now able to fight the elite four, the elite four will now be available for players to face. This will act as similar as possible to what would happen in the game. Versing all four without being able to use a healer/leave.

To create a less repetitive aspect, it would be nice to be able to create different sets of 4 trainers. So that a staff member could add a new set themselves manually without a dev needing to do it.

The ideal use of this would be to duplicate each set of elite 4 in the game and then have the system rotate each week.

Rewards to be determined.

Pokemon Champion KOTH

Goal is to create another system that enables a more player interactive system while making it less toxic by making it so the actual fight is just a player versus a npc.

Summary:

Players compete for the Pokemon Champion. Whoever beats the elite 4 first and then will gain the title of Pokemon Champion, when this happens all players now have the opportunity to fight the players team that they used in elite 4. If the player beats the Pokemon Champion they become the Champion and their team they used to beat the pokemon champion is duplicated over to the NPC.

How will this work?

Overall a NPC duplicates the last victorious team and any player can face the champions Team. Similar to a KOTH, players who stay as champion will earn passive rewards by how long they stay in for.

To start off: When the servers start to claim the first champion, it will be given to whoever beats the elite four first.

Location: Will need a new warp for players to warp to display the champion, if the champion is vacant display a hologram explaining how a player can claim the spot. If there is a champion display there IGN and there current time. While also including to the side a leaderboard to show the top times.

Menu: Display in the feature menu with the block: **to be determined**, with the lore set to display the current player and their time currently. Below that display the rewards that are possible.