Common elements

Cognitive immersion

Players are pushed to limits immediately before lose condition

Possibility of losing exists at all times

Communication with team, work together to determine and effect solution

Strong visual indicators due to chaotic nature of scenes

Simple control scheme, may actions

Players constantly assessing situation

Element of game balancing

Players constantly anticipating next activity/next hazard

Intuitive UI

**Raiders of the Lost Islands**

* The possibility of character death/personal progress reset is almost constant.
* Level design puts obstacles in front of players, allows for interaction of other players to hinder success.
* Group aim with individual motives – players work toward collaborative goal. During this, players compete for most successful gatherer. Being too selfish can lose all players the game.
  + Schadenfreude
* Good example of **cognitive immersion**. Players must be watching on-screen elements always to decide on strategy.
  + Water level rising/falling restricts/reveals new areas of map and objects to collect. Players must beware of
  + Other players must be watched to determine which areas they are looting, whether they are playing competitively to hinder others, what their score might be (score is hidden during play), whether their position allows them to hinder you.
  + Collectibles must be assessed to decide which routes are the most viable options, where the highest score items are placed, which ones have already been collected, where other players are likely to go to help build your strategy
  + Objective build progress must be watched to define individual strategy.
* In the current game, the player rewards appear to come exclusively from the social interaction with other players and achieving a score higher than that of your team mates. There is no material in game reward/progress system.
* Communication between players is less productive than the other examples – from gameplay videos, few teams need to actively organise all members to meet the win condition of the level. There is panic at the changing eater level, shouts of regret as players die and exchanges of threats – but each player trying to outperform each other without coordination appears to be enough to win the level.

**Overcooked**

* Basic and limited player actions available (movement, action button)
* One button controller input is used to affect all player interactions
* The game forces players to cooperate and organise themselves in relation to on-screen action, else they will not meet the win condition
* Advancing in the game does yield rewards. These rewards are set milestones and make your progress visible to other players. ‘tribal reward’ to make player feel noticed, important
* UI elements do not feature any detail beyond the minimum players need to associate the graphic with a countdown.
* ‘actionable’ selection is telegraphed to players by the square section in front of the player becoming lighter in colour (if selectable)
* Rewards which players can earn in multiplayer elements come in the form of star rating (for team performance only). Importance is placed on these outcomes as stars are required to unlock future levels to continue play.
* Good example of **cognitive immersion**. Players must be watching on-screen elements always to decide on strategy.
  + Teammates must be organised efficiently.
  + Players must keep track of orders, current hazards, locations of upcoming items, individual roles of others, player and action locations, available pathways, predict which other players may interfere with their role tasks.
* Significant fiero pay off on victory
* Once established, an elements visuals stay the same throughout the game, helping to telegraph function to player.
* Players constantly anticipating next menu item, what may go wrong next
* Game is fast-paced, entry skill level is low, skill is cognitive
* Physics based movement can yield some chance
* Players are pushed to maximum before lose condition is met – too much cognitive focus to maintain, more constantly being added
* Game is balanced to assumed skill level depending on total number of competing players

**Catastronauts**

* Fast paced gameplay.
* Creates cognitive immersion – players must watch for hazards, actionable activities, where team mates are positioned and the tools available by the team to counteract hazards.
* Game forces communication as team prioritise.
* No unlocks/rewards/player progress.
* Player reward is enjoyment of game itself – people fun and hard fun.
* Game is balanced to assumed skill level depending on total number of competing players
* Players are pushed to maximum before lose condition is met – too much cognitive focus to maintain, more constantly being added
* Particle systems are used to telegraph immediate hazards to players in addition to very basic, 2-colour UI bars

**Speed runners**

* Although players may call a ‘truce’ to team up on a player, the game is intended to be a competitive free-for-all.
* Game is excellent source of schadenfreude
* High-paced nature of game with high entry skill threshold may be a barrier to many players.
* Imagery of power-ups, routes and hazards is consistent, allowing players to identify with ease amongst the panic.
* The speed is gradually increased as game reaches end condition. Causes high level of amusement in players, increases player focus. Player reaches skill limit before losing.
* Significant fiero pay off on victory.
* Game has an integral balancing mechanic (winning player runs closest to screen front edge)
* Either player can lose the game at any time
* Using physics (gravity/friction) and random power ups give chance to outcome, balancing game
* Game offers cognitive immersion where all players must:
  + Be aware of each players position
  + Be aware of each player power-up
  + Be aware of and attempt to remember upcoming map layout
  + Angle and speed of movement of other players
* Physical skill checks
  + Timing is hugely important, once an opening is spotted fast reflexes will aide the player
* No rewards beyond rewards of the tribe. Making player feel important (story missions allow access to new player costumes)
* On winning a level animated gif of winning player character is shown
* Has a skill mastery loop

**Lovers in a dangerous space time**

* Cognitively demanding. Creates player focus by asking players to:
  + Maintain awareness of player position in ship interior
  + Maintain awareness of tool position in ship outer
  + Maintain level awareness to help decide and prioritise tool access
* Player ship is adjusted based on number of active player (balanced)
* Ship is steered and tools on ship move by physics, random chance
* Players are always assessing situation to find best solution, then communicating with team to ensure most effective seats are swapped to in as short a time as possible
* Only rewards are new player avatar (reward of the tribe) – let other people see you progress, feel important.
* On initial encounters with enemies and puzzles players are given little indication of how to avoid/overcome obstacles. Learning is trial and error.
* Game is paced more slowly than the other examples but requires more skill from each player to overcome obstacles.
* Same 4 player level is passable with only 2 teammates if they are skilled enough.

**Ultima Online (house decay)**

* Interesting mechanic (avoidance) where if a castle goes unattended, resources, defenders, influences soldiers all diminish gradually, until owning player no longer owns keep.

Further research:

**Guns of Icarus**

* Gameplay is very similar to our design (close to a first-person experience of groups current design)
* Cooperative gameplay is a huge element of the game.
* Players must coordinate to counter attackers, while also prioritising how to manage incoming damage and the restrictions this causes.
* Player positioning and skill level are a significant part of the game
* Positive feedback loops – if a team’s ship becomes damaged, becomes increasingly harder to survive
* Game creates very intense state of panic throughout the team – all team members must be communicating while actively completing tasks and predicting future tasks
* Game features a player class system where certain players are more adept at certain tasks (complete faster, use less resources) and only able to complete specific tasks
* Some items exist as tools within the level and must be picked up and taken to complete the task at a component – add functionality that is not present in player classes
* Repairing and mitigating damage is done is stages. Rather than a set time period from when players begin a task, each player interaction restores a portion of the activities capacity. This allows for higher pressure situations where performing perfectly will only maintain – at best – the current situation.