THE FIGHTING GAME RESOURCE COMPENDIUM

VIEWING IN "PRINT LAYOUT" RECOMMENDED!

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(Version backups here, occasionally uploaded manually when I remember to do so)

Preface

The purpose of this document is to be a convenient reference resource that centralizes and summarizes fighting game knowledge and tips accumulated via various sources.

The focus is not just on teaching people how to PLAY fighting games, but teaching them how to LEARN and UNDERSTAND fighting games.

The goal is to reduce the genre's notorious barriers to entry, encouraging people to get more interested and invested in the genre, ranging from players who personally want to improve, to spectators who just want a deeper understanding of and appreciation for the games that they're watching.

The majority of the content within this document focuses on GENERAL fighting game concepts, NOT the mechanics or characters of specific games.

Examples from specific games will often be used to explain generally applicable concepts, but the concepts themselves will typically not be tied to a specific game. Edge cases and exceptions will be notated accordingly, such as concepts and mechanics mainly associated with specific sub-genres of fighting games.

The intent is to introduce the reader to near-universal concepts and terms that can then be taken and applied in some form to almost ANY fighting game of their choosing.

Additionally, while the document is written in English and primarily targeted at the English-speaking audience, some Japanese terminology has been included in the interest of clarity, particularly for instances where I feel that the English equivalents are uncommon, vague, less concise, or conflicting with something else.

This document is loosely formatted, with more general and beginner-oriented topics coming first, but I still recommend skimming the outline or searching for specific keywords or topics that you are interested in, so that you don't get overwhelmed by taking in everything at once. **Please treat this document as a jumping-off point for each topic, rather than some kind of comprehensive, standalone textbook.**

Most sections also have links to sources which provide more detailed explanations, and often include videos or other visual aids. Furthermore, many of my write-ups on each topic are largely just consolidated summaries of information taken from those sources that I have cited, **so if you like the information presented, please support the original content creators!**

Additionally, as this is ultimately a compilation of my own personal favorite resources, **I'll only add to or edit it at my own discretion. However, suggestions are welcome!**

You are free to download this document or make a copy of it to personalize any way you like. **However, you are expressly forbidden from monetizing or claiming credit for any of the contents of this document in any way,** as it is built upon the hard work of myself and many other contributors and content creators. *(Also, I'm probably technically not allowed to use these images from Granblue Fantasy, and I don't want CyGames to send their legal team after me, so please don't give them any ideas.)*

Please direct any suggestions, corrections, or other feedback to YoJimbo0321@gmail.com

Table of Contents (Clickable!)

What Defines a “Fighting Game”?

This video presents a rough working definition for what exactly fighting games are. Knowing what makes fighting games unique will give you a better basis of understanding when learning how to play them.

- Is Smash Bros. a Fighting Game? [novriltataki]

General Introduction to Some Basic Fighting Game Concepts

This video simply explains many core fighting game concepts and terminology such as **neutral, footsies, frame data and its applications (frame advantage, frame traps), and so on.** It’s widely applicable across games, and great for genre newcomers.

- Why Button Mashing Doesn't Work [Core-A Gaming]

Numpad Notation, Combo Notation, and Fighting Game Terminology

Understanding of basic fighting game terms and notation is often going to be a prerequisite when learning fighting games through community resources, and will also be useful if you ever put together your own character notes with combos and other gameplay tips.

Numpad notation in particular is useful to learn. From the Dustloop Wiki:

“Numpad notation is a system for writing the directional commands used in fighting games in an easy-to-read, easy-to-understand way, even if it may not seem like it at first. The core mechanic of numpad notation is also how it gets its name: **numbers are used in place of directions, according to their position on a keyboard's numpad.”**

Numpad notation is most often used for “anime” games, but it is applicable across many different fighting games and transcends language barriers, making it very clear and useful. **Certain games, such as Tekken, have their own specialized notation systems that are practically standardized (at least in the West), so those may have to be learned separately for practicality reasons.**

Additional Reading/Watching:

- The Fighting Game Glossary [Infil]
  (Fantastic resource with hundreds of terms and definitions. It has filters for specific games, and even has Japanese translations and video examples for many terms. This should be your first stop when you’re unsure of the meaning of any terminology you come across.)
- Glossary [dustloop Wiki]
- Notation [dustloop Wiki]
- Tekken Notation Legend [Tekken Zaibatsu]
  (Tekken’s unique notation system)

2D Fighting Games VS 3D Fighting Games

[Note: These general differences are not necessarily universally upheld or strictly adhered to. For example, Tekken has a notably high emphasis on movement and spacing compared to the hypothetical, archetypal 3D game.]

- 2D vs 3D [novriltataki]
- How to Approach 3D Fighting Games [novriltataki]

Approaching Airdasher/“Anime” Games

Great series of videos on some core airdasher concepts that is particularly helpful for those unfamiliar with the subgenre.

- Airdash Academy [novriltataki]

Approaching Team/Tag Fighting Games

- How to Approach Team Games [novriltataki]

Choosing a Fighting Game to Play

[Note: The write-up for this section includes my own subjective thoughts, some of which may not come directly from any cited sources, and are not presented as fact.]

While the FGC tends to try and promote as a united front, in reality the genre is just as diverse and eclectic as many other video game genres, such as FPS games or racing games, for example. **Fighting games may share some core tenets, but they each have distinct aesthetics, gameplay mechanics, and other characteristics** that set them apart and give them different audience appeals.

As a result, **liking one fighting game doesn't mean that you will like another.** Similarly, **NOT liking one fighting game doesn't necessarily mean that you won't like any at all.** That being said, it is entirely possible that you are genuinely only interested in spectating, or even that the entire genre itself is just totally out of your strike zone, just as someone might not be drawn at all to any racing games, or to any RTS games.

Assuming that you are not completely uninterested in playing fighting games, some of the most basic and important criteria checkboxes you may want to consider in the pursuit of your ideal game include:

- Has a visual style and aesthetic that appeals to you
- Has a game feel and game mechanics that appeal to you
- Has a character or characters you are interested in playing
- Has a large active player base with players at all skill levels
- Has good netcode

Some of these criteria are obviously very subjective and intertwined, and they may require some amount of personal experimentation to verify. For example, character appeal tends to blend both visual/aesthetic appeal and gameplay appeal, while the long-term size of a game's player base is typically at least somewhat dependent on the quality of its netcode.

After finding a game that you are interested in, one of the first things you may want to do is seek out tournament footage, ideally from the bigger ones that feature high levels of play, such as EVO, CEO, Combo Breaker, or the World Tour Finals of individual games. You would also ideally want to find stream archives with decent commentary. **Watching people play and talk about a game at a high level is the best way to get a feel for what it's like without actually playing it yourself.** Of course, certain aspects of game feel and mechanics are best experienced by learning through tutorials and playing firsthand, and this also applies to individual characters as well.

Now, no one can force you to like a game that you hate the aesthetic of, but on the other hand, even games with fantastic visual appeal to you may fall short in other critical categories. Even if you are a total mechanics purist who only cares about gameplay, if your game of choice has a small player base and mediocre netplay, you will face the same struggles.

Unfortunately, as of the time of writing, there are barely any fighting games that have both a large active player base across all skill levels AND great netcode, let alone games that can also fulfill the other highly subjective criteria.

On top of that, **most popular fighting games do not offer permanent, full-featured free trial versions, and many also require new players to purchase several paid DLCs in succession if they want to really catch up and have access to all of the characters and content.** This can obviously make it difficult and cost-prohibitive to really go in and try all of the games (and characters) you might be interested in.

Even without getting into the whys and hows of the state of things, this ugly reality for the genre must be confronted and taken into account by anyone who is interested in trying a new fighting game. If you are still interested in pushing ahead despite these shortcomings, all paths will almost inevitably require compromises of varying degrees.

Let's say you have a vibrant local scene for a popular game that you are interested in. Barring, say, the advent of a global pandemic and subsequent quarantine that completely shuts down all locals and tournaments for the better part of a year, if not longer (this is a subtle reference to COVID-19), you could almost completely mitigate the drawbacks of a low-quality netplay experience by relying on said local scene. And, in fact, that is basically how most popular fighting games have thrived in the West in recent years.

Alternatively, you could also just put in your two weeks' notice, pack your things, and move to Japan, where the national network infrastructure is good enough that Japanese fighting game developers have not even bothered trying to improve their games' netcode for years on end, due to perceived lack of appreciable improvements domestically. That way you could just dodge the issue entirely!

If neither are viable options for you, you could instead choose to go with a game with great netcode and a smaller player base. There will be obvious drawbacks, and you will likely find yourself seeking out matches with opponents of disparate skill levels through Discord or other matchmaking services. The learning process might and probably will be rough. But, if you are willing to stick it out, many of these games have passionate communities who are eager to teach and play with you, and you will be rewarded with an experience that works well both on- and offline.

If you are REALLY passionate about a specific game, you might want to go for it even if it has both mediocre netcode and little to no local scene near you. Things will definitely be rough for you if you choose to do so, even if the game has a large player base, but how bad it will be really depends on your own personal goals and expectations. For instance, you could limit your netplay player pool to players with whom you have a solid connection that typically results in decent match quality.

Alternatively, you may not even be interested in playing online yet. The game might have an engaging enough single-player experience to keep you entertained long enough to get your money's worth, and in the process you can practice, explore, and get a feel for the game, genre, and your own preferences. You could even think about building up your own local scene. After all, you only need two people to start a locals.

If there isn't a game that you are willing to compromise to that extent for, that's totally fine too. **It's ultimately up to the developers to provide an experience that players decide is worth paying for,** and *certain recent events* have undoubtedly alerted said developers to the importance of high quality online experiences, in addition to all of the other important criteria. Hopefully, the genre will soon begin to shift in a way that is truly more accessible for potential newcomers.

Choosing Your "Main" Character (and Team Building)

[Note: The write-up for this section includes my own subjective thoughts, some of which may not come directly from any cited sources, and are not presented as fact.]

Character choice in fighting games is a meaningful and personal decision, due to how much it can influence your overall gameplay experience. Once you've decided on a game to play, it's time to look into the characters and pick one to try, assuming that you didn't choose the game because you already had a specific character in mind in the first place. Ideally, you will be drawn to a character who immediately appeals to you in some way or another, whether the nature of that appeal is primarily aesthetic (design, animations, lore, voice actor, etc.), functional (character archetype, specific gameplay concepts/gimmicks, etc.), or a mix of both. That character would also hopefully have well-developed beginner resources made by the community to help you get started.

If you have several characters in mind, there's no harm in trying all of them, noting their similarities and differences, and seeing how you like each of them. An important consideration to keep in mind is that **the level of effort required to learn how to play a given character at a basic level also needs to be acceptable to you.** This is very subjective and dependent upon the character, as well as your own current skill and motivation levels. Trying characters yourself is often the only way to really gauge this, especially if you don't have much experience with other fighting games and characters.

If you are having trouble finding a character who clicks with you, or if the character you are most interested in is locked behind DLC that you aren't sure about buying yet, you may want to look into which characters are considered notably beginner-friendly and/or "standard". These are the characters that do a particularly good job of showing you what the game and its systems has to offer, as they're typically free of the idiosyncrasies that more specialized characters have. Though often treated as a taboo act, this would be a good time to (responsibly) consult up-to-date tier lists and, more importantly, seek out additional character discussion for more insight on which characters fit this criteria.

Playing that kind of character can help give you the perspective and experience needed to make certain decisions, like whether you want to switch to another character, stick with the character that you're now familiar with to continue learning the game, or perhaps drop the game entirely after definitively feeling that the game itself isn't for you. Do keep in mind, however, that **the feel of the game can change significantly depending on what character you're playing,** so one bad character experience doesn't necessarily have to rule out the whole game for you, and new character releases for games you've given up on could be worth checking out too.

If you DO have a character in mind that you either already have access to or don't mind paying to unlock right out of the gate, BUT they are particularly unique, technical, or difficult, you may want to make similar considerations. You could, for example, start with a more beginner-friendly character until you feel comfortable enough with the rest of the game to "graduate" to the character you initially wanted to play. However, you may feel that the appeal of a particular character outweighs your attachment to the rest of the game, and that it's either that character or nothing. In that case, there's nothing to do but swing for the fences, give it your best shot, and see how willing you are to push yourself to learn that character. You can always change your mind later if things don't work out.

If you're specifically playing a team/tag fighting game, and you care at all about playing "seriously", you may eventually find yourself in a team-building situation where you are limited to picking, at most, a single character based purely on personal appeal. After that, you build a "shell" around your first-pick character with other characters who have particularly good synergy with them, and/or are generically strong team utility picks that can fit into most team compositions. Of course, if you can manage to do that while still simultaneously picking all characters that you love, then that's even better.

Additional Reading/Watching:

- Analysis: How to Pick a Character [Core-A Gaming]
- Sajam Talks Character Choice for New Fighting Game Players [Sajam]
- Sajam Discusses How to Choose a Character in a New Fighting Game [Sajam]
- Tekken 7 FAQ: I'm New, Who Should I Play? [AvoidingThePuddle]
- What character should I start with? [JDCR]
- THREE EASY STEPS to build your Dragon Ball FighterZ team [LordKnight]
- Skullgirls team building guide [Patrick Kelly]

Character Archetypes

[Note: The write-up for this section includes my own subjective thoughts, some of which may not come directly from any cited sources, and are not presented as fact.]

For ease of explanation, characters are often categorized into various archetypes based on their move sets, general gameplans, and how they approach the neutral game and what comes after. **However, because a character rarely fits neatly into just one archetype, it's more accurate to describe archetypes as "tags" that can be applied in various combinations to describe a character, rather than mutually exclusive categories.** Even then, describing a character solely through archetypes often won't give a complete picture, so they should be used as a starting point.

Below is a **non-exhaustive** list of example archetypes that are often referenced:

- Some characters are relatively comfortable at most ranges because they have a well-rounded kit of moves, so they may be called **"standard", "all-rounders", "shoto(kan)"/"dougi" characters** (a specific archetype referencing Ryu from Street Fighter), or simply just **"well-rounded".**
- Other characters may want to stay at mid- or long-range because their move set emphasizes zoning and locking the opponent down from a distance or discouraging the opponent from moving in freely, so they may be called **"zoners", "keep-out",** etc.
- Conversely, characters who lack the tools to effectively control space at range and instead want to leverage their mobility or gap-closing moves to "skip the neutral" and begin applying pressure with their close-range moves may be called **"rushdown", "aggressive",** etc.
- While "standard", "zoner", and "rushdown" are arguably the three most basic archetype descriptors, there are of course many others.
- **"Grappler"**, at a base level, simply describes characters whose gameplans largely revolve around getting in close and grabbing/throwing the opponent. However, it's often used to specifically refer to characters who additionally have certain disadvantages in exchange for explosive power on their throws, such as having limited mobility, or being large and easy to hit.
- **"Mix-up"** describes characters who want to get in close to the opponent and break their defense with offense that is difficult to block on reaction or with fuzzy defense.

- **“Okizeme”** or **“setplay”** describes a specific type of mix-up character who aims to set up situations (usually through knockdowns) that lock down the opponent, limiting their options and forcing them to deal with incoming mix-ups.
- **“Gorilla”** is a somewhat vague and imprecise term, but generally tends to refer to characters who enforce oppressive offensive pressure and discourage unwise defensive choices through the threat of explosive damage. This can be done through various means, such as rushdown, pressure resets, frame traps, counter hit punishes, and so on.
- **“Turtle”** is also a somewhat vague and imprecise term, but generally tends to refer to characters who have strong defensive and keep-away tools to deter opponents from approaching. In this sense, many turtle characters can be considered zoners as well.

It is also worth noting that general game mechanics can also influence character archetypes and gameplans on a universal level. For example, in a game like Guilty Gear Xrd, most characters’ gameplans involve some amount of okizeme and setplay. In a game like Tekken 7, most characters’ gameplans involve some amount of keep-away and space control. While most modern fighting games have some amount of character homogenization across the cast for the sake of more well-rounded matchups, team games can generally afford to be a little looser with it due to the team-building aspects.

Additional Reading/Watching:

- Why Characters in Team Games are Interesting [TheoryFighter]
- Archetypes in Guilty Gear Xrd Rev 2 [Leon Massey]
- Archetypes in Tekken [That Blasted Salami]

Understanding the Real Value of Tier Lists, and How to Use Them

[Note: The write-up for this section includes my own subjective thoughts, some of which may not come directly from any cited sources, and are not presented as fact.]

Character tier lists for fighting games can be volatile and highly situational, and are rarely directly useful on their own without context. For example, **a tier list can weigh characters differently depending on whether the list maker is focusing on characters' theoretical strength in long sets with perfect execution, or their consistency and ease of use in current tournament meta.**

There are many other intangible factors contributing to character placement on a tier list that the list on its own cannot explain to you, such as how "developed" characters are. **It is not uncommon for perceived character rankings to shift significantly over the course of a major patch cycle, as players make new discoveries and test things out.** Individual player bias and gaps in knowledge can also interfere with the “accuracy” of a tier list.

Furthermore, the common format of simple, single-axis, tier lists that seek to roughly sort an entire cast into their supposed tiers often falls short when it comes to covering things such as individual character matchup spread. For example, it is not uncommon in fighting games for a generally “low tier” character to have value as a strong counter-pick option versus an otherwise “high tier” character.

At a competitive level, these kinds of discrepancies in matchup spread are expressed by the concept of “matchup coverage”. Some ambitious players may choose to prepare multiple characters with the intent of creating as many advantageous matchups as possible in a tournament setting, rather than trying to main a single character. The value of doing so is somewhat subjective and game-dependent, of course, but it does highlight the potential of otherwise low tier or “off meta” characters.

With all of that in mind, **tier lists are instead best used as a STARTING POINT for discussion of character strengths/weaknesses, rather than a deterministic ranking.** Looking into tier lists and -- most importantly -- the context and discussion surrounding their creation (such as tier list making-of streams) can be very helpful, especially if you're looking to find a character who is relatively easy to pick up but still effective and good for learning the game, or if you're worried about picking a character who ends up being way more effort than they're worth for you personally.

Additional Reading/Watching:

- Understanding Tier Lists [novriltataki]
- Sajam Discusses Bonchan, Moke & Fuudo's SFV Champion Edition Tier List [Sajam]
- Tier Lists Aren't Directly Related to Tournament Results and Don't Matter Much for Most Players [Sajam]
- Avoiding the Podcast - Knee's Tekken 7 Tier Lists [Avoiding The Puddle]
- Lili, the Tournament Top Tier - A Tekken 7 Case Study [Avoiding The Puddle]

Difficulty and Accessibility in Fighting Games, and the Dynamic of "Brains", "Body", and "Heart"

[Note: The write-up for this section includes my own subjective thoughts, some of which may not come directly from any cited sources, and are not presented as fact.]

This section is going to be a bit long and rambling because it's such a complicated and opinionated topic, but I personally feel that it is **one of the most important topics to talk about when it comes to teaching and learning fighting games, arguably more so than anything that happens within the games themselves.**

Fighting games have an undeniably notorious reputation for coming off as particularly intimidating and unwelcoming to new players, even compared to some other competitive video game genres. As such, discourse surrounding new player accessibility in fighting games has become a hot topic within the FGC since the mid-2010s, going into 2020 and beyond (at the time of writing).

Lately, many fighting game developers have started announcing and introducing their newer projects as being specifically designed with "new player accessibility in mind". These vague, buzzword-laden statements, and the often controversial game design decisions that accompany them, have led to a lot of ongoing debate within the community about what makes fighting games accessible or inaccessible, and what direction fighting games should go in.

There is endless arguing about whether individual fighting games are too hard or too easy, and whether the games do too little or too much to handhold newcomers and help get them up to speed against experienced players. Should it be possible for a new player to get a lucky win against a seasoned pro? Why is it that people complain about fighting games being hard, but they eagerly play other games in high skill cap genres like FPS and MOBA? Such debates rage on constantly, with no end in sight.

This is ultimately a highly subjective topic (including any of my own opinions and any outside sources linked below), but in order to even begin reasonably forming your own opinions, it is first necessary to at least understand, in relatively objective terms, what exactly constitutes "difficulty" in the context of fighting games, and how that in turn relates to "accessibility". Let's begin with difficulty.

What exactly is “difficulty” in the context of fighting games?

- **Difficulty in fighting games can be roughly divided into at least three distinct main components, commonly referred to as: “brains” (tests of game knowledge), “body” (tests of dexterity/execution barriers), and “heart” (tests of empathy/reading your opponent).**
- “Brains”, at a basic level, includes things such as knowing what options your opponent has at a certain range, or knowing the frame data of your and your opponent’s moves.
- “Body”, at a basic level, just means how quickly, precisely, and consistently you can execute a given action in a given situation. The two most noteworthy examples would be combos and defensive reaction speed.
- “Heart” primarily refers to **“yomi” (reading your opponent)**, which itself effectively refers to the mind games of predicting your opponent’s next move and responding with the appropriate countermeasure. Yomi inherently incorporates elements of luck and risk-reward, scaling based on how committed you are to a “read”.
- Fighting games that are explicitly designed to be “more accessible” typically focus on lowering the barriers of game knowledge and execution requirements, in order to focus on the yomi elements that players and spectators alike find engaging and exciting. While this is not necessarily a bad thing in and of itself, it is also important to remember that **yomi is ultimately an intangible skill.** On its own, it is an unreliable and inconsistent indicator of what makes one player better than another in a competitive environment, and it is not a skill that can be methodically taught or improved.
- By contrast, **game knowledge and execution are skills that can be tangibly improved with effort,** and are part of what provides the depth that keeps fighting games fun and engaging in the long term for many players. These “brains” and “body” components are what separate fighting games from something like Rock-Paper-Scissors, which is almost all “heart” (high reliance on reads), and isn’t often played for fun.
- That being said, while “improving your reads” is a more nebulous and abstract pursuit than working on your game knowledge and execution, that is NOT to say that yomi is not a critically important skill in its own right. **Correctly reading the situation and predicting your opponent’s next move better than they can predict yours has and always will be a major component of the fighting game genre that plays a huge role in the outcome of matches even, or especially, at the highest level.**

- The nature of yomi as a relatively “unteachable” skill is part of what makes it so impressive, **but what makes a skilled player’s ability to make reads really shine is when it’s backed up by the game knowledge needed to understand a given situation and the relevant possibilities, and the execution necessary to bring out the chosen answer at the right time.**
- At a fundamental level, **all three components of difficulty are integral to making a fighting game function,** and all must be present to some extent.

How does difficulty in a fighting game relate to “accessibility”?

- Roughly speaking, I would personally and contextually define accessibility as **the way various factors in and out of the game make it easier or harder for players to consistently improve upon and demonstrate their skills in each category of difficulty.**
- First of all, every player has their own preferences, tolerances, and aptitudes for each of the three main components that make up difficulty, and while those can of course change with time and practice, there are also hard upper limits, particularly for “brains” and “body”.
- **Every human being has an upper limit on memorization of information and situations, as well as precision and consistency of execution, even with training.** The more difficult a game is in these categories, the more likely it is for even top level players to be unprepared for certain situations or matchups, or make frustrating input errors. Conversely, this does also mean that the more lax a game is on these requirements, the less a player can “stand out” for having a particularly high aptitude/ceiling for them.
- **The individual levels of and balance between the three components of difficulty influence the reward for “grinding”, the depth and longevity of the game, the severity of potential sources of frustration for new and veteran players alike, and more.**
- Aside from the game design philosophy angle, **the biggest accessibility barriers to fighting games are often not even directly gameplay-related at all.**
- Any base difficulties or challenges one might encounter within the game when trying to improve their game knowledge or game execution skills are also amplified by a lack of well put together in-game tutorials or external community resources. After all, it’s hard to do well when you aren’t even sure what you are supposed to do.

For example, few fighting games tick all of the following boxes:

- Has engaging and informative in-game tutorials.
- Has well put together community resources and guides.
- Has a good online experience with good netcode, easy to use online lobbies, satisfying ranked modes, etc.

These are all critical factors to keeping the average player interested enough to form a long-term attachment to the game, arguably more so than the supposed complexity or lack thereof of a game's system mechanics, and unlike major changes to mechanics for the sake of accessibility, **good online infrastructure and good tutorials are never controversial (or at least they shouldn't be) and are always good for the game.**

Furthermore, most popular fighting games do not offer permanent, full-featured free trial versions, AND many require purchasing a lot of paid DLC in succession in order to "catch up" and get access to all of the characters and content, which can turn off potential players before they even seriously consider buying the game, and before any of the other factors even matter.

Additional Reading/Watching:

- Stop Making Excuses for Fighting Games That Don't Have Good Netcode, UI & Online Lobbies in 2019 [Sajam]
- Why complicated fighting games are weirdly good for beginners [Patrick Miller]
- Why fighting games are hard [Patrick Miller]
- Difference between High-Ranked Players and Low-Ranked Players [Daigo, FGCTranslated]
- Making the Game Easy Doesn’t Benefit Anybody [Momochi, FGCTranslated]
- Good and Bad Things about Ultra SFIV [Dogura, FGCTranslated]
- Good and Bad Things about SFV [Dogura, FGCTranslated]
- What makes combos ACTUALLY hard in fighting games? [LordKnight]
- Discussing Free To Play Fighting Games... [jiyuna]

Why Having Less Buttons or Shorter Combos Doesn’t Always Equal An Easier Game

Smash uses fewer buttons than Street Fighter, and Street Fighter has fewer long and flashy combos compared to most airdasher games, but that doesn't necessarily reflect upon their inherent accessibility or difficulty compared to other fighting games.

For example, a game that uses fewer buttons but has comparable depth of options relative to other games might require more complex inputs to accommodate them all. Similarly, shorter combos may accompany less flexible combo routing and stricter execution requirements (tight X frame links vs. generous cancel windows, etc).

It is a common misconception that Smash is inherently an easier game just because “it has less buttons" and that airdasher games like BlazBlue are inherently harder just because “they have crazy combos".

The following sources go more in-depth on this topic:

- Misleading Accessibility [novriltataki]
- Misleading Accessibility Part 2 [novriltataki]

What Is “Netcode” and Why Is It So Important?

“At its core, netcode is simply a method for two or more computers, each trying to play the same game, to talk to each other over the internet. While local play always ensures that all player inputs arrive and are processed at the same time, **networks are constantly unstable in ways the game cannot control or predict. Information sent to your opponent may be delayed, arrive out of order, or become lost entirely depending on dozens of factors,** including the physical distance to your opponent, if you’re on a WiFi connection, and whether your roommate is watching Netflix.

Online play in games is nothing new, but fighting games have their own set of unique challenges. They tend to involve direct connections to other players, unlike many other popular game genres, and **low, consistent latency is extremely important because muscle memory and reactions are at the core of virtually every fighting game.** As a result, two prominent strategies have emerged for playing fighting games online: **delay-based netcode and rollback netcode.**

There’s been a renewed passion in the fighting game community that rollback is the best choice, and **fighting game developers who choose to use delay-based netcode are preventing the growth of the genre**. While people have been passionate about this topic for many years, frustrations continue to rise as new, otherwise excellent games repeatedly have bad online experiences.” - Infil

For more details on why (hybrid) rollback netcode is widely considered to be the superior implementation, as well as many more details on how it all works, **please check out the rest of this excellent write-up by Infil,** and/or these videos using the write-up as a base.

Additional Reading/Watching:

- Fightin' Words - Netcode - Explaining how fighting games use delay-based and rollback netcode [Infil]
- Netcode Explained: The GOAT Article for Understanding Fighting Game Netcode Now Exists; Read it [Sajam]
- Understanding Fighting Game Networking [mauve; Zinac]
- Analysis: Why Rollback Netcode Is Better [Core-A Gaming]

How To Approach Learning Fighting Games and (Eventually) Develop Your Playstyle

Apart from the generic advice of keeping a positive, progress-oriented mindset and learning in the way that fits you best, a generally safe strategy to follow when learning a new character in a new game is to **first learn the basics of the core universal system mechanics of the game, and learn how they apply to the character.**

After that, build a simple game plan around a few of the character's most important moves (game dependent, but examples include: pokes, throws, anti-airs, a simple blockstring, very basic BnB ("bread and butter") combos to hit-confirm into, etc). It is easy to become too focused on more advanced aspects of a character that can come later, which can be daunting and discouraging.

While most characters can function with a stripped-down, simplified game plan, some are better suited for this than others, and some are highly idiosyncratic and/or technical to the point of being outright beginner-unfriendly. If that is the case for your current character, **you may want to consider switching to a more "standard" or beginner-friendly character until you feel more comfortable.**

That being said, **it is equally important to approach learning the game in a way that is fun for you, even if that may not be the most efficient way.** There is nothing wrong with spending time learning a cool, flashy combo on a technical character if it makes you feel good, as long as you are aware that it may not necessarily be the fastest or most efficient way to improve your play.

As you play more, you will likely notice deficiencies in your simple game plan that opponents can exploit, and you can begin implementing new tools and/or strategies to cover for them. **Learning a character should be an iterative and looping process of playing games, identifying problems, discovering or researching solutions, and implementing them.** There are things that are best learned in training mode or through research, and there are things that can only be learned by playing real matches against real human beings.

It is important to learn with a focus on improving in the long-term, rather than winning in the short-term. Excessive reliance on cheap gimmicks or lack of knowledge on your opponent's end will only take you so far, and once you are "exposed" by more skilled opponents, you will end up having to go back and relearn how to play "correctly" anyway.

As you improve, you may also want to start thinking about what type of player you are, or what your "playstyle" is, such as whether you are more aggressive or passive, and whether your strengths lie in "brains", "body", or "heart."

Note, however, that playstyle is something that only really begins to express itself at higher levels, when players already have a solid foundation in all categories. **It is probably unwise to label yourself as any one type of player when there is still plenty of room to improve across the board.**

Additional Reading/Watching:

- Airdash Academy ep.01 - Starting Points [novriltataki]
- What's ACTUALLY Hard About Guilty Gear [LordKnight]
- Learning How To Learn [Sajam]
- How Different Learning Styles Can Make Learning a Game Harder [Sajam]
- Don't Seek Short-Sighted Strategies Because You'll Get Stuck [Daigo, FGCTranslated]
- Laugh's Theory on Types of Fighting Game Playstyles [Sajam]

Learning Fighting Games "Efficiently", Remaining Motivated, and Addressing "All or Nothing" Thinking

It is easy and understandable to get demotivated by things like constantly losing, lack of progress, lack of time, lack of a local scene, lack of resources, and just being overwhelmed overall.

Ways to mitigate these issues include:

- Changing up how you play and learn (focusing more on how you play your own character, focusing on specific matchups, actively watching match footage, etc).
- Having clear, realistic goals to work towards and managing your time and expectations to meet them one step at a time.
- Taking a step back to get a different perspective (maybe try brainstorming and writing down specific areas for improvement).
- Taking a break, whether that means trying other characters, other fighting games, or just taking a break from fighting games overall.
- Re-evaluating the level of dedication and effort that best matches your goals and what is most fun for you in your current state.

These sources cover various angles and are all worth checking out:

- Addressing "All or Nothing" Thinking [novriltataki]
- How Long Does It Take to Get Good? [novriltataki]
- Escaping the Plateau, Part 1 [novriltataki]
- Escaping the Plateau, Part 2 [novriltataki]
- Sajam Talks Plateaus in the Learning Process [Sajam]
- How to learn from getting bodied [Patrick Miller]
- Hard Reads: Why Getting Bodied is Good For You [Patrick Miller, Core-A Gaming]
- "I don't have enough time to play fighting games competitively…" [Patrick Miller]
- "How do I stay motivated without a local scene?" [Patrick Miller]
- Developing the training mindset in fighting games [Patrick Miller]

How to Find (or Make) Great Tutorials and Resources

The quality (or even just the presence) of in-game tutorials varies from game to game, but more often than not, as a learning player, you will inevitably find yourself looking to player-created resources for help past a certain point, since it is ultimately up to the player community to work out the intricacies of characters and matchups.

The following guidelines are not comprehensive, but they are a good starting point for both players who want to know how to identify good tutorials and resources, as well as for those looking to create them for others:

- **Pacing is important.** Most tutorials, especially those aimed at complete beginners, don't need to be overly dense or complex to hit most if not all of the important notes for a beginner guide, provided that they are well-structured and avoid unfocused rambling. That being said, **rushing and cutting corners in the interest of time is just as ill-advised.**
- In general, tutorials can benefit from being polished, engaging, funny, and/or lighthearted, but they should also **refrain from overuse of memes and hyperbole that can leave players with an inaccurate or distorted impression of whatever is being taught.** Perpetuating misunderstandings or misinformation for the sake of a joke is typically not worth it.
- Ideally, all character-specific tutorials and resources (whether in-game or community-made) should start off by **giving an overview of the character, highlighting their strengths/weaknesses, and explaining their game plan and approach to neutral game and pressure.**
- After that, they should introduce things like **basic core moves for various situations, simple combos, safe blockstring/pressure enders,** and other tools, as well as how to use them, **all in a way that is easy for new players to understand.** It is also important to **establish how the game's universal system mechanics work in the context of the character,** and how they fit into the character's overall game plan.

- **Once that foundation is established within a character tutorial, it can be built upon with more in-depth and complex strategies, combos and so on**, such that players can progressively implement them as they continue to learn, improve, and begin to develop their personal playstyle. These additional layers should be presented in a clear and sensible order, rather than being scattered haphazardly throughout otherwise beginner-oriented content.
- One thing that a character resource can do to go the extra mile is to **give advice regarding the viability and usefulness of the in-game combo challenge trials** (if they exist). In-game trials tend to be the first place beginners look when seeking combo advice, and while they are helpful for their audiovisual feedback, some tend to be pointlessly impractical for their difficulty. Pointing out which ones are worth doing and which ones can be safely ignored can save a new player time, frustration, and potential discouragement.

It can be difficult for new players to figure out how to get started without the guidance of good resources, and many resources and guides tend dive deep into specifics while neglecting to properly cover the basics, which can be confusing and potentially discouraging for those new players who don't yet have that foundation to build upon.

High quality resources in the form of guides, tutorials, and/or comprehensive wiki pages also reduce the need for beginners to have to go out of their way and directly consult Discords or other communities to seek out frame data or ask commonly repeated questions with simple answers, an exercise that can be frustrating for everyone involved.

Finally, it bears noting that **good resources are not limited to monolithic documents or video tutorials that cover everything themselves.** There can be value in organizing individual, scattered existing resources into user-friendly compilations, such as this very compendium!

Samples of Various Good Resources:

- The Complete Killer Instinct Guide [Infil]
  (Overwhelmingly comprehensive and polished across multiple categories, this resource covers both the general game mechanics and individual characters.)
- Blazblue Central Fiction: Hibiki Tutorial & Combo Guide [Mechsploit]
  (Well structured video character tutorial, with snappy pacing and clean editing. Additionally, does a great job of intuitively introducing lesser known topics, such as the use of different airborne options to alter momentum and trajectory.)
- "The Best Sin's Lecture Ever" [GGXrd Beginner edition]
  (A silly yet surprisingly practical video character guide, presented in a fun and beginner-friendly way.)
- GG Xrd Rev 2: Ky Kiske - Overview and Moves [dustloop Wiki]
  GG Xrd Rev 2: Ky Kiske - Strategy [dustloop Wiki]
  (Excellent and rare example of a community wiki character resource that has actually been filled out to a reasonable extent. Well organized with great info.)
- Skullgirls: Cerebella - Overview [Mizuumi Wiki]
  Skullgirls: Cerebella - Combos - Which in-game trials are useful for a beginner? [Mizuumi Wiki]
  (Another excellent community wiki page. In particular, the frame data and move information section is among the best out there, and the beginner-oriented advice regarding combo trials is a great additional detail.)
- Fullmeter FAT - SFV/Ryu
  (More than just frame data tables (which are fantastic), this site compiles a whole host of additional useful numerical/technical data for each character, such as walk speeds, frame traps, frame kills, block punishes, blockstring interrupters, and so on).
- Learn Tekken 7 in a reasonable and appropriate order [JoeyTCB, various]
  (A YouTube playlist that compiles tutorial videos from various sources and sorts them “in a reasonable and appropriate order” for beginners.)

Additional Reading/Watching:

- How Can Fighting Game Tutorials for New Players Be Improved? [Sajam]
- Tutorial Content Doesn't Have to Be Complex [Sajam]

Learning by “Actively” Watching Match Footage

Actively watching (as opposed to casually watching for entertainment) match footage of high level players is one of the best ways to learn how certain characters or matchups are played. This is especially true if guided tutorials and resources are lacking.

Because fighting games are so dense with visual information at any given time, it is generally more effective to limit your focus by choosing one specific aspect or action that you want to focus on at a time, and going back and rewatching the footage when you want to switch your focus to something else.

During key moments, you may want to pause the video, and ask yourself some questions about the situation on the screen, depending on your current focus. Below is a non-exhaustive list of sample questions to consider asking:

- "What does the player do when they secure a knockdown on the opponent or push them to the corner/wall?"
- "How are they opening the opponent up and getting hits?"
- “When does the player choose to move forward or jump?”
- "Which player is controlling the neutral better, and how?"
- “What options are available to either player at X range?”

After you unpause, note their choices and the result, but also compare the players’ “answers” with what you yourself would have chosen to do in the same situation. If there is a discrepancy, question and evaluate it. Did they make a better decision than you would have? If so, make a mental note of it for the future. Did they make a worse decision than you would have? If so, why? Did they simply mess up, were they expecting something else, or did the opponent somehow mislead them?

Another important point is that **even despite the constant density of visual information in fighting games, not everything that is going on will always be plainly visible on the screen.** For example, things such as player adaptations, mind games, and the use of option selects aren't always noticeable for those who don't know what to look for.

Good match analysis videos or even archives of tournament matches that have good commentary can be great resources if you can find them, as **having someone with an experienced eye pointing out things that you may have missed can help a lot, and teaches you what to look out for.**

Samples of Good Match Analysis:

- Tekken 7 Ryan Hart vs Rip Analysis [That Blasted Salami]
- What Fuudo Saw During “Punk vs Bonchan” at VSFighting [Fuudo, FGCTranslated]
- Guilty Gear Xrd Match Analysis: EVO Japan 2018 - Omito vs. Machabo [Sajam]
- SFV AE Match Analysis: Kemonomichi II - Daigo vs. Tokido FT10 [Sajam]
- SFV CE Match Analysis: EVO Japan 2020 Top 8 GRAND FINALS - Nauman vs. Mago [Sajam]
- EVO2019: Neji (Mika) vs Kure (Yuzuriha) - UNIST Top 8 Losers [Brett and Fox]
- MATCH OF THE YEAR #JustFrameBreakdown [HiFight]

Additional Reading/Watching:

- Get good at watching fighting games [Patrick Miller]
- Airdash Academy ep.03 - Learning From Video Footage [novriltataki]
- Escaping The Plateau, Part 1 [novriltataki]

The Basics of “Neutral Game”, “Spacing”, and "Footsies”

These terms are thrown around constantly, but they can be perplexing to beginners, or even to experienced players who have an intuitive understanding of the concepts but find them hard to put into words. The English terms on their own also tend to be kind of vague and context-reliant, which doesn’t help. Here is a rough breakdown of what people typically mean when they use these terms, partly compiled from the cited sources, but also largely based on personal thoughts and conversations with friends:

- **“Neutral” refers to game states where neither character is in a significantly advantaged or disadvantaged position (for example, at round start).**
- Examples of non-neutral states include when a character is near a corner, wall, or ledge, is facing blockstring pressure, is getting comboed, is in a knockdown okizeme situation, etc. When a non-neutral state ends, the game state can be said to “reset” or “return” to neutral. In other words, **neutral refers to the “default game state.”**
- **“Spacing”** is used as both a noun and a verb. **As a noun, “spacing” refers to your physical in-game position relative to your opponent, and the distance between you (AKA “ma-ai”).**
- **As a verb, “spacing” refers to the act of managing your own positioning while controlling your opponent’s by predicting or leading their movements, and by keeping them in range of your own attacks while avoiding theirs.** In other words, it’s shorthand for “managing your spacing”.
- **"Zoning"** is a related term to spacing that typically specifically refers to **controlling space at mid- to long-range in order to maintain a favorable distance.**
- Broadly speaking, **“neutral game” (AKA “tachi-mawari”) refers to the reactive, back and forth spacing and exchanging of blows that occurs between two players as they compete for advantage in “the neutral”.**
- Finally, **“footsies”** is a term with a particularly loose and vague definition, but **typically refers to spacing (the verb), neutral game/tachi-mawari, or some combination of the two.** A character or player who is “good at footsies” therefore excels at managing their spacing and consistently winning neutral.
- **Note, however, that while “strong footsies” typically implies “strong neutral”, the opposite is not necessarily true.** A character can, for example, have strong neutral game that doesn’t necessarily revolve around pixel perfect spacing, and instead emphasizes other aspects, like safe pressure or screen coverage.

- The core ideas of neutral game can be described with a rock-paper-scissors analogy built around the following main components: **“sashi-komi” (proactive and offensive poking), “oki-waza” (proactive but defensive counter poking, keep-out and zoning), and “sashi-kaeshi” (reactive movement, baiting, and whiff punishing).**
- Alternatively, you can substitute sashi-komi with **“ate-waza” (general aggressive pressure and rushdown).**
- **As a general rule, sashi-komi/ate-waza > sashi-kaeshi > oki-waza > sashi-komi/ate-waza.** In other words, quick/aggressive moves and play beat reactive, wait-and-see play, reactive play beats slower/lingering keep-out moves, and keep-out moves beat excessive aggression.
- **Of course, not all moves and functions fit neatly into this simplified 3-way RPS dynamic.** A classic example is the EWGF in Tekken, a short-ranged but explosive uppercut. Due to its quick startup and recovery, and the threat that it poses, the EWGF blurs the lines between the three categories. It can be used to punish overeager opponents, deter their approach, or even act as an aggressive poke. Another example would be Sol’s f.S in Guilty Gear Strive, a powerful advancing punch. With its frame advantage on block, and its forward movement that both gives it good range and allows it to function as an automatic pressure reset when being pushed out on block, Sol’s f.S is a jack-of-all-trades move that can act as almost any of the main categories above, depending on the situation.
- **Additionally, this 3-way RPS only describes the core/basics of GROUNDED neutral game. Most 2D fighting games, for example, also have important aerial components,** such as jumping over projectiles, jump-in attacks, anti-airs, and air-to-airs. The precise nature of how these aerial options fit into the metagame can be very game- and character-specific, so it is a bit out of the scope of this generalized breakdown.
- It is important to learn how to exploit your character's strengths as well as adapt your actions depending on your opponent's strategy, while keeping these three broad categories in mind. **The effectiveness of each strategy and how to employ them varies from character to character and game to game, but the core concepts tend to be generally applicable.**

Additional Reading/Watching:

- Redefining Footsies [novriltataki]
- Tekken 7 Ryan Hart vs Rip Analysis [That Blasted Salami]
  (time-stamped to explanation of neutral)
- Tekken 7 - Mix Ups, Turtles & Movement [That Blasted Salami]
  (time-stamped to explanation of how “turtle” characters play the neutral game)
- Guessing is a Part of Neutral + Simple Ground Game Strategies [Sajam]
- Anti-Airs, Neutral, Mind Games, & Decision-Making | Sajam Discusses the Machabo Article [Sajam]
- Guilty Gear Fundamentals – 1. Neutral [Machabo, Shinjin]
- “In Japanese, poke is called "Sashi-komi" ,counter poke is called "Oki-waza" and whiff punish is called "Sashi-kaeshi".” [Densetsu no Otaku]

Offense, Defense, and Learning Matchups

While understanding of neutral game concepts could be said to form the core of most fighting game interactions, the biggest questions a new player will have at the end of the day will still probably be about more specific things, such as:

- “How do I pressure my opponent and open them up once I get in?”
- “How do I defend against my opponent’s pressure and mix-ups?”
- “What am I supposed to do when learning character matchups?”

Unfortunately, questions like these are far too complex, game-specific, and character-specific for this generalized document to thoroughly cover, and, after a certain point, you would be better served by seeking out match footage, tutorials, and guides. That being said, there are still broader, generic concepts that can be drawn upon as a foundation for your gameplan. Several examples are linked below.

Additional Reading/Watching:

- Stopping Your Opponent From Mashing - The Structure of Pressure [Sajam]
- Building an Offensive Gameplan, The Frame Data Doesn't Tell the Whole Story [Sajam]
- Setting Up Whiff Punishes & Checking Dashes [Sajam]
- A Move With Downsides Doesn't Make it Unusable [Sajam]

Introduction to “Option Selects” and “Fuzzy Defense”

"Option select" (abbreviated as OS) is an umbrella term for combinations of inputs that take advantage of a fighting game’s inner mechanics to produce different results depending on what the opponent chooses to do, essentially **covering multiple options at once** (hence the name). Many instances are referred to as **“shikomi”** in Japanese (verb form “shikomu”, meaning “to stock up on”, “to prepare”, or “to insert”, contextually referring to layering one action inside of another).

At higher levels of play in a fighting game, players may appear to be reacting at near-inhuman speeds to certain actions. This can often be attributed to option selects such as “fuzzy” defense options (though sometimes, they’re just that good). **Some option selects are so simple and/or come so intuitively that players might not even realize that they’ve been using them all along.** What specific option selects are available depends entirely on each game, but there are several common examples worth knowing about:

- **Fuzzy throw and throw escape/break/tech option selects** typically work by inputting an attack right before or simultaneously with a throw input, right when you expect to be thrown. A throw or throw escape will come out if you are in the appropriate state, and the attack will come out otherwise. This usually involves taking advantage of blockstun and/or move priority.
- **An alternative version of a fuzzy throw escape option select** involves blocking while delaying a throw escape input such that you can cover both blocking a fast attack and escaping a throw. This involves taking advantage of the overlap between the moment you would expect to block an attack and the window for a successful throw escape.
- **Fuzzy “mashing” (AKA fuzzy “abare”)** means inputting an attack or reversal when you expect a possible gap in blockstring pressure, such that it will not come out if the opponent’s blockstring continues without a gap, due to the continuous blockstun. This effectively prevents some mix-up attempts, if you know when to expect them. “Mashing” is not the best terminology for this since it implies mashing buttons randomly, as opposed to actually knowing what the “correct” time to push buttons is.
- **Fuzzy jumping** means inputting a jump when you expect a possible gap in blockstring pressure, such that it will not come out if the opponent’s blockstring continues without a gap, due to blockstun. This is often useful for evading command throws and blocking overhead/air moves, depending on the game.

- **Fuzzy blocking** means taking advantage of the different startup times of the opponent's options in a high/low mix-up in order to defend against both with timely high/low block switching. For example, against a high/low mix-up where the low would come out faster, you would crouch block until the expected time for the low to come out passes, then switch to standing block to block the high. This effectively nullifies certain "fake" 50-50 mix-up setups if you know when to expect them and how to deal with them (a "true 50-50" setup is therefore one that cannot be fuzzy blocked).
- **Chicken blocking** is a specific type of fuzzy blocking that is mostly associated with airdasher games (specifically those with air blocking). By holding up-back when you expect an incoming jump-in mix-up, you can simplify the situation by avoiding the grounded options and blocking a potential aerial attack.
- There are many other examples of OS's, including some that are intuitive but rarely identified as independent concepts, such as **delaying the input of a move in neutral when you see the opponent move towards you,** in order to OS blocking their faster options and interrupting their slower options with your poke move.

Not all of these examples are present or work the same way in every fighting game, but the general concepts are good to keep in mind. **Option selects can be very strong, but note that informed opponents can typically use them against you, baiting them out by delaying or otherwise changing the timing of their own actions.** However, delaying offensive actions in turn creates a gap that the defensive player can exploit, if they have the right read. This is just another layer of the nuanced mind games between experienced players.

Additional Reading/Watching:

- Fundamentals of GG Xrd [Machabo, Shinjin]
- Option Selects [dustloop Wiki]
- "Reacting to movement with delayed button presses" [BrianF]
- Fuzzy Tech - The Option Select You Don't Even Realize You're Doing [Sajam]

“Buffering” or “Empty Cancelling” Special Moves

- **“Buffering”** is a game-specific OS that takes advantage of the way the game’s input buffer and special move cancel systems work in order to **cancel a normal move on hit (or on block) into a special move that would be difficult to hit confirm otherwise.**
- Immediately after throwing out a normal move that can be canceled into a special move on hit/block, you buffer the special move that you want to cancel into by inputting its command. **If done quickly enough, the special move will not come out if the normal move whiffs, due to the whiff recovery period of the normal. However, on hit (good) or on block (typically bad), the normal will cancel into the special move in the input buffer.** For this reason, buffering is also sometimes called **“empty cancelling.”**
- Buffering is most common and relevant in games like Street Fighter that don’t typically have gatling move strings which function as both blockstrings and combo starters on hit. It is often used with medium range/speed normals that are used as pokes and/or to control space, and have a reasonable special move cancel window.
- To prevent accidentally canceling into a special move on block and potentially giving the opponent a free block punish opportunity, the idea is typically to only buffer moves at a range where the normal will whiff unless the opponent moves forward or attempts to attack, putting their hurtbox in the path of your attack and guaranteeing a hit. This strategy may in turn expose the player to getting whiff-punished if they are too predictable and spammy.

Additional Reading/Watching:

- Having Trouble Buffering? [Fuudo, FGCTranslated]
- Buffering & Pokes: Creating a Dangerous Rotation of Neutral Options [Sajam]

“F-shiki” Setups AKA “Fuzzy Overheads” or “Fuzzies”

- The name F-shiki comes from Japanese Guilty Gear player F, who popularized the technique with the character Venom.
- F-shiki, meaning “F-style” or “F-technique”, refers to **offensive setups that involve taking advantage of a game’s blockstun mechanics to briefly lock the opponent in a standing animation even if they switch to crouch blocking,** allowing for fast overhead mix-ups that are very difficult to defend against, as they can hit the opponent’s larger standing hurtbox if the opponent incorrectly blocks low (crouching state but standing hurtbox).
- F-shiki setups are highly game- and character-specific, but can be quite powerful when they are available.
- **F-shiki setups are sometimes called “fuzzies”, which conflicts with “fuzzy defense” option selects and can make things confusing. For this reason, “fuzzy overhead” is the clearer and more specific terminology, and “F-shiki” even more so.**
- Note for Melty Blood players: F-shiki setups are NOT (inherently) related to (either) Shiki Tohno. Or to Shiki Nanaya. Or to (any) Shiki Ryougi.

Additional Reading/Watching:

- Fuzzy Overhead [dustloop Wiki]
- Explanation on /r/GuiltyGear [/u/MerryDingoes]

Improving Your Execution and Maintaining A Consistent Setup

[Note: The write-up for this section includes my own subjective thoughts, some of which may not come directly from any cited sources, and are not presented as fact.]

"Execution" in this context is a catch-all term referring to **your ability to successfully and reliably perform an inputted action or series of actions in a fighting game at the moment that you need to do so.** Once you know in your head what you need to do, you need to be able to execute it with your hands. Execution is influenced by your precision, reaction, dexterity, game knowledge, and the **ergonomics of your play setup** (often overlooked but actually one of the most important factors).

The first step when it comes to execution ergonomics is to pick the right controller for you, whether that's a "pad" (ex. console controller such as a DualShock 4/DualSense), a traditional "fightstick" (ex. consumer arcade sticks), a "leverless" controller (ex. a Hit Box), or whatever it is you want to play on (as long as it's tournament legal!). There are various pros and cons to different input methods, so I'd recommend researching and experimenting on your own to find what fits you best.

Another thing you may want to consider doing is customizing your button layout from the default, based on what buttons you may often need to hit in combination or rapid succession. A game's default layout could be designed around console gamepads while you're using a fightstick, or it could be based on the legacy layouts of arcade cabinets, while you're using a gamepad. **Adjusting your button layout can reduce the need to shift your hand in awkward or uncomfortable ways, and that in turn can really help your execution.** This also applies to the **physical button layout of your stick or controller.** You may want to look into the different physical configurations offered by various makers and the ergonomics of each.

After choosing your peripheral and setting it up how you like it, the most important thing to remember when it comes to execution is that the consistency, speed, and overall dexterity of your execution are all at their best when your shoulders, arms, and hands are **relaxed and ergonomically positioned.** This can be harder to maintain for some more difficult and/or unfamiliar inputs or situations, which will naturally make you tense up, so of course it is also important to **practice whatever is giving you trouble until you have the muscle memory down and can focus on staying loose and limber, decreasing the chances of making a critical mistake in a real match.** This goes hand in hand with other ways of simplifying your mental stack, which benefits your execution as well as your reaction speed.

It is also important to **keep everything about your playing conditions as comfortable and consistent as you can.** This includes everything from keeping your controller well maintained so that it doesn't suddenly break down or malfunction in the middle of a set, to making sure that your hands are warmed up and ready to go, as cold hands are stiffer and less limber.

If you're seriously looking for an edge in these departments, there are all sorts of things you can try. For example, some players may choose to bring hand warmers to, well, keep their hands warm, wear compression sleeves or gloves for better grip/control over their movements, or even put bandaids over their fingers to help them glide over the buttons easier. One particularly famous incident involved a player bringing a tape measure to a tournament to set an optimal viewing distance from the monitor!

This all might seem silly or like complete overkill, but these general guidelines apply to most other fine motor skill tasks as well, especially when they are competitive. If you are having doubts, think about any other high-intensity, execution-reliant competitive activities, like other "esports", or even "real" sports. Many professional players and athletes in those fields understand the importance of choosing their gear carefully and doing everything they can to create an environment where they can consistently perform at the highest level. Packing a tape measure and bandaids in your luggage won't instantly guarantee you a win at a high-level tournament, but these kinds of little steps can add up to something that perceptibly affects your performance.

Finally, apart from the broader ergonomic advice, there are some finer tricks and techniques that you can learn and implement in order to improve your play. Here is a non-exhaustive list of examples:

- Learning what, if any, option selects are commonly used in the game you are playing. **Option selects can be used to cover some offensive or defensive situations where hit-confirming or otherwise reacting could be difficult.**
- Learning what, if any, input shortcuts can be taken advantage of in a particular game. **Depending on how a given game processes inputs, there may be some highly practical shortcuts that make certain sequences significantly easier to execute.** A game-specific example is the 323 shortcut for 623 (“DP”) motions in Street Fighter V, which makes it easier to cancel into DP input special moves from crouch (ex. 2MK xx 323HP instead of 623HP). If the above looks like complete gibberish to you, see the section on notation and terminology.
- (Mostly applies to 2D airdasher games) Learning to default to buffering down-back block inputs whenever you are moving/attacking and don’t have to input any other direction in that moment. This helps minimize instances of getting hit by stray attacks, and especially helps when playing charge-input characters, to reduce the amount of time you need to stand still and charge.
- Learning and implementing the **“double-tapping”** or **“piano”** technique**.** Many strong players with notably good execution tend to lightly hover their hand over their buttons (as opposed to fully resting their fingers on certain buttons) and shift their hand around to quickly double-tap certain inputs with their index and middle fingers as needed. When done quickly and precisely, this can give you an “extra chance of success” on certain sequences where you might otherwise miss the valid window of frames.

Additional Reading/Watching:

- The "Tokido Tape" Incident
- Input tips and tricks for fighting games. [LordKnight]
- How to do charge inputs EASILY in fighting games [LordKnight]
- "What can I do to improve my execution?" [MarlinPie]
- How to Double Tap, Triple Tap, and Rapid Press like a PRO [MarlinPie]
- Daigo's New Button Layout For the Hitbox Revealed Pt2 [Daigo, FGCTranslated]
- Persona 4 Arena/Button Configs [SRK Wiki]
- Panel Layout [slagcoin]

Examples of Double-Tapping from High-Level Players:

- ASMR for the FGC: How I play [MarlinPie]
- 6/11 Sako's Hands Vampire Savior [sako]
- [무릎의철권TV] 취향저격!? 무릎의 철권 ASMR!! 20190617 [knee]
- JDCR handcam is insane [JDCR]

Improving Your Reaction Speed (by Simplifying Your Mental Stack)

Firstly, it is important to establish that reaction speed in fighting games is based on much more than just true, raw reactions. In fact, **expecting to constantly be ready to react to every single possibility in every single situation is simply unrealistic.** If it were practical to do so in a given fighting game, then that game would simply not function, as it would be a constant, symmetrical stalemate between equally predictable and punishable options that neither player would want to throw out. **The genre is fundamentally built around the idea that you CAN'T always be ready for everything that could possibly happen at any given moment.**

Realistically, however, you shouldn't be aiming to be ready for absolutely everything at once anyway. Human reaction speed is dependent upon how simple or complex a given stimulus and the required response are, so what most contributes to improving reaction speed is simplifying your "mental stack", or the list of things you should most be concerned with, from highest to lowest priority. **The mental stack consists of things such as knowing what options the opponent has and doesn't have access to in a given situation, what the animations of those options look like, knowing ahead of time what your answers to those options are, how consistent your execution is on those responses, and reading your opponent to guess what option they are going to pick.** If you have no clue what your opponent's options are, or you aren't confident in your ability to immediately respond to those options, your response time will suffer accordingly. **Improving your reaction speed therefore largely relies on four things working in tandem: situational awareness, game knowledge, experience, and practice.**

Even pro players renowned for their reaction speeds practice A LOT to become more familiar with the specific situations that they want to be able to react to. **The more you can limit the number of viable options to expect from the opponent, and the more prepared you are to deal with those options, the faster and more consistently you can react to what they choose to do.** Additionally, especially when you are newer to a game or character, you can start by **limiting your responses to simplify your own decision trees,** such as picking 1 or 2 answers to some common situations that you want to focus on, and drilling them until you are reasonably confident.

In some situations, you may want to focus your mental resources on the most dangerous options, even if that means opening yourself up to smaller damage from less dangerous options. One common example is “taking the throw”, which means actively choosing not to focus on escaping throws in order to prioritize watching out for more dangerous options. Option selects can also be an important tool for simplifying your mental stack. In many fighting games, there are situations that might appear to be mix-ups at first glance, but can be simplified with defensive option selects (such as fuzzy blocking) that cover multiple possibilities, reducing the burden of reaction.

That being said, it is important to remember that there ARE some situations in fighting games that are truly unreactable, such as true 50-50 mix-ups. Getting hit in those situations does not necessarily mean that the problem was that you guessed wrong or didn’t react fast enough DURING the mix-up, but rather that you were put in the situation to eat the mix-up in the first place. In other words, making poor decisions in the neutral game was your mistake, and facing unreactable offensive mix-ups from the opponent is the penalty. Conversely, making good decisions, maintaining ideal spacing, and adapting to the situation rewards you with more opportunities to pressure the opponent and open them up instead.

Additional Reading/Watching:

- "My Reactions Aren't Good Enough for Fighting Games" | Prioritizing the Mental Stack [Sajam]
- "Even "Honest" Well Balanced Fighting Games have Strong, Cheap, BS Strategies | An Addendum" [Sajam]
- Tekken 7 Tips For Beginners - Simplify your Decision-Making [Avoiding The Puddle]
- Daigo's Secret Training Routines Revealed! What He Practices Everyday to Get Better. [Daigo, FGCTranslated]
- Mental Stack Discussion by Daigo/Tokido/Fuudo [HiFight]
- Reaction Speeds in Gaming [Kayin]
- "(...) my experience level allows me to better prioritize my mental stack." [Keits]

Improving Tournament Performance and Calming Nerves

In a tournament environment, there are more meta elements that the player is responsible for managing outside of just their gameplay. To maximize their chances of winning it all, **a tournament competitor must be able to successfully prevent or minimize the effect of any physical and psychological stressors that could negatively impact them and their performance.**

They may also benefit from strategically exploiting the format of the tournament to their advantage, such as capitalizing on the opponents' gaps in knowledge or bad habits.

The following sources go more in-depth on the topic:

- The Pressure Paradox [novriltataki]
- How to Win Through FT2 Tournaments [Tokido, FGCTranslated]