THE 400 PROJECT RULE LIST

ID	Imperative Statement	Explanation in 250 words or less	
1	Fight Player Fatigue	Games are a challenge, and playing takes effort — actively work to keep the player involved, and make sure the appeal of your game always exceeds its difficulty. (The Flow idea, where the designer neatly guides players between boredom & frustration, is a subset of this rule.)	
2	Maximize Expressive Potential	Get the most out of your (always limited) material -- either find ways to exploit an element of your game, or cut it out	
3	Maintain Level of Abstraction	Immersion is easily disturbed -- don't make the player re-calibrate his "suspension of disbelief" and lose touch with your game	
4	Concretize Ideas	All your game ideas must find a concrete expression in playable elements	
5	Make Subgames	Players want to participate in the course they take through your game -- so give them plenty of opportunities to voluntarily take up ancillary challenges	
6	Provide Clear Short-Term Goals	Always make it clear to the player what their short-term objectives are. This can be done explicitly by telling them directly, or implicitly by leading them towards those goals through environmental cues. This avoids the frustration of uncertainty and gives players confidence that they are making forward progress.	
7	Let the Player Turn the Game Off	A player should be able to save and exit the game at any point, losing at most a few seconds of progress as a result. Our objective as designers is to entertain, not punish – and many games force players to play for extra minutes, even hours, until they can reach a "save game point", forcing them to recapitulate those minutes if they quit prematurely, in frustrating repetition of now-familiar events. It's a commercially important rule, akin to the old adage, "the customer is always right". Players have been known to give up on games that did not follow this rule, and even return them.	
8	Identify Constraints	The first step in any design should be to identify the critical constraints on that design – what must be done, what should be done, and what cannot be done. Specific areas of constraints can include creative constraints (required game genre or sequel to existing game, the designer's previous experience), technical (the need to use a specific engine or work within the capabilities of a specific programming team), business/sales/marketing (budget, hard delivery date, license), and personalities (boss's preferences, lead artist's love of anime, producer's fixation on Monty Python, etc.) Often, the biggest constraint is budget – all games have to justify how much can be spent on them, and usually the vision exceeds the funds.	

9	Detailed Design Docs for Novice Teams	Design documents should be detailed in inverse proportion to the skill of the team and their familiarity with the genre.	
10	Maintain Suspension of Disbelief	In any game which uses or relies on narrative content, the player should be encouraged to suspend their disbelief and become imaginatively involved in the work. Once so engaged, the player should be protected from other elements which might shatter their imaginative experience.	
11	Emphasize Exploration and Discovery	Players like to figure out the territory of your game — it's a basic human impulse to investigate the unknown — so let 'em do it.	
12	Provide Parallel Challenges with Mutual Assistance	When presenting the player with a challenge – a monster to kill, a puzzle to solve, a city to capture – provide several such challenges and set it up so accomplishing one challenge makes it a little easier to accomplish the others (that's the mutual assistance component). It is also effective to set up these parallel challenges on many levels of scale of the game, from the ultimate goal down to the small short-term steps. This eliminates bottlenecks and makes the game accessible to a wider range of players. Ideally the different challenges use different domains of player skills, e.g. strategy and action.	
13	Turn Constants into Variables	Create variety without overburdening the game system by identifiying constant values or other system elements and turning them into variables. For example, taking a constant rate of damage and making objects or spells that change it, or taking a constant rate of fire and creating weapons that fire more or less rapidly.	
14	Differentiate Interactivity from Non-Interactivity	Always make it clear to the player when they are expected to shift from interactive to passive (e.g. cut scenes) and back. Switching to wide-screen mode is often used for passive scenes. But it is best to use multiple sensory cues, e.g. shape, color, and sound so the player is never left in doubt.	
15	Localize Narrative with a Two Step Process	While the goal may be to find one individual who can localize text and other story elements, it should be remembered that this individual will still be doing two tasks. The first task is the translation of the current elements into the language of the country into which the product is being localizes. The second task is infusing the result with the mood and drama of the original, which has almost certainly been lost in translation.	
16	Distribute Game Assets Asymmetrically	When there are objects or experiences the player can encounter in a game, place them asymmetrically, both spatially in the sense of clumping some together and spreading others thinly, and temporally in the sense of having some be common, some uncommon, and some rare over time. Of course, particularly useful or powerful items are good candidates to be the rarest.	

17	Begin at the Middle	When you are setting about to develop a game, rather than starting with the first level or initial scene of a game, pick a representative point near the middle and start there. The best order to develop a game is middle, beginning, then end. (cf. book, The Illusion of Life, wherein Disney's similar method of ordering scenes into production for animated films is discussed)	
18	Balance Units Starting with the Middle of the Pack	When balancing a variety of characteristics, abilities, or powers of individual units (e.g. Pokemon creatures, RTS military units, or RPG characters), begin with a unit that has near-median statistics, instead of starting with the weakest/strongest/fastest or other extremes.	
19	Make the Game Fun for the Player, not the Designer or Computer	This may seem obvious, but often game designers forget that it is the player who is the final audience. It's hard enough to make a game fun for the player – in fact, that's what most of the craft of game design is about – but it's even harder when you lose sight of your audience.	
20	Make the Effects of the AI Visible to the Player	It can be tempting to model subtle choices in your AI, but unless the final results are clear to the player, you may well be wasting your time. One way to do this is to choose to model clearly visible choices – a possible Sims mate can touch your character's arm and laugh, or turn a cold shoulder. Or to flip that around, you can alert the player directly when a subtle choice is made – for instance when an enemy sniper is responding to a player's choice to run straight ahead instead of crawling stealthily around the flank, an audio cue like "Look, there he is!" lets the player know the AI is on to them.	
21	Use Real-World Formulas and Minimize Cheating with Simulations	Avoiding early shortcuts often saves time in the long run. It can be tempting to cut corners with canned animation or table-driven behaviors, but use real formulas to simulate real-world consequences and you'll find that later expansions to the AI that also stick with actual physics can fit in seamlessly. For instance in a racing game it may be tempting to have an AI car jump a gap with a preprogrammed animation, but if an opponent's race car is subject to the same constraints as a player's car when jumping a gap the level designers can add new jumps or adjust old ones without having to go back and change all the previous enemy behaviors.	Games t simulate world systems Simplic Balance
22	Add a Small Amount of Randomness to AI Calculations	A little randomness can make a dumb AI look very smart. If an enemy responds exactly the same every time, they'll feel robotic and predictable. But just 5% variation can shock a player out of complacency and make an opponent seem alive. Sometimes the easiest way is to add plus or minus a few percent to a basic calculation of distance or direction. This is particularly effective for animal behavior.	

23	Create AI in the Mind of the Player	The ideal AI implementation is not actual intelligent behavior but the illusion of intelligent behavior. Much like Sun Tzu's precept in The Art of War that the best way to win a battle is to make fighting unnecessary, the best way to provide AI is to let the players imagine it with no coding necessary. Simply implying that special behavior might occur can plant it in your player's imagination. Call an enemy unit "elite" and give it a special color and players will treat it differently, crediting it with superior abilities.	
24	Don't Penalize the Player	It's often tempting to design a penalty for the player to emphasize failure at a task or to discourage the player from attempting to do something in the game you don't like. But "failing" and "being discouraged" just aren't fun. There's always a way to turn it around and reward the player for success, or encourage them to do what you want.	
25	Provide an Enticing Long Term Goal	Many (but not all) games benefit by having an ultimate goal that is made clear to the player fairly early on. Making this goal enticing is one way to pull the player into the game world and encourage passion.	
26	Make the First Player Action Painfully Obvious	The first thing a player can do in a game should be painfully obvious. Even if you are sure that everyone will understand what to do, go out of your way to make it easy to do. Don't make someone click on a doorknob, make the whole door active - or better yet, have it standing open with a flashing sign saying "Enter".	
27	Keep the Interface Consistent (many trumps of this one)	Make the player learn as little as possible to control your game — if you have several avatars and/or vehicles available, try to make them all work the same way.	
28	Be Consistent in Feedback to the Player	One of the stronger "consistency" rules, it is best to remain consistent when giving feedback to the player because variation merely for the sake of relieving boredom is particularly likely to result in frustration when the player reads intent that is not present. For example, the old Adventure Game classic "I can't do that" - "I can't do that here" implies there is a place where it can be done, and "I can't do that yet" implies there is a time where it will be possilble.	
29	Implement the Hardest Part of the Game First	Resist the temptation to start implementing the best-understood parts of the design first - by starting with the hardest parts you force yourself (and the team) to test and possibly change difficult design decisions that may in turn affect the rest of the game development process.	

30	Provide a Consistent Single Vision for the Game	It is vital from the beginning of design to make sure that there is one consistent single vision of the user's experience as he or she plays the game. It is most often a problem with shared design responsibility, but even a single designer can make the mistake of being inconsistent in vision. The vision can change during development, but everyone must know and be informed of the change immediately.	
31	Use Common Sense When Applying Rules	The Uber-trump. Any rule, carried to extremes, can become non-functional. It's impossible to consider every possible situation when drafting rules and identifying trumps, so don't follow any rule blindly.	
32	Ask "What does the user do?"	One of the most basic rules, a designer must always stay focused on the choices and actions available to the user. Games must be fundamentally about interactivity, and interactivity is fundamentally about the choices the player makes.	
33	Begin Each Project with a One-Page Specification of the Gameplay	A good general-case rule for the early design phase, but trumpable by alternative methods. This is one way to ensure the team (or an individual designer) follows the "Provide a Consistent Single Vision" rule.	
34	Emphasize Micromanagement for German Speakers	This rule is an instance of a more general rule to "consider national sensibilities"	
35	Address Needs of Instructors, Teachers, and Trainers	Make sure a serious game is easily usable by teachers - provide ways to assess learning and make the game customizable to specific curriculums.	
36	Make Even Serious Games Fun	Don't let pedagogical content "suck the fun out" of a game.	
37	Design to the Medium's Strengths Instead of Struggling with its Limitations	With an untested medium or new platform, consider what it does well and focus on that, rather than trying to shoehorn in concepts from a previous medium. But see Judo Rule: "Turn Your Limitations into Strengths".	
38	Design to Fit the Revenue Stream	The "Show Me the Money" rule - similar to the previous rule, but focusing on specific revenue streams. For example if an MMORPG has a monthly subscription, design to maximize "stickiness", but if it is free and gets revenue from buying special items, design to maximize the desire to use those items.	
39	Vary Rate of Difficulty Increase within the Flow Channel	A specific rule addressing "Fight Player Fatigue". Over the course of time a game should increase in difficulty in rough proportion to the player's increasing expertise - but that rate should vary like a sine wave (or think of it as vibratto) to provide peaks and valleys of increasing difficulty.	
40	Use Camera Position to Elicit Emotional Involvement	A rule from the film/TV industry, the position of the camera will convey emotional content, and game designers must take this into account.	

41	Every Person and Idea has Equal Worth	A "Training Wheels" rule for beginning brainstormers, this rule encourages people to contribute "wild" ideas.	
42	Critique Ideas, Not People	Focus discussion on ideas, not the people who propose them.	
43	No Bosses in Brainstorming Sessions	Another "Training Wheels" rule meant to encourage participation from the timid. Even as an observer a boss can elicit sub-optimal brainstorming, causing some to withhold ideas, and others to emphasize ideas for purpose of brown-nosing only.	
44	Challenge Assumptions	"Everyone Knows That" is not a valid proof.	
45	Alternate Discussion Between Theme (Story) and Game Mechanics	When a brainstorming discussion stalls while talking about a theme/story, try switching for a while to talking about the gameplay mechanisms, and vice versa.	
46	Raise the Emotional Stakes to Maximize Player Involvement	A meta-rule with many more specific examples, this should be the underlying rule behind many design decisions about story, characters, and theme, as well as choices of gameplay	
47	Game Play Comes First	A more specific version of "Make it Fun" - more important to emphasize game play than other elements, like story, special effects, or fidelity to license.	
48	Provide for Friend or Virtual Leader to Demo Gameplay	Many girls and women generally prefer to learn games by example or observing someone else play for the first time, and many males prefer to learn by having a chance to simply try out every interface and gameplay mechanism safely without external direction.	
49	Provide Indirect Competition	Many girls prefer to compete indirectly instead of head to head. Providing for gameplay mechanisms that allow competition without a pure winner/loser split can increase the appeal to women.	
50	Simple as Possible	"Everything should be as simple as possible, but no simpler" - find ways to simplify any game element or system of game elements, but only to the point where further simplification takes away more interest than it compensates for with clarity. The master simplicity rule	
51	Make the Interface "Desperately Simple"	When trying to reach a wide audience, the simpler the interface the better. (Juan Gril's related rule for casual games is even more strict — only require one input for any given action)	
52	Make Your Game Familiar, Yet Different	Another "Make it Fun" specific rule. All successful games have a mix of some familiar elements and some fresh or unique variations. Often the big hits use familiar gameplay but vary the story/theme, or vice versa - doing both at once tends to lose audience share.	
53	Use Negative Feedback to Balance Game Difficulty and Player Skill	Employ multiple mechansims of diminishing returns in a game to limit geometric growth of player power and success (strongly trumped by "Make the Game Appear Fair to the Player")	

54	Make Rewards Proportional to the Difficulty of the Task Required to Earn Them	(Another Flow Channel rule, trumped mildly by the Vary Rate of Difficulty Increase)	
55	Make the Game Appear Fair to the Player	Computer-controlled opponents should not appear to be taking advantage of information that would not be available to a human in the same position. In multiplayer games, opponents should not have advantages based on their hardware or bandwidth. See also "Don't Penalize the Player"	
56	Make Learning the Educational Content Optional but Integral to the Enjoyment	One very successful way to teach with gameplay is to allow the player to progress through a game without learning anything at all of the intended educational content - but to maximize gameplay enjoyment when the player does learn that content, and make it accessible within the game world. Carmen SanDiego and Civilization follow this rule.	
57	Make Challenges Vary in More than Degree	Another "Player Fatigue" rule, add variety in challenges other than simple straight-line increase. Don't pick a single variable like number of enemies and simply keep increasing it. Letting several different variables interact is a good method (see Create Emergent Complexity).	
58	Don't Make Your Objective Your Primary Threat	If you are tasked with defeating a head Ogre, don't make all the opposition along the way solely smaller ogres.	
59	Make the Player Feel Smart	Provide avenues for the player to feel clever, and conversely avoid situations that will make the player feel stupid.	
60	Provide Multiple Solutions to Challenges	Avoid bottlenecks and boredom by providing different ways to achieve goals, preferably using different types of skills, like fast-action and strategy, or hack and slash versus magic.	
61	Players Should See Their Goal Before They Achieve It	The "No Backward Puzzles" rule. The satisfaction of achieving a goal is magnified when the goal has been clear (and/or literally visible) for some time. Solving a puzzle or surmounting an obstacle without even knowing you were doing it, or without knowing why, robs the player of satisfaction.	
62	Make Challenges Require Skill	Unless, of course, you're building a gambling game...	
63	Tune for Players at the Center of the Skill Curve	The core gameplay should be aimed at "average" players - it is OK to incorporate mechanisms to deal with novices and experts, but don't shift the overall game to cater to them. (Possible trumps: Casual Games, Narrow-audience sequels)	
64	Make the Hunter Become the Hunted	Provide opportunites to switch roles and have the player alternate between being predator and prey, even sometimes simultaneously. (Related to the idea in dramatic writing of "reversal of fortune")	
65	Do, Don't Show	It is better to show action or drama being enacted than tell the player about it in exposition, but it's even better to let the player experience that action or drama interactively instead of showing it.	

66	Emphasize Acquisition, Cater to Greed	A companion to "Emphasize Exploration", players enjoy the process of acquiring more, bigger, better collections of things - "Gotta catch 'em all". Let the player become rich, powerful, capable.	
67	Provide Outward and Visible Signs of Accomplishment	It is a powerful incentive for players to see visible signs of accomplishment, changing the appearance of their avatar/units, displaying special advantages visibly and not just in underlying statistics. In multiplayer games these signs should also be visible to other players.	
68	Make Failures Spectacular, Varied, and Cool	(Another somewhat weak rule, trumped by various design and production considerations, but clearly part of the entertainment process — valid when all players must be entertained, even those that fail, as in an arcade environment, but not necessarily otherwise — conflicts with the rule against spending effort to reward failure)	
69	Provide a Reaction to Every Player Action	Ideally, every action a player can take should have some sort of feedback, visual, audible, or both.	
70	Provide Visual Weenies to Draw Player	As Disney does in theme parks, provide distant but visible enticing objects - a weenie - to lead player on through the environment. Movie term derives from use of hot dogs to wrangle animals on a set	
71	Things that Look Alike Should Behave Alike	Another consistency rule, with many trumps but a good one to follow in the absence of any obvious trumps.	
72	Emotional Value Must Exceed Load Time	In other words, the only time where a long load time is justified is when the emotional payoff is proportionately large.	
73	If You See It, You Should Hear It	Provide audio for as many visible environments, objects, and actions as possible.	
74	Sound Can Lead a Transition	Often used in film, one can hear a new environment or character before they actually appear on screen. (Standard movie rule too)	
75	Set Up Expectations About How Game Works Then Reinforce Them	Overlaps with "Gain the Player's Trust and Keep It"	
76	Design Levels to Conceal Camera Flaws	Conversely, avoid level designs that show off flaws in the camera algorithms, e.g. narrow passageways, or ledges that a character must jump from perpendicular to the wall.	
77	Leave Player Wanting More	as distinguished from many games, which, by the time they're finished, leave player wanting less	
78	Ruthlessly Minimize Clicks		
79	Preserve Cause and Effect (minimize inputs)	Probably identical to "Make Consequences of Actions Predictable"	
80	Play the Game Every Day	That means you, the designer, not your test team...	
81	Imply More Depth Than is There	Good impulse, but vague	

82	Provide Hollywood Timing	For many actions that have to be accomplished within a limited but flexible amount of time, use this simple rule: worst 5% of times = failure (try again), best 5% = special success with reward, 90% of time player appears to finish "Just in the nick of time!"	
83	Design Levels with Backstory	Have Backstory (story elements known to designer but not presented directly to player) to inform the design of levels, even (especially) if the player never learns of this directly. (e.g. Watermelon in hydraulic press in Buckaroo Bonzai.)	
84	Gain Player's Trust and Keep It	Let the player understand how your design works and allow him/her to exploit that knowledge	
85	Let Players' Actions Leave Lasting Effects	The game world will feel more real if the player's actions leave lasting effects, for instance damage remains until patched or repaired, and good and bad deeds result correspondingly in lasting gratitude or resentment.	
86	Differentiate Between Game Design and Experience Design	(Not sure I know what this means - NF)	
87	Make the Player Feel Special and Powerful	A companion to "Make the Player Feel Smart"	
88	Recognition is Movement, Silhouette, Color, Contrast, Texture and Sound in that order.	Results of Microsoft research on how players recognize objects/units/installations on the screen.	
89	Emphasize Dramatic Reveals	Build emotional impact with dramatic discovery of new areas, characters, story and plot points	
90	Respect Each Game Element Equally	Don't give any game element short shrift - they all contribute to the impact of the game, even though time spent on each will vary.	
91	Account for the 10% (color blindness, hearing loss, left handed)	Don't forget minority (but significant) audiences.	
92	Trim the Fat	Ruthlessly trim away any parts of the game or story that do not directly contribute to the player's enjoyment, and omit extraneous elements.	
93	Use Interest Curve to Identify Dead Spots	Graphing the player's interest over the course of gameplay can help spot problem areas.	
94	Write Player Narrative to Identify Problems	In the early design phases, one way to find problems ahead of time is to write a narrative from the player's point of view, describing the gameplay and the experience of playing.	
95	Build Customizable Scoring Systems	Although generally helpful, it is particularly critical in Serious Games to allow the player (or an instructor) to customize score in order to emphasize specific teaching goals.	
96	Make Consequences of Actions Predictable	Give the player a sense of cause and effect, don't incorporate so many variables that a player cannot figure out the consequence of a given action.	

97	Avoid Dominant Strategies that Trivialize Player Choice	Tune the game so that the player is not led into one strategy all the time (when more than one is provided).	
98	Design Concentric Spaces	Let the player return to earlier spaces and environments as a stronger, more capable character.	
99	Provide a Framework for Social Interaction	Good impulse, but vague	
100	Give Player a Way to Measure Progress and Clear Indication of How to Become Better	(need a way to phrase this more succinctly - See Jim Gee's book)	
101	Put the Money On the Screen	Don't invest design time (and development dollars) on features the player is never likely to directly perceive.	
102	Create Emergent Complexity	Use the interaction of several simple mechansims to create complex behavior or challenge, rather than artificially adding complexity "by hand" to a single challenge.	
103	Make Common Actions Easiest to Perform	An interface rule - the more frequently a player has to do an action, the simpler it should be to perform.	
104	Turn Your Limitations into Strengths	When you find yourself constrained by a difficult circumstance or combination of limitations in design, look for a solution that turns those very limitations into a fun solution. Try to make the limitations work in your favor, not against you. The Judo Rule. (Closely related to #37)	
105	Provide Both Safe and Dangerous Areas	When moving through an environment, especially quickly, provide both areas you must pass _and_ areas you must avoid	
106	Have Fun in the First Minute	In casual games it is critical to make sure the player is having fun right away. If the game is an expensive, boxed game then this rule is not as critical (although still good to follow).	
107	Cite All Rules in Three Sentences	You should be able to explain all the rules to a casual game in three sentences.	
108	Provide Score Feedback	In a game where score is important, provide direct audio and visual feedback every time the score changes - like a sound and floating numbers.	
109	Multiple Abilities for Challenges	Make it possible (and at higher levels, mandatory) for the player to bring multiple abilities to bear on a challenge. Closely related to "Provide Multiple Solutions to Challenges"	
110	Incorporate Tutorial into Gameplay	Integrate instruction into the game progression instead of standalone tutorials (but many trumping conditions here).	
111	Show Character Through Action	In a narrative story, character is who someone is, but in interactive player character is defined by what someone can (and does) do.	
112	Personify Villany	Specific characters are better than faceless masses, and active opposition is better than passive obstacles.	