Dark Design Decisions 7: Stats

Hello! And welcome to episode seven of Dark Design Decisions. Should I rename these now that the game is “Chronicles of Ellusus”? Nah. We’re good.

Today we’re going to go real basic and talk about character stats. As we so often do, we will start by looking at what Ultima used as it went through the series.

The very early Ultimas, I and II, betrayed their roots in D&D by essentially using the same stats as AD&D’s attribute system: Strength, Agility (which is essentially Dexterity), Stamina (which is essentially Constitution), Intelligence, Wisdom, and Charisma. Ultima III shaved off some redundancy and removed Charisma (which mostly affected shop prices—and it’s not that big a loss to have those just be static) and Stamina (which had been a defensive stat).

Ultima IV reduced it further, and there it remained for the rest of the series: Strength (carrying capacity and damage in combat, sometimes jump distance), Dexterity (accuracy, speed, sometimes defense), and Intelligence (mana, spell power). (To quibble, Ultima IX also called “Weapon Level” a stat, though there was one for each weapon type, but that more strongly parallels the skills in other games, especially the Underworlds and Ultima Online.)

It is from this lineage that I drew my game’s stat system from: just Strength, Dexterity, and Intelligence. As for what they do, let’s take them one at a time. Here is what they did as of a week ago.

Strength—Increases weapon damage and hit chance with melee weapons. Each kind of armor has a minimum Strength that you are required to have before you can wear it.

Dexterity—Increases hit chance with ranged weapons, and ranged weapons have a minimum Dexterity to equip and use. Also, makes you harder to hit, and increases your speed (so your turns come up more frequently).

Intelligence—At the start of the game, your max mana is equal to your Intelligence. Most spells look at your Intelligence to determine how powerful their effect is, and your Intelligence also helps you resist enemy spells. Finally, to cast a spell, you need a minimum Intelligence of [spell level]x3.

I could have gone either way with my choices of stats, and felt like I was being traditional to Ultima—using these three is familiar for most of the series, but I take a lot of my cues from Ultima I specifically and so could easily have gone with all six. I decided that having three more didn’t add much to the game, though—there’s only one magic system, and powering two different systems (usually some form of “wizard” vs “cleric”) is the primary justification for having both Intelligence and Wisdom. I don’t feel the need to give you the opportunity to put stat raises into making shops cheaper, or getting slightly more hit points. So down to the three important ones.

At the start of the game, each of these starts at 10. They can be raised to a max of 25 through training, but they can be raised further via magic orbs found in dungeons. (You can always put 15 points in through training even if you’ve raised one to 25 by means of orbs.) The true cap is 30, but even that is only for permanent values—casting *Blessing* on yourself can raise a stat to 38 under a circumstance that is so absurd I do not expect anyone to ever try it. You get 3 training points each level, so you’ll get 21 total through your quest if you max out your level. This lets you max at most one of the three stats, so

you can really feel like you're playing a "fighter" vs a "mage" if you want. An important thing is making sure you hit the thresholds required to get each ranged weapon and each kind of armor. The *most* important thing is making sure you can get a high enough Intelligence to cast 6th level spells.

Balancing the stats

As things currently stand, the magic number for each stat is 18. An 18 Strength allows you to use all armors. An 18 Dexterity allows you to use all ranged weapons. An 18 Intelligence allows you to use 6th level spells. (This means that if you want to use *8th* level spells, you do need an Intelligence of 24!) Hitting all three of those breakpoints means putting a point in each stat each time you level, and picking up some orbs.

There's one huge problem here. One of the primary design principles that I have not compromised on is that the game can never become unwinnable. (There is a single intentional exception, and if it occurs I disable saving, and you really have to go out of your way to find it.) And if you put all your training points in Strength and Dexterity, it is actually possible to have no way to raise your Intelligence high enough to cast 6th level spells… and therefore, no way to win the game. This led me to do a re-evaluation of the stats in general, and I am taking this opportunity to talk about it.

First we'll address the big problem just mentioned—obviously, the stats system cannot be allowed to create a circumstance where the game is unwinnable, just because someone decided they wanted to play a "fighter". So I started brainstorming and bouncing ideas off a friend. Now, one thing that is true is with just a 12 Int, you can cast Blessing. This raises all your stats… and so can raise your Int, allowing you to cast higher level spells. So actually, so long as you can get your Int to 15 without Blessing, you can get high enough to cast 6th level spells. (In fact, with an Int of 14, you can cheese it—cast Blessing, raising your Int to 17 (a +3 over base). Now, cast Blessing again. This will overwrite the previous Blessing, but because your Int is putting more oomph into it, it gives you a +4 this time. Viola, 18 Intelligence! However, I ruled out any solution that required the player to think of double-casting Blessing. I mean, yes, you aren't hugely likely to wind up in this hole in the first place, but it's still very plausible.)

Next idea: casting a spell while standing on a pentagram either gives you a boost to your Int, or removes the Int restriction on casting entirely. The one downside to this is there are a couple of spells that already can only be cast when you are on a pentagram, and I worried that this basically meant those spells didn't have levels—since you have to be on a pentagram to cast them, you can cast them! (I guess they still have levels in that your *character* level still has to be at least the spell's level, even if your Intelligence doesn't have to meet the threshold created by the spell's level.) I am not going with this solution, but I like the idea of spellcasting on a pentagram to give a boost so much that I might implement some version of it anyway.

I'll bet some of my readers noticed the obvious solution before I did, which is this: examine my assumptions! Specifically: *do I need to keep the Int requirement for spellcasting at all?* To cast a spell you must be high enough *level* to cast it, and you have to have acquired it. If it's 6th level or higher, you also need to have crossed the Abyss to be able to cast it. Do I need to make a *further* prerequisite?

Upon consideration… I will be removing that.

Now, given that removal, I need to look at making sure the stats are balanced. I'm sure it will wind up that there will be an optimal path for raising them, but it doesn't have to be blatant, and I'll try to even

things out. Right now, especially with the above change, I think Dexterity is the god stat early on—Strength, after all, lets you wear armor, hit in melee more easily, and do more damage in melee… none of which matters if you kill your enemies from a distance! Dexterity lets you equip more powerful ranged weapons, hit more often with them, and also go more often in combat. Most fundamentally, at the beginning of the game, raising Dex enough to equip a bow and acquiring one will be a huge boon.

I'm looking at what needs to be done to better balance things. I think I will increase the power Strength grants to your attacks in melee, and I will increase how much additional power Intelligence grants your spells. I'm also going to find a few more places to seed stat bumps.

It would be great if I could make different stat priorities feel different but all be viable—after all, your stat raises are among the few character progression choices in the game. Giving you a lot of classes and feats and skills was something I thought about, but I decided wasn't right for the game (though I do have thoughts of increasing the complexity for the next one!). Making what there is work smoothly is what I hope to do.

Postscript: Complexity

I mentioned above that your choice in stat raises is one of the few progression choices available, and I thought I'd touch on that a little. It invokes the question: why? Why not have more complexity baked in?

The first answer is, because Ultima V didn't have it. I mean, it had classes, but the PC wasn't constrained by them, being "Avatar" instead, able to do everything. The focus of the game was the world and the plot, and that was my initial goal as well.

Then I saw games like Nox Archaist, Skald: Against the Black Priory, and Realms of Antiquity, with races, classes, feats, skills, quests to find trainers, builds and combos, stealth… I thought about it. I did. But at this point, it would be massive feature creep. And I think the game stands on its own feet as it exists now.

There was, for a little while, a more complex secondary magic system. I talked about it in my "Runes Unused" essay—where now there are 5 Runes that you can acquire and use for their powers, for a little while I figured out what every combination of runes might do, and let you mix and match and create your own mini-spells with them. And then I cut the entire system as being extraneous. 2 of the Runes aren't even required to finish the base game, so it was a significant system that a lot of players wouldn't even engage with all of.

In any case, I'm collecting all these ideas for the future. CoE:tDU will be fine without them, and will be a good foundation to build a much more interesting set of tactical systems on top of… for next time.

Thanks for reading!