

# My Review of The Great and Powerful Oz

By Diana Gruber

Name: The Great and Powerful Oz

Manufacturer: WMS

Type: 5x3 Community Bonus with wide area progressive

Lines: 9 lines per reel set, 4 reel sets, total of 36 lines

Minimum bet: 50¢

## Overview

This is a breathtakingly beautiful game. People who walk past it stop and stare at it. Everything about it is gorgeous. The lights, the colors, the shapes, the graphics, the sound, and the movies are all spectacular. In my opinion, this is one of the most beautiful games I have ever seen.



Unfortunately, The Great and Powerful Oz suffers from a fatal flaw. It has terrible math. I will try to explain what is wrong with it.

## The Pay Table

You can see from these pictures, the awards start out very low. The top award for 5 witches is 500 credits, which is \$5.00. This is just sort of a starting place. The really big awards occur during the free spins, and may occur on multiple lines, and are sometimes multiplied by very large numbers. More about that in a minute.

**HOW TO PLAY - REEL SETS AND PAYTABLE**

is WILD for all symbols except

only appear in the **ROBOTRY™** reel set (upper left)

only appear in the **SCARECROW™** reel set (upper right)

only appear in the **THE WITCH™** reel set (bottom left)

only appear in the **CHERUB™** reel set (bottom right)

	5 = 500 4 = 100 3 = 50		5 = 20 4 = 10 3 = 4		5 = 500 4 = 100 3 = 50		5 = 20 4 = 10 3 = 4
	5 = 500 4 = 100 3 = 50		5 = 20 4 = 10 3 = 4		5 = 500 4 = 100 3 = 50		5 = 20 4 = 10 3 = 4

Only highest winner paid per winning combination. All line pays are multiplied by the bet multiplier.  
Line pays must occur on adjacent reels, beginning with the leftmost reel of each reel set.

**HOW TO PLAY - PAYTABLE**

is WILD for all symbols except

	5 = 300 4 = 80 3 = 30		5 = 200 4 = 60 3 = 20	
				5 = 10 4 = 5 3 = 2

of a kind

Only highest winner paid per winning combination. All line pays are multiplied by the bet multiplier.  
Line pays must occur on adjacent reels, beginning with the leftmost reel of each reel set.

There are four "royal flush" symbols -- A,K,Q and J. Each of these symbols pays the same, a maximum of 10 credits for lining up 5 on a line. That doesn't sound like very much, does it? But the reels are arranged in such a way that symbols are stacked. That means you are likely to get paid on more than one line at the same time. If, for example, you have a blackout condition where you get aces in every position on all 5 reels, you will get paid 10¢ on all 9 lines, or 90¢. That's not a very large award, but as I mentioned, there are multipliers. The multipliers occur during the free spins. The multipliers can potentially be very large.

## Community Bonus

The Great and Powerful Oz is a traditional community bonus game based on a timer. It works like this. Each time the player places a bet, they are awarded 7 seconds of eligibility towards the "Big Event" community bonus. If you play rapidly, you can fill up the timer stack, and increase the multiplier. For example, if you place 5 bets in rapid succession, you are awarded 35 seconds of eligibility. Since the eligibility clock only contains 25 seconds, you will get a few of those seconds at a 2x multiplier. Very rapid play can result in a 3x multiplier. I was not able to push the eligibility past 3x with rapid play. I pounded on the buttons, but 3x seemed to be the limit. Most of the time, a player playing at a regular rate of about 9 spins per minute will be eligible for a 1x multiplier on the Big Event.



Your eligibility multiplier and seconds remaining are displayed in a circle at the bottom center of the screen. This gives you an incentive to keep betting, so you don't lose your eligibility for the Big Event.

There is another way to increase the Big Event multiplier. A special symbol, called a Booster, can increase your multiplier for a few seconds. Four Booster symbols anywhere on the screen doubles your Big Event multiplier. Ten or more Booster symbols gives you 81 times your Big Event multiplier. That's a lot. The top award for 5 witches on a line is 500 credits. When that occurs during the big event with the maximum boost, that becomes  $81 \times 500 = 40500$  credits, or \$405. So that's a pretty good return on a 50¢ bet. It happens very rarely, though. I never saw any awards like that when I was playing. I did manage to hit the Big Event with a boost for a 4x multiplier. I came out of that bonus with \$30, which was nice. That was the largest award I saw during several hours of play.

## The Big Event

The Big event is simply seven free spins. It is presented in a very exciting way, with the Wizard's booming voice announcing wilds and multipliers. But despite the big build up, and the impressive graphics and sound, most of the time, it is not very profitable.



The Wizard may award up to a 10x multiplier on one reel set. If that happens, and you are lucky enough to hit the top award of witches in all 15 positions, and you scored Booster symbols for an 81x multiplier on a previous spin, then this is your top award:

Top Award	
5 witches	500
9 lines	9
Big event multiplier	10
Booster multiplier	81
Top award (credits)	3,645,000
Top award (dollars)	\$36,450.00

That is a very good return on a 50¢ bet. It is also the reason this is such a terrible game.

## The Distribution

When I design a slot machine, the thing I am most interested in is the distribution. The distribution is simply a graph of the awards. It tells you what percent of the total coin out is at the low end, how much is in the middle, and how much is at the high end. A normal distribution might look like the hump of a camel. An ideal distribution for a slot machine will give you a mix of low, medium and high awards. You need enough awards at the low end to keep the player playing. Low end awards give you time on device. You need enough awards in the middle to keep the player interested. Medium awards give the player the feeling of potential. You need enough awards on the high end to give the player something to aim for. The most successful slot machines have a careful balance of awards all along the distribution.

The Great and Powerful Oz distribution is heavily skewed towards the high end. There is so much of the return dedicated to those very high awards, there is not enough left to provide support at the low end. That means the player has a very low hit frequency and a very low time on device. As a result, the player loses his bankroll and leaves the game without ever having had a positive experience.

I saw it happen over and over as I was studying this game on a busy Friday night at the South Point Casino in Las Vegas. A player would buy in, sit for few minutes, and leave. Wins were few and far between, and when something finally hit, it usually paid less than the bet.



Look at this example. Don't you think all those stacked and matching symbols should be worth more than 30¢?

Even when you get the Big Event, with all those wilds and multipliers, you are still likely to get a very small return. Look at this screen.



After stretching my bankroll, and building my eligibility over time, and waiting for the Big Event, and then watching my seven free spins with all those wilds and multipliers, I ended up with a paltry 48¢. That's less than the minimum bet. It felt like an insult.

## Conclusion

If you want your game to be a success, there is no substitute for good math. No matter how beautiful your game is, if your players aren't hitting anything, then your game will fail. The most common cause of a failed math model is a skewed distribution, and the most likely culprit is over-generous multipliers during the free spins. Don't make this mistake. Mind your distribution and your time on device. Those things are measurable. I can help you with that. Email me at [dgruber@fastgraph.com](mailto:dgruber@fastgraph.com) for more information.