



THE POWER OF PREDICTION

How the PJ Our Way team cracked the code to find out what tweens really want

By Pnina Salomon

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Middle school is that magical time when kids begin to make their own independent decisions about what to read. **As the mom of five kids, I know they can be tough customers; if they don't like the look of a book (or what's for dinner), they simply won't try it.** That's why kid appeal is so important to me.

PJ Our Way subscribers are a diverse bunch in terms of gender, age, affiliation, background, interests, and reading ability. To fit their audience, characters in popular PJ Our Way titles are diverse as well. For example, in the Hereville graphic novel series by Barry Deutsch, Mirka is a feisty troll-fighting girl from a *shtetl* who hates to knit. Award-winning authors James Patterson and Chris Grabenstein bring us 12-year-old Max, who celebrates the world of science in *Max Einstein: The Genius Experiment*. In *... too far from home* by recognized Israeli writer Naomi Shmuel, Meskerem is challenged by prejudice, and Sylvia Rouss' adorable *Mitzvah the Mutt* features a Jewish puppy with a quirky personality who easily captures PJ Our Way kids' imaginations and hearts. (Don't worry, not all PJ Our Way book characters have names that begin with the letter M.)

I've been involved in curating the monthly PJ Our Way lineup with the PJ Our Way Book Selection Committee since the program began in 2014. We offer subscribers a choice of four books every month through the PJ Our Way website (pjourway.org), taking great care to offer a wide selection of titles that cater to kids' interests across the spectrum. Naturally, I'm drawn to book selection data, mostly to find out the answer to the ever-elusive, burning question: What do kids want to read?

With four titles each month, our program enjoys the luxury of not only offering books we expect will have universal appeal but also slating the occasional niche title for advanced readers. It's a wonderful system for the kids, but it's really hard to predict with any kind of accuracy which titles they'll select. Purchasing too many books can be costly and lead to piles of books in a warehouse waiting several years for another opportunity to be in the lineup. Purchase too few, and you've got disappointed kids waiting for a title that's out of stock.

At the beginning of our journey, for each month, we ordered the same supply of each title, assuming book selection would work out evenly. It didn't take long for us to notice the increase in inventory generated from that misguided assumption. Then we brought in a statistician and a machine learning specialist to develop an algorithm that would help predict selection rates for books by factoring data like target population, repeat offerings, awards, sequels, and genres. After using it for about a year, we realized the algorithm didn't work either, and our inventory kept growing; it seems AI works as well at predicting what middle graders want to read as it does predicting what they want to eat.

Then, while discussing a particular title languishing in inventory, a frustrated member of the book selection committee groused, "Why did we even order so many? I could have told you that it had limited appeal." That was when I realized that we already had the perfect team on board to solve this conundrum! The PJ Our Way Book Selection Committee has been grappling with the nuances of kid appeal for years, testing the results in real time each month. Reviews on the PJ Our Way website and from the Kid Advisory Committee also provide valuable, frank (and occasionally surprising) feedback. Why not use this expertise for prediction?

With a lot of help from Nichole Warren on our operations team, we spliced data gathered from the past few years of book selection and analyzed trends. We asked all kinds of questions: Which books were most popular by age, gender, or genre? Did proximity to holidays or summer vacation affect selection? How about famous authors, series, or awards? Do kids love action-adventure (yes!) and graphic novels (yes!) more than they enjoy historical fiction (yes!)? How many kids really judge books by their cover (so many!)?

With new selection trend data in hand, I turned to my wonderful team, the PJ Our Way Book Selection Committee. I now knew the right questions to ask, and, more often than not, started getting the right answers. Our inventory began to drop, and in a thrilling moment in December 2020, Nichole notified the committee that we predicted selection with nearly 99% accuracy! My husband, a bond trader, was disappointed that my new powers of prediction weren't transferable to the stock market, but we raised a toast to celebrate anyhow.

It's been two years, and our book selection analysis has only gotten more fascinating. This year we analyzed whether our lineup is balanced: Over the course of a year, are we offering equally popular books across gender and age (yes!)? Are kids curious about the Holocaust (yes!)? Do they love books about sports (not really)? We were curious about offering new book formats and began a three-month audiobook pilot in April 2021. Our main question was whether kids would actually download and listen to audiobooks (yes!). And yet, even with answers to all of these pressing questions and dreams of how we can make the program even more engaging, my most fulfilling moment was hearing another frustrated comment at a recent book selection committee meeting: "All the choices are so appealing this month, I don't know how kids will manage to choose just one!"

PJ Our Way is not only about kids choosing books — they can also write reviews, take polls, play trivia, earn badges, and more!

If your soon-to-be tween is turning 9, sign them up for the next chapter of PJ Library at pjourway.org.