A Toy Is Born

by Susan J. Oliver

"Now *that* would be a great idea for a new toy!"

Who among us in the world of early childhood education has not had such a thought run through our heads at least once or twice, if not regularly? Toys are the tools of learning in our preschool classrooms or child care centers, and it's only natural that we can envision fresh new ways for toys to solve children's learning challenges . . . or simply to be more fun. With all the creative ideas out there, how is it that a toy actually comes to market? And why do some great toy concepts never make it to the retail shelf?

The highly competitive toy market

Every new toy that comes to market faces intense competition. About 7,000 new toys hit toy store shelves or become available through mail order or online retailers every year (Cardinale, 2003). In 2003, sales of traditional toys amounted to $20.7 billion, down about 3% from the previous year (NPD Funworld, 2004).

Toys come and go. Today's must-have often becomes tomorrow's has-been with breathtaking speed. While we all know (and some may love) classic toys that have been around forever — like Crayola® Crayons, first sold in 1903; Tonka® Trucks (1947); Mr. Potato Head® (1952, and you supplied the potato!); Play-Doh® (1956, originally a wallpaper cleaning compound); LEGO® bricks (1949); and the ubiquitous Barbie®, introduced in 1959 — it's important to understand that toys are what's known as a "fashion" industry. Like clothing styles, many toys come and go in one to three seasons. To put some numbers to the short life cycle of the typical toy, only about a third of the 2003 total dollar sales for toys came from those introduced before the year 2000. A tiny 3% of 2003 sales came from toys brought to market prior to 1990 (NPD Funworld, 2004).

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How new toy ideas get started

As for how toys get to the market in the first place, forget the idea of a thunderbolt hitting a soon-to-be-famous mom or teacher or inspired kid-at-heart while in the shower. "Most toys are marketed as part of an exciting or new brand," points out Don Toht, Vice President, New Products at RC2™/Learning Curve International in Oak Brook, Illinois and head designer for, among other brands, the Lamaze Infant Development System.® "A brand has a personality and a life cycle. New product introductions are conceptualized to fit the 'DNA' of the brand and to fill gaps we may have in our line. To be successful in the marketplace, the brand needs to work as a logical whole."

As the brand grows and changes, products are created to respond to needs or opportunities. Consumers may be asking for certain types of products through their purchasing behavior, via market research, or by direct communication with the manufacturer. Depending on the retail channel that the manufacturer is using, the line may need to offer a certain number of items to meet retailers' criteria for carrying the brand. The retailer may have further impact by requiring a mix of price points, and may set a maximum price by category of product. Through their feedback, the sales force may also be a factor in determining what is made — either by encouraging the discontinuation of products that are hard to sell or pointing out opportunities for new products based on what they are hearing from customers.

All this means that toys generally begin life not from pure inspiration that strikes a designer out of the blue, but rather as a vague direction from the manager of the brand. The design team may be asked to generate ideas for a toy that will be suitable for a particular age range or will fit in a defined price range — or will suit some other criteria established through market research or feedback from the sales force.

Brainstorming, sketch storming, and mindmapping

Then comes the brainstorming. At the beginning, this creative process looks like most other idea generation processes, with

designers filling a very big funnel with rough concepts that meet the criteria. Gradually, the wall papered with Post-It® notes or the pages of scribbled notes on flip charts become more focused as the better solutions to the design challenge emerge through the clutter.

The next milestone is aimed at identifying the small handful of viable concepts. The process may vary. Fisher-Price Brands, for example, uses "sketch storming" — aimed at generating two-dimensional visual representations of many ideas, the best of which will eventually be made into three-dimensional prototypes. The Learning Curve team prefers to engage in building what they call verbal "mind maps" to help visualize the heart of the product — that is, the critical element(s) that will make it appealing to kids — and then to move to "brain sketching" — developing three-dimensional images of the product in designers' heads — before putting pencil to paper. "We want to be able to *say* what makes it special and cool before we *show* how it works," explains head designer Toht. "That keeps us focused on *why and how* it would be fun for kids to play with rather than *what* the toy is."

From design to reality—factoring in costs, safety, and the needs of children

Generally one or two of the best ideas stand out and the team goes forward with the next few steps that will result in bringing the toy to life. Different manufacturers approach the process in their own unique ways, but a few of the standard steps are:

- **Estimating production costs:** including engineering, set up of the production process, per unit production costs, cost of raw materials (for example, depending on the type of toy: fabric, stuffing, plastic, wood, paint, attachments, electronics), packaging design and production costs, and shipping from the plant to the retailer.

- **Estimating marketing costs:** including advertising, training the sales force about the new introduction, working with retailers to get commitments with favorable terms to carry the product, and more.

- **Safety reviews:** Ensuring a product's safety is a critically important part of the development process. Most manufacturers will have more than one point in the process where a safety review is conducted; for example, after the design is ready far enough along to build a prototype, after the prototype is made, and after the first few units come off the production line.

- **Input from experts:** Not all companies invest in this step, but many leading manufacturers of preschool products — including Learning Curve and Fisher-Price — seek input on the concept and design from child development specialists to ensure that the proposed item is age-appropriate, has the intended play value, and can be expected to be appealing to children.

Once the manufacturer has determined that the design is viable from a safety and play value standpoint, and can reasonably be expected to make a profit, the investment in manufacturing and marketing systems is made. The product is produced, bought by retailers, and put on the store shelf. One to two years after the design process started, a toy is born — and hopefully is on its way to becoming a beloved and much-used item in a child's toy box.

Why some great toys don't get made

At Playing for Keeps, we often make presentations to early childhood educators about toys and how they are born. One of our objectives is to bring together professionals who share an interest in children and their play, but who typically do not have opportunities to learn from each other.

One question that we always hear from educators centers on toys that are *missing* from the market. Why, for example, are toys that represent people or lifestyles of different cultures or different abilities — so important in helping young children understand themselves and others — so hard to find? Why are the few that are available so expensive?

We have yet to talk to a manufacturer who is not sympathetic to the issue. But the answer is always the same. For the substantial investment a manufacturer must make to bring *any* plaything to market, there has to be a reasonable expectation of a modest profit if the company hopes to stay in business. Must *everything* be driven by profit? Fisher-Price and its parent company Mattel have demonstrated willingness occasionally to produce toys wihtout necessarily expecting a profit — for example, the Aiden Assist® Rescue Hero, Share-A-Smile Becky® in the Barbie line, and the Cabbage Patch Playtime Friend®, all representing people with disabilities — but in an industry known for its tiny profit margins compared to most consumer products, it may not be realistic for any but the largest companies to absorb such losses on a product.

We encourage educators to use Playing for Keeps as a forum for reaching out to toy industry professionals through our events and resources so that you and they can learn from each

other about your respective areas of expertise. As early childhood educators, you are in a unique position to help the industry understand where there are gaps in available toy products. While the economics that created the situation are an unfortunate reality, continued communication about the needs of children may encourage creative and committed manufacturers to keep working on solutions.

What if you have a new toy idea?

As an early childhood teacher, you are immersed in the world of children's play every day. Who is better suited to bring forward inspirations for new toys? If you have toy ideas, is there any chance at all that they can be produced?

The answer is a heavily qualified "yes." Is it possible? Yes. Is it likely? No. RC2™/Learning Curve International, for example, relies on its in-house design teams and the professional inventor community. In the past three years, says Don Toht, only one or two ideas have come from the general public.

Here's why it's so hard to break through with a new toy concept. First, think about how a toy has to perform to be interesting to a manufacturer. The Toy Industry Association recommends that inventors ask themselves these questions (Cardinale, 2003):

- Is it unique?
- Does it have growth potential (in terms of sales, related products, brand development, etc.)?
- Does it have play value?
- Will the consumer get his or her money's worth?
- Is it fun for kids?
- Is it cost effective; that is, can it be manufactured "at a reasonable cost" to allow a competitive retail price within its category and to ensure a profit?

Most would-be inventors who bring forward unsolicited ideas to toy companies are deeply passionate about the concept they have developed. Most firmly believe that they have come up with a fresh new invention. If this describes you, don't be surprised if you're told that it's an old idea.

Why sometimes new ideas are not all that new

Consider that there are full-time research and design specialists — often whole teams of them — at more than 1,000 toy manufacturers around the country, spending all their energy on dreaming up innovative, cost effective products. Chances are — like it or not — your idea has already been conceptualized. If you haven't seen it on the store shelves, it may have emerged in a brainstorming process and gotten stuck in the idea funnel because it didn't fit a brand personality or it was judged to be a mediocre idea, given what the toy professionals know about consumer behavior. It may have gone through part of the design process and been rejected because it couldn't be made or sold cost effectively. It may have been produced, in fact, but with lukewarm results and taken off the market already because it wasn't profitable.

What to expect if you approach a manufacturer

Another issue facing manufacturers is the need to avoid patent infringements or intellectual property disputes. If you approach a manufacturer with your idea, be prepared that your materials may remain unopened unless you first sign a non-disclosure agreement that clarifies your understanding that: 1) your idea, while original to you, may not be unique and may in fact be already in the company's new product pipeline, and 2) neither you nor the manufacturer are at liberty to discuss your communication with other parties. To protect themselves from lawsuits around product ideas, toy manufacturers typically set up firewalls between the public and their designers and they carefully document the ideas (along with dates) that emerge from in-house brainstorming in case the same ideas are later offered through unsolicited would-be inventors.

If you hope to *birth* a toy, the challenges are indeed significant. But the occasional success story does happen. On the upside, remember that in addition to pursuing the extremely arduous but perhaps (for some) worthwhile route of manufacturing it yourself, there are hundreds of toy manufacturers in the United States. Perhaps there is that special one with product lines and other resources that fit the hot idea that won't stop rattling around in your head until you do something about it.

If you want to find more information about toy design and invention, consult the Toy Inventor/Designer Guide on the Toy Industry Association web site at: www.toy-tia.org/Content/NavigationMenu/Library/Publications_Resources1/Toy_Inventor_Designer_Guide/Toy_Inventor_Designer_Guide.htm

References

Cardinale, D. (2003). *Toy Inventor/Designer Guide.* New York: Toy Industry Association.

NPD Funworld. (2004). *Fun Facts.* Port Washington, NY.