



Designing for Children

- With focus on 'Play + Learn'

THE PROCESS, NOT THE PRODUCT:

DESIGNING WITH CHILDREN

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Abstract: In today's school environments there is often a pressure to come up with designs for children which are complete, anticipating all their needs and providing them with a spectacle of how their world should be, fully sorted out, ready to be digested. This flies in the face of children's excitement at participating in designing their work agenda and classroom environments and seeing them evolve and take shape.

In ancient India it was customary for a guru to withhold a 'fistful' of knowledge when teaching his students. This incompleteness was what spurred students to take this knowledge in new directions, leaving their individual stamp upon it.

Some of my most successful classes have been ones which did not finish as planned, and where the children have had to go home still thinking towards solutions, often coming up with ideas and strategies that were totally new. In classes as diverse as origami, song writing, song orchestration, story writing and cartooning I have found this again and again: that truly new ideas which excite children and give them a sense of achievement tend to be preceded by a phase of feeling blocked, of having to wait for the right light to proceed.

This paper explores the learning that has resulted from a focus on process rather than products, with children often learning better by setting their own agenda, and being confronted by 'mistakes' which make them think again. It also envisions a slightly different role for a teacher in this sort of learning: as a catalyst who lays down the foundation, enabling children to find their own way.

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1. Introduction

I hit upon the idea, some years ago, of sweetening the sound in my music room by pasting up the lyrics of each song we learned on colorful chart paper, along with large cartoons to picturize the song. Chart paper, I reasoned, was a form of wood pulp, and the best way to sound-treat my walls, as wood paneling was unaffordable, and ecologically undesirable. The lyrics would be stapled onto bulletin boards that covered my walls, and the cartoons would be stuck up higher, near the ceiling, and even on the ceiling, with tack.

The start of each new school term would find all of us teachers facing blank freshly painted walls. We would come in two days before the children in order to get our rooms ready, to decorate them with cartoons linked to the first lessons, cartoons which also welcomed the children back.

It was impossible to make my walls look as though life were in full swing, when in reality things were simply about to start. I did try to guess ahead, a few times, to intuit what all we *could have* be doing, make my room look complete, but those songs always fell flat; they were the songs I ended up having to change in consultation with the children. The only songs I chose right were the ones we were going to learn right away.

Over the years the idea took root that beginnings did call for blank walls, with just a glimmering of music and color. And that the songs and cartoons we added bit by bit reflected our journey together through the term. This paper looks at that sort of journey: we are not concerned here with finished products for children that follow our best intuitions about what children might need and enjoy. This paper is about the more messy, more quirky, more rewarding process that precedes arrival, where teacher and children participate together.

2. Structure and Freedom

At the heart of all activity involving creativity is the balance between structure and freedom. Before one is ready to take off and invent, there is a 'grammar' one has to internalize, with all the constraints that define the genre and shape the products it can yield. Freedom of expression is possible only when one has understood this grammar: when one is ready to produce things that have meaning in that universe, things which make sense to their audience.

With origami, for example, there are the valley folds and mountain folds, almost always dividing the area into half, along with petal folds, rabbit's ear folds, inside and outside reverse folds, sink folds, and all the bases: bird bases, frog bases and other hybrid bases. These elements produce the angularity, the stylization and ultimately the stability that characterize origami models.

With music, cartooning and story writing there is a similar body of structure upon which creativity rests. But this is not part of the thinking behind the lessons that introduce children to art, story writing or music at school. In art and story writing children are often left 'free' to explore, to be 'creative'. And in western music they are taught to perform, with structural training mostly aimed at enhancing technique: how to play the piano more efficiently, how to project the voice and expand the vocal range. Some gifted children do see through to the underlying structure and are able to dance with the medium to some extent, but there is no provision in regular teaching for taking children past this bedrock to empower creation.

3. Hearing color

Chords, in Western music, are the hardest thing to get across. Not *how* to play them on a guitar or a piano: children regularly memorize chord sequences, and calculate the spots where on the guitar they must make changes, counting inside their heads. It is possible for them to do so blindly.

Many children do not even detect mistakes when they calculate a transition point or choose a new chord wrongly. The children I teach range in age from 7 to 11 years. When they start playing in an orchestra the music sounds just as good to them when the chords are wrong as when they are right.

The journey to friendship with chords is learning to *hear*. Hear first that the chord has changed. What does that sound like? What has changed? Does the music feel colder, all of a sudden? Lonelier? A cloud passing across the sky? The blue cast of a night sky? Is that what they mean when they talk about blues?

Or the sudden blaze of sunlight in *Mera Joota Hai Japani*, when we come to the verse, and, at another level, India transits from being a colony to being independent. The sad minor key has simply become a bright major key!

Or a bass line, tracking out, in *Just One Candle*, from a close intimate solo shot to a panoramic vision that takes in all of planet earth. The left and right hands move further and further apart on the piano, and a song with positive lyrics becomes unbearably distant, and lonely. One little boy told me he felt like crying!

And look at the wispy notes that swirl in the air, phrases echoing each other, but each on a slightly different plane, as they create the dry leaves in their last almost weightless flight in *Autumn Leaves*. All of this has been expressed without a single word of lyrics coming into the picture. The point is that this sort of class discussion builds images in children's minds, so that they understand that music has meaning. It is a form of storytelling, or painting, using melody lines, chords, bass lines and rhythms to create a moving image.

There is a language at work here. A language kids can get a handle on, and one day use to express things themselves. There is a eureka moment when a child in an orchestra is suddenly following the chords from intuition instead of mechanical counting, 'feeling' the changes, or able to figure out which chord it should be, in a new song, without help.

This is a feeling of empowerment that ultimately lets a child experiment and create something new, something that sounds like a real song.

4. Incompleteness

My very best origami classes, I hear, are when I myself am not present. Those are the classes when the children, all at different levels of proficiency, get to look into my books and choose the models they will make, conscious that there is no one to turn to if there are difficulties. And by the end of the class the children all produce neat competent models and declare that the class has gone smoothly.

But when I am there it is different. First of all the children become more ambitious. They refuse to do anything they might have done before, and opt to try models that are slightly beyond their competence. So they do end up coming to me for help when they cannot understand a direction that is unclear.

Many's a time the intermediate and the advanced students will not be able to produce a good model before the class ends, and will take the directions home, with extra origami paper, for another neater try. Then they stew over the problem through the weekend. And most of them will end up working it out by themselves, sitting in a less time-pressured environment at home.

In terms of ending up with a product, classes without me do go better. But in terms of real learning, with the children developing a feel for origami and pushing the envelope, it is clearly the more inconclusive, messier class that scores. It is not necessary for the students to show me their work: we talk like colleagues, and I can imagine what problems they faced, and how the models turned out. I often tell them that neatness is important. But I know that it is not: neatness will come later, when they begin to see their models as products. What is really important now is the fire in the belly that makes these little ones solve a level of puzzle that would defeat most adults. It is only by trying impossible things that we depart from our limitations and change, and grow!

5. Postponing

Postponing is bad, we hear. Laziness. One must keep at it, scrapping sheet after sheet of paper in a soon-to-be-treeless world, just trying to get the beginning of a story or an essay right. 'Hard work is the key to success'!!!

And yet... If we think of a story as a living thing, it stands to reason that it might have a gestation period before it is ready to come out into the sunlight, no longer a part of you. And it makes sense that one should give it some thought, but wait. Wait till it comes together on its own, and, like a river, simply flows. How does one do this?

When I write my best prose, I generally have a feeling of ideas coming *through* me, rather than *from* me. I feel like a surfer, simply there in the right place at the right time, waiting for a wave to come, without which I will not get my ride. I can feel the difference between what I write then, and what I write when I know I have a patch to get through which has to include a bunch of things I have listed. I often forge on and write the less inspired stuff just in order to reach a part where I know I will be back on a roll. And if I leave it overnight, sometimes the next day when I re-read it, it will have fleshed out in my mind, come to life.

How do I wait? I define the time period. Say: I won't write for five days. That gives the ideas a chance to ripen, for frustration to set in, for the butterfly wings to beat against the inside of the cocoon and become strong, ready for flight as soon as they break out of the time constraint.

And in all this time one keeps busy, doing other things, glancing at the impending prose out of the corner of one's eye. The brim: the place where all the best ideas come from!

It is hard to incorporate the notion of fallow time into a stressed school schedule, where children are being taught how to keep busy and not give up. But, when you think about it, creativity is a different enterprise, and it makes sense that some of its rules might

be different. Far, far better to spend the fallow time reading, and subtly internalizing the rules of story grammar, so that they know the frameworks in which stories reach out best to their audience.

6. Retracing our steps

The standard way to teach cartooning is probably the Disney method, of stylizing a form as a number of egg shapes, then finding the final line and doing a cleanup. But I am sure that even Disney's employees often came of age by doing something way down the food chain from that: tracing and inking. Nice, precise and fairly mindless activity that allow one the scope to roam and, as the hand develops smoothness and internalizes a style, the distracted eye begins to imagine countless other ways of stylizing which are probably far more original. When one starts to follow these new trails, one is ready to draw without all the cumbersome cleanup and the *de rigueur* egg shapes all over the place. One simply knows one's way.

Often when children come to my music room during break time to look at the cartoons on the wall they voice the thought that I could have been an art teacher. My usual response to this is that they don't know what they'd be letting themselves in for, because I would start them off with a lot of tracing and inking work, during which they would develop smoothness, and an instinct for how to make a drawing as a cartoon. Not much originality, at the outset, but it evolves quickly into a feeling of competence, much the same as the deliberate fallow period before creative writing adds a stimulus, and a sense of oneness with the medium.

And that is what we do at the end of the term: we take the cartoons down from my walls, and the children trace them onto fresh chart paper sheets, fill in detail, make subtle changes, ink the outline, cut them out and do some coloring and shading. The cartoons themselves were never important, nor were they meant to last forever: but as the children looked at them over time, and thought about what theirs should look like, the cartoons evolved. And then we were back to blank walls, and a fresh start!

7. Mentoring

Out of this journey a different sort of role emerges for a teacher, which calls for an initial fallow period for the children of tracing, listening, reading or simply waiting. This period is important, because that is when the child learns about the structure behind the medium, painlessly, without intellectualizing the learning process. As with second language learning, where a silent period precedes the onset of speech, the objective is simply to bring it all to life, so that it can be used to make something consistent but new.

There is much in common between this form of mentoring and the methods used by traditional gurus. In both the creative part of the process is never up-fronted, but quietly takes its time to emerge after the fundamentals are put in place.

This is a different story from experiments where children are presumed to have some sort of context-free creativity, and invited to give input into the design process before they even have an inkling about this sort of work. The result we are aiming for here is a very different sort of inclusion, where, very soon, children will be in a position to interact as true collaborators, able to see that the songs, the stories, the drawings and the origami models they live with are not set in stone. They can be changed at any time. Improved.

This sort of route is slow, evolutionary, with style being preserved, added to, subtly adapted from time to time, within a consistent grammar. This serves a purpose: art and design are not only for the practitioner, but for the wider audience around them too. This audience has over time learned the language that lies behind each medium, and is able to appreciate new things because they fit, somewhat, into a familiar framework. For them to be served products that don't fit any familiar framework, but which they are assured are valuable, is like asking them to appreciate poetry in an unknown language.

From time to time the question arises: what is Indian design? The reason for this question is that so much of our recent work feels un-rooted, and very individual. Without the sense of a shared cosmology behind it. Could it be that we need to make a journey again, this time with children to keep us on course? To find our way as we try to put once-unspoken thoughts across to them, and watch as it all comes to life, capable of growth, change and surprise?