Turning Diffusion of Innovations Paradigm on Its Head: The Positive Deviance Approach to Social Change[1]

by

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"We dance round in a ring and suppose,
But the Secret sits in the middle and knows."
-- Robert Frost[2]

Over the past seven decades, since the publication of the Ryan and Gross (1943) diffusion of hybrid seed corn study in Iowa, the classic diffusion of innovations paradigm, and its accompanying practice, is fundamentally premised on the following tenets (Coleman, Katz, & Menzel, 1966; Dearing & Meyer, 2006; Rogers, 2003 and 2004; Singhal & Dearing, 2006; Valente, 1995):

1. That innovations (new ideas, products, and services) come from the outside,
2. pushed and promoted by a change agency
3. through expert and knowledgeable change agents
4. who use persuasive communication strategies to plug existing knowledge-attitude-practice (KAP) gaps among the client audience
5. by harnessing the influence of charismatic opinion-leaders,
6. who serve as visible role models of adoption for the non-adopters.

In this chapter, we broach an alternative conceptualization of diffusing innovations, which turns the classical diffusion paradigm on its head. This alternative approach to diffusing innovations is known as the Positive Deviance (PD) approach. The PD approach is not touted here as a substitute for the classical diffusion of innovations paradigm. Rather, we argue that the PD approach expands the solution space by working with a different set of principles, questions, and mindsets, believing that often the wisdom to solve intractable social problem lies within the community. Diffusion in the PD approach is an inside-out process in contrast to the classical dominant framework of outside-in diffusion.

The PD approach to diffusing "new ideas and practices" has been employed over the past two decades in over 40 countries to address a wide variety of intractable and complex social problems, including solving endemic malnutrition in Vietnam (Zeitlin, Ghassemi, & Mansour, 1990; Sternin J., 2003), decreasing neo-natal and maternal mortality in Pakistan (Sternin, M.,2005), reducing school dropouts in Argentina (Dura & Singhal, 2009); reintegrating returned child soldiers in northern Uganda (Singhal & Dura, 2009); drastically cutting down the spread of hospital-acquired infections in U.S. healthcare institutions (Singhal, Buscell, & McCandless, 2009), and in addressing many other issues (Pascale & Sternin, 2005; Pascale, Sternin, and Sternin, 2010).

In this chapter we describe the Positive Deviance approach, including its key tenets and principles, by analyzing its historical origins in Vietnam to combat endemic malnutrition. Through the experience of this pioneering real-life application of PD in Vietnam, and drawing upon dozens of others that have followed, we argue for an alternative conceptualization of diffusion of innovations -- one that turns upside down our cherished conceptualizations of expert and outside change agents, the notion of filling KAP gaps, the traditional role of opinion leaders, and the like.

What is Positive Deviance?

Positive deviance (PD) *is an approach to social change that enables communities to discover the wisdom they already have, and then to act on it* (Sternin & Choo, 2000; Pascale & Sternin, 2005; Singhal & Dura, 2009). PD initially gained recognition in the work of Tufts University nutrition professor Marian Zeitlen in the 1980s, when she began focusing on why some children in poor communities were better nourished than others (Zeitlin, Ghassemi, & Mansour, 1990). Zeitlin's work privileged an assets-based approach, identifying what's going right in a community in order to amplify it, as opposed to focusing on what's going wrong in a community and fixing it.

Jerry Sternin, a visiting scholar at Tufts University, and his wife, Monique Sternin built on Zeitlin's ideas to organize various PD-centered social change interventions around the world. They institutionalized PD as an inside-out diffusion of innovations approach by showing how it could be operationalized in a community-setting (Papa, Singhal, & Papa, 2006).

Combating Malnutrition in Vietnam

Location: Hanoi, Vietnam. December, 1990.

"Sternin, you have six months to show results," noted Mr. Nuu, a high-ranking official in the Vietnamese Ministry of Foreign Affairs.

"What? Six months? Six months to demonstrate impact?" Jerry Sternin could not

believe his ears.

"Yes, Sternin, six months to show impact, or else, I will not be able to extend your visa."

In December, 1990, Jerry Sternin, accompanied by his wife Monique and ten-year old son Sam, arrived in Hanoi to open an office for Save the Children, a U.S.-based NGO. His mission: To implement a large-scale program to combat childhood malnutrition in a country where two-thirds of all children under the age of five suffered from malnutrition.

The Vietnamese government had learned from experience that results achieved by traditional supplemental feeding programs were not sustainable. When the programs ended, the gains usually tapered off. The Sternins had to come up with an approach that enabled the community, without much outside help, to take control of their nutritional status.

And quickly! Mr. Nuu had given the Sternins six months!

Crisis or Opportunity

From years of studying Mandarin, Jerry knew that the Chinese characters for "crisis" were represented by two ideograms: danger and opportunity. Perhaps there was an opportunity to try something new in Vietnam.

Crisis = Danger + Opportunity

Necessity is the mother of invention. If old methods of combating malnutrition would not yield quick and sustainable results, the Sternins wondered if the construct of positive deviance, coined a few years previously by Tufts University nutrition professor Marian Zeitlen,[3] might hold promise.

Zeitlen broached the notion of positive deviance as she tried to understand why some children in poor households, without access to any special resources, were better nourished than others. What did they know, and what were they doing, that others were not? Perhaps combating malnutrition called for an assets-based approach: that is, identifying what's going right in a community, and finding ways to amplify it, as opposed to the more traditional deficit-based approach of focusing on what's going wrong in a community and fixing it.

> *Positive deviance (PD) is an approach to social change that enables communities to discover the wisdom they already have, and then to act on it.*

Positive deviance sounded good in theory. But no one, to date, had operationalized the construct to actually design a field-based nutrition intervention. Might it work in a community-setting? How? The Sternins had no roadmaps or blueprints to consult. Where to begin?

Childhood malnutrition rates were high in Quong Xuong District in Than Hoa Province, south of Hanoi, where the Sternins had set up base. The Ho Chi Minh trail, the major supply route for the Vietcong guerillas during U.S. hostilities in Vietnam, snaked through Quong Xuong, and so suspicion of Americans, was palpably high. The Sternins first task was to build trust with community members. The rest would follow.

Building Trust: Jerry Sternin with a village elder in Quong Xuong District, Vietnam

After several days of consultation with local officials, four village communities were selected for a nutrition baseline survey. Armed with six weighing scales and bicycles, health volunteers weighed some 2,000 children under the age of three in four villages in a record 3.5 days. A growth card for each child, with a plot of their age and weight, was compiled. Some 64% of the weighed children were found to be malnourished.

No sooner was the data tallied, with abated breath the Sternins asked:

"Are there any well-nourished children who come from very, very poor families?"

The response: "Yes, yes, there are some children from very, very poor families who are healthy!"

> *"Yes, yes, there are some children from very, very poor families who are healthy!"*

These poor families in Than Hoa that had managed to avoid malnutrition without access to any special resources; they would represent the positive deviants. "Positive" because they were doing things right, and "deviants" because they engaged in behaviors that most others did not.

What behaviors were these PD families engaging in that others were not? To answer this question, community members were tasked to visit with six of the poorest families with well-nourished children in each of the four villages. The Sternins believed that if the community self-discovered the solution, they were more likely to implement it.

> *If the community self-discovered the solution, they were more likely to implement it.*

Palpable excitement bathed the community hall. The self-discovery process yielded the following key PD practices among poor households with well-nourished children:

*Family members collected tiny shrimps and crabs from paddy fields adding them to their children's meals. These foods are rich in protein and minerals.

*Family members added greens of sweet potato plants to their children's meals. These greens are rich in beta carotene, the miracle vitamin, and other essential micronutrients e.g. iron and calcium.

Interestingly, these foods were accessible to everyone[4], but most community members believed they were inappropriate for young children. Further,

*PD mothers were feeding their children three to four times a day, rather than the customary twice a day.

*PD mothers were actively feeding their children, making sure there was no food wasted.

*PD mothers washed the hands of the children before and after they ate.

> *When Positive Deviant practices are made visible, they are immediately actionable because they are accessible to everyone in the community.*

Doing not Telling

With the "truth" discovered, the natural disposition urge was to go out and tell the people what to do. Now the "best practices" needed to be diffused so that the non-adopters could adopt them.

Various ideas for "telling" were brainstormed: household visits, attractive posters, educational sessions, and others. Many were implemented in the classical diffusion of innovations approach, trying to persuade people to see the relative advantages of these identified best practices. However, results were disappointing. While a few folks adopted the said best practices, the majority did not.

From their previous field-based experience in other countries, the Sternins knew that old habits die hard; new ones, even when they hold obvious advantages, are hard to cultivate. Their experience suggested that such "best practice" innovations, almost always engendered resistance from the people. The Sternins coined a phrase for it -- the "natural human immune" response.

As the brainstorming winded down, a skeptical village elder bellowed: "A thousand hearings isn't worth one seeing, and a thousand seeing isn't worth one doing."

> *"A thousand hearings isn't worth one seeing, and a thousand seeing isn't worth one doing."*

On the car ride back to Hanoi, the Sternins talked about the wisdom inherent in the elder's remark. Could they help design a nutrition program which emphasized "doing" more than "seeing" or "hearing?"

A two-week nutrition program was designed in each of the four intervention villages. Mothers, whose children were malnourished, were asked to forage for shrimps, crabs, and sweet potato greens. Armed with small nets and containers, mothers waded the paddy fields picking up tiny shrimps and crabs. The focus was on action, picking up the shrimps and crabs, and shoots from sweet potato fields.

Shrimps and crabs for the taking in Vietnamese rice paddies

In the company of positive deviants, mothers learned how to cook new recipes using the foraged ingredients. Again, the emphasis was on 'doing;" on practice.

> *The PD approach is premised on the notion that it is easier to act your way into a new way of thinking than to think your way into a new way of acting".*

A cooking session in progress in an intervention village

Before the mothers sat down to feed their children, they weighed their children, and plotted the data points on their growth chart. The children's hands were washed, and the mothers actively fed the children, ensuring no food was wasted. Some mothers noted how

their children seemed to eat more in the company of other children. When returning home, mothers were encouraged to break the traditional two-meal-a-day practice into three or four portions.

Such feeding and monitoring continued for two weeks. Mothers could visibly see their children becoming healthier. The scales were tipping! And, the rest is history.

> *The Positive Deviance approach is completely informed by, and bathed in, data. Data is collected at every step of the way and openly posted for the community members to monitor progress. Data informs where problems and the solutions lie.*

After the pilot project, which lasted two years, malnutrition had decreased by an amazing 85 percent in the communities where the PD approach was implemented. Over the next several years, the PD intervention became a nationwide program in Vietnam, helping over 2.2 million people, including over 500,000 children improve their nutritional status (Pascale, Sternin, & Sternin, 2010; Pascale & Sternin, 2005; Singhal, Sternin, & Dura, 2009; Singhal & Dura, 2009).

Born out of necessity, this pioneering PD experience in Vietnam, turned the fundamental tenets of the classical diffusion of innovations framework on its head (Table 1).

Diffusion of Innovations Approach	**Positive Deviance Approach**
Solutions reside outside	Solutions exist within the community
Change agentry as pushing solutions	Community self-discovers solutions
Seeking adopter buy-In	Seeking community ownership
Emphasizing innovation attributes (relative advantage, compatibility, non-complexity, trialability, and observability)	The solution, by definition, delivers better outcomes (relatively advantageous), is compatible, non-complex (as people with no special resources have adopted). Further, the PD behaviors are trialable (already being practiced), and their results are observable. Now.
Expert change agents give advice	Change agents relinquish expertise, listen, and facilitate
Focused on plugging deficits	Focused on identifying and amplifying assets
Moves from problem-solving to solution identification	Moves from Solution-identification to problem-solving
Adopters are persuaded	Adopters learn by doing
Susceptible to adopter resistance on account of exogenous solution	Open to self-replication on account of endogenous wisdom
Valorizes charismatic opinion leadership	Valorizes behaviors of ordinary people
Involves lengthy diffusion planning	Can begin now as solution resides in the now
Needs a heavy investment of resources for dissemination	Needs limited resources as someone is practicing those behaviors against all odds

Source: Draws upon Pascale & Sternin (2005), Singhal and Dura (2009), and Singhal, Sternin, and Dura, 2009.

Since the Vietnam initiative, in the past two decades, the PD approach has been applied in a variety of contexts, to address a wide variety of intractable social problems, with highly effective outcomes (Pascale, Sternin, & Sternin, 2010; Singhal & Dura, 2009; and see www.positivedeviance.org). A growing body of literature validates the alternative perspective of inside-out diffusion as noted by the attributes of the PD approach in the above table.

Conclusions

The classical diffusion paradigm has been criticized for reifying expert-driven, top-down approaches to address problems and thus, by default, overlooking, and rejecting local solutions (Papa, Singhal, & Papa, 2006; Singhal & Dearing, 2006; Singhal & Dura, 2009). Diffusion of innovation experts now increasingly believe, and humbly acknowledge, the value of local expertise and indigenous wisdom in finding culturally-appropriate solutions to community problems. One such inside-out approach to innovation diffusion is exemplified by the positive deviance approach.

The PD approach believes that innovations (or solutions) that are generated locally are more likely to be owned by the potential adopters. When adopters are externally persuaded to buy into the vision of an outside-expert, they tend to demonstrate inertia and resistance, much like the Iowa farmers in the Ryan and Gross (1943) study who for an average of about 10 years resisted the adoption of hybrid seed corn.

The PD approach questions the traditional role of outside expertise, believing that the wisdom to solve the problem lies inside. While social change experts usually make a living discerning community deficits, and then implementing outside solutions to change them, in the PD approach, the role of experts is framed differently. The expert's role is to help the community find the positive deviants, identify their uncommon but effective practices, and then to design a community intervention to make them visible and actionable.

In the PD approach, the change is led by internal change agents who, with access to no special resources, present the social behavioral proof to their peers. If they can do it, others can too. As the PD behaviors are already in practice, the solutions can be implemented without delay or access to outside resources. Further, the benefits can be sustained, since the solution resides locally.

Perhaps, most importantly, the PD approach turns the dominant "transmission-centered" innovation-decision framework on its head. As opposed to subscribing to the notion that increased knowledge changes attitudes, and attitudinal changes change practice; PD believes in changing practice. PD believes that people change when that change is distilled from concrete action steps.

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Endnotes

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[2]Robert Frost, see http://www.goodreads.com/quotes/show/2512

[3] This pioneering Vietnam story draws upon numerous conversations and audio-taped interviews with both Monique and the late Jerry Sternin, and partially from a co-authored case study (Singhal, Sternin, and Dura, 2009).

[4] A positive deviance inquiry focuses on eliminating those client behaviors from the strategy mix that are true but useless (TBU). TBU is a sieve through which a facilitator passes the uncommon qualities of positive deviants to ensure that the identified practices can be practiced by everyone.