



Organizational Learning through Modeling

Presentation to EEN June 2010

Daniel Hayden, Rare

Agenda

- Background
- Building Closed Loop Processes
- Outcomes Analysis
- Lessons Learned

Rare at a Glance

Founded: 1972

Central office: Arlington, Virginia USA

Regional offices: Indonesia, China, Mexico

Total staff globally: 75

of countries Rare has worked in: 57

Our specialty: Social marketing to reduce threats

Method Summary: Rare trains partners to run “Pride campaigns” that change attitudes and behaviors, provide sustainable alternatives, and help communities protect biodiversity at the local level.



Agenda

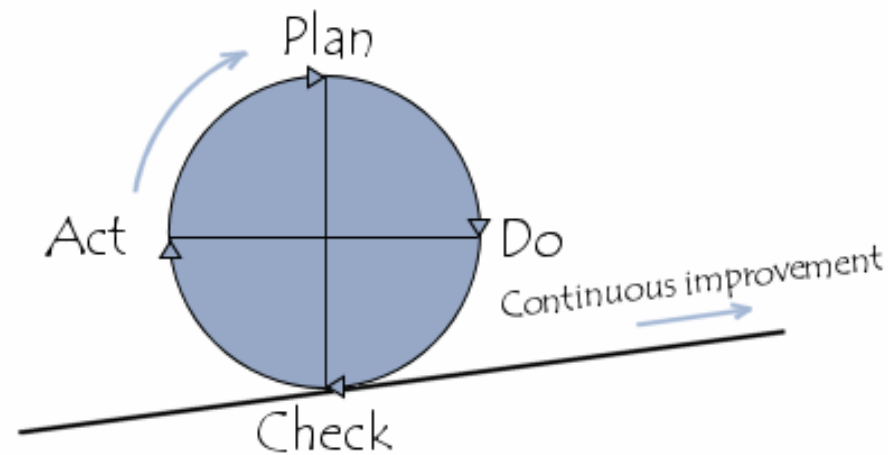
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Program Management

Systematic Learning through Closed Loop



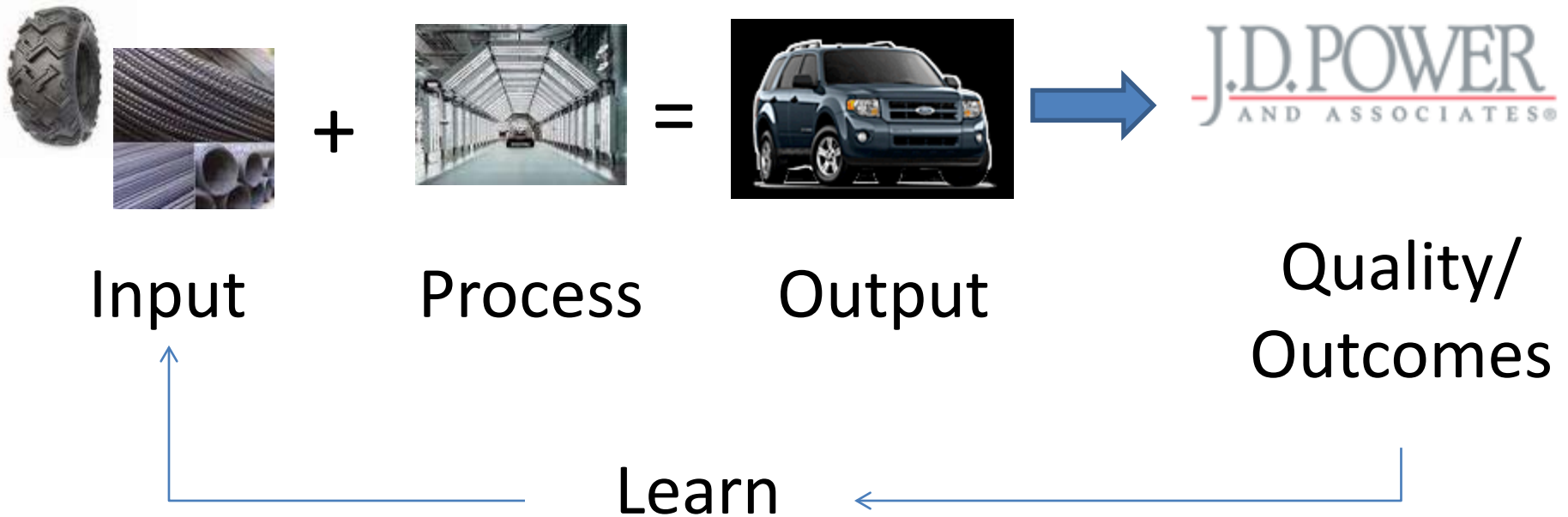
CMP Open Standards for Project Management



Rare's Adoption of the Deming Model

Car Companies

Our model for conservation?



Rare

Mimicking MoTown



+



=



Great People at
Great Places

Training &
Mentoring

Pride
Campaign

?

Input

Process

Output

Quality /
Outcomes



Learn



Theory of Change

Can't Measure if You Don't Know What You Want to Achieve

Project Structure: Farmers (including valley guards)



Standardized Project Management

All Campaigns Have Core Deliverables that are Scored

► Orientation

Name	Due Date	Upload date	Approved date	Timeliness	File
项目地综述 (Site Summary)	2008-12-25	2008-12-05	Approved on: 2008-12-14	On Time	-郎建民.docx
项目组成员及利益相关者 (Project team & stakeholders)	2008-12-25	2009-01-24	Approved on: 2009-02-12	Late	-郎建民.docx -郎建民.docx

► Planning

Name	Due Date	Upload date	Approved date	Timeliness	File
概念模型 (Concept Model)	2009-02-15	2009-01-24	Approved on: 2009-02-12	On Time	--郎建民.jpg
威胁排序 (Threat Ranking)	2009-02-15	2009-01-24	Approved on: 2009-03-06	Late	--郎建民.jpg
障碍清除评估及可行性概述 (BRAVO)	2009-04-05	2009-09-21	Approved on: 2009-09-22	Late	Zhang Ai Qing Chu Ping Gu Yu Ke Xing Xing Gai Shu .doc
问卷调查及调查分析 (Questionnaire Survey & Survey Analysis)	2009-05-03	2009-03-13	Approved on: 2009-04-16	On Time	V5-3月4日-高.doc V5-3月4日-高.doc
结果链 (Results Chains)	2009-05-03	2009-04-14	Approved on: 2009-04-20	On Time	RESULT CHAIN.doc
受众细分 (理解我们的受众) (Audience Segmentation (Understanding our audience))	2009-05-03	2009-06-06	Approved on: 2009-06-10	Late	--郎建民.docx

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Data Should Drive Decisions

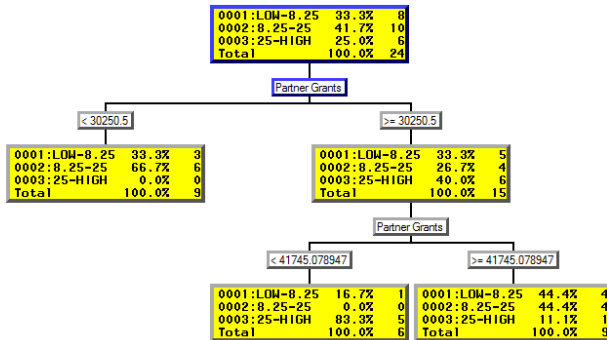
We don't capture data for data's sake

Audience	Goal	Type of Analysis	Example of Outcomes
Donor	Donors want to know the impact of their contributions to determine how /if to support our work.	<ul style="list-style-type: none">• Outcome data• Bright Spots/ Success stories	<ul style="list-style-type: none">• The average campaign gets 43% of the target audience to adopt new behaviors• 83% of campaigns report lasting conservation impact• Campaign in Bahamas endorsed by Prime Minister
Rare staff: Retrospective	<ul style="list-style-type: none">• Improve partner recruiting• Improve partner training• Improve staff training	Hypothesis driven statistical analysis <ul style="list-style-type: none">• Linear regression models• Statistical decision tree analysis	<ul style="list-style-type: none">• Partners that contribute some funding have more successful campaigns• Track partner engagement• Train staff on creating SMART Goals
Rare staff and Partners: Prospective	What does current data say about future outcomes and how can we change today	Linear regression model	<ul style="list-style-type: none">• The longer a campaign is scored "Red" the longer it is apt to stay Red• The more a supervisor is involved the more successful the campaign is apt to be¹¹

Experimentation

Linear regression got us stuck, decision trees were a breakthrough

Decision Tree Model



New insight

Independ ent variable	Impact on the Changes			
	Knowledge	Attitude	Behavior	Target Reached
Levels of Changes	3	3	3	2
Ratio of Total Weeks of Green	NSD	SD(1)	NSD	NSD
The effect of whether existed a BINGO Partner	NSD	NSD	NSD	NSD
The effect of Site Population Size	NSD	NSD	SD(1)	SD(2)
The influence of Campaign Activities	NSD	Mass Media(2)	Small Arts(2)	Mass Media(1)
The effect of Amount of Partner Grants	SD(1)(2)	SD(2)	NSD	NSD

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Lessons Learned to Date

Get Started, Be Patient ... Get Started

Management

- Modeling is an iterative process so you won't know what you are missing until you try
- You will never clean up your data until you try to use it and realize how bad it is
- However, you will never get resources to clean your data until you prove the value of the data
- So doing something is better than nothing

Analysis

- Start simple
- Try different approaches
- Invite other people to help you – academics, students, interns, peers – this gives you diverse perspectives

Driving decisions

- Stats are rarely so complete and so compelling as to change your organization – so manage expectations
- Present the data in ways that people can use it to make decisions

Methods Issues

Some things we learned

Different methods make sense:

- We have not successfully built an *uber* model, why
 - Different sample sizes
 - Different research questions
 - Different audiences

Use common sense

- In small data sets a few samples can throw off the whole model – so analyst/manager needs to understand the context
- Is your data so good that you can really be counter-intuitive?

Share

- Have different people review your analysis

Industry Approach

We need to work together

- Focus on open standards for data
- Join CMP
 - CMP has an initiative to join data sets across conservation organizations
 - Help define the standards
- If you have skills, but no data, we have a role for you!

Thanks

When in doubt, hire people smarter than you



Philippe Pradel



Qianlan Zeng



Sean Grundy



Peter Vaughan