What’s Hard About Innovation?

Vanderbilt School of Medicine Shared Resource & Core Retreat 2019

Prof. David A. Owens, PhD
Prof. of Management and Innovation
Vanderbilt University

Group Innovation Survey

Our organization aspires to innovate.
Rating:  
In my experience, our organization is set up to innovate successfully.
Rating:  
In my experience, our organization has met or exceeded our aspirations for innovation.
Rating:  

Benchmarking Your Personal Innovation Style

Please answer the following ten questions about your working habits

Scoring I

Count the number of A’s and R’s
If R is higher, you are “Type R”
If A is higher, you are “Type A”
   Write this down

Subtract R from A
   Write down the absolute value
Please answer the following 10 questions about your *Actual* working habits

1. When I am working on a task, I tend to...
   - [ ] A) Go along with a consistent level of work
   - [ ] R) Work with high energy at times and low energy other times

2. If there is a problem, I usually am the one who thinks of...
   - [ ] A) One or two solutions that that other people will generally accept
   - [ ] R) Many solutions, some of which are unusual

3. When keeping records, I tend to...
   - [ ] A) Be very careful about documentation
   - [ ] R) Be more haphazard about documentation

4. In meetings, I am often seen as the one who...
   - [ ] A) Keeps the group functioning well and maintains order
   - [ ] R) Challenges ideas or authority

5. My thinking style could most accurately be described as...
   - [ ] A) Linear thinker, going from A to B to C
   - [ ] R) Thinking like a grasshopper, jumping from one idea to another

6. If I have to run a project or group, I...
   - [ ] A) Try to figure out goals, time lines, and expected outcomes
   - [ ] R) Have the general idea and let people figure out how to do the tasks

7. If there are rules to follow, I tend to...
   - [ ] A) Generally follow them
   - [ ] R) Question whether those rules are meaningful or not

8. I like to be around people who are...
   - [ ] A) Smart, stable and solid
   - [ ] R) Clever, stimulating, and change frequently

9. In my office or home, things are...
   - [ ] A) Laid out neatly or in a reasonable order
   - [ ] R) Here and there in various piles

10. I usually feel the way people have done things in the past...
    - [ ] A) Must have some merit and comes from accumulated wisdom
    - [ ] R) Can always be improved upon
Style Assessment
Type R with dif. 8-10 : Strong R
Type R with dif. 5-7 : Mid-Level R
Type R with dif. 2-4 : Moderate R
Difference of 1 or less : MID R/A
Type A with dif. 2-4 : Moderate A
Type A with dif. 5-7 : Mid-Level A
Type A with dif. 8-10 : Strong A

The Six Most Effective Ways To Stop Innovation
“not generating good ideas”
“unwillingness to take risks”
“poor execution and scaling”
“ignoring needs and markets”
“not satisfying users’ aspirations”
“poorly functioning technology”

What’s the **Simplest** and Most **Powerful** Theory of Innovation?

Reframing Innovation

---

- Favorable Market
- Collegial / Group Support
- Societal Acceptance
- Organizational Execution Capability
- Functioning Technology
- Individual’s Creative Idea
- Innovation!
<table>
<thead>
<tr>
<th>Adaptive Innovators</th>
<th>Radical Innovators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characterized by precision, reliability, efficiency; seen as methodical, prudent, disciplined</td>
<td>Seen as thinking tangentially, approaching tasks from unsuspected angles; undisciplined, unpredictable</td>
</tr>
<tr>
<td>Concerned with resolving problems rather than finding them</td>
<td>Could be said to discover problems and discover less consensually expected avenues of solution</td>
</tr>
<tr>
<td>Seeks solutions to problems in tried and understood ways</td>
<td>Tends to query a problem’s concomitant assumptions; manipulates problems</td>
</tr>
<tr>
<td>Reduces problems by improvement and greater efficiency, with maximum of continuity and stability</td>
<td>Is catalyst to settled groups, irreverent of their consensual views; seen as abrasive, creating dissonance</td>
</tr>
<tr>
<td>Seen as sound, conforming, safe, dependable</td>
<td>Seen as ingenious; unsound, impractical</td>
</tr>
<tr>
<td>Does things better</td>
<td>Does things differently</td>
</tr>
<tr>
<td>Liable to make goals of means</td>
<td>In pursuit of goals liable to challenge accepted means</td>
</tr>
<tr>
<td>Seem impervious to boredom, seems able to maintain high accuracy in long spells of detailed work</td>
<td>Capable of detailed routine (system maintenance) work for usually only short bursts. Quick to delegate routine tasks</td>
</tr>
<tr>
<td>Is an authority within given structure</td>
<td>Tends to take control in unstructured situations</td>
</tr>
<tr>
<td>Challenges rules rarely, cautiously, when assured of strong support and problem solving within consensus</td>
<td>Often challenges rules. May have little respect for past custom</td>
</tr>
<tr>
<td>Tends to high self-doubt when system is challenged, reacts to criticism by closer outward conformity; Vulnerable to social pressure and authority; compliant</td>
<td>Appears to have low self-doubt when generating ideas, not needing consensus to maintain certitude in face of opposition; less certain when placed in core of system</td>
</tr>
<tr>
<td>Is essential to the functioning of the institution all the time, but occasionally needs to be ‘dug out’ of the current systems</td>
<td>In the institution is ideal in unscheduled crises; better still to help to avoid them, if can be trusted by adaptors</td>
</tr>
<tr>
<td>When collaborating with innovators: supplies stability, order and continuity to the partnership</td>
<td>When collaborating with adaptors: supplies the task orientations, the break with the past and accepted theory</td>
</tr>
<tr>
<td>Sensitive to people, maintains group cohesion and cooperation; can be slow to overhaul a rule</td>
<td>Appears insensitive to people when in pursuit of solutions, so often threatens group cohesion and cooperation</td>
</tr>
<tr>
<td>Provides a safe base for the innovator’s riskier operations</td>
<td>Provides the dynamics to bring about periodic radical change, without which institutions tend to ossify</td>
</tr>
</tbody>
</table>

Generate Good Ideas

The Idea Constraint?

Individual Constraints

Perception
New Data

Intellection
New Insights

Expression
New Articulations

How do I have better ideas?

The Emotion Constraint?

Group Constraints

Emotion
No Fear

Culture
Dumb Questions

Process
Coordinated Behaviors

How do we support experimentation?
The Execution Constraint?

- Organize For Execution
- Take Risks in Groups
- An Individual’s Great Idea

Organizational Constraints

- Structure
  - Sharing Information
- Strategy
  - Intentional Actions
- Resources
  - Intrapreneurship

How do we execute and scale?

The Orthodoxy Constraint?

- Bring value to the Market
- Take Risks in Groups
- An Individual’s Great Idea

Industry Constraints

- Competition
  - Seeing Rivals
- Suppliers
  - Professionalization
- Markets
  - Satisfying Users

How do we compete in the market?
**The Ethical Constraint?**

- Gain Societal Acceptance
- Organization For Execution
- An Individual's Great Idea
- Take Risks in Groups
- Bring Value to the Market

**Societal Constraints**

- Identity & Values
  - True Empathy
- Ethics & Regulation
  - Protecting Society
- Tradition & History
  - Acknowledging the Past

**How does it make us better?**

**The “Making It Work” Constraint?**

- Functioning Technology
- Gain Societal Acceptance
- Organization For Execution
- An Individual's Great Idea
- Bring Value to the Market

**Technical Constraints**

- Physics
  - Conscious Competence
- Time
  - Windows of Opportunity
- Ecology
  - Sustainable Value

**How do I make it function?**
When does innovation work?

“individuals must have good ideas”
“groups must support taking risks”
“organizations must execute and scale”
“industry must offer a willing market”
“society must accept as aspirational”
“technology must function”

Six common elements that groups making breakthroughs generally share

“catalytic leadership” (empowering employees to take initiative)
“diverse teams” (with different backgrounds and skill sets for more perspective)
“curious cultures” (questioning classic assumptions and challenge the status quo)
“idea pathways” (a formal structure for generating, testing, and rolling out new concepts)
“porous boundaries” (sharing knowledge across both the organization and its beneficiaries)
“ready resources” (investing in the money, time, and probably toolkit required to make all of this happen).