Applying Research to Improve Results: Research You May Have Missed

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Annual Research Review

**Step 1:** Review every issue of 30+ diverse research journals:
- Varied disciplines: HRD, OD, ISD, Management, Psychology, Personnel, Human Factors, etc.

**Step 2:** Survey 15+ researchers and faculty for the best of what they have read that year:
- Varied disciplines.
- No specific criteria for “best”

**Step 3:** Take both of these inputs to determine what I believe are research findings worth noting for their implications to the practice of Performance Improvement.

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INVESTIGATING THE SUCCESS OF DECISION MAKING PROCESSES.

JOURNAL OF MANAGEMENT STUDIES, VOL. 45, ISSUE 2,
PP. 425-455

1. Decision making:
   A. Discovery
   B. Emergent opportunity
   C. Idea imposition
   D. Redevelopment (starting over)

2. Business decisions.

3. Interviewed three people involved in each decision.


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<table>
<thead>
<tr>
<th></th>
<th>Sustained Adoption</th>
<th>Complete Adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discovery</td>
<td>90%</td>
<td>85%</td>
</tr>
<tr>
<td>Emergent Opportunity</td>
<td>73%</td>
<td>66%</td>
</tr>
<tr>
<td>Redevelopment</td>
<td>64%</td>
<td>57%</td>
</tr>
<tr>
<td>Idea Imposition</td>
<td>55%</td>
<td>41%</td>
</tr>
</tbody>
</table>

- Discovery completed in nearly half the time of imposed ideas.

No decision is too small.
- It is tempting, but do not abandon systematic decision-making:
  - Define need (gaps in results)
  - Identify alternative solutions
  - Determine criteria for comparing options
  - Get diverse perspectives
- Abandon imposed ideas early.
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STUDY TWO


THE COLLABORATIVE ORGANIZATION: HOW TO MAKE EMPLOYEE NETWORKS REALLY WORK

MIT SLOAN MANAGEMENT REVIEW. 52(1).

1. Surveys in 12 organizations over 6 years.
2. Relationships among people.
3. Graphed and mapped relationships.

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STUDY TWO
What They Found

- High performer networks:
  - large
  - diverse
  - broad
- Improving collaboration efficiency can save time ($).
- In one company, 10% of the employees accounted for 26% of the energizing relationships.

STUDY TWO
Keys for Practice

- Target connections between peripheral connectors.
- Manage relationships.

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### STUDY THREE

**What They Did**

1. Respond to two e-mails.

<table>
<thead>
<tr>
<th>Feedback on First Email Responses</th>
<th>No Feedback on First Email Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coached Reflection</strong></td>
<td>GROUP 1</td>
</tr>
<tr>
<td><strong>No Coached Reflection</strong></td>
<td>GROUP 3</td>
</tr>
</tbody>
</table>

2. Employees of organizations.
3. Replication with college students.

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STUDY THREE
What They Found

- Feedback with reflection > Feedback without reflection.
- Reflection without feedback, no improved performance.
- Deeper reflection, improved performance.

STUDY THREE
Keys for Practice

- Give feedback.
- Add coached reflection.
- Focus on moderate performers.

- Other research:
  - feedback acceptance depends on how the assessor is viewed in relation to the feedback session.

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WHY IS IT SO HARD TO DO MY WORK?
THE CHALLENGE OF ATTENTION RESIDUE SWITCHING BETWEEN WORK TASKS.

STUDY FOUR

1. College students.
2. Given a word problem exercise.
3. Completed an assessment of “attention residue”.

<table>
<thead>
<tr>
<th>First Task Complete</th>
<th>First Task Incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>GROUP 1</td>
<td>GROUP 2</td>
</tr>
<tr>
<td>GROUP 3</td>
<td>GROUP 4</td>
</tr>
</tbody>
</table>

High Time Pressure for First Task
Low Time Pressure for First Task

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- High time pressure + task completion = reduced attention residue.
- High time pressure + task completion = improved performance.
- Time pressure = increased confidence in ability.

STUDY FOUR
What They Found

• Ending one task to start another is not easy.
• Add deadlines.
• Design tasks with time pressure + task completion.

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COGNITIVE CONTROL IN MEDIA MULTITASKERS.
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, USA 106:15583–15587.

1. College student survey of media use.
2. Created a media multitasking index.
4. Divided high and low media multitaskers.

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STUDY FIVE
What They Found

• High Media Multitaskers:
  ◦ Distracted
  ◦ Slower to switch.

• “People who believe they’re good at this are the worst at it,” he says. “If you think you’re a good multitasker, you most certainly aren’t.” (as quoted in a WSJ article with the authors)

STUDY FIVE
Keys for Practice

• Consider multitasking in terms of:
  ◦ Task analysis.
  ◦ Performance environment analysis.
  ◦ Intervention design.

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THE ROLE OF PRE-TRAINING INTERVENTIONS IN LEARNING: A META-ANALYSIS AND INTEGRATIVE REVIEW

HUMAN RESOURCE MANAGEMENT REVIEW
VOLUME 20, ISSUE 4, PAGES 261-282

<table>
<thead>
<tr>
<th>STUDY SIX</th>
<th>What They Did</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Meta-Analysis</td>
<td></td>
</tr>
<tr>
<td>• 159 independent studies</td>
<td></td>
</tr>
<tr>
<td>• 128 manuscripts</td>
<td></td>
</tr>
<tr>
<td>• 13,684 adult trainees</td>
<td></td>
</tr>
<tr>
<td>A. Attentional advice</td>
<td></td>
</tr>
<tr>
<td>B. Meta-cognitive strategies</td>
<td></td>
</tr>
<tr>
<td>C. Advance organizers</td>
<td></td>
</tr>
<tr>
<td>D. Goal orientation</td>
<td></td>
</tr>
<tr>
<td>E. Preparatory information</td>
<td></td>
</tr>
</tbody>
</table>

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• Cognitive learning
  ◦ attentional advice (general or specific)
  ◦ goal orientation
  ◦ meta-cognitive strategies

• Skill-based learning
  ◦ advance organizers
  ◦ attentional advice
  ◦ goal orientation

• Affective learning
  ◦ pre-training goal orientation
  ◦ attentional advice.

Target outcomes.
Target objectives:
  ◦ Verbal knowledge → “why?”
  ◦ Knowledge organization → “think aloud”
  ◦ Skill acquisition → goals and advanced organizers
  ◦ Skill compilation → “think aloud”, attentional advice, goals
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STUDY SEVEN

MADSEN, P. M., & DESAI, V. (2010).

FAILING TO LEARN?
THE EFFECTS OF
FAILURE AND SUCCESS
ON ORGANIZATIONAL
LEARNING IN THE
GLOBAL ORBITAL
LAUNCH VEHICLE
INDUSTRY.
ACADEMY OF MANAGEMENT JOURNAL, 53(3), 451-476.

STUDY SEVEN
Keys for Practice

• From Sputnik to 2004.
  • 4,646 launch attempts
  • 4,220 successes
• We learn from failures.
• We really learn from complete failures.
• We forget what we learn from successes.
• Success, without failures, leads to failures.
• Talk about our failures, not just our successes.

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TASK KNOWLEDGE OVERLAP AND KNOWLEDGE VARIETY: THE ROLE OF ADVICE NETWORK STRUCTURES AND IMPACT ON GROUP EFFECTIVENESS.


Advise Network  Group Knowledge  Team Effectiveness

- Internal Network Density
- External Network Range
- Internal Network Centralization

+ Knowledge Overlap
+ Knowledge Variety
+ Group Effectiveness

- Promote knowledge variety in teams.
- Assign liaison roles.

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THE EFFECT OF PERFORMANCE SUPPORT AND TRAINING AS PERFORMANCE INTERVENTIONS.
PERFORMANCE IMPROVEMENT QUARTERLY, 21: PP. 95–114.

<table>
<thead>
<tr>
<th>Study Nine</th>
<th>Keys for Practice</th>
<th>E-learning</th>
<th>EPSS</th>
<th>E-learning + EPSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance (out of 48)</td>
<td></td>
<td>40</td>
<td>44</td>
<td>47</td>
</tr>
<tr>
<td>Time to complete task (min.)</td>
<td></td>
<td>90</td>
<td>26</td>
<td>31</td>
</tr>
<tr>
<td>Time in e-learning (min.)</td>
<td></td>
<td>35</td>
<td>NA</td>
<td>42</td>
</tr>
<tr>
<td>Attitude toward learning</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

- Adding EPSS improves performance.
- EPSS alone can often be the best option.

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360° FEEDBACK: HOW MANY RATERS ARE NEEDED FOR RELIABLE RATINGS ON THE CAPACITY TO DEVELOP COMPETENCES, WITH PERSONAL QUALITIES AS DEVELOPMENTAL GOALS?

INTERNATIONAL JOURNAL OF HUMAN RESOURCE MANAGEMENT, 21(15)

Reliability of Ratings
Capacity  Motivation

- 6 or 7 raters for desired reliability.
- Not always practical, but likely necessary for most important evaluations.

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AUGMENTING MEANS EFFICACY TO BOOST PERFORMANCE: TWO FIELD EXPERIMENTS

JOURNAL OF MANAGEMENT, VOL. 36 NO. 3, 687-713

1. Half of employees told that new software was “the best”.
2. Half of students told that website was “the best”

- Time to performance halved
- Grades up by 4 points

- Talk it up!

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### The Research In Review Project

- Abstracts for the top 10 to 15 research articles from each year are posted at [www.needsassessment.org](http://www.needsassessment.org)

- Next Step 1: Record podcast interviews with the research authors for select articles (a few samples are now available)

- Next Step 2: Categorize research by Performance Improvement process and/or intervention in online searchable database

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