

What the Research Offers

The Performance Improvement Conference 2011

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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STUDY ONE

NUTT, P (2008).

**INVESTIGATING THE
SUCCESS OF
DECISION MAKING
PROCESSES.**

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

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STUDY ONE
What They Did

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.
4. Secondary raters of success.

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STUDY ONE
What They Found

	Sustained Adoption	Complete Adoption
Discovery	90%	85%
Emergent Opportunity	73%	66%
Redevelopment	64%	57%
Idea Imposition	55%	41%

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

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STUDY ONE
Keys for Practice

- 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

CROSS, R., GRAY, P., CUNNINGHAM, S., SHOWER, M. AND THOMAS, R. (2010).

THE COLLABORATIVE ORGANIZATION: HOW TO MAKE EMPLOYEE NETWORKS REALLY WORK

MIT SLOAN MANAGEMENT REVIEW. 52(1).

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STUDY TWO
What They Did

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

Total Interaction Time

Proportionately less efficient

Proportionately more efficient

Organizational leader (blue dot)
Project manager (orange dot)

Number of Times Individual Was Cited by Another Person

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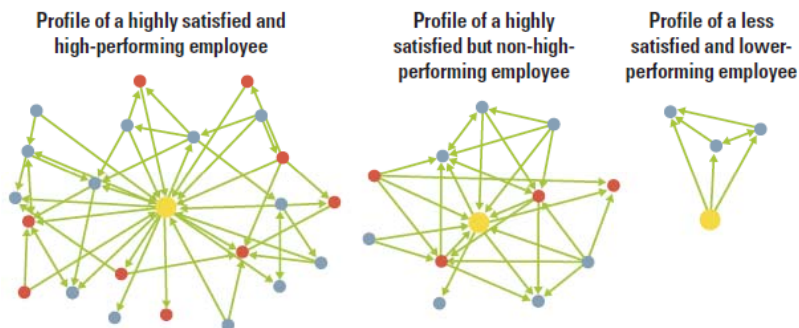
STUDY TWO What They Found

- 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.

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STUDY TWO Keys for Practice

- Target connections between peripheral connectors.
- Manage relationships.



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STUDY THREE

ANSEEL, F., LIEVENS, F. & SCHOLLAERT, E. (2009).

REFLECTION AS A STRATEGY TO ENHANCE TASK PERFORMANCE AFTER FEEDBACK.

ORGANIZATIONAL BEHAVIOR AND HUMAN DECISION PROCESSES, ELSEVIER, 110(1), 23-35.

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STUDY THREE What They Did

1. Respond to two e-mails.

	Feedback on First Email Responses	No Feedback on First Email Responses
Coached Reflection	GROUP 1	GROUP 2
No Coached Reflection	GROUP 3	GROUP 4

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.

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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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STUDY FOUR

LEROY, S. (2009).

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

ORGANIZATIONAL BEHAVIOR AND HUMAN DECISION PROCESSES. 109(2), 168-181.

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STUDY FOUR
What They Did

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

	First Task Complete	First Task Incomplete
High Time Pressure for First Task	GROUP 1	GROUP 2
Low Time Pressure for First Task	GROUP 3	GROUP 4

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STUDY FOUR

What They Found

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

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STUDY FOUR

Keys for Practice

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

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STUDY FIVE

OPHIR, E. , NASS, C.I., WAGNER,A.D. (2009).

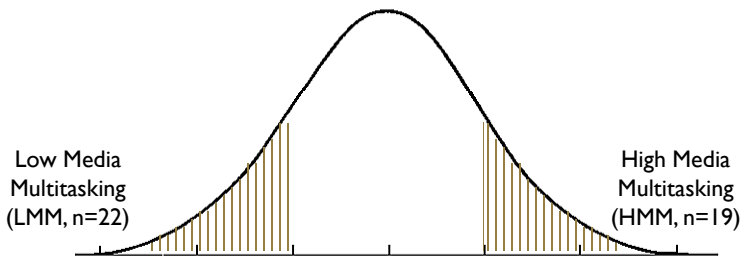
COGNITIVE CONTROL IN MEDIA MULTITASKERS.

PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES, USA 106:15583–15587.

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STUDY FIVE
What They Did

- 1.College student survey of media use.
- 2.Created a media multitasking index.



- 4.Divided high and low media multitaskers.
- 5.Computer-based tasks.

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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)

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STUDY FIVE

Keys for Practice

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

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STUDY SIX

MESMER-MAGNUSA, J., VISWESVARAN, C. (2010).

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

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STUDY SIX
What They Did

I. Meta-Analysis

- 159 independent studies
- 128 manuscripts
- 13,684 adult trainees

A. Attentional advice

B. Meta-cognitive strategies

C. Advance organizers

D. Goal orientation

E. preparatory information

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STUDY SIX What They Found

- 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.

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STUDY SIX Keys for Practice

- 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.

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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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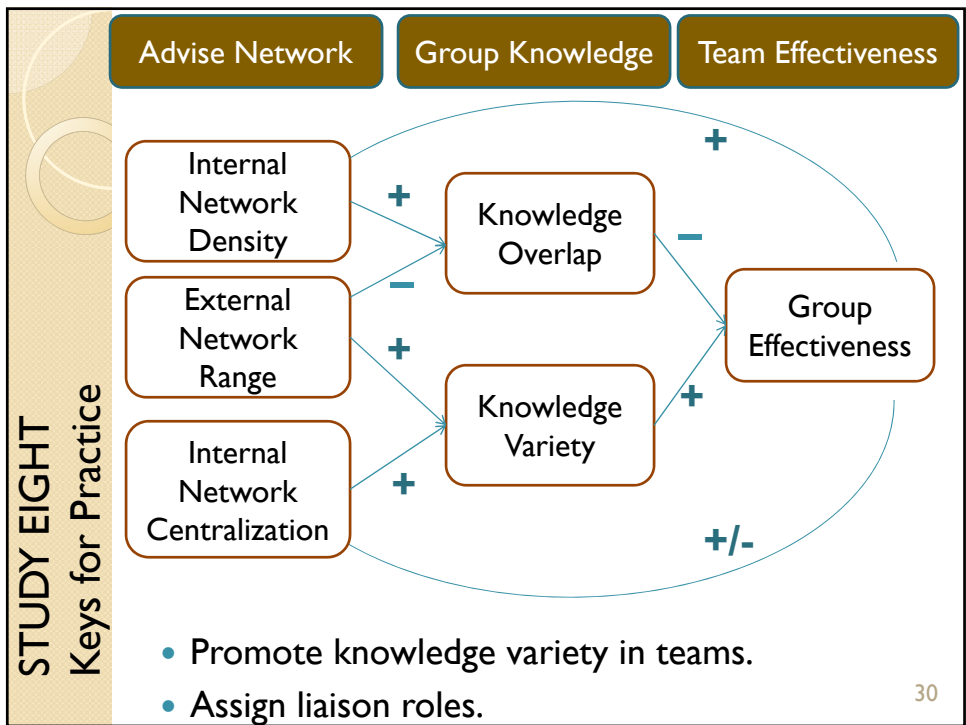
STUDY EIGHT

WONG, S.S. (2008).

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

JOURNAL OF ORGANIZATIONAL BEHAVIOR, 29: PP. 591-614.

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STUDY NINE

NGUYEN, F. AND KLEIN, J. D. (2008).

THE EFFECT OF PERFORMANCE SUPPORT AND TRAINING AS PERFORMANCE INTERVENTIONS.

PERFORMANCE IMPROVEMENT QUARTERLY, 21: PP. 95-114.

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STUDY NINE
Keys for Practice

	E-learning	EPSS	E-learning + EPSS
Performance (out of 48)	40	44	47
Time to complete task (min.)	90	26	31
Time in e-learning (min.)	35	NA	42
Attitude toward learning		+	+

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

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STUDY TEN

RAINER H., MEIJERSA, F., DER LEEDENB, R. & KESSELS, J. (2010).

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)

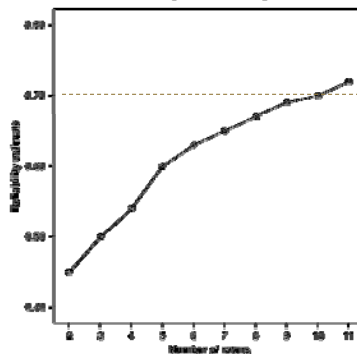
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STUDY TEN

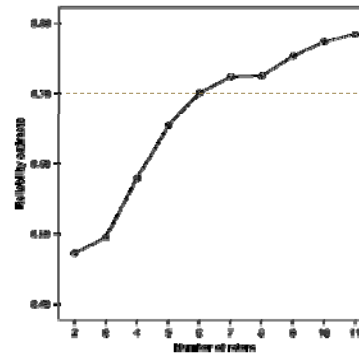
Keys for Practice

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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STUDY ELEVEN

EDEN, D., GANZACH, Y., FLUMIN-GRANAT, R., AND ZIGMAN, T. (2010).

AUGMENTING MEANS EFFICACY TO BOOST PERFORMANCE: TWO FIELD EXPERIMENTS

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

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STUDY ELEVEN
Keys for Practice

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**
- 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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