



PEER LEARNING DEFINED: WHAT IT IS AND WHAT IT IS NOT

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Disclosures

Philips, Siemens (research support)

Bunker Hill Health (advisor, shareholder)

Peer Review

- ▶ Scoring-based evaluation of general performance of a professional based on assessment by one's peers.

Theory of Peer Review (as best I understand it)

- ▶ Peers are in the best position to judge performance
- ▶ Peers can review, score random sample of cases
- ▶ Scores can be combined to form a comprehensive “portrait” of individual performance
- ▶ Individuals can be remediated or removed from practice

Peer Review

ACR RADPEER

Scoring-based peer review:

1. Concur with interpretation
2. Discrepancy, finding not ordinarily expected to be made (understandable miss)
 - a. Unlikely to be clinically significant
 - b. Likely to be clinically significant
3. Discrepancy; finding should be made most of the time
 - a. Unlikely to be clinically significant
 - b. Likely to be clinically significant

Outcomes

1. “Going through the motions”
2. The “vicious cycle of peer review”

“Vicious Cycle” of Peer Review

- ▶ **Leader** asks the radiologists to do peer review
- ▶ **Radiologists** don't cooperate
 - Waste of time
 - Punitive
- ▶ **Leader** assures everyone that it is “non-punitive,” adds adjudication
- ▶ **Radiologists** still don't cooperate
 - Still waste of time
 - Still don't trust it
- ▶ **Leader** adds incentives
- ▶ **Radiologists** participate half-heartedly
- ▶ **Leader** makes it mandatory
- ▶ **Radiologists** do the bare minimum, hide mistakes, protect each other
- ▶ **Leader** becomes frustrated with the radiologists
- ▶ **Radiologists** resent the leader
- ▶ Environment becomes hostile, learning from error is driven “underground”

Powerful forces are at work ...



... that are neither intuitive nor readily apparent

Sociotechnical system



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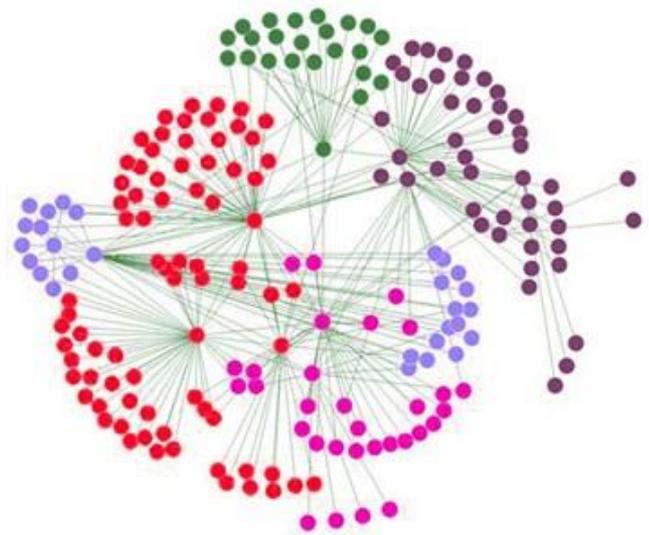


Sociotechnical system

From Wikipedia, the free encyclopedia

Sociotechnical systems (STS) in [organizational development](#) is an approach to complex organizational [work design](#) that recognizes the interaction between [people](#) and [technology](#) in [workplaces](#). The term also refers to the interaction between society's complex infrastructures and human behaviour. In this sense, society itself, and most of its substructures, are complex sociotechnical systems. The term sociotechnical systems was coined by [Eric Trist](#), Ken Bamforth and [Fred Emery](#), in the World War II era, based on their work with workers in English coal mines at the [Tavistock Institute in London](#).^[1]

Sociotechnical systems pertains to theory regarding the social aspects of [people](#) and [society](#) and technical aspects of organizational structure and processes. Here, technical does not necessarily imply material technology. The focus is on procedures and related knowledge, i.e. it refers to the ancient Greek term *technē*. "Technical" is a term used to refer to structure and a broader sense of technicalities. Sociotechnical refers to the interrelatedness of *social* and *technical* aspects of an [organization](#) or the [society](#) as a whole.^[2] Sociotechnical theory therefore is about *joint optimization*, with a shared emphasis on achievement of both excellence in technical performance and quality in people's work lives.

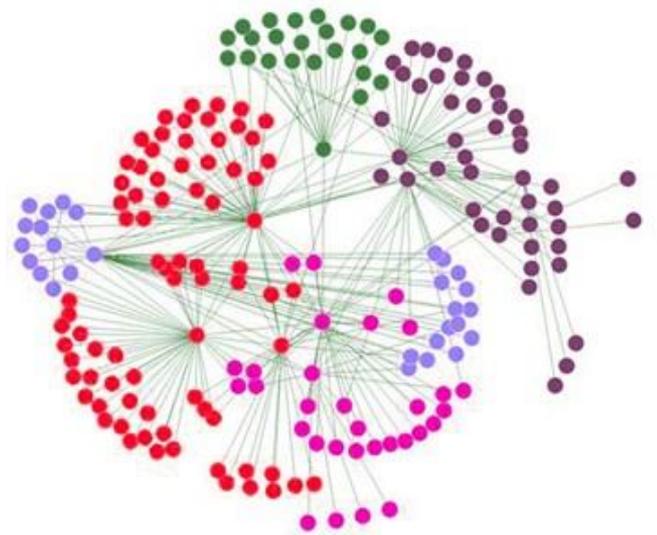


https://en.wikipedia.org/wiki/Sociotechnical_system

<https://slideplayer.com/slide/7634412/>

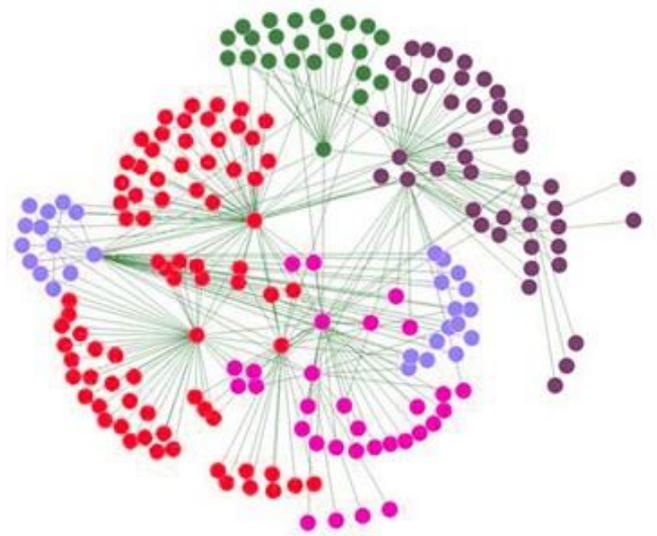
Social Identity Theory

- ▶ People tend to form groups
- ▶ People tend to feel a strong affinity to their group
 - Both to the group identity and the people in the group
 - Individual self worth and identity tied up in their group
- ▶ Derive significant amount of well-being from the group
 - Fosters a sense of belonging
 - Provides ideal prototype for which to strive
 - Source of healthy relationships: mentors, colleagues, collaborators
- ▶ Loyalty and devotion to group is a powerful motivator



Social Network Theory

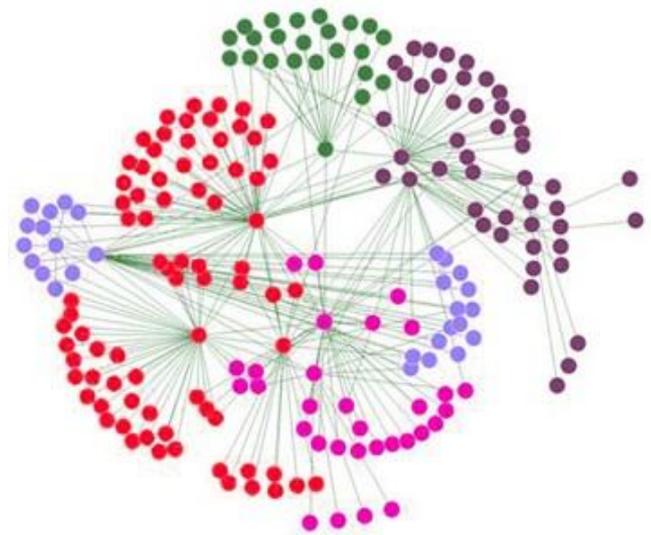
- ▶ Group performance depends on relationships between individuals as well as individual attributes
- ▶ Emphasizes the “culture”



Relational Coordination Theory

- ▶ Organizational performance depends on:

Relationships	Communication
High Quality	
Shared goals Shared knowledge Mutual respect	Frequent Timely Accurate Problem-solving
Low Quality	
Functional goals Specialized knowledge Lack of respect	Infrequent Delayed Inaccurate “Finger-pointing”



Question:

What is the purpose of peer review?

- a) To measure individual radiologist performance.
- b) To compare radiologists' performance.
- c) To determine which radiologists are underperforming.
- d) To identify individuals needing remediation or restriction of privileges.
- e) All of the above.
- f) None of the above.

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New Paradigm:

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The purpose of looking back should be to improve care going forward.

Care is provided by *individuals* and by *systems*.

The purpose should be to improve *individual and system performance*.

Philosophy of Peer Review

“Peers”

Discover peers’ errors

Monitor for incompetence

Enforce regulatory compliance

New Paradigm

“Professional Colleagues”

Share and study errors

Improve processes and systems

Learn as individuals and organizations

New Paradigm

Peer Feedback, Learning, and Improvement

— or —

“Peer Learning”

Theory of Peer Learning

- ▶ Professional colleagues who actively discuss errors in a safe and collaborative environment:
 - Are more likely to speak up to identify learning opportunities
 - Continue to learn and improve as individuals
 - Improve as an organization
 - Feel more supported by their colleagues
 - Create a more constructive, supportive work environment
- ▶ The group should be viewed as a cohesive unit, not isolated individuals
 - The goal is patient safety, not zero errors
 - Individuals in cohesive groups still make errors, but have fewer bad outcomes

Peer Learning: Feedback, Learning, and Improvement

Feedback

- ▶ Concept: Everyone should learn about their performance
- ▶ Learning opportunities may come from variety of sources
 - Radiologist review, consultation, multidisciplinary conferences, etc.
- ▶ Feedback should be provided in a professional, constructive manner
- ▶ Should be received with graciousness and humility

Peer Learning: Feedback, Learning, and Improvement

Learning

- ▶ Concept: Entire group can learn from problem cases
- ▶ Moderator reviews cases and prepares them for conference
- ▶ Cases presented in de-identified manner
- ▶ Conference should emphasize learning points
 - Potential pitfalls, strategies for preventing error, educational material
 - Recommend including “great calls”
 - Constructive tone **must** be maintained at the conference

Peer Learning: Feedback, Learning, and Improvement

Improvement

▶ Individual learning

- Individuals may need to brush up
- Colleagues should make themselves available to coach
- Should be viewed as a time to rally behind colleague

▶ Process and system improvement

- Identify problems
- Launch improvement initiative
- Develop action plans
- Follow up next conference

Peer Learning Responsibilities

- ▶ Must actively seek opportunities for improvement, including errors
- ▶ Must be willing to learn from each other
- ▶ Must be thankful when our mistakes are pointed out
 - Cannot react defensively
- ▶ Greater time investment
- ▶ Requires greater “professional maturity”

Proposed Peer Learning Criteria

- ▶ Three levels of responsibility:
 - Practice leader
 - Peer learning leader
 - All radiologists in the practice

Proposed Peer Learning Criteria

Responsibilities of the **practice leader**:

- Designate peer-learning physician leader with dedicated time
- Along with the peer-learning leader, create and maintain policy clearly describing the peer-learning program, including minimum participation requirements
- Ensure peer-learning conferences held on a regular basis (at least bi-monthly)
- Ensure all radiologists meaningfully participate in peer-learning
- Support improvement efforts related to issues discovered through peer learning
- Maintain a separate Ongoing Professional Practice Evaluation (OPPE) program
- When needed, ensure professional development plans are created for individual radiologists

Proposed Peer Learning Criteria

Responsibilities of the **peer learning** leader:

- Regularly review and triage case submissions
- Notify the original interpreting radiologist, as appropriate
- Prepare regular conferences
 - ▶ May conduct a single or separate conferences by subspecialty
 - ▶ Should present as many useful submissions as possible
- Document relevant learning points for each discussed case
- Translate peer learning findings into dedicated improvement efforts

Proposed Peer Learning Criteria

Responsibilities of **all radiologists** within a participating practice:

- Document willingness to actively, constructively participate
- Regularly submit performance learning opportunities
 - ▶ Must address performance issues, not just “interesting cases”
- Regularly participate in peer-learning conferences
 - ▶ When unable to participate in conference, may attest to an alternative form of participation, such as reviewing presentation later (should be used sparingly)

Proposed Peer Learning Criteria

Attestation and documentation requirements:

- Radiologists must attest (annually):
 - ▶ Willingness to actively participate
- Practice leader and peer learning leader must prepare annual report:
 - ▶ Relevant statistics:
 - Number of submissions
 - Number of submissions reviewed in conference
 - Number of total interpretations by practice
 - ▶ Dates of peer learning conferences
 - ▶ Brief description and key learnings of presented cases
 - ▶ Attestation that all radiologists are actively participating

Different Philosophical Underpinnings

Peer Review

- ▶ Use peers to report others' errors
- ▶ Find “outliers” to remediate or remove
- ▶ High stakes when taken to its conclusion
- ▶ Does not consider effect on culture

Peer Learning

- ▶ Use colleagues to teach, learn from each other
- ▶ Accept that we all make mistakes and can learn from them
- ▶ Scoring removed entirely
- ▶ Reinforces a supportive environment

These philosophies do not mix
These programs do not mix

Conclusion

What is peer learning?

- Group activity in which individuals actively give and receive feedback, teach and learn from each other, and commit to improving as individuals and as a group

What is not peer learning?

- Any attempt to utilize peers to assess general individual competency
 - ▶ Note: focused assessment of all individuals' performance on a specific activity, with the intent to improve, is a legitimate form of peer learning

Rule of thumb:

Peer learning should feel constructive and worthwhile (though sometimes painful). If it does not feel constructive and worthwhile, it is *not* peer learning.

Conclusion

- ▶ Peer review and peer learning are entirely different approaches
 - Please do not mix these programs
 - If you must run both programs, keep them separate
- ▶ Please do not use the term “peer learning” for scoring-based peer review
- ▶ Industry partners:
 - Please understand the philosophy and pitfalls before designing solutions
 - Please be thoughtful in your design of a peer learning program
 - Please do not design peer review into a peer learning program
 - Recognize that subtle design elements can undermine the spirit of the program
 - ▶ Example: accidentally revealing the original radiologist’s identity in conference

Conclusion

- ▶ We want your input
 - Please comment on the proposed criteria
 - Please provide additional comments you would like incorporated into a white paper
 - Note: More thoughtful and constructive comments are more likely to be incorporated



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