

MBA – Focusing on Entrepreneurship, Innovation & Technology Management

Syllabus

Workshop in Learning from Errors

Mini 7 / January 2024 – February 2024

Bloomfield 424
Thursday , 14:00-17:30

Teaching Staff:

Instructor: Prof. Eitan Naveh, naveh@technion.ac.il

Office Hours: [scheduled + by appointment? Virtual Office Hours?]

TA's: [Name] [Office, e-mail, phone]

Office Hours: [scheduled + by appointment? Virtual Office Hours?]

Credits: 2 points

Course description

Errors are a recurring fact of organizational life and can potentially yield either adverse or positive consequences. In this course, we will identify and understand the underlying causes of errors. Following this, we will review and examine cutting-edge error-coping frameworks, strategies, and methodologies that prevent the negative consequences of errors while promoting their positive outcomes and learning benefits. We will discuss error-related organizational activities through a synthesis of the relevant approaches offered by the disciplines of operations management and organizational behavior, focusing our investigation on the lenses of level of analysis, temporal dynamism, and priority. We will give a special attention to the new concept of error as a process vs. error as an event.

Course Objectives

1. To articulate the key concepts in preventing and learning from errors

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2. To identify individual, team, and system errors and their antecedents
3. To recognize an event time frame that includes instances before, during, and after the occurrence of an error
4. To identify the influence of organizational multi-priorities on error occurrence
5. To cultivate an effective toolkit of practices to address challenges encountered in learning from errors

Learning Outcomes

1. To develop and sharpen managerial skills for preventing and learning from errors
2. To build a systematic body of knowledge on errors that influences daily work

Grade

30% - class discussions (5% per class)

70% - final project. Presentation by last session – 29 Feb. 2024 for the latest. Earlier presentations are welcome. Submission of final report – 14 March 2024.

Assignment: Suggest a systematic program to prevent and learn from errors in your organization. Refer to current error-coping activities, specific errors' antecedents, and correlates of errors. Other project's topics that discuss coping with errors in your organizations may also be included. For example, a deep study of an error or a recall event; designing error data collection; developing an approach to identify and compare team errors vis-a-vis individual errors and pointing to its practical applications.

Course Schedule

Lesson 1. Errors in organizations: what managers should know about errors

- 1) Elements of error situations: error taxonomy, latent errors, error training (avoidance vs. management), error orientation, error reporting, learning from errors, and error culture (aversion vs. management).
- 2) Examples of errors in organizations

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Class discussion: Identify and categorize errors in your organization. Focus on their frequency, types, reporting, coping methods, learning, consequences, antecedents, other characteristics. Can all of them be prevented?

Reading for Lessons 1-2 (at least one of the two papers)

Frese, M., & Keith, N. (2015). Action errors, error management, and learning in organizations. *Annual review of psychology*, 66, 661-687.

Lei, Z., Naveh, E., & Novikov, Z. (2016). Errors in organizations: An integrative review via level of analysis, temporal dynamism, and priority lenses. *Journal of Management*, 42(5), 1315-1343.

Lesson 2. Learning from errors at the individual, team, and organizational and system levels

- 1) Error level: individual errors, team errors, system errors
- 2) Individual differences and errors; proactive behavior
- 3) Team climate and errors: error prevention, welcoming errors, error management, psychological safety, safety climate
- 4) High reliability organizations; multicultural approach to errors

Class discussion: Identify individual and team, event and process errors in your organization.

Reading

Lei, Z., & Naveh, E. (2023). Unpacking Errors in Organizations as Processes: Integrating Organizational Research and Operations Management Literature. *Academy of Management Annals*.

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Lesson 3. An event time frame: before, during, and after the occurrence of an error

- 1) The simultaneous existence of error prevention and error management
- 2) **Heeding the warnings of unusual events**
- 3) Opportunities to learn from errors and failure at the individual, team, and organizational levels.

Class discussion: Describe an event time frame for errors in your organization and its strategies to learn from errors.

Reading

Dahlin, K. B., Chuang, Y. T., & Roulet, T. J. (2018). Opportunity, motivation, and ability to learn from failures and errors: Review, synthesis, and ways to move forward. *Academy of Management Annals*, 12(1), 252-277.

Lesson 4. Coping with errors in organizations from the operations management perspective

- 1) Industry 4.0
- 2) Error measurement and willingness to report
- 3) Operation management approaches to errors: standardization, lean, agile, supply chain, project management

Class discussion: How do you collect information on error events in your organization, and how do you use this information to make improvements? Assess the gap between error events that are collected and those that are not collected – how do you assess this gap and what are the reasons for its occurrence?

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Reading for Lessons 4-6

Naveh, E., and Lei, Z. (2019). Coping with Errors in Organizations: Challenges, Opportunities, and Frontiers for Operations Management Research. Foundations and Trends® in Technology, Information and Operations Management, 12(4), 349–433.

Lesson 5. Dealing with errors through the organizational quality and risk management system

- 1) Quality and errors: the Baldrige Framework and errors
- 2) Quality systems for Industry 4.0
- 3) Standardization and errors
- 4) Continuous improvement and errors
- 5) Risk management and errors

Class discussion: The quality and risk management system in your organization and its relation to errors.

Lesson 6. Coping with errors in organizations: An integrative approach

- 1) How different priorities work together to influence errors? Safety and learning, error management and innovation (ISO TC279)
- 2) Single vs. multiple priorities: Safety first vs. safety as a priority among others
- 3) Designing an organizational error coping program

Class discussion: Does safety come first, or is it a priority among others?

Lesson 7. Projects presentations and course summary