



Eagle I.O's Course Takeaways:

Interventions for Effective Organizations

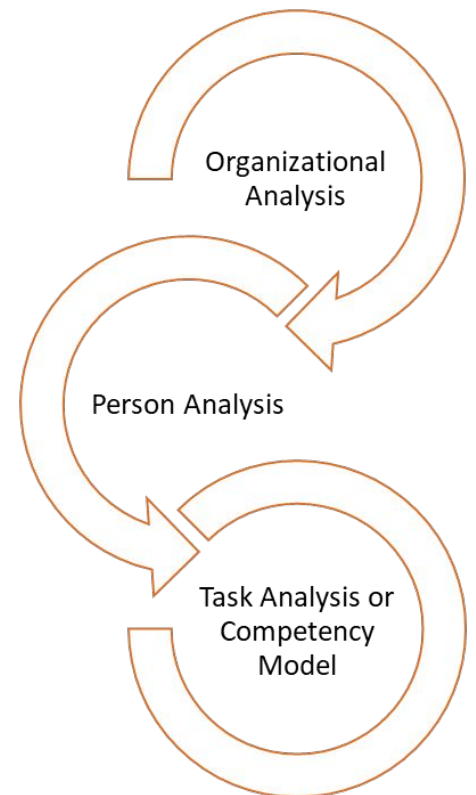
Course Objectives: This course is designed to help students understand the major findings of the I/O field, build students' ability to read and critically interpret research articles, and make students familiar with different types of interventions so that they can choose the type of intervention that is best suited to address particular problems.

Interventions Process - Beginning to End



Strategies for Facilitating Effective Learning & Transfer

- **Overlearning** refers to trainees continuing to practice after they have been able to perform the objectives several times.
- **Error management** training refers to giving trainees opportunities to make errors during training, and it is effective at facilitating *metacognition*, AKA thinking about thinking!
- **Reflection** refers to trainees taking a purposeful respite to think and write about what they have learned, putting ideas in their own words.
- It is a general truth that **spaced practice**, i.e. practicing with decently sized intervals of time in between sessions, is better than **massed practice**, i.e. partaking in massively long training sessions at once, for committing learnings to memory.
- Having a **supportive transfer climate** and environment is key to transfer of training. This can include support from supervisors and peers in the use of the training, processes and systems set up to accommodate the changes implemented through training, and having the **opportunity to apply** the training shortly after having learned it.



Needs Assessment Process



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Types of Validity	
Statistical Validity	Is there a relationship between A and B?
Internal Validity	Is the relationship between A and B causal?
External Validity	Generalization: Would the effect of A on B be different if the study components were different?
Construct Validity	Generalization: Are the labels that we are using appropriate?

Threats to Internal Validity = Any factor unrelated to the actual intervention that influences the outcomes of interest

- **Maturation** = The observed change in the outcome of interest occurred as a result of physical growth or emotional changes in the individual participants, rather than as a direct result of the intervention.
- **History** = The observed change in the outcome of interest occurred as a result of some unrelated event co-occurring with the intervention that influenced the participants in some way.
- **Instrumentation** = The observed change in the outcome of interest occurred due to having used different instruments for pre- and post-test criterion measurement.
- **Testing** = The content of the pre-test influenced participant scores on the post-test, for example, by familiarizing them with the test content that was used in both the pre- and post-test.
- **Selection bias** = The initial sampling of participants resulted in groups composed of participants already featuring significant group differences, to which much of the observed change can be attributed, rather than as a result of the intervention.
- **Regression to the mean** = The tendency for participants who initially score extremely high or extremely low to score closer to the mean the second time around, which may account for variance not attributable to the actual intervention.
- **Social interaction** = The tendency for participants from different groups to discuss the intervention on their own time, which may lead to uncovering the manipulation and experiencing feelings of resentment, thus impacting post-intervention scores.
- **Attrition** = The tendency for participants to drop out of the intervention study, which may lead to a great deal of unusable or misleading data that cannot be attributed to the effects of the intervention.





John Stuart Mill's Theory

Three criteria must be met in order to conclude that a causal relationship exists:

1. The cause preceded the effect, i.e. the cause came **first**.
2. The cause was related to the effect.
3. There is no plausible alternative explanation for the effect other than the cause.

Types of Interventions - Contrary to popular belief, training is not the only type of intervention employed by organizations! Here is a short list of different intervention varieties:

- **Training Intervention** = Training programs are designed to promote learning, deliver knowledge and skills, or facilitate performance or behavioral changes.
- **Task Clarification** = For job tasks that are frequently performed incorrectly, messaging is regularly provided to employees to clarify how to correctly perform said tasks.
- **Visual Aids/Signage** = Creation and implementation of useful visual aids in any form, that serve as cues for employees.
- **Change of Environment** = Altering the layout, physical set-up, or surroundings of an organization or workspace.
- **Goal Setting** = Using goal-setting and related theories as a basis for intervention structure for employees, at the organizational, group, or individual level.

The 6 Levels of Evaluation

1. **Reactions** - Did they like it? [*measures learner satisfaction*]
2. **Learning** - What did they learn? [*measures information that learners acquired*]
3. **Behaviors** - Do they use it? [*measures interpersonal, technical, or motor skills*]
4. **Attitudes** - Did it change their attitudes? [*measures attitudes and motivation*]
5. **Results** - Did it impact the bottom line? [*measures payoffs for the company*]
6. **ROI** - What is the return on investment? [*measures comparison of benefits with costs*]

Predictors of Transfer of Training	
Trainee Characteristics	Organizational Characteristics
<ul style="list-style-type: none"> • General Cognitive Ability ($r = 0.37$) • Conscientiousness ($r = 0.28$) • Voluntary Participation ($r = 0.34$) 	<ul style="list-style-type: none"> • Transfer Climate ($r = 0.27$) • Supervisor Support ($r = 0.31$) • Peer Support ($r = 0.14$)

Meta-analytic findings indicate that in order to best ensure transfer of training, we must consider a combination of both employee characteristics (such as intelligence and conscientiousness) and organizational characteristics (such as transfer climate and supervisor support)!



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Sources

- Austin, J., Weatherly, N. L., & Gravina, N. E. (2005). Using task clarification, graphic feedback, and verbal feedback to increase closing-task completion in a privately owned restaurant. *Journal of Applied Behavior Analysis*, 38(1), 117.
- Blume, B. D., Ford, J. K., Baldwin, T. T., & Huang, J. L. (2010). Transfer of Training: A Meta-Analytic Review. *Journal of Management*, 36(4), 1065–1105. <https://doi.org/10.1177/0149206309352880>
- Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, 57(9), 705–717. <https://doi.org/10.1037/0003-066X.57.9.705>
- Noe, R. (2019). *Employee Training & Development* (8th edition). McGraw-Hill Education.
- Mill, J. S., & Queen Elizabeth College, former owner L. (1843). *A system of logic: Ratiocinative and inductive, being a connected view of the principles of evidence, and the methods of scientific investigation*. London : John W. Parker.