

Introduction to Industrial & Organizational Psychology



What is I/O Psychology?

◆ I/O Psychology is:

◆ *The branch of psychology that applies the principles of psychology to the workplace.*

◆ The Purpose of I/O Psychology:

◆ *"to enhance the dignity and performance of human beings, and the organizations they work in, by advancing the science and knowledge of human behavior"*

MBA Program vs. I/O Program

Typical I/O PhD Courses	Typical MBA Courses
<ul style="list-style-type: none">•Statistics•Experimental Methodology•Psychometric Theory•Employee Selection and Placement•Organizational Psychology•Employee Training and Development•Performance Appraisal•Job Analysis	<ul style="list-style-type: none">•Statistics•Business Research•Organizational Behavior•Administrative Policy•Managerial Economics•Financial Management•Marketing Management•Managerial Accounting

Major Activities

◆ Personnel Psychology (The “I” in I/O)

- Defining and analyzing jobs
- Recruiting and selecting employees for jobs
- Training employees
- Assessing performance
- Promoting and retaining employees
- Test development and Validation
- Legal Issues

◆ Organizational Psychology (The “O” in I/O)

- Determining how people feel about work
- Determining why people act as they do at work
- Examining the effects work has on people
- Examining the effects people have on one another
- How organizations are structured and function
- How work is designed
- Tool and equipment usage on the job
- Examining work relevant health, safety, and well-being issues

I/O AS A PROFESSION

◆ Employment

- **Little or no unemployment (usually)**
- **4 Main Work Settings:**
 - ◆ Universities
 - ◆ Consulting Firms
 - ◆ Industry/Corporations
 - ◆ Government Agencies
- **Field expanding and becoming more popular**
- **I/O psychologists often work/consult with**
 - ◆ MBAs
 - ◆ CEOs,
 - ◆ VPs,
 - ◆ HR staff
 - ◆ Healthcare/Health Science Staff (if in Occupational Health Specialty)

The History of I/O



"What would you say... ya do here, Ms. Walker?"

History of I/O

- ◆ Early Years (1900s)
- ◆ World War I (1914-1918)
- ◆ Between the Wars (1919-1940)
- ◆ World War II (1941-1945)
- ◆ Toward Specialization (1946-1963)
- ◆ Government Intervention (1964-1993)
- ◆ Information Age (1994–Present)

Early 1900s

- **Merging of two forces:** Applying psychology & industrial engineers improving efficiency
- **Four Major Figures**

- ◆ **Walter Dill Scott**

- “Psychology of Advertising” 1908
- “Increasing Human Efficiency”
- Contributed WWI to application to Army



Early 1900's

◆ Frederick Taylor

- Engineer focused on redesigning work
- "Principles of Scientific Management" 1911
- Four Principles
 - ◆ Science over rule of thumb
 - ◆ Scientific selection and training
 - ◆ Cooperation over individualism
 - ◆ Equal division of work best suited to management and employees
- Known for institutionalizing forced breaks for those handling heavy iron (half the cost, 3 times the production)



Early 1900's



◆ Lillian (and Frank) Gilbreth

- Lillian - Focused on Stress and fatigue on workers
- Frank - Focused on technical aspects of worker efficiency
- Lillian's 1908 speech – called for attention to person element

- Time & Motion Studies, “therblig”
- Later – invented things like foot pedal trashcan

- “Cheaper by the Dozen”- Autobiography

Early 1900's

◆ Hugo Munsterberg

- Considered the “Father of Industrial Psychology”
- “Psychology and Industrial Efficiency” 1913



■ Trolley Car Simulator Creation

- ◆ Systematically studied all aspects of job through observations
- ◆ Studied what makes good operator
- ◆ Analyzed behaviors and asked questions
- ◆ Basically, he pioneered Job Analysis

World War I (1914-1918)



- ◆ **Army Alpha Project** (1914 – 1918) –
 - Army hires psychologists including Robert Yerkes
 - Screen recruits for intelligence
 - **Army Beta** – created for those that were illiterate (30%)
- ◆ **Journal of Applied Psychology** (1917) – first I/O journal
 - Documented Army Alpha & Beta projects
 - Still most prestigious journal in the field

Between the Wars (1919-1940)

◆ James Cattell (1921)

- forms Psychological Corporation to provide services to industry

◆ Hawthorne Studies (1924)

- Research by Harvard & MIT
- Led by Elton Mayo
- Conducted at Hawthorne Plant of Western Electric Co.
- Looking for cost effective ways to reduce expenses
- adjusted lighting levels
- **Key Finding-**
 - Found impact of intervention on employee performance was a result of the intervention itself.
- **Hawthorne Effect**
 - Novelty of intervention influences behavior (i.e., I observe you working, and you perform better because of my presence as an observer)



World War II (1941-1946)

- ◆ Army hires I/O psychologists to select & classify recruits
- ◆ **Army General Classification Test (AGCT)**
 - Group testing, sorted applicants into 5 categories based on if they could learn duties, etc

Post World War II

- ◆ **Toward Specialization (1946-1963)**
 - Evolved into legitimate area of practice, schools, terminology, etc
- ◆ **Government Intervention (1964-1993)**
 - Civil Rights Act of 1964 – Protected Classes (Gender, Race, Ethnicity)
 - Equal Employment Opportunity Commission
 - Court Cases (e.g., Griggs vs Duke Power, Dothard vs Rawlinson)
- ◆ **Information Age (1994–Present)**
 - Higher demands for organizations and employees
 - Greater and more frequent technology improvements
 - More complex, computer generated statistical analyses are becoming common (MANOVA, Multilevel Modeling, Structural Equation Modeling, Item Response Theory, etc.)
 - Application of cognitive psychology to I/O, specifically performance appraisal
 - Increased focus on selection methods (selecting the “right person” for the job is becoming more important)
 - Globalization has become an important issue

Reflection Question

- Having reviewed the History of I/O and the current state of the field, where do you think the field will be in 20 years?
 - **Think of organizational, economic, and governmental factors that may affect the field in the next 20 years.**
 - *There are no wrong answers to this question.*