FEM 3104

HISTORY OF I/O PSYCHOLOGY

DR SA’ODAH BINTI AHMAD
JPMPK, FEM, UPM
LEARNING OBJECTIVES

- To explain the historical development of works psychology or I/O Psychology.
HISTORY OF I/O PSYCHOLOGY

- Forces that influenced the birth of I/O psychology: The Early Years (1900–1916):
  1. Pragmatic nature of basic psychological research.
     - Eg: Skills of telegraphers (Bryan).
  2. Desire of industrial engineers to improve efficiency.
     - Eg: Time and motion studies (Gilbreth).
LEADING FIGURES:
LILLIAN M. GILBRETH (1878–1972)

- Trained as an engineer.
- Mother of modern management.
- In 1908, made a statement about the need to consider human workers, as they were the most important element in industry.
WALTER DILL SCOTT (1869 – 1955)

- PhD at Leipzig, Germany
- Northwestern U. Professor
- Applied psychology to advertising, employee selection & management issues.
- WWI: Instrumental in application of personal procedures in army.
- First Industrial or Business psychologist.
- One of the fathers of I/O psychology.
FREDERICK W. TAYLOR (1856–1915)

- Trained as an engineer.
- Invented Scientific Management.
- One of the fathers of I/O psychology.
Scientifically design work methods for efficiency.
Select the best workers and train in new methods.
Regarded workers as extensions of the machine they operated.
No consideration given to the employee as human beings, as people with different needs, abilities and interests.
Train workers in “one best way”.
Reward them for the “one best way”.
FREDERICK TAYLOR

Pig iron experiments:
- Taylor showed that workers who handled heavy iron bar could be more productive if they had rest – increased efficiency of work.
- As a consequence – it was charged that Taylor exploited workers
HUGO MÜNSTERBERG (1863–1916)

- Studied in Leipzig, Germany.
- Harvard Psychology Professor.
- Employee testing and validation.
- Eyewitness testimony.
- One of the fathers of I/O Psychology.
- Books: On The Witness Stand (1907); Psychology and Industrial Efficiency (1913).
Performed job analysis of the position of trolley car operator and developed a performance test using mock trolley cars.

Studied the effect of street lighting on driver and pedestrian safety.

Developed early polygraph test:
- Heart rate
- Blood pressure
- Free association latency test
- Automograph
CONTENTS

INTRODUCTION

I. Applied Psychology ................................... 3
II. The Demands of Practical Life .................... 11
III. Means and Ends ..................................... 17

I. The Best Possible Man

IV. Vocation and Fitness ............................... 27
V. Scientific Vocational Guidance ..................... 37
VI. Scientific Management ............................... 49
VII. The Methods of Experimental Psychology .......... 57
VIII. Experiments in the Interest of Electric Railway Service ... 63
IX. Experiments in the Interest of Ship Service ........... 83
X. Experiments in the Interest of Telephone Service ....... 97

II. The Best Possible Effect

XI. Contributions from Men of Affairs ................ 116
XII. Individuals and Groups ............................. 129

XIII. Learning and Training ............................. 141
XIV. The Adjustment of Technical to Psychical Conditions .... 158

XV. The Economy of Movement ........................ 180
XVI. Experiments on the Problem of Monotony .......... 190
XVII. Attention and Fatigue ............................. 206
XVIII. Physical and Social Influences on the Working Power .... 221

III. The Best Possible Effect

XIX. The Satisfaction of Economic Demands ............ 243
XX. Experiments on the Effects of Advertisements .......... 255
XXI. The Effect of Display ................................ 272
XXII. Experiments with Reference to Illegal Imitation ..... 282
XXIII. Buying and Selling ................................ 294
XXIV. The Future Development of Economic Psychology .... 303

Notes ............................................. 311
Index ............................................. 317
World War I defined it: the US Army commissioned psychologist to devise a test to eliminate people of low intelligence so that they could be eliminated from consideration for the training programmes.

World War II refined it: brought more than 2000 psychologists directly into the war effort. Major contribution: testing, classifying and training millions of recruits in various branches of service.
WW I (1917–1918): TESTING AND SELECTION

- Robert Yerkes (1876–1956): an American psychologist, ethologist and primatologist, best known for his work in intelligence testing and in the field of comparative psychology.
- Most influential in involving psychologists in war.
- Assessment of recruits: Army Alpha & Army Beta.
- Researching how to place soldiers in jobs.
- Journal of Applied Psychology began.
BETWEEN THE WARS (1919–1940)

- Bureau of Salesmanship Research
  - Walter Bingham: Part of the team of psychologists that developed the Army Alpha and Beta tests during WWI.
  - Was instrumental in developing intelligence and aptitude tests in industry.
  - Began the department of Applied Psychology (Carnegie Institute of Technology, 1915).

SA’ODAH AHMAD/JPMPK/FEM
1921: Psychological Corporation.

James Cattell: first American Professor of Psychology.

Purpose: Advance psychology and promote its usefulness in industry.

- Hawthorn effect
The increasingly complex weapons of war sparked the development of a new field: engineering psychology.

Working closely with engineers, psychologist supplied information about human abilities and limitations for operating high speed aircraft, submarine, tanks and ships.

Other new issues included team development strategies, performance appraisal procedures, and attitude change (morale) method – methods that are used in private industry today.
The experience demonstrated to many psychologists, who before war had work in a relative isolation of their university laboratories, that they were vital and could help solve challenging problem in real world.
TOWARD SPECIALIZATION (1946–1963)

- I/O became legitimate field.
- 1946: Division 14: Industrial Psychology.
- **Formation of subspecialties**: engineering psychology, personnel psychology, human relations.
- Took on stronger **organizational** flavour.
MODERN ERA (1964–PRESENT)

- Organisational (the O side of O/I psychology) issues have assumed greater importance.
- Human relations skill are recognised by managers and executives as vital to maintaining the high job performance, of their employee.
- The nature of leadership, the role of motivation and job satisfaction, the impact of the organisational structure and climate and the process of decision making are continuously being analysed.
- SIOP was established.

SA’ODAH AHMAD/JPMPK/FEM
MODERN ERA (1964–PRESENT)

Legislation:
- 1964: Civil Rights Act
- 1978: Uniform Guidelines
- 1990: Americans with Disabilities Act
- 1991: Civil Rights Act

Events:
- 1973: Division 14: I/O Psychology
- 1976: First I/O Handbook
- 1980: Project A
- 1990: First set of I/O Handbooks
- 1992: 100th Anniversary of APA
CHALLENGES FOR I/O

- The virtual workplace
- Virtual employee
- Worker involvement
- Changing technology and skill
- Globalisation of workplace
- Diversity issues
I/O psychologists must examine cross-cultural factors in work behavior:

- Cultural diversity.
- Work environment.
- Mergers/acquisitions/joint ventures.
- Technological advancements.
I/O psychology must increase the fit between the workforce and the workplace at a time when the composition of both is rapidly changing.
ACTIVITY:

Take five minutes to recap the discussion and come up with your own conclusion on the historical development of I/O Psychology.