

WORK IN THE 21ST CENTURY

AN INTRODUCTION TO INDUSTRIAL AND
ORGANIZATIONAL PSYCHOLOGY

Fifth Edition

FRANK J. LANDY | JEFFREY M. CONTE



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A Sampling of Websites Related to I-O Psychology and the Workplace

SOCIETY FOR INDUSTRIAL AND ORGANIZATIONAL PSYCHOLOGY (SIOP):

Website for SIOP, Division 14 of the American Psychological Association.

<http://www.siop.org/>

SOCIETY FOR HUMAN RESOURCE MANAGEMENT (SHRM):

SHRM is the world's largest association devoted to human resource management.

<http://www.shrm.org>

O*NET: OCCUPATIONAL INFORMATION NETWORK:

The O*NET database includes information on knowledge, skills, abilities, work activities, and interests associated with many different occupations.

<http://online.onetcenter.org/>

EMPLOYMENT STATISTICS HOMEPAGE:

Website that provides material on performance appraisal and 360 degree feedback.

<http://www.hr-software.net/EmploymentStatistics>

HUMAN-RESOURCES GUIDE:

Website that provides a great deal of information on selection, interviewing, and other staffing techniques.

<http://www.hr-guide.com/>

EQUAL EMPLOYMENT OPPORTUNITY COMMISSION:

Website that provides information on federal laws prohibiting employment discrimination and updates on recent employment discrimination cases.

<http://www.eeoc.gov>

AMERICAN SOCIETY FOR TRAINING AND DEVELOPMENT (ASTD):

Society focused on the latest developments in training and development.

<http://www.astd.org>

NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH (NIOSH):

NIOSH is the Federal agency responsible for conducting research and making recommendations for the prevention of work-related disease and injury.

<http://www.cdc.gov/niosh/homepage.html>

AMERICAN MANAGEMENT ASSOCIATION (AMA):

AMA is the world's leading membership-based management development and training organization.

<http://www.amanet.org/index.htm>

THE DILBERT ZONE:

Provides a less serious view on work.

<http://dilbert.com/>

Social Media Websites Related to I-O Psychology

SIOP TWITTER ACCOUNT (@SIOPTWEETS):

<https://twitter.com/sioptweets>

SIOP FACEBOOK PAGE:

<http://www.facebook.com/siop.org>

SIOP EXCHANGE/BLOG & GOOGLE NEWS FEED:

<http://siopexchange.typepad.com>

WORKPLACE PSYCHOLOGY BLOG BY DR. STEVE NGUYEN:

<http://workplacepsychology.net/>

**BLOG ON TECHNOLOGY, EDUCATION, & TRAINING BY
DR. RICHARD LANDERS:**

<http://neoacademic.com/>

I-O AT WORK: WEBSITE/BLOG ON SCIENCE BEHIND HR:

<http://www.ioatwork.com/>

**ASSOCIATION FOR PSYCHOLOGICAL SCIENCE (APS) BLOG ON
PSYCHOLOGICAL SCIENCE AT WORK:**

<http://www.psychologicalscience.org/index.php/news/minds-business>

JEFF CONTE'S TWITTER ACCOUNT (@IOPSYCH_CONTE):

https://twitter.com/iopsych_conte

Work in the 21st Century

Dedicated to the memory of Frank J. Landy and his many contributions to the science, practice, and teaching of industrial and organizational psychology

WORK IN THE 21ST CENTURY

AN INTRODUCTION TO INDUSTRIAL AND
ORGANIZATIONAL PSYCHOLOGY

FIFTH EDITION

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Frank J. Landy (1942–2010) was Professor Emeritus of Industrial Psychology at Penn State University, where he taught for 26 years. In addition to serving at Penn State, he was a visiting lecturer or researcher at Stanford University, the University of California at Berkeley, Stockholm University, Gothenburg University, Cluj-Napoca University (Romania), Griffiths University (Australia), and Ljubljana University (Slovenia). He received his Ph.D. in Industrial and Organizational Psychology from Bowling Green State University. Throughout the course of his academic career, Frank published over 70 journal articles, more than 20 book chapters, and 15 books. He served as president of the Society for Industrial and Organizational Psychology and was involved in the development of the Civil Rights Act of 1991, the Age Discrimination in Employment Act, and the Americans with Disabilities Act. In addition to his academic work, Frank had a successful consulting career, working with organizations in the United States and abroad. He testified as an expert witness in numerous state and federal employment discrimination cases that had significant implications for the organizations involved. In his private life, Frank was a true 21st-century Renaissance man. He traveled widely and lived abroad when possible. He spoke foreign languages and was highly interested in global events. Frank was an avid runner, completing over 60 marathons. He loved to fly fish and ski. Frank played and collected guitars and was a great lover of music. And when the mood struck him, he acted in community theater. Of all of his pursuits, writing brought him the most enjoyment.



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Preface



In the first four editions of this book, we pursued the premise that the world of work in the 21st century was very different from what it had been as recently as 15 years earlier. That premise is even more relevant today and worth repeating. Today's workplace is technological and multicultural. Work is often accomplished by teams rather than by single individuals. In any given company or department, there is greater diversity in terms of demographic characteristics, interests, and styles than in past decades. Although mental and physical abilities remain important attributes for predicting job success, other attributes such as personality, interpersonal skills, and emotional intelligence are receiving increased attention. A satisfying life is increasingly defined as striking a balance between work and non-work. In addition, the psychological stability of work may be at an all-time low. Mergers, acquisitions, downsizing, outsourcing, the challenges to financial and housing markets, and rapidly changing technologies have all made the idea of lifelong employment at one company, or even in one occupation, an elusive dream. This text ties together all of these themes in a way that explores the rich and intriguing nature of the modern workplace.

An important thing to keep in mind in studying I-O psychology is that work is complex and cannot be reduced to a set of equations or principles. In the real world, all of the components of work, the work environment, and, most importantly, the people who populate the workplace interact in complicated ways. For example, in considering organizational and individual effectiveness, we cannot think of hiring strategies in a vacuum. Hiring is preceded by recruiting and screening. It is followed by training and socialization. Once the individual joins the organization, there are issues of satisfaction, performance, rewards, and motivation. The way the organization is designed, both psychologically and physically, can limit or enhance productive efforts and worker emotions. This textbook necessarily treats these topics one at a time, but no topic covered in the text can really stand alone. In the real world, the topics are related, and we will show these relationships in the text.

Objectives for the Fifth Edition

The first four editions of this text were warmly received by both instructors and students, not only in the United States but internationally as well. The objectives for this fifth edition are to retain the accessibility of the first four editions, incorporate the latest research findings, and provide organizational applications of the principles of I-O psychology.

Accessibility

A continuing goal of this book is to package information in a way that makes it accessible to students and instructors. The fifth edition retains the 14-chapter format, which we believe provides a comfortable way to present the substance of I-O psychology. We have also retained the four-color design, which brings I-O psychology to life, especially with the use of color photographs. The art program also engages students with New Yorker and Dilbert cartoons, carefully chosen to emphasize the point at hand. Although recent I-O research provides a wealth of new material to explore, the book's length has been reduced in this fifth edition by omitting, or streamlining the discussion of, less current material.

Cutting Edge Topics

As has been the custom in earlier editions, this edition provides the most important citations for topics rather than all relevant citations. When the first edition was published, it had the most current coverage of the field of I-O in any available text. That remained true of subsequent editions, and it is now true of the fifth edition as well. This edition presents many new topics, including corporate social responsibility, big data, mobile assessment, work analysis, neuroscience in leadership, and positive work environments. There are updates in every chapter, including new or expanded coverage of emotional intelligence, recommendation letters, adaptive performance, electronic performance monitoring, performance management systems, high performance work practices, the effects of staffing and training on organizational success after the Great Recession, data combination approaches, social networking and the workplace, corporate universities, technology-based training for older adults, personality and entrepreneurship, generational differences in work-related attitudes, sleep practices and work engagement, telecommuting, cross-cultural studies of emotional labor, hindrance stressors, the demand-control model of stress, person-environment fit across cultures, workplace bullying, justice effects across cultures, distributive justice in Capuchin monkeys, diversity concerns in Silicon Valley, cross-cultural investigations of leader-member exchange theory, I-O psychology's involvement in NASA's mission to Mars, reducing social loafing in teams, and the factors that influence innovation in teams.

Structure of the Book: Parts, Chapters, and Modules

Because the field of industrial and organizational psychology is so broad, the text is broken into three parts. Part I, "Fundamentals," addresses the basics of the field by examining what I-O psychologists do and where they do it, as well as the methods we use to accomplish research and application. Part II, "Industrial Psychology," considers topics in personnel psychology such as individual differences, assessment, job performance, job analysis, performance evaluation, staffing, and training. Part III, "Organizational Psychology," examines organizational topics such as motivation, work attitudes, stress and workplace health, fairness, leadership, work teams, and organizational design.

Within each chapter, concepts and topics have been further divided into stand-alone modules, which offer a great deal of flexibility for learning and instruction. A module consists of material that is relatively homogeneous within a particular chapter. As examples, one module might deal with the historical development of a concept, the second with modern approaches, the third with applications of the concept, and the fourth with related concepts. Some chapters have as few as three modules, whereas others have four or five modules, depending on how much material is covered by the chapter. Each module ends with a summary of the main points and a list of glossary terms.

Every module can be considered valuable in one way or another. Nevertheless, covering every module may not be compatible with every course syllabus. Thus, each module has been designed as a stand-alone unit, permitting the instructor to cover or skip any particular module. As an example, an instructor might cover the first three modules in a chapter but choose to skip the final module on "Specialized Topics." This modular approach gives instructors maximum flexibility. In addition to covering or deleting a module within a chapter, or changing the order of modules within a chapter, an instructor can assign modules across chapters, in essence creating a new "chapter." For example, an instructor might assign a module on statistics from Chapter 2, a module on job analysis from Chapter 4, and

a module on assessment from Chapter 3 to create a “validity” chapter. Although we believe that the modules within a chapter complement one another, instructors might prefer a different order of modules.

As you read through the book, you will notice that a given topic may appear in several different chapters. That is not a mistake or oversight. The fact is that some topics have relevance in many different chapters, and to mention them only once presents too simplistic a view of work dynamics. As an example, competencies are higher-order forms of ability, personality, interests, and attitudes. Competency modeling is an enhanced form of job analysis. Competencies can be learned, and there are both leader competencies and team competencies. This means that you will see the term “competency” in several chapters. Even though you will see the term often, it will be treated from a different perspective each time it appears. You will see similar treatments of issues related to work/family balance. This balance is important in the attitudes that an individual holds toward work and organizations. Balance is also important in addressing work stress and work design. So “balance” will appear in multiple chapters. We hope that this method of treatment provides a richer understanding of the effects of work on people and people on work.

Supplements for Students and Instructors

Work in the 21st Century offers several supplements to enhance learning processes and teaching activities. The supplements are available on the text's website: www.wiley.com/college/landy

Website for Instructors

The instructor side of the *Work in the 21st Century* website contains all the material instructors need for course design, and it is a convenient way to access the Instructor's Manual, Test Bank, PowerPoint slides, Internet resources for each chapter, and supplementary material.

Instructor's Manual

The Instructor's Manual includes learning objectives, chapter outlines, glossary terms, and suggestions for class discussions and activities.

PowerPoint Slides

This package of 30–50 slides per chapter includes lecture outlines in addition to figures and tables from the text. The slides can be used as is or customized to match your course design and goals.

Test Bank

This array of 30–50 multiple-choice items per chapter covers all the important concepts with factual and applied questions as well as questions of a more conceptual nature to facilitate critical thinking.

Website for Students

The student side of the *Work in the 21st Century* website at www.wiley.com/college/landy contains the Student Study Guide and Workbook as well as links to a variety of Internet resources for further exploration.

Student Study Guide and Workbook

Available on the student side of the website, this study guide is a valuable tool for maximizing students' understanding of material and preparation for exams. The guide was developed in close conjunction with the textbook and facilitates the instructor's course design by providing students with the same learning objectives, chapter outlines, and glossary terms as the Instructor's Manual. In addition, it includes practice exam questions and exercises for each chapter. The workbook exercises, based on organizational issues that I-O psychologists are often asked to study and resolve, promote active learning, critical thinking, and practical applications of the ideas and concepts discussed in class and in the textbook.

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Our team at Wiley was led by executive editor Chris Johnson who provided expert guidance on the overall revision of the fifth edition. Project editor Nichole Urban helped greatly with managing the project and design considerations. Freelance permissions editor Ruth Pepper expertly handled any and all issues that arose with permissions, and photo editor James Russiello was very helpful in identifying relevant photos that highlighted concepts in the text. Production editor Devarajan Murugesan did a fantastic job of seeing the book through the copyediting and proofing stages. We are also very fortunate to have had the help and guidance of freelance developmental editor Elsa Peterson on multiple editions of this book. We express our heartfelt thanks to these individuals and the many other members of the team that worked on this book.

A Note from Jeff Conte

I would like to thank Kylie Harper for writing Frank's author bio for this book. He was my advisor, mentor, textbook co-author, advocate, and friend. I feel very fortunate to have worked so closely with Frank on this textbook for over a decade. During the course of our work on the book, we had many interesting discussions and debates about I-O psychology, work, life, and work/life balance. We worked very hard on this book, but we also had a lot of fun, including many belly laughs that were often brought on by an outrageous but accurate remark by Frank. I miss him greatly, and I know many others in the field do, too. Frank's knowledge and ideas about I-O psychology live on in this book and in his many other publications.

I would like to thank Kylie Harper, Frank's widow, for writing Frank's author bio for this book. I also thank Rick Jacobs, a friend and mentor who has greatly influenced my thinking about I-O psychology and who has been very supportive throughout my career. I greatly appreciate the support and encouragement that I have received over the years from my parents (Anne and Tom) and siblings (T. J., Scott, and Deanna). I would also like to thank Paula Caligiuri and Kat Ringenbach for their support throughout the five editions of this book as well as their friendship and mentoring in graduate school and beyond. I am very thankful to Kevin and Mary Dean, who have helped in so many ways with our home and family life over the past several years. Most importantly, I would like to thank my wife, Michelle Dean, and my daughters, Caroline and Colleen, for their support while I worked on this book and for the wonderful diversions they provided when I was taking breaks.

I welcome and appreciate comments and suggestions about the book from instructors and students alike. I look forward to receiving feedback about the book and improving future editions based on this feedback.

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MODULE 1.1

The Importance of I-O Psychology

The Importance of Work in People's Lives

Most adults devote the majority of their waking weekday (and often weekends as well!) to work. High school and college students, too, find themselves using a great deal of their discretionary hours in part-time jobs, particularly during the summer months. For many, this is a greater devotion of time and energy than to any other single waking human activity. For this reason alone, we can assume that work is important to people. Then there is the fact that most people need to earn money, and they do so by working. But the experience of work goes well beyond the simple exchange of time for money.

Although many people have mixed feelings about their jobs, research indicates that most people would keep working even if they had the opportunity to stop. The National Research Council, in a book about the changing nature of work (NRC, 1999), adds support to this observation. When asked the question “If you were to get enough money to live as comfortably as you would like for the rest of your life, would you continue to work or would you stop working?” the percentage of people reporting that they would continue working has averaged approximately 70 percent since at least 1973. A follow-up study found that although that percentage had declined slightly in the years from 1980 to 2006, the majority (68%) of people surveyed still reported that they would continue working if they won the lottery (Highhouse, Zickar, & Yankelevich, 2010). This is dramatic evidence of the centrality of work (Arvey, Harpez, Liao, 2004) as a noneconomic experience. This is strong testimony to the meaning of work—not a particular job, but the experience of working—in defining who we are.

The importance of work is further confirmed by talking to people who are about to lose or who have lost their jobs. As we will see, work is a defining characteristic of the way people gauge their value to society, their family, and themselves.

The Concept of “Good Work”

Gardner (2002) notes that psychology has often ignored how workers actually “conceptualize their daily experiences—the goals and concerns they bring to the workplace.” He goes on to characterize what he calls “good work” (Gardner, Csikszentmihalyi, & Damon, 2001). Good work is work that “exhibits a high level of expertise, and it entails regular concern with the implications and applications of an individual’s work for the wider world” (Gardner, 2002, p. B7). These concepts have been turned into an extensive endeavor, called the “GoodWork Project,” which is directed toward identifying and, if possible, creating good work. As the project leaders point out, good work is tougher to do than it might seem.

“Pressure to keep costs low and profits high, to do more in less time, and to fulfill numerous life roles, including that of a parent, a spouse, a friend, (a student!!), a worker, can all make cutting corners tempting.” This “corner cutting” leads to what the researchers call “compromised” work: work that is not illegal or unethical, but that still undermines the core values of a trade or a profession—the lawyer who creates opportunities for billing extra hours, the plumber who uses inferior, cheaper materials for a repair.

Martin Luther King, Jr., captured the essence of good work eloquently: “If a man is called to be a street sweeper, he should sweep streets even as Michelangelo painted, Beethoven composed music, or Shakespeare wrote poetry. He should sweep streets so well that all heaven and earth will pause to say, ‘Here lived a great street sweeper who did his job well’” (King, 1956).

Consider the role of an I-O psychologist who worked in Iraq to hire and train the new Iraqi police force. David Morris is an I-O psychologist who had been helping cities and states in the United States select police officers until September 2004. He decided to trade “his comfortable house in Alexandria, Virginia for a bunk bed in the converted office of Baghdad’s former police training facility” (Dingfelder, 2005, p. 34). Every day, Morris and his staff of 15 administered various tests to up to 300 candidates for possible hire. He and his staff could have earned as much if not more money screening applicants for the Philadelphia, or Atlanta, or Dallas police force. But instead, they did such screening in Baghdad to help with the restoration of civil order to Iraq. This is good work as well.

The interesting aspect of “good” and “bad” work is that the individual worker and the employer together have the power to define good work or to transform good work into bad and vice versa. A disreputable accounting firm can cheat and mislead clients and the public, thus engaging in bad work; that same firm and its employees could be doing good work if they are helping people to manage their money and protect their retirement plans. Good work is not simply the province of politicians or soldiers or relief workers.

Gardner describes the depressing consequences of settling for “bad” work:

We resign ourselves to our fate. It is difficult to quit one’s job, let alone one’s whole profession, and few in midlife . . . have the fortitude to do so. As a result, . . . few feel in a position 30 where they can perform good work. (Gardner, 2002, p. B7)

The study of work by I-O psychologists and students (you!) is potentially “good work” because it enables individuals to develop and use skills, and to use them for the benefit of someone other than simply themselves. I-O psychologists have also broadened their focus of study to consider the experience of work. Since the mid-1990s there has been a rapid and substantial increase in I-O research related to the feelings that workers bring to and take from the workplace. In addition, there has been a dramatic increase in research directed toward work–life balance issues. Thus, I-O psychology has recognized that the “experience” of work is more complex than simply tasks and productivity and accidents. You will see the results of this research in Chapter 9.



Photo courtesy of David Morris

American I-O psychologist David Morris screened applicants in Iraq for several years.

Authenticity: A Trend of Interest to I-O Psychologists

I-O psychology often incorporates cultural shifts and changes. In the past few years, “authenticity”—referring to that which is real, genuine, not artificial—has become a popular concept in America. You will see references to “authentic” coffee, music, clothing and furniture lines, foods, and so forth. The attraction of authenticity may also be reflected in some popular TV reality shows such as *American Idol*, *Ice Road Truckers*, and *The Deadliest Catch*, as well as some less dramatic shows dealing with changing families or embarking on a new diet to lose weight. A popular book (Gilmore & Pine, 2007) argues that, in a world where virtual reality is becoming increasingly prevalent, authenticity is “what consumers really want.”

In I-O psychology, we might extend the definition of authenticity to a more philosophical level: “an emotionally appropriate, significant, purposive, and responsible mode of human life” (McKean, 2005, p. 106). Viewing authenticity in that way, we can see authenticity reflected in the search for “good work” and inspirational leadership. In fact, the term “authentic leadership,” which had not appeared in the literature before 2002, is now a widely addressed topic in the popular press and in the research literature (Gardner et al., 2011). We will cover this form of leadership in Chapter 12. In various chapters, we will take note of what appears to be the search for authenticity in work and organizations.

What Is I-O Psychology?

Industrial-organizational (I-O) psychology The application of psychological principles, theory, and research to the work setting.

Throughout this book we will use the term **I-O psychology** as a synonym for **industrial and organizational psychology**. Industrial-organizational (I-O) psychology involves the scientific study of the workplace. A common definition of I-O psychology is “the application of psychological principles, theory, and research to the work setting.” Don’t be fooled, however, by the phrase “work setting.” The domain of I-O psychology stretches well beyond the physical boundaries of the workplace because many of the factors that influence work behavior are not always found in the work setting. These factors include things like family responsibilities, cultural influences, employment-related legislation, and non-work events (reflect, for example, on how the terrorist attacks of September 11, 2001, changed the working life of most people).

Even more significant is the influence of personality on work behavior. Although an individual’s personality may actually influence work behavior, his or her personality is often influenced by events that occurred before he or she began full-time employment. In addition, I-O psychologists are concerned about the effect of work on non-work behaviors. Spouses and children are well aware of the effect of a “bad day at work” on home life. I-O psychology concentrates on the reciprocal impact of work on life and life on work.

We can also think of I-O psychology as a combination of knowledge and skills that can be applied in a wide diversity of



Chris Wehram/Shutterstock

I-O psychologists have become involved in a number of humanitarian issues, including poverty reduction and partnering with global aid/development groups.

settings rather than just in the arena of traditional work. The example of David Morris helping to select the Iraqi police force is one of those examples. In a similar vein, I-O psychologists are helping to revise the test given to individuals seeking U.S. naturalization (Ulewicz, 2005).

A more formal definition of I-O psychology, approached from the perspective of the I-O psychologist and what he or she does, has been adopted by the **Society for Industrial and Organizational Psychology** (an association to which many I-O psychologists belong, and which we will refer to in this text by the acronym SIOP):

Industrial-Organizational (called I-O) Psychologists recognize the interdependence of individuals, organizations, and society, and they recognize the impact of factors such as increasing government influences, growing consumer awareness, skill shortages, and the changing nature of the workforce. I-O psychologists facilitate responses to issues and problems involving people at work by serving as advisors and catalysts for business, industry, labor, public, academic, community, and health organizations.

They are:

Scientists who derive principles of individual, group, and organizational behavior through research; *Consultants and staff psychologists* who develop scientific knowledge and apply it to the solution of problems at work; and *Teachers* who train in the research and application of Industrial-Organizational Psychology. (<http://www.siop.org/history/crspop.aspx>. © 2012 Society for Industrial and Organizational Psychology, Inc. All Rights Reserved. Reprinted by permission of SIOP, www.siop.org.)

Refer to Tables 1.1 and 1.2 for lists of the common areas of concentration for I-O psychologists and the common job titles they hold. A series on the SIOP website (<http://www.siop.org/psychatwork.aspx>) called “Psychology at Work: What do I-O psychologists *really* do?” provides profiles of I-O psychologists that include how they became interested in I-O psychology, what a typical day is like, what aspects of the job are most challenging, why I-O psychology matters, and advice to future I-O psychologists.

Traditionally, I-O psychology has been divided into three major concentrations: personnel psychology, organizational psychology, and human engineering. We will briefly consider each of these concentrations. Even though we will talk about them separately, they often overlap considerably, as we will see.

Personnel psychology (often seen as part of **human resources management**, or **HRM**) addresses issues such as recruitment, selection, training, performance appraisal, promotion, transfer, and termination. The approach assumes that people are consistently different in their attributes and work behaviors and that information about these differences can be used to predict, maintain, and increase work performance and satisfaction.

Organizational psychology combines research and ideas from social psychology and organizational behavior. It addresses the emotional and motivational side of work. It includes topics such as attitudes, fairness, motivation, stress, leadership, teams, and the broader aspects of organizational and work design. In some senses, it concentrates on the reactions of people *to* work and the action plans that develop as a result of those reactions. Both work and people are variables of interest, and the issue is the extent to which characteristics of the people match the characteristics or demands of the work. Of course, organizational psychology has implications for performance, but they may not be as direct as is the case with personnel psychology.

Human engineering (also called **human factors psychology**) is the study of the capacities and limitations of humans with respect to a particular environment. The human engineering approach is almost the opposite of the personnel approach. Remember, in the personnel approach the goal is to find or fit the best person to the job. In the human engineering

Society for Industrial and Organizational Psychology SIOP An association to which many I-O psychologists, both practitioners and researchers, belong. Designated as Division 14 of the American Psychological Association (APA).

Personnel psychology Field of psychology that addresses issues such as recruitment, selection, training, performance appraisal, promotion, transfer, and termination.

Human resources management (HRM) Practices such as recruitment, selection, retention, training, and development of people (human resources) in order to achieve individual and organizational goals.

Organizational psychology Field of psychology that combines research from social psychology and organizational behavior and addresses the emotional and motivational side of work.

Human engineering or human factors psychology The study of the capacities and limitations of humans with respect to a particular environment.

TABLE 1.1 Common Areas of Concentration for I-O Psychologists

<p>Selection and placement</p> <ul style="list-style-type: none"> Developing tests Validating tests Analyzing job content Identifying management potential Defending tests against legal challenge
<p>Training and development</p> <ul style="list-style-type: none"> Identifying training and development needs Forming and implementing technical and managerial training programs Evaluating training effectiveness Career planning
<p>Organizational development</p> <ul style="list-style-type: none"> Analyzing organizational structure Maximizing satisfaction and effectiveness of employees Facilitating organizational change
<p>Performance measurement</p> <ul style="list-style-type: none"> Developing measures of performance Measuring the economic benefit of performance Introducing performance evaluation systems
<p>Quality of work life</p> <ul style="list-style-type: none"> Identifying factors associated with job satisfaction Reducing stress in the workplace Redesigning jobs to make them more meaningful
<p>Engineering psychology</p> <ul style="list-style-type: none"> Designing work environments Optimizing person–machine effectiveness Making workplaces safer

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approach the task of the human engineer is to develop an environment that is compatible with the characteristics of the worker. The “environmental” aspects this may include are quite diverse; among them are tools, work spaces, information display, shift work, work pace, machine controls, and even the extent to which safety is valued in the organization or work group. Human engineering, more than personnel or organizational psychology, integrates many different disciplines. These disciplines include cognitive science, ergonomics, exercise physiology, and even anatomy. For that reason, we will touch only lightly on topics that form the core of human engineering—work design and safety in the workplace. Nevertheless, if human engineering interests you, there are many excellent texts in the area (e.g., Salvendy, 2006; Wickens & Hollands, 2000; Wickens, Lee, Gordon, & Liu, 2004).

In the past few pages, you have seen a number of examples of the capabilities of the I-O psychologist. The most striking characteristic of the profession is that research is actually *used* to address a concrete problem or issue. There is a clear connection between research conducted using the tools of science and the practice of I-O psychology. This emphasis on

TABLE 1.2 Common Job Titles for I-O Psychologists**Staff member, manager, director, vice president of:**

Personnel
 Human resources
 Organizational planning
 Personnel development
 Organizational development
 Management development
 Personnel research
 Employee relations
 Training
 Affirmative action

Assistant, associate, full professor of:

Psychology
 Management
 Organizational behavior
 Industrial relations
 Human resources

Corporate consultant**Private consultant****Research scientist: private sector****Research scientist: government****Research scientist: military****Research scientist: test publisher**

the application of scientific knowledge is known as **the scientist-practitioner model**. This does not mean that every practicing I-O psychologist must also be an active researcher or that every I-O psychologist who does research must be an active practitioner. It simply means that science and practice are both important parts of I-O psychology. As an example, real problems related to medical accidents and mistakes in operating rooms lead to research on safety culture in hospitals. Similarly, university-based research on team training is tested in hospital environments. An excellent popular version of the scientist-practitioner model can be seen in the TV show *CSI: Crime Scene Investigation*. A badly decomposed body is found and a team of forensic practitioners (i.e., the detectives) bring back samples of clothing, skin, teeth, and so forth to the laboratory for analysis (by the scientists). Sometimes they do their own analysis and sometimes they have more skilled colleagues do the analysis. But regardless of who actually does the analysis, it is done for one reason—to find the murderer. I-O psychology is a bit less exciting than detective work, but the underlying motivation is the same—to address a real issue or problem in the workplace.

Scientist-practitioner model A model that uses scientific tools and research in the practice of I-O psychology.

I-O Psychology's Contributions to Society

I-O psychologists have become increasingly interested in building sustainable and environmentally conscious organizations (Huffman, Watrons-Rodriguez, Henning, & Berry, 2009). Several I-O psychologists have described efforts to lead the way in helping organizations to be more sustainable (e.g., DuBois & DuBois, 2010; Jackson & Seo, 2010). Some of these efforts include organizational initiatives that were implemented for traditional business

purposes (e.g., cost savings and process efficiency) but can in turn yield environmental benefits, which are also known as eco-benefits (Klein, Sanders, & Huffman, 2011). For example, organizational policies involving online testing and assessment (Chapter 3), telecommuting (Chapter 9), and compressed workweeks (Chapter 9) have all been linked with environmental sustainability. Klein and colleagues (2011) note that I-O psychologists can guide organizations in identifying and measuring their eco-benefits and in promoting these benefits as another important outcome that can be considered along with more traditional outcomes such as individual, team, and organizational performance. The electronics company Panasonic (2011) announced major new eco-sustainability goals (e.g., double the number of drop-off locations in its electronics recycling program from 800 to 1,600 sites, reduce greenhouse gas emissions at its headquarters by half) that are likely to be adopted by other organizations. I-O psychologists can help lead the way in documenting both intended and unintended eco-benefits in organizations. Huffman and Klein (2013) edited a book entitled *Green organizations: Driving change with I-O psychology* that provides a number of excellent examples of interventions that encourage sustainable and socially responsible behaviors.

In one of the broadest and most ambitious extensions of I-O psychology, Stuart Carr, a New Zealand I-O psychologist, has suggested ways in which I-O psychologists can bring their expertise to bear on humanitarian issues (Carr, 2007). Along with other I-O psychologists such as Lori Foster Thompson and Adrian Furnham, Carr has been working to promote prosocial applications of psychology called humanitarian work psychology: the application of I-O psychology to the humanitarian arena, especially poverty reduction and the promotion of decent work, aligned with local stakeholders' needs, and in partnership with global aid/development groups (Carr, 2013; Carr, MacLachlan, & Furnham, 2012). Carr suggests that our expertise in areas such as team building and training, stereotypes, organizational justice, and mental models is exactly the type of knowledge and skill necessary for bringing together the essential coalition of governments, aid organizations, and private industry. Carr and colleagues have formed a global network of fellow I-O psychologists interested in addressing the I-O contributions to reducing world poverty (search for "gohwp" on the web).

In a recent symposium, Carr and other I-O psychologists discussed projects as broad as a U.N. resolution addressing psychological issues in poverty and as narrow as a micro-credit project directed by an I-O psychologist for desperately poor women in rural Nicaragua (Schein, 2008). Interestingly, many in the audience for that symposium were psychology students who expressed great appreciation for examples of how I-O psychologists could make a difference in some of the major global problems of the 21st century. Carr's work, and the examples in the previous paragraphs, demonstrate how far-reaching I-O psychology can be.

A related trend in I-O psychology is a focus on corporate social responsibility (CSR), which is defined as organizational actions and policies that take into account stakeholders' expectations as well as economic, social, and environmental performance (Aguinis & Glavas, 2012). CSR activities can include employee volunteering, donating a portion of sales to a charity, donating a portion of profits to school products for needy children, and having a portion of proceeds from sales go to vitamins and clean water for new mothers and their children. CSR activities can be good for the company (in terms of enhanced reputation) and good for the community. I-O psychology research will continue to investigate these CSR activities and how they relate to a variety of employee and customer attitudes and behaviors (Bauman & Skitka, 2012).

Evidence-Based I-O Psychology

I-O psychologists have become increasingly focused on making evidence-based decisions in their work in organizations. Cascio and Aguinis (2011) have updated their well-known *Applied Psychology in HRM* textbook with "Evidence-Based Implications for Practice" in

every chapter. Many of these evidence-based implications are based on empirical research conducted by I-O psychologists. This trend can also be seen in the human resources (HR) field with Rousseau and Barends' (2011) discussion about how to become an evidence-based HR practitioner. They suggest that HR practitioners use a decision-making process that combines critical thinking with use of the best available scientific evidence. I-O psychologists are well positioned to develop and utilize evidence-based practices as they have adopted the scientist-practitioner model to guide the field as well as to guide the training of I-O Master's and PhD students. In a focal article in the journal *I-O Psychology: Perspectives on Science and Practice*, Briner and Rousseau (2011) point out that the medical field has done a better job of implementing evidence-based practice than has I-O psychology and that making I-O psychology research more accessible to HR practitioners will help with such implementation. In this direction, SIOP and the Society for Human Resource Management (SHRM) are taking steps to put evidence-based I-O psychology into the hands of HR practitioners by publishing collaborative articles. The first two articles in the series are on "Skill-Based Pay: HR's Role" and "Driving Customer Satisfaction through HR: Creating and Maintaining a Service Climate." Recent articles in this series are on competency models, leadership development, managing diversity, and performance management. Many more articles are planned for this series. This is a promising step in the process of increasing evidence-based practice and decision making in I-O psychology and the related field of human resources management. Nevertheless, additional collaborative efforts will be needed to increase the use of evidence-based I-O psychology in organizations.

SIOP as a Resource

The Society for Industrial and Organizational Psychology is the single best resource for anyone interested in I-O psychology. The society accepts student members. SIOP's website (www.siop.org) is regularly updated and includes the following types of information:

- The history of I-O psychology and of SIOP
- Membership information
- An electronic version of the quarterly newsletter of SIOP, called *TIP (The Industrial-Organizational Psychologist)*, which has now been published for 50 years
- JobNet, a system that matches employers seeking I-O psychologists with applicants for I-O positions
- A listing of educational institutions that offer graduate training programs in I-O psychology
- A list of SIOP publications
- A list of upcoming conferences
- A social media page that includes information about SIOP's Facebook, Twitter, Exchange Blog, and Wiki sites
- A page that describes Prosocial and Humanitarian I-O Psychology

TIP (The Industrial-Organizational Psychologist) Quarterly newsletter published by the Society for Industrial and Organizational Psychology; provides I-O psychologists and those interested in I-O psychology with the latest relevant information about the field.

At its May, 2014 annual conference (a fantastic one in Honolulu!), SIOP launched a re-branding initiative, including a new logo and tagline: Science for a Smarter Workplace (Figure 1.1). The goals of this initiative include (1) promoting the science of I-O psychology, (2) increasing SIOP's contributions to organizations and society, and (3) educating future I-O psychologists and



FIGURE 1.1 SIOP logo