

Requirement of Work-Oriented and Worker-Oriented Approaches in the Selection System of the Armed Forces

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Abstract

The operational effectiveness of the Armed Forces depends significantly on the quality of personnel selected for military service. Modern military operations demand not only physical fitness and cognitive ability but also specialised technical competence, adaptability, leadership, resilience, teamwork, and ethical judgment. Consequently, scientific personnel selection requires an accurate understanding of both the work to be performed and the human attributes necessary to perform it successfully. Work-oriented and worker-oriented job analysis represent two complementary approaches that together form the foundation of an effective selection system. This article examines the concepts of work-oriented and worker-oriented approaches, reviews their relevance to military personnel selection, and discusses their application in strengthening the officer and personnel selection system of the Armed Forces.

Keywords: Job Analysis, Work-Oriented Analysis, Worker-Oriented Analysis, Personnel Selection, Armed Forces, Officer Selection, Competency Framework, Human Resource Management.

1. Introduction

Military organisations are among the most complex human institutions, where personnel operate in uncertain, high-risk, technologically intensive, and psychologically demanding environments. Unlike civilian occupations, military jobs require individuals to perform effectively under conditions of extreme stress, rapidly changing operational situations, and life-threatening circumstances. Consequently, selecting personnel solely on the basis of educational qualifications or general aptitude is insufficient. Scientific personnel selection begins with understanding the nature of military work and identifying the competencies required to perform it successfully. Job analysis serves this purpose by systematically examining military occupations and translating operational requirements into measurable human characteristics. Two complementary approaches have emerged in job analysis literature: the **work-oriented approach**, which focuses on job tasks and responsibilities, and the **worker-oriented approach**, which focuses on the knowledge, skills, abilities, and personal attributes required to perform those tasks effectively. Together, these approaches provide the conceptual foundation for modern personnel selection systems.

2. Understanding Work-Oriented and Worker-Oriented Approaches.

Job analysis has evolved into two distinct but complementary perspectives.

2.1 Work-Oriented Approach. The work-oriented approach analyses the job itself. It seeks to identify: duties and responsibilities, tasks performed, equipment operated, working conditions, frequency and importance of tasks & operational procedures. The primary objective is to answer **"What work must be performed?"** The outputs generally include Task inventories, Job descriptions, Functional task analysis, Duty statements & Operational procedures. Methods such as Functional Job Analysis (FJA), Task Inventories, and the Comprehensive Occupational Data Analysis Program (CODAP) exemplify this approach.

2.2 Worker-Oriented Approach. The worker-oriented approach focuses on the individual who performs the work. Rather than analysing tasks, it identifies the characteristics necessary for successful performance. These include: knowledge, technical skills, cognitive abilities, physical abilities, leadership qualities, personality characteristics, emotional stability, motivation, teamwork & adaptability. The central question becomes **"What type of individual can successfully perform this work?"** Worker-oriented methods include the Position Analysis Questionnaire (PAQ), Ability Requirement Scales, Occupational Analysis Inventory, and Threshold Traits Analysis System.

3. Relationship between the Two Approaches.

Although often presented separately, the two approaches are complementary rather than competing. The work-oriented approach identifies **what military personnel are expected to do**, while the worker-oriented approach identifies **what military personnel must possess** to accomplish those tasks successfully. For example, operating an Integrated Air Defence System is a work requirement. Successfully performing that task requires high levels of sustained attention, decision-making ability, spatial reasoning, stress tolerance, and teamwork—worker-oriented attributes. Thus, one approach defines the job; the other defines the individual.

4. Importance in Military Personnel Selection.

Military organisations throughout the world increasingly integrate both approaches because modern military performance depends upon both technical competence and behavioural effectiveness. The literature consistently demonstrates that job analysis forms the basis for:

- 4.1 Recruitment
- 4.2 Personnel selection
- 4.3 Training design
- 4.4 Performance appraisal
- 4.5 Career planning
- 4.6 Promotion systems
- 4.7 Manpower planning

Without systematic analysis of military work, personnel selection risks becoming subjective, inconsistent, and insufficiently aligned with operational requirements.

5. Requirement in the Armed Forces.

The Armed Forces operate across diverse operational environments ranging from high-altitude warfare and maritime operations to counter-insurgency, humanitarian assistance, cyber operations, and space-based capabilities. Each role demands unique competencies that cannot be adequately captured through

generic recruitment standards. The integration of work-oriented and worker-oriented approaches would significantly strengthen the personnel management system.

5.1 Scientific Identification of Military Competencies. Military occupations have become increasingly specialised. For example: fighter pilot, infantry platoon commander, air defence controller, cyber warfare specialist, naval submarine officer, UAV operator & space operations analyst. Each role requires different combinations of technical knowledge, cognitive abilities, psychomotor skills, leadership, and emotional resilience. A systematic work-oriented analysis identifies these operational demands, while worker-oriented analysis translates them into measurable competencies suitable for assessment.

5.2 Improving Officer Selection. The Services Selection Board (SSB) remains one of the world's most respected officer selection systems because it assesses leadership potential, psychological suitability, and Officer Like Qualities (OLQs). However, contemporary military roles increasingly require branch-specific competencies in addition to generic leadership qualities. A worker-oriented framework could help map specific psychological and behavioural attributes to different branches, such as Flying, Technical, Air Defence, Infantry, Signals, or Cyber Operations, thereby enhancing predictive validity while preserving the holistic nature of SSB assessment.

5.3 Better Alignment between Selection and Operational Roles. Traditional recruitment often focuses on selecting capable individuals first and assigning appointments later. A combined work-worker framework promotes **Person–Job Fit**, ensuring that the selected individual possesses competencies directly aligned with operational requirements. This reduces: training failures, occupational mismatch, premature attrition & performance deficiencies.

5.4 Competency-Based Training. Selection should be viewed as the first stage of competency development. Work-oriented analysis identifies the operational tasks that training must address, while worker-oriented analysis identifies competency gaps requiring instructional intervention. Such integration supports competency-based military education and improves training efficiency.

5.5 Technology-Driven Warfare. The character of warfare is undergoing rapid transformation due to: artificial Intelligence, autonomous systems, network-centric warfare, space operations, cyber warfare & multi-domain operations. These emerging domains require competencies not traditionally assessed in conventional recruitment systems. Continuous work analysis allows military organisations to update competency requirements, while worker-oriented analysis enables corresponding changes in assessment methodologies.

5.6 Leadership Development. Military leadership extends beyond technical competence. Future commanders require: ethical judgment, strategic thinking, adaptability, emotional intelligence, decision-making under uncertainty & resilience. Worker-oriented analysis provides objective methods for identifying these attributes and incorporating them into selection and career development.

5.7 Human Resource Planning. Job analysis supports numerous human resource functions beyond recruitment. These include: manpower planning, career progression, succession planning, restructuring, performance appraisal, promotion policies & workforce optimisation. A common competency framework ensures consistency across the personnel lifecycle.

6. Integrating Work and Worker Approaches in the Selection System.

An integrated model for the Armed Forces would involve four sequential stages:

- 6.1 Stage 1 – Work Analysis.** To perform work analysis first analyse military appointments and operational tasks. Subsequently identify critical duties, responsibilities, and performance standards.
- 6.2 Stage 2 – Competency Identification.** Translate operational tasks into Knowledge, Skills, Abilities, and Other Characteristics (KSAOs). Develop branch-specific competency frameworks.
- 6.3 Stage 3 – Selection System Design.** Align written examinations, psychological tests, group tasks, interviews, behavioural exercises, and medical standards with validated competency requirements.
- 6.4 Stage 4 – Continuous Validation.** Periodically review job requirements based on technological advances, doctrinal changes, and operational experience to ensure that selection criteria remain relevant.

7. Challenges in Implementation

Despite their advantages, implementing comprehensive work- and worker-oriented analyses in the Armed Forces presents several challenges:

- 7.1 Rapid technological evolution leading to changing job requirements.
- 7.2 Large diversity of military occupations across the three Services.
- 7.3 Difficulty in quantifying behavioural competencies.
- 7.4 Resource-intensive data collection involving subject-matter experts and operational units.
- 7.5 Need for periodic validation of competency frameworks.
- 7.6 Integration with existing recruitment and assessment systems.

These challenges, however, are outweighed by the long-term benefits of evidence-based personnel management.

8. Conclusion

The increasing complexity of military operations demands a selection system grounded in scientific evidence rather than intuition alone. Work-oriented analysis identifies the operational realities of military service, while worker-oriented analysis identifies the competencies required to meet those realities. Together, they provide a comprehensive framework for designing valid, reliable, and future-ready personnel selection systems. For the Armed Forces, integrating these approaches offers an opportunity to strengthen officer and personnel selection, improve person–job fit, enhance training effectiveness, and build a workforce capable of meeting the challenges of multi-domain warfare. As military technology and operational environments continue to evolve, systematic work and worker-oriented analyses should become central pillars of defence human resource management, ensuring that the right individual is selected, developed, and retained for the right military role. The literature reviewed in the uploaded chapter consistently supports the complementary use of both approaches for effective human resource management and personnel selection.

References

1. Defence Institute of Psychological Research (DIPR). Various publications on officer selection, military psychology, and psychometric assessment. Defence Research and Development Organisation (DRDO), New Delhi.
2. Alliger, G. M., & Janak, E. A. (1989). Kirkpatrick's levels of training criteria: Thirty years later. *Personnel Psychology*, 42(2), 331–342.

3. Arumugam, S., & Gupta, A. (2016). *A person-oriented job analysis for selection of military officers*. Proceedings of the International Military Testing Association (IMTA) Conference, New Delhi.
4. Boone, L. F., Ledford, G. E., & Nathan, B. R. (1991). Hiring for organization fit. *Training and Development Journal*, 45(2), 34–40.
5. Brannick, M. T., Levine, E. L., & Morgeson, F. P. (Eds.). (2007). *Job and work analysis: Methods, research, and applications for human resource management* (2nd ed.). Sage Publications.
6. Campion, M. A., Fink, A. A., Ruggeberg, B. J., Carr, L., Phillips, G. M., & Odman, R. B. (2011). Doing competencies well: Best practices in competency modeling. *Personnel Psychology*, 64(1), 225–262.
7. Cristal, R. E. (1969). *Comprehensive Occupational Data Analysis Program (CODAP): Development of a military occupational analysis system*. United States Air Force Human Resources Laboratory.
8. Edwards, J. R. (1991). Person-job fit: A conceptual integration, literature review, and methodological critique. In C. L. Cooper & I. T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology* (Vol. 6, pp. 283–357). John Wiley & Sons.
9. Fleishman, E. A., & Mumford, M. D. (1991). Evaluating classifications of job behavior: A construct validation of the Fleishman Job Analysis Survey. *Personnel Psychology*, 44(3), 523–575.
10. Flanagan, J. C. (1954). The critical incident technique. *Psychological Bulletin*, 51(4), 327–358.
11. Gatewood, R. D., Feild, H. S., & Barrick, M. (2016). *Human resource selection* (8th ed.). Cengage Learning.
12. Hackman, J. R., & Oldham, G. R. (1976). Motivation through the design of work: Test of a theory. *Organizational Behavior and Human Performance*, 16(2), 250–279.
13. Harvey, R. J. (1991). Job analysis. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (2nd ed., Vol. 2, pp. 71–163). Consulting Psychologists Press.
14. Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology*, 49(1), 1–49.
15. Levine, E. L., Ash, R. A., Hall, H., & Sistrunk, F. (1983). Evaluation of job analysis methods by experienced job analysts. *Academy of Management Journal*, 26(2), 339–348.
16. Levine, E. L., & Sanchez, J. I. (2007). Job analysis and work analysis. In M. T. Brannick, E. L. Levine, & F. P. Morgeson (Eds.), *Job and Work Analysis* (2nd ed., pp. 3–14). Sage Publications.
17. McCormick, E. J. (1976). Job and task analysis. In M. D. Dunnette (Ed.), *Handbook of Industrial and Organizational Psychology* (pp. 651–696). Rand McNally.
18. McCormick, E. J., Jeanneret, P. R., & Mecham, R. C. (1972). A study of job characteristics and job dimensions based on the Position Analysis Questionnaire (PAQ). *Journal of Applied Psychology*, 56(4), 347–368.
19. Morgeson, F. P., & Campion, M. A. (1997). Social and cognitive sources of potential inaccuracy in job analysis. *Journal of Applied Psychology*, 82(5), 627–655.
20. Roberts, B. W., Kuncel, N. R., Shiner, R., Caspi, A., & Goldberg, L. R. (2007). The power of personality: The comparative validity of personality traits, socioeconomic status, and cognitive ability for predicting important life outcomes. *Perspectives on Psychological Science*, 2(4), 313–345.
21. Sanchez, J. I., & Levine, E. L. (1999). The rise and fall of job analysis and the future of work analysis. *Annual Review of Psychology*, 50, 255–307.
22. Society for Industrial and Organizational Psychology. (2018). *Principles for the validation and use of personnel selection procedures* (5th ed.). Society for Industrial and Organizational Psychology.

23. Sümer, H. C., Sümer, N., Demirutku, K., & Çifci, O. S. (2001). Using a personality-oriented job analysis to identify attributes to be assessed in officer selection. *Military Psychology*, 13(3), 129–146.
24. Wilson, M. A., Bennett, W., Jr., Gibson, S. G., & Alliger, G. M. (Eds.). (2012). *The handbook of work analysis: Methods, systems, applications and science of work measurement in organizations*. Routledge.