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A Measurement of Self-Efficacy among Professional Trainees of Kanpur

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Abstract:
Beliefs about one's own capability to perform tasks effectively constitute a critical psychological factor in professional learning and development. Such beliefs influence how trainees engage with learning demands, cope with difficulties, and prepare for professional responsibilities. In professional training programmes, self-efficacy shapes not only academic engagement but also confidence in applying knowledge and skills in authentic work situations. The present investigation examined the level of self-efficacy among professional trainees from four disciplines—Engineering, Education, Management, and Medicine—in Kanpur city and compared differences across these fields.
The study followed a quantitative descriptive research design. Using stratified random sampling, 800 professional trainees were selected, with equal representation from each discipline. Data were collected through the Self-Efficacy Scale developed by Dr. Shonali Sud, which assesses individuals perceived ability to manage academic, professional, and situational challenges. Statistical analysis involved measures of central tendency and dispersion, along with one-way analysis of variance to identify discipline-wise differences.
The results indicated meaningful variations in self-efficacy across disciplines. Trainees in medicine and management reported stronger confidence in their abilities, while those in engineering and education displayed comparatively moderate levels. Based on the findings, the study presents a conceptual framework explaining how disciplinary contexts shape self-efficacy and proposes practical measures to strengthen self-belief among professional trainees. The study offers useful insights for educators and administrators aiming to improve professional preparedness through psychological empowerment.
Keywords: Self-efficacy, Professional trainees, Discipline differences, Kanpur

1. Introduction

Modern professional environments demand far more than subject knowledge and technical competence. Professionals are increasingly expected to demonstrate confidence, adaptability, initiative, and resilience while responding to complex and uncertain situations. These attributes are closely linked to psychological factors, among which self-efficacy plays a particularly influential role.
Self-efficacy refers to an individual's judgement about their ability to organize and execute actions required to achieve specific goals. Trainees with strong self-efficacy beliefs are more likely to invest effort, persist when faced with obstacles, and approach challenging tasks as opportunities for growth. Conversely, individuals with weak self-efficacy may experience self-doubt and avoidance, even when they possess adequate skills. Understanding self-efficacy among professional trainees is therefore essential for improving training outcomes and professional readiness.Kanpur hosts a wide range of professional institutions offering programmes in engineering, teacher education, management, and medicine. Despite this diversity, limited empirical research has focused on comparing psychological readiness across these professional streams. The present study attempts to fill this gap by systematically examining self-efficacy among trainees from different disciplines within the same urban context.

2. Conceptual Background of Self-Efficacy

The concept of self-efficacy originates from **Bandura's Social Cognitive Theory**, which emphasizes reciprocal interaction among personal, behavioral, and environmental factors. Self-efficacy beliefs influence:

- Cognitive processes (thinking and problem-solving)
- Motivational processes (goal setting and effort)
- Affective processes (stress and anxiety)
- Selection processes (career and task choices)

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Sources of Self-Efficacy

1. Mastery Experiences
2. Vicarious Experiences
3. Verbal Persuasion
4. Emotional and Physiological States

Professional disciplines differ significantly in how these sources are experienced, leading to variations in self-efficacy.

Development of Self-Efficacy

Self-efficacy develops through multiple sources, including successful task performance, observation of competent role models, encouragement from others, and interpretation of emotional states. Since professional disciplines differ in training structure and exposure to real-world tasks, trainees' self-efficacy is likely to vary across disciplines.

3. **Review of Related Literature**

Bandura (1997) established that self-efficacy significantly predicts performance across domains. Zimmerman (2000) reported that students with high self-efficacy demonstrate better self-regulation and learning strategies.

Schunk and Pajares (2005) found that self-efficacy influences academic motivation more strongly than actual ability. In professional contexts, Lent et al. (2011) showed that self-efficacy predicts career persistence and satisfaction.

Medical education research indicates that clinical exposure enhances self-efficacy (Artino, 2012). Similarly, management education studies emphasize experiential learning as a contributor to leadership self-efficacy (Luthans et al., 2007).

Sharma and Silori (2015) reported significant relationships between self-efficacy and academic achievement among professional students in India. Kaur (2018) observed that teacher trainees often exhibit moderate self-efficacy due to limited classroom autonomy during training.

Singh and Srivastava (2020) found that engineering students demonstrate strong technical skills but comparatively lower confidence in applied problem-solving. Studies by Sud (2014) validated the applicability of standardized self-efficacy measures in Indian educational settings.

4. **Research Gap**

Although self-efficacy has been widely studied, most investigations focus on single disciplines or specific institutions. Comparative studies examining multiple professional disciplines within the same geographical and cultural context are relatively rare. This lack of comparative evidence is particularly noticeable in medium-sized Indian cities such as Kanpur, underscoring the need for the present study.

5. **Conceptual Model of the Study**

The conceptual framework of the study presented in the **Figure 1** assumes that professional discipline determines the nature of training experiences, instructional methods, and evaluation practices.

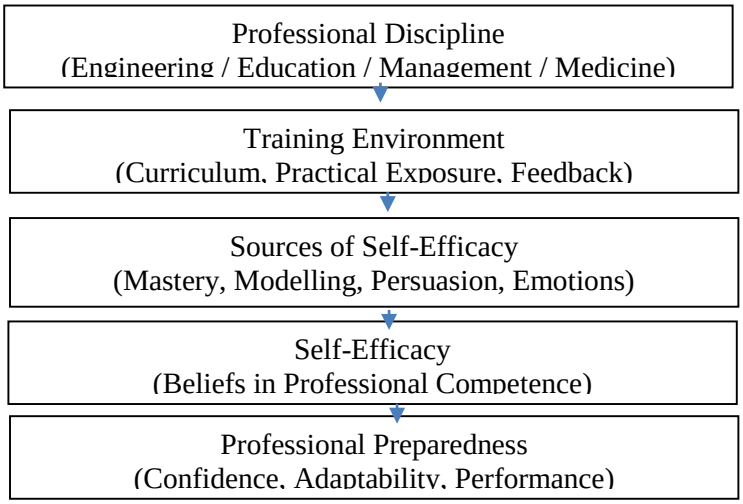

Figure 1: The Conceptual Framework of Self-Efficacy among Professional Trainees

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6. **Objectives of the Study**

- To measure self-efficacy among professional trainees of Kanpur.
- To compare self-efficacy across Engineering, Education, Management, and Medicine disciplines.
- To propose strategies for improving self-efficacy among professional trainees.

7. **Null Hypotheses**

H_0: There is no significant difference in self-efficacy among professional trainees of different disciplines.

8. **Methodology**

8.1 Research Design

A descriptive survey method with a quantitative approach was adopted.

8.2 Population and Sample

The population included professional trainees enrolled in various institutions in Kanpur. A total of 800 trainees were selected using stratified random sampling, with equal representation from each discipline. Details are given in **Table 1**.

Table 1: Discipline-wise Distribution of Sample

S.No.	Discipline	Sample Size
1	Engineering	200
2	Education	200
3	Management	200
4	Medicine	200
5	**Total**	**800**

8.3 Tools Used

Self-efficacy was measured using the standardized Self-Efficacy Scale developed by **Dr. Shonali Sud.**

8.4 Statistical Techniques

Various statistical techniques Mean, Standard Deviation and One-Way ANOVA have been used to measure the self-efficacy.

9. Analysis and Interpretation

The data analysis for the measurement of self-efficacy and interpretation from the analysis is presented hereafter.

9.1 Descriptive Statistics

The **Table 2** provides the descriptive statistics of self-efficacy scores.

Table 2: Descriptive Statistics of Self-Efficacy Scores

S.No.	Discipline	Mean	SD
1	Engineering	78.20	8.40
2	Education	74.80	9.10
3	Management	81.50	7.90
4	Medicine	85.00	8.20

Medical trainees recorded the highest average self-efficacy scores, followed by management, engineering, and education trainees.

9.2 ANOVA Results

The one-way ANOVA is applied to test the hypothesis. The calculations are presented in **Table 3.**

Table 3: One-Way ANOVA

Source	df	F	P
Between Groups	3	15.27	<0.01
Within Groups	796		
Total	799		

The calculated F-value was significant, leading to rejection of the null hypothesis.

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10. Discussion

The findings demonstrate that disciplinary context plays a meaningful role in shaping trainees' self-efficacy. Higher self-efficacy among medical and management trainees may be attributed to intensive practical engagement, structured supervision, and frequent performance feedback. In contrast, comparatively lower levels among education trainees point toward the need for greater autonomy and active teaching practice during training.

11. Educational Implications

- Incorporating psychological skill development into professional curriculum
- Strengthening mentorship systems
- Promoting experiential and reflective learning

12. Strategies for Enhancing Self-Efficacy

- Discipline-specific skill workshops
- Mentoring and coaching programs
- Increased internships and practicum exposure
- Feedback-oriented evaluation systems
- Stress-management and confidence-building modules

13. Limitations of the Study

- Restricted to one city
- Self-reported data
- Institutional variations not controlled

14. Scope for Future Research

- Longitudinal and experimental studies
- Gender-wise and institution-wise analysis
- Relationship between self-efficacy and professional performance

15. Conclusion

The study highlights significant differences in self-efficacy among professional trainees from different disciplines. Purposeful and discipline-sensitive interventions aimed at strengthening self-belief can play a vital role in improving professional competence, adaptability, and long-term career outcomes.

16. References

1. Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
2. Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology*, 25, 82–91.
3. Schunk, D. H., & Pajares, F. (2005). Competence beliefs and academic functioning. *Handbook of Competence and Motivation*.
4. Lent, R. W., Brown, S. D., & Hackett, G. (2011). Social cognitive career theory. *Journal of Vocational Behavior*.
5. Artino, A. R. (2012). Academic self-efficacy. *Medical Education*, 46, 101–110. Luthans, F., Avolio, B. J., et al. (2007). Positive psychological capital. *Journal of Organizational Behavior*.
6. Sharma, R., & Silori, S. (2015). Self-efficacy and academic achievement. *Indian Journal of Psychology*.
7. Kaur, J. (2018). Self-efficacy among teacher trainees. *Journal of Educational Research*.
8. Sud, S. (2014). *Manual of Self-Efficacy Scale*. Agra: NPC.