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Competency Assessment and Development of Training Program Basis of Contractors' Foremen Undertaking DPWH Contracted Road Projects

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Abstract

In the context of Department of Public Works and Highways (DPWH) contracted road projects in the Philippines, this study examines the educational adequacy and competency levels of road foremen, essential for ensuring project success and safety. Employing a mixed-method approach in analyzing the foremen's educational backgrounds, experience, and competency gaps, it is evident that while some level of competency is demonstrated, significant areas for improvement exist. Most foremen lack formal education beyond high school, with limited training obtained apart from NC II certification. Consequently, they fall short of the expected competencies outlined in the Philippine Qualifications Framework. Consequently, there is an urgent need for tailored training programs to bridge existing skill gaps and elevate competency levels. Recommendations include the development of collaborative training programs integrating essential competencies such as technical skills, safety practices, project management, and interpersonal skills, in partnership with government agencies, construction companies, and educational institutions. These initiatives aim to enhance the overall quality and efficiency of road construction projects while fostering a safer and more competent workforce. Further research is recommended to delve deeper into competency gaps and refine training programs accordingly.

Keywords: Engineering, DPWH, Road construction, Foremen, Competency, Training programs

I. INTRODUCTION

This study addresses a significant research gap in the construction industry, particularly within the context of the Department of Public Works and Highways (DPWH) in the Philippines. Despite the sector's pivotal role in economic growth and infrastructure development, there is a lack of research focusing on the competencies and tailored training needs of contractors' foremen responsible for DPWH road projects. This research aims to bridge this critical knowledge void by comprehensively assessing the demographic profiles and competencies of these foremen, encompassing knowledge, skills, and behavior. The ultimate goal is to formulate a specialized training program that enhances their abilities, thereby contributing to the overall

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quality and efficiency of construction projects nationwide (Kaskutas, 2013). Given the DPWH's central role in infrastructure development, the competence of contractors' highway foremen becomes paramount. However, the absence of standardized training standards for these foremen underscores the urgency of conducting a competency assessment and developing a tailored program to address their unique needs. Skilled foremen are essential for effective project management, especially when dealing with subcontractors, as they can ensure the deployment of capable personnel on-site, enhancing project quality and minimizing wastage. This study's objective is to evaluate highway foremen's competency in DPWH-contracted road projects and create a targeted training program to bolster their specific requirements, ultimately supporting the Philippine government's efforts to establish safe and reliable road networks across the nation (Hong, 2019)

Objectives of the Study

The main objective of the study is to assess the competency and develop a training program of contractors' foremen under DPWH contracted road projects. Specifically, there are the following:

1. To determine the demographic profile of the foremen as supervisory position in road construction projects.

2. To assess the competency of the contractors' foremen under DPWH road construction projects according to the foremen's and project engineers' perceptions.

3. To determine the trainings needed by the foremen.

4. To provide recommendations for the improvement of the level of competency of the contractors' foremen undertaking DPWH contracted road project using thematic analysis.

5. To determine the relationship between the demographic profile of the road foremen and their level of competency.

II. METHODS

This study utilizes a mixed-method research approach to comprehensively address its objectives. Quantitative data collection assesses contractors' foremen's competency in knowledge, skills, and behavior while conducting a training needs assessment. Qualitative data collection gathers recommendations from higher management These insights undergo thematic analysis, forming the basis for a tailored training program. The research is conducted in Northern Mindanao, a diverse region with multiple provinces and urban centers. Self-structured questionnaires and training needs lists are distributed to 74 foremen and 30 managerial positions in DPWH infrastructure projects using purposive sampling. Rigorously validated research tools exhibit strong internal consistency. Statistical analyses include frequency distribution, descriptive analysis, weighted mean calculations, and Spearman Rho correlation. The training program development involves a systematic process, starting with a literature review and research findings and analysis to identify key issues. A tailored survey questionnaire is constructed, and collected data is analyzed quantitatively and qualitatively to identify areas for competency improvement. These findings inform the creation of a specialized training program for contractors' foremen engaged in DPWH road projects in Northern Mindanao.

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III. RESULTS AND DISCUSSION

Table 1: Overall Level of Competency of Contractors' Foremen Undertaking DPWH Contracted Projects

Competency Variables	Mean (Foremen)	Interpretation	Mean (Project Engineers)	Interpretation
Knowledge	3.0955	Somewhat Competent	2.9267	Somewhat Competent
Skill	3.3198	Somewhat Competent	3.2267	Somewhat Competent
Behavior	3.3252	Competent	3.4311	Competent
Over-all Competency	3.2475	Somewhat Competent	3.1948	Somewhat Competent

Foremen and project engineers regularly assessed foremen's ability as moderately competent. Foremen's demeanor was best, followed by their expertise and knowledge. Since knowledge, ability, and conduct account for 33% of project costs (DPWH, 2020), foremen must be assessed in these three areas. According to Foreman (2021), qualified road foremen are essential to project success (RMA, 2019). Foremen should clearly convey and acknowledge competency, which is crucial to project concerns. According to Kusumanugraha and Kristiana (2018), a foreman's effectiveness depends on their skills, experience, work importance, and time constraints, which affect their devotion to their duties.

Table 2: Training Needed by Contractors Foreman Undertaking DPWH Road Construction Projects

Trainings	Mean (Foremen)	Std. Deviation	Interpretation	Rank	Mean (Project Engineers)	Std. Deviation	Interpretation	Rank
Toolbox Training	3.6081	0.51863	Highly Important	2	3.7667	0.43018	Highly Important	3
Occupational Safety and Health (OSH)	3.7027	0.46019	Highly Important	1	3.8667	0.34575	Highly Important	1
Leadership Training	3.6081	0.51863	Highly Important	3	3.8333	0.37905	Highly Important	2
Business Structures and Issues in the Industry	3.2297	0.82008	Important	10	2.8000	0.71438	Important	10
Project Planning	3.4730	0.72571	Highly Important	5	3.5000	0.68229	Highly Important	4
Basics of Workplace Investigations and Human Behavior	3.3378	0.74534	Highly Important	9	3.0333	0.76489	Important	7
Sexual Harassment Awareness	3.4189	0.72162	Highly Important	7	3.2000	0.71438	Important	6
Communication Training (Oral and Written)	3.3919	0.67879	Highly Important	8	3.0000	0.78784	Important	8
Fundamentals of Supervision and Management	3.4865	0.57916	Highly Important	4	3.4000	0.67466	Highly Important	5
Print Reading, Estimating, Planning and Scheduling	3.4324	0.64279	Highly Important	6	2.8000	0.96132	Important	9

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Foremen and project engineers agree on the most important construction training areas. Occupational Safety and Health (OSH) training dominates with a mean rating of 3.7027 and extremely significant interpretation, reflecting their common commitment to workplace safety. Leadership and Toolbox Training will follow, emphasizing the complex roles industry experts must play, where technical competence meets leadership abilities. Project Planning and Fundamentals of Supervision and Management emphasize project management and supervision. Recognition of Sexual Harassment Awareness and the relevance of oral and written communication training demonstrate a commitment to inclusive workplaces and stakeholder collaboration. Prioritizing Print Reading, Estimating, Planning, and Scheduling boosts technical competency. While less important, Basics of Workplace Investigations and Human Behavior emphasize dispute resolution and human dynamics. Business Structures and Industry Issues are appreciated but given lesser priority, indicating industry awareness. These insights shape a comprehensive training program for contractors' foremen in the Philippines, recognizing local and international training paradigm differences, as shown by Mulliken (2022) and Breslin Strategies Inc. (2019). Jeschke et al.'s (2017) new Toolbox training program, which emphasizes knowledge development and communication skills with a safety emphasis, shows how such training may improve construction foremen's abilities.

Table 3: Thoughts of Foreman and Supervisory Managers Regarding the Development of a Training Program for Contractors Foreman under DPWH Contracted Projects

Foremen Responses	Theme	Project Engineers Reponses	Theme
1. “Beneficial for additional knowledge and more income or better pay.”	Knowledge and Income Gain	1. “I think that this is a good idea since most foremen performs based on experience and we know some of which are wrong practices. This will set their skills and knowledge to a higher level of standards.”	Good Idea for Standard Practices in DPWH
2. “I am satisfied but would want skill-based training.”	Satisfying	2. “Continuous development and collective thoughts are important for the project team and this study just do that.”	Continuous Development for the Project Team
3. “I hope this training will be offered free.”	Free Training	3. “Helps to gain more knowledge to help the foremen do critical thinking, enhance the management the activities of the project.”	Knowledge Gain
4. “If implemented, this research will greatly improve our performance on the job.”	Improvement of Job Performance	4. “It is good to be recommended and it should have validity	Good to Undergo Implementation

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		date to impose renewal and continuing process."	and Validation for Renewal.
5. "It helps us to be more productive and even if the engineer is not there, we can monitor the site."	Productivity in Site	5. "It is important so that they'll easily listen to the instructions given to them and be humble."	Important for Communication and Behavioral Skills
6. "It is a good idea because it teaches us more about the standard practices in the DPWH."	Good Idea for Standard Practices in DPWH	6. "It is very helpful and must be recommended to the contractors in order to look after the welfare of the foremen, have proper trainings and perform well at work."	Must be recommended to contractors for the welfare of foremen
7. "It is a good opportunity as a foreman to have a proper training program in developing the performance of a foreman as one of the equipment, manpower to accomplish one project."	Good Opportunity at Work	7. "It would be a great opportunity and an honor since. It would establish a deeper relationship between DPWH and Contractors."	Establish a Relationship between DPWH and Contractors
8. "It is very important and helpful in developing and improving our knowledge and thus, our competency in this industry."	Important and Beneficial for Growth and Competency	8. "This is essential in improving the performance of foremen for the smooth execution of the project which is an advantage for the contractor and the government."	Advantage for the Contractor and the Government
9. "This is recommended for a semi-annual training."	Semi-annual Training Session	9. "This is very helpful to harness the project planning capabilities of the foreman to determine accurately the cost associated and the timeframe of the project."	Harness the Project Planning Capabilities of Foremen
10. "Trainings are very important to evolve together with the advancement of technology. Foremen skills should be updated and adapted to the current situation of construction industry."	Adaptation to the Current Construction Industry	10. "This study is a great idea for the betterment of the company alone because it helps the company gain and retain top talent, improve productivity and can address	Great Idea for the Betterment of the Company

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		problems on their own."	
11. "This should be applied onsite at least once a year."	Once a year Training Session	11. Very innovative for the competency of foremen."	Innovative
12. "This study is very helpful in recognizing and improving leadership skills, communication with people, enhancing productivity and develop strategies for better results of the project execution."	Helpful in Recognizing and Improving Foremen Skills		

Foremen widely regard the training program as highly advantageous, envisioning it as a pathway to acquiring valuable knowledge and boosting income potential. They perceive it as a catalyst for improved job performance, increased productivity on construction sites, and the establishment of standardized practices within the Department of Public Works and Highways (DPWH). Foremen express enthusiasm for semi-annual training sessions, which they believe will help them stay abreast of industry trends and continually enhance their skills. In contrast, project engineers commend the program for promoting standard practices within DPWH and facilitating continuous development within the project team. They see it as a recommendation-worthy opportunity, benefiting both foremen and the government while fostering stronger DPWH-contractor relationships. The program's potential to harness foremen's project planning capabilities is viewed as innovative and beneficial for the construction industry. Both perspectives align with DPWH's emphasis on training, recognizing its pivotal role in equipping foremen to make informed decisions crucial to project success. Furthermore, the program's positive impact on safety behaviors, fall protection usage, and on-the-job training underscores the tangible benefits of such initiatives, affirming the necessity of comprehensive training programs in the construction sector.

Table 4. Significant Relationship Between the Level of Demographic Profile of the Road Foreman and Their level of Competency

Variables	Spearman Rho	Knowledge	Skill	Behavior	Over-all Competency
Educational Attainment	Correlation Coefficient	.300**	0.150	0.093	0.203
	Sig. (2-tailed)	0.009	0.202	0.429	0.083
Years of Service as Foreman	Correlation Coefficient	0.120	0.016	0.069	0.032
	Sig. (2-tailed)	0.307	0.894	0.557	0.789
Number of Road Construction Projects handled under DPWH	Correlation Coefficient	-0.181	-0.224	-0.096	-0.223
	Sig. (2-tailed)	0.122	0.055	0.417	0.056

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The study findings reveal a significant and positive association (Rho=0.300, p=0.009) between educational attainment and knowledge among construction foremen, accentuating the crucial role of educational qualifications in bolstering their knowledge competency. However, educational attainment does not exhibit notable correlations with skill (Rho=0.150, p=0.202), behavior (Rho=0.093, p=0.429), or overall competency (Rho=0.203, p=0.083). Similarly, years of service as a foreman and the number of road construction projects handled under DPWH show no substantial links with knowledge (Rho=0.120, p=0.307), skill (Rho=0.016, p=0.894), behavior (Rho=0.069, p=0.557), or overall competency (Rho=0.032, p=0.789). These outcomes underscore the paramount significance of educational qualifications in enhancing the knowledge facet of foremen's competency, emphasizing the necessity of integrating educational factors into training program development. Conversely, the study implies that years of experience and project involvement under DPWH do not significantly impact foremen's overall competency concerning road construction projects.

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2. "I am satisfied but would want skill-based training."	Satisfying	2. "Continuous development and collective thoughts are important for the project team and this study just do that."	Continuous Development for the Project Team
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IV. Conclusion

This study addresses crucial aspects of construction project management in the Philippines, with a specific focus on the competence of highway foremen employed within government agencies like DPWH. It emphasizes the need for significant improvements in several key areas. Firstly, the demographic profile

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of these foremen reveals educational disparities, underscoring the urgency of establishing standardized educational requirements and training programs to ensure they possess the necessary knowledge and skills. Secondly, while foremen exhibit competency in knowledge, skills, and behavior, specific areas requiring enhancement, such as English comprehension, economics, quality assurance, and behavioral traits, are identified. The study highlights the pivotal role of tailored training programs, encompassing a wide range of topics, from safety and leadership to technical competencies and project management. Successful program implementation hinges on strong collaboration between DPWH, construction firms, and government bodies. Lastly, the observed correlation between educational attainment and knowledge competency underscores the importance of aligning training programs with educational achievements.

V. Recommendation

Based on the summary of findings and conclusions, the study recommends that foremen currently practicing in the field should undergo various training programs to enhance their level of competency and strengthen their career credentials. These trainings may include topics such as Occupational Safety and Health (OSH), toolbox meetings, leadership, supervision and management fundamentals, project planning, structural engineering, surveying, mechanical operations, quality control, AutoCAD, construction methodology, material hoisting, waste management, gender sensitivity, and technical skills like blueprint reading, estimating, and scheduling. In designing and delivering these training programs, it is important to consider the foremen's knowledge, skills, and behavioral attributes. These include competencies in English comprehension, economics and accounting, mechanical tools, transportation and logistics, mathematics, education and training for knowledge areas; reading comprehension, physical capabilities, critical thinking, complex problem-solving, quality assurance, organizational skills, and material resource management for skills development; and behavioral traits such as persistence, independence, flexibility, innovation, stress tolerance, social orientation, and integrity.

To ensure consistency and long-term improvement, a structured training program should be developed and implemented periodically—such as semi-annually or annually—for foremen engaged in DPWH road construction projects. The development of this training program is best carried out through a collaborative effort involving the Department of Public Works and Highways (DPWH), construction companies, the Technical Education and Skills Development Authority (TESDA), and the Department of Education (DepEd). This partnership would help prioritize the cultivation of highly competent foremen, ultimately contributing to improved project quality. Finally, the study recommends that future research focus on a more in-depth analysis of the competency gaps among foremen involved in road construction to support the creation of more targeted and effective training programs.

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REFERENCES

Breslin Strategies. (2020, April 11). Construction Superintendent Foreman Training. https://breslin.biz/speaking-training-construction-foreman-training/

Department of Public Works and Highways (DPWH). Retrieved from:https://www.dpwh.gov.ph/dpwh/sites/default/files/webform/civil_works/advertisement/Standard%20Bidding%20Documents%20%2821IC0050%29.docx.

Foreman, D. G. (2021). Impact of Teleworking during COVID-19 of Stress and Job Satisfaction for College Students (Doctoral dissertation, Walden University).

H. Rudi , A. Subandiyah, H. Sutanto (2019) , The Accelerating Of Duration And Change Of Cost On Construction Project Implementation, International Journal Of Civil Engineering And Technology, vol 10.1 .

Hong, W. & Yuanqing, W. (2019). Evaluation of highway construction foreman's competency based on support vector machine. https://iopscience.iop.org/article/10.1088/1742-6596/1168/3/032106/meta

Jeschke, K. C., Kines, P., Rasmussen, L., Andersen, L. P. S., Dyreborg, J., Ajslev, J., Kabel, A., Jensen, E., & Andersen, L. L. (2017). Process evaluation of a Toolbox-training program for construction foremen in Denmark. Safety Science, 94, 152–160. https://doi.org/10.1016/j.ssci.2017.01.010

Kaskutas, V., Dale, A. M., Lipscomb, H., & Evanoff, B. (2013). Corrigendum to "Fall prevention and safety communication training for foremen: Report of a pilot project designed to improve residential construction safety" [J Safety Res 44 (2013) 111–118]. Journal of Safety Research, 45, 153. https://doi.org/10.1016/j.jsr.2013.03.006

Kusumanugraha, Y. & Kristiana, R. (2018). The Evaluation of Foreman Competency Suitability on Consumer Complaints. https://www.researchgate.net/publication/330907317_The_Evaluation_of_Foreman_Competency_Suitability_on_Consumer_Complaints

Lee, W., Lin, K., Johnson, P., & Seto, E. (2021). Selection of wearable sensor measurements for monitoring and managing entry-level construction worker fatigue: a logistic regression approach. Engineering, Construction and Architectural Management.

Mulliken, J. (2022, April 9). Foreman Basic Training. Arcade Wayfinding. https://www.arcadewayfinding.com/services/foreman-basic/

RMA. (2019). Road Construction Foreman - RMA. Rural Municipalities of Alberta.

Songer, J. (2021). Foreman Training. Retrieved from:https://ph.speedycourse.com/courses/80723/construction-foreman-seminar