

# **Abstract**

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## **Assessment of ECDIS Training Quality and Performance**

With the growing adoption of ECDIS, more officers are in need of ECDIS training. These issues have been addressed by the International Maritime Organization (IMO) in Manila Amendments of the International Convention on Standards of Training, Certification and Watch keeping for Seafarers (STCW) by mandating the generic ECDIS Training for Marine Officers. Completing the generic ECDIS training course is only the first step, and it should be followed by a structured, ship-specific ECDIS familiarization for each shipboard ECDIS system on which navigating officers are expected to serve on. This thesis aims to analyse and assess the quality of the ECDIS training at all levels. It focuses on investigating the issue of ECDIS training performance and its Intended Learning Outcomes (ILOs). A comparative analysis between generic training and type-specific training is also carried out. Assessment tools are used to check the effect of current generic training courses provided on the officers' performance, as well as comparing the performance of those who only got the generic course with those who got the type-specific one. They are also used to investigate the importance of the proposed courses. Accordingly, several statistical tools are applied using Statistical Package for Social Science SPSS software program. Correlation analysis had been constructed using Pearson correlation to show the relationship between trainees' performance and ECDIS generic training dimensions, which are Knowledge Value, Skills, Interaction, Lecturer's performance, and Duration. Also, regression analysis had been done to show the effect of such dimensions on trainees' performance. For the sake of regression analysis, several assumptions are proved such as: normality, autocorrelation, and multicollinearity. The assumptions mentioned are proved using Kolmogorov test, Durbin-Watson test, and Variance Inflation Factor (VIF) respectively. Finally, a comparison had been constructed between performance of those who got ECDIS generic training and type-specific training using t-test. Results showed the effectiveness of type-specific training of ECDIS and the significant improvement in performance after these type-specific courses in comparison with generic training courses.