

AWARENESS VS. ACTIONABLE UNDERSTANDING: DISSECTING THE DISCONNECT IN MARITIME LEGAL EDUCATION REGARDING THE MAGNA CARTA OF FILIPINO SEAFARERS

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Abstract

The newly enacted Magna Carta of Filipino Seafarers (Republic Act No. 12021) serves as a critical legislative framework protecting the rights and welfare of maritime workers. However, the efficacy of such labor laws relies heavily on the rights-holders' actual comprehension of their provisions. This descriptive-quantitative study assessed the level of awareness and understanding of RA 12021 among 253 third-year Bachelor of Science in Marine Transportation students at the Asian Institute of Maritime Studies. Utilizing a validated, researcher-developed questionnaire, data were collected and analyzed using descriptive statistics, regression analysis, t-tests, and ANOVA. Results indicated that students possess a high level of general awareness regarding the law's existence ($M = 3.94$); however, their substantive understanding of its specific provisions remained only moderate ($M = 13.43$). Crucially, regression analysis demonstrated that mere awareness did not significantly predict understanding ($p = 0.110$). Comparative analyses revealed that while attending seminars significantly boosted baseline awareness, it failed to improve comprehension. Conversely, the formal integration of maritime law into the academic curriculum significantly enhanced understanding. Furthermore, female students exhibited a significantly higher level of comprehension compared to their male counterparts, whereas having a family background in seafaring provided no statistical advantage. The study concludes that while current educational paradigms effectively establish baseline legal awareness, translating this into practical, actionable understanding requires structured, analytical classroom instruction rather than informal exposure, urging maritime institutions to prioritize scenario-based legal education.

Keywords: *Magna Carta of Filipino Seafarers, Republic Act No. 12021, Maritime Education and Training, Legal Awareness and Understanding*

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INTRODUCTION

The maritime industry plays an indispensable role in the global economy, and Filipino seafarers are universally recognized as some of the most reliable and skilled maritime workers worldwide. In fact, the United Nations Conference on Trade and Development (**UNCTAD, 2021**) identified the Philippines as the world's largest source of seafarers, supplying over a quarter of the global merchant shipping crew. This massive deployment contributes immensely to the international shipping industry and serves as a vital economic pillar for the Philippines. According to the Bangko Sentral ng Pilipinas (**BSP, 2024**), personal remittances from overseas Filipinos reached an all-time high of US\$37.2 billion in 2023, up from US\$36.1 billion in 2022, driven significantly by the continuous deployment of sea-based workers. Consequently, ensuring the welfare, rights, and regulatory compliance of Filipino seafarers has become a paramount concern for the government, maritime education institutions, and international regulatory bodies.

This necessity for stringent compliance and protection was recently magnified on the global stage. In 2021, an audit by the European Maritime Safety Agency (EMSA) revealed systemic shortcomings in the Philippine maritime education and training (MET) system regarding adherence to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW). Although the **European Commission (2023)** ultimately decided to continue recognizing Philippine seafarer certificates—averting a crisis that could have displaced over 50,000 Filipino officers on EU-flagged vessels—this event underscored an urgent need for reform. To address these vulnerabilities and build sustainability in the Filipino MET system, the government, alongside international stakeholders, pushed for comprehensive legislative and educational upgrades (**SWZ Maritime, 2023**). At the core of this reform is the newly enacted **Republic Act No. 12021 (2024)**, formally known as the Magna Carta of Filipino Seafarers. Signed into law in September 2024, this landmark legislation serves as the domestic realization of the International Labour Organization's Maritime Labour Convention (**MLC, 2006**), a treaty often regarded as the global "*Bill of Rights*" for maritime workers. The Magna Carta comprehensively covers recruitment, just terms of employment, safe working conditions, welfare benefits, and stringent grievance mechanisms. Crucially, it also consolidates the jurisdiction of the Maritime Industry Authority (MARINA) over maritime education, granting it the power to accredit, regulate, and monitor training institutions to ensure absolute compliance with global standards (**MARINA, 2024**). Despite the robust protections outlined in RA 12021, the efficacy of any labor law heavily depends on the rights-holders' awareness of it. Studies indicate that seafarers remain highly vulnerable to unethical crewing practices—including exploitative contracts, delayed wages, and substandard living conditions—when regulatory enforcement and personal awareness are lacking (**Nguyen et al., 2025; Puttner et al., 2020**). This vulnerability mirrors broader organizational contexts where a lack of institutional transparency and clear communication regarding agreement details prevents rights-holders from fully recognizing their structural protections (**Baquillas et al., 2025**).

Therefore, Marine Transportation students are expected to gain a strong foundation in both local and international maritime laws during their tertiary education, as these frameworks dictate their future professional practices and self-protection capabilities. However, factors such as sex, age, family background in the maritime industry, previous exposure to maritime legislation, and access to educational resources may significantly influence their grasp of the Magna Carta. Currently, the level of awareness and understanding of the Magna Carta among

maritime students—especially those nearing their shipboard training—remains uncertain. Thus, this study focuses on 3rd-year Marine Transportation students at the Asian Institute of Maritime Studies (AIMS). As future maritime officers, their knowledge of RA No. 12021 is critical not only for safeguarding their personal rights but also for ensuring institutional compliance with local and international maritime standards. By aligning this research with the 17 United Nations’ Sustainable Development Goals, namely Target 4.4 of Goal 4, Target 8.8 of Goal 8, and Target 10.2 of Goal 10, it emphasizes the need to “*substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship*”, as well as educating future Filipino seafarers their labour rights to “*promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment*”, and to “*empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status*” (United Nations, n.d.). In determining their level of awareness and understanding, this research aims to provide actionable insights that can enhance maritime education curricula and fortify the welfare of the next generation of Filipino seafarers. Furthermore, this research highlights the pivotal role of higher education institutions in preparing students to meet the rigorous demands of the modern maritime profession. Strengthening students' legal awareness at the tertiary level benefits them individually while elevating the overall standard of professionalism within the Philippine maritime workforce. The potential findings of this study will serve as an evidence-based foundation for improving academic programs, developing targeted learning resources, and ensuring that future maritime professionals are both technically competent and deeply aware of the legislations designed to protect them. Ultimately, this study argues that the awareness and comprehension of the Magna Carta of Filipino Seafarers among 3rd-year AIMS students are influenced by specific personal and academic factors, and that equitable access to specialized resources can bridge the gap between abstract legislation and practical occupational preparedness.

Objectives

This research sought to answer the following questions:

1. What is the profile of the respondents?
2. What is the level of awareness of 3rd-year Marine Transportation students regarding the Magna Carta of Filipino Seafarers?
3. What is the level of understanding of 3rd-year Marine Transportation students regarding the Magna Carta of Filipino Seafarers?
4. Does level of awareness predicts level of understanding of the Magna Carta of Filipino Seafarers?
5. Is there any significant difference in the level of awareness and level of understanding of the Magna Carta of Filipino Seafarers when grouped according to sex, age, family background, prior exposure to maritime laws, and access to resources?

METHODS

Research Design

This study employed a descriptive-quantitative research design to assess the awareness and understanding of the Magna Carta of Filipino Seafarers (Republic Act No. 12021) among third-year students at the Asian Institute of Maritime Studies. This design was appropriate because it allowed the researchers to describe, measure, and analyze students' comprehension levels without manipulating variables. The descriptive approach provided an accurate picture of the respondents' current knowledge, while the quantitative approach utilized statistical tools to measure and interpret the data objectively. By using structured questionnaires and standardized measurement tools, the researchers minimized subjectivity, ensured reliability, and gathered quantifiable data. This method facilitated the identification of patterns and the comparison of awareness and understanding across different demographic groups. Furthermore, because awareness and understanding of maritime laws are best measured through factual recall and interpretive comprehension, this design captured both the breadth (general knowledge) and depth (interpretation and application) of the students' knowledge. This systematic approach ensured that the findings were statistically sound and highly relevant for supporting evidence-based recommendations to improve maritime education and policy implementation.

Participants

The participants of this study were officially enrolled third-year Bachelor of Science in Marine Transportation (BSMT) students for the 1st Trimester of School Year 2025–2026 at the Asian Institute of Maritime Studies, located in Pasay City, Philippines. Based on enrollment data provided by the Office of the Registrar (verified by the MARES 1 research adviser), the total population consisted of 686 third-year BSMT students.

To determine the appropriate sample size, Slovin's formula was applied using a 5% margin of error and a 95% confidence level, resulting in a required sample of 253 students. A simple random sampling technique was utilized to ensure that every student had an equal chance of selection, thereby minimizing selection bias and securing a representative sample of the population.

Instrumentation

Data were collected using a structured, researcher-developed questionnaire administered via Google Forms. Prior to deployment, the instrument was subjected to content validation by a panel consisting of two maritime professors with expertise in the Magna Carta of Filipino Seafarers (RA No. 12021) and one research professor. The questionnaire was divided into three sections:

1. Demographic Profile: Gathered data on the respondents' sex, age, family background, prior exposure to maritime law, and access to learning resources.

2. Level of Awareness: Measured students' general awareness of the Magna Carta of Filipino Seafarers using a 5-point Likert scale.
3. Level of Understanding: Assessed the comprehension and interpretation of specific provisions of RA No. 12021 through a series of multiple-choice questions.

Procedure

The researchers secured formal approval from the institution prior to data collection. Following approval, the Google Forms questionnaire link was distributed to the target participants through official school communication channels and class group chats. Respondents were thoroughly briefed on the study's purpose and were required to provide informed consent before proceeding to the survey. The data collection period spanned two weeks to ensure all 253 respondents had ample time to complete the questionnaire. Responses were automatically recorded in Google Forms and subsequently exported to spreadsheet software for statistical analysis.

Data Analysis

The gathered data were organized, tabulated, and analyzed using both descriptive and inferential statistics. The following statistical tools were utilized:

1. **Frequency and Percentage Distribution:** Used to analyze the respondents' demographic profiles (such as sex, age, family background, prior exposure to maritime law, and access to learning resources) by determining the proportion of participants in each category relative to the total sample.
2. **Weighted Mean:** Used to calculate the respondents' average level of awareness of the Magna Carta of Filipino Seafarers based on a 5-point Likert scale.
3. **Z-Scores:** Applied to determine the relative standing of each respondent's score regarding their level of awareness and understanding. This metric indicates how far above or below the overall group mean an individual's score is positioned, allowing for standardized comparisons across the sample.
4. **Standard Deviation:** Used to measure the variability of the students' responses, illustrating how closely or widely dispersed the data points were in relation to the mean.
5. **t-Test for Independent Samples and Analysis of Variance (ANOVA):** Utilized to determine if there were significant differences in the level of understanding when respondents were grouped according to demographic variables.
6. **Regression Analysis:** Conducted to determine whether the level of awareness significantly predicted the level of understanding of the Magna Carta of Filipino Seafarers, examining the extent to which changes in awareness influenced comprehension.

Ethical Considerations

The study strictly adhered to ethical research standards. Prior to participation, respondents received a detailed briefing outlining the key information and purpose of the research. Participation was strictly voluntary, secured through informed consent. To guarantee anonymity, confidentiality, and the prevention of potential harm, the names and identities of the participants were entirely omitted from the data set. Respondents retained the right to withdraw from the study at any given time without penalty. All gathered data were stored securely and used exclusively for academic purposes. Furthermore, the study fully complied with the provisions of Republic Act No. 10173, widely known as the Data Privacy Act of 2012, ensuring the protection of all participants' rights and privacy throughout the research process.

RESULTS and DISCUSSION

Demographic Profile of the Respondents

The study involved 253 third-year Bachelor of Science in Marine Transportation (BSMT) students. As shown in Table 1, the demographic profile reflects the established norms of the maritime education sector.

Table 1

Profile of the Respondents (N = 253)

Profile Variable	Category	Frequency	Percentage
Sex	Male	232	91.70%
	Female	21	8.30%
Age	18–20 years old	106	41.90%
	21–22 years old	144	56.92%
	23 years old and above	3	1.18%
Family in Seafaring	Yes	122	48.22%
	No	131	51.78%
Seminar Attendance	Yes	128	50.59%
	No	125	49.41%
Maritime Law Integration	Yes	234	92.49%
	No	19	7.51%
Intended Career Path	Deck Officer	252	99.60%
	Maritime Agency Work / Others	1	0.40%

The overwhelming majority of respondents were male (91.70%), which mirrors global maritime industry statistics. According to the BIMCO/ICS Seafarer Workforce Report (2021), women represent only about 1.2% of the

global seafaring workforce, highlighting the persistently male-dominated nature of the profession. Almost all respondents (99.60%) intended to pursue a career as Deck Officers, demonstrating a highly focused vocational goal.

Interestingly, exposure to the industry was evenly split regarding family background (48.22% with seafarer family members) and seminar attendance (50.59%). However, institutional exposure was highly dominant, with 92.49% of students reporting that maritime law was integrated into their curriculum. This supports **Hipol's (2022)** assertion that maritime institutions are the primary drivers of professional socialization, often providing more consistent exposure to industry regulations than informal networks.

Level of Awareness of the Magna Carta of Filipino Seafarers

To assess students' familiarity with Republic Act No. 12021, a 10-item awareness scale was utilized.

Table 2

Level of Awareness of the Magna Carta of Filipino Seafarers

Indicators	M	SD	Interpretation
1. RA No. 12021 is the Magna Carta of Filipino Seafarers.	4.08	0.87	Aware
2. RA No. 12021 was enacted in 2024.	3.82	0.98	Aware
3. RA No. 12021 has approved IRR for seafarer protection.	3.94	0.93	Aware
4. Aligns with STCW and MLC 2006.	3.89	0.94	Aware
5. Recognizes cadetship/training as essential.	3.94	0.86	Aware
6. Mandates MARINA/CHED to monitor curricula.	4.00	0.83	Aware
7. Requires competency- and outcomes-based programs.	3.94	0.89	Aware
8. Requires proper simulators and training facilities.	3.98	0.90	Aware
9. Requires integration of provisions into instruction.	3.94	0.93	Aware
10. Requires ships to accommodate cadets (STCW/MARINA).	3.89	0.91	Aware
Overall Mean	3.94	0.75	Aware

Note. Scale: 1.00–1.75 = Strongly Unaware; 1.76–2.50 = Unaware; 2.51–3.25 = Moderately Aware; 3.26–4.00 = Aware; 4.01–4.75 = Strongly Aware.

The overall mean score of 3.94 (SD = 0.75) indicates a high degree of general awareness among the students. The data suggests that the baseline existence and purpose of the law have been successfully communicated within the academic environment. This aligns with findings of **Febrianty et al. (2025)** and **Tjeppy (2021)**, who noted that formal educational settings are highly effective at establishing baseline legal awareness. The high awareness regarding MARINA and CHED mandates (M = 4.00) reflects the immediate relevance of these regulatory bodies to the students' ongoing education.

Level of Understanding and Its Relationship to Awareness

While awareness measures familiarity, understanding measures the cognitive ability to interpret and apply legal provisions.

Table 3

Level of Understanding of the Magna Carta of Filipino Seafarers

Variable	Mean	SD	Above Mean (z > 0)	Below Mean (z < 0)
Understanding	13.43	4.50	128	125

Note. Maximum possible score = 20.

The respondents demonstrated a moderate level of understanding (M = 13.43, SD = 4.50). The relatively high standard deviation indicates a significant variance in comprehension levels among the cohort. To determine if mere exposure to the law translated to comprehension, a regression analysis was performed.

Table 4

Awareness as a Predictor of Understanding

Predictor	B	β	R ²	F	p-value	Interpretation
Awareness → Understanding	0.609	0.101	0.010	2.579	0.110	Not Significant

The regression model revealed that awareness is not a significant predictor of understanding (p = 0.110). Awareness explained only 1% of the variance in understanding (R² = 0.010). This is a critical finding that aligns with Bloom's Taxonomy of Educational Objectives, which distinguishes basic knowledge recall (awareness) from deeper comprehension and application (understanding).

As **Hashim and Wan Abdullah (2022)** reported, recognizing maritime legal concepts does not equate to understanding them, particularly when the texts are complex. This cognitive disconnect is further illustrated by **Baquillas et al. (2025)**, who observed qualitatively that when formal processes lack active communication and structural transparency, individuals often remain unaware of the precise scope of their rights despite the existence of formal written agreements. Furthermore, a study by **Abila (2018)** on maritime education and training (MET) emphasizes that rote memorization of maritime conventions (like MLC 2006 or STCW) frequently fails to prepare cadets for real-world legal challenges unless active, scenario-based learning is employed.

Differences in Awareness and Understanding Across Groupings

To further isolate the factors contributing to legal literacy, independent t-tests and ANOVAs were conducted across demographic and educational variables (summarized in Table 5).

Table 5

Summary of Differences in Awareness and Understanding Across Groupings

Grouping Variable	Awareness (p-value)	Significance	Understanding (p-value)	Significance
Sex (Male vs. Female)	0.545	Not Significant	0.026	Significant
Age (18-20, 21-23, >24)	0.963	Not Significant	0.236	Not Significant
Family Background (Seafarer vs. Non)	0.491	Not Significant	0.955	Not Significant
Seminar Attendance (Yes vs. No)	0.003	Significant	0.746	Not Significant
Learned Maritime Law (Yes vs. No)	0.095	Not Significant	0.016	Significant

Note. Significance determined at $p < 0.05$.

Seminar attendance significantly boosted awareness ($p = 0.003$) but had no impact on understanding ($p = 0.746$). Conversely, formal enrollment in a Maritime Law subject significantly improved understanding ($p = 0.016$) but did not create a statistical difference in baseline awareness.

While male and female students were equally aware of the law ($p = 0.545$), female students demonstrated a significantly higher level of understanding ($p = 0.026$; Female $M = 15.52$ vs. Male $M = 13.25$). This variance may be attributed to different cognitive engagement or study strategies. Neither age nor having a family member in the maritime profession provided a statistical advantage in either awareness or understanding. This underscores the equalizing power of institutional education

Ultimately, these findings indicate a critical gap in maritime legal education: institutions are successfully making future seafarers aware of their rights under the Magna Carta, but translating that awareness into actionable understanding requires moving beyond seminars and relying heavily on structured, analytical classroom instruction.

CONCLUSION

Based on the comprehensive analysis of the data, this study concludes that a critical disconnect exists between legal familiarity and legal literacy among maritime students regarding the Magna Carta of Filipino Seafarers (Republic Act No. 12021). While third-year BSMT students at the Asian Institute of Maritime Studies demonstrated a high general awareness of the law—successfully recognizing its existence, purpose, and institutional mandates—their actual understanding of its specific provisions remains only at a moderate level. Crucially, regression analysis proved that baseline awareness does not significantly predict understanding, indicating that merely knowing the law exists does not automatically equip these future seafarers with the cognitive ability to interpret or apply its protections in real-world scenarios.

The findings further highlight that different modes of information delivery yield vastly different educational outcomes. Passive or supplementary exposure, such as attending seminars, was proven highly effective at boosting general awareness but had no significant impact on deeper comprehension. Conversely, formal integration and

instruction within a dedicated Maritime Law course significantly elevated students' understanding. This underscores the profound equalizing power of higher education institutions: formal academic training, rather than informal industry networks or family ties, is the primary and most reliable driver of professional legal socialization. Demographic analyses reinforced this, revealing that personal background variables, such as age and having family members currently in the seafaring profession, provided no statistical advantage in either awareness or understanding of the law. Interestingly, while the student demographic remains heavily male-dominated, female students demonstrated a significantly higher level of understanding of the Magna Carta compared to their male counterparts, suggesting differences in cognitive engagement or active learning approaches that institutions could explore to improve teaching methodologies for the broader student body.

While maritime higher education institutions are successfully fulfilling their mandate to make future seafarers aware of their rights, a vital pedagogical shift is required. To transform these students from merely aware to deeply empowered, maritime education and training curricula must prioritize rigorous, application-based legal coursework over passive exposure. Ensuring that cadets can accurately interpret and act upon RA No. 12021 is essential to protecting the welfare of the next generation of Filipino maritime professionals and maintaining the country's steadfast adherence to global maritime standards.

REFERENCES

- Bangko Sentral ng Pilipinas. (2024). *Personal remittances set a new record high in December 2023 at US\$37.2 billion highest to date.* BSP Media and Research Press Releases. <https://www.bsp.gov.ph/SitePages/MediaAndResearch/MediaDisp.aspx?ItemId=7005>.
- Baquillas, J. C. M., Laurente, D. V., Malaban, J. A. S., Manggabon, J. A., Gozano, M. D., Nava, M. Y. B., & Mangarin, J. A. (2025). *BEYOND THE SURFACE: SEEING THE DIFFERENCE BETWEEN PROMISED AND ACTUALIZED EMPLOYEE RIGHTS AND PRIVILEGES.* GUILD OF EDUCATORS IN TESOL INTERNATIONAL RESEARCH JOURNAL, 3(1), 212–226. <https://zenodo.org/records/15037827>.
- European Commission. (2023). *Maritime transport: Commission continues to recognise Filipino seafarer's certificates.* Directorate-General for Mobility and Transport. https://transport.ec.europa.eu/news-events/news/maritime-transport-commission-continues-recognise-filipino-seafarers-certificates-2023-03-31_en.
- Febrianty, Y., Ariyanto, A., Fitri, H., & Ryendra, N. R. (2025). *The effect of legal education on public legal awareness.* Journal of Public Representative and Society Provision, 5(1), 204– 221.
- Fotteler, M. L., Andrioti Bygvraa, D., & Jensen, O. C. (2020). *The impact of the Maritime Labor Convention on seafarers' working and living conditions: an analysis of port state control statistics.* BMC Public Health, 20(1), 1586.

Hashim, N., & Wan Abdullah, W. M. (2022). *Concepts, practices and legal awareness of ethics and integrity amongst Kg. Seberang Takir's coastal community members, Kuala Nerus, Malaysia: The importance of knowledge transfer*. *Journal of Maritime Logistics*, 2(2), 13–30.

International Labour Organization. (2006). *Maritime Labour Convention, 2006 (MLC, 2006)*. ILO.

Maritime Industry Authority (MARINA). (2024). *RA 12021 consolidates functions relating to seafarers' education, training and certification*. Republic of the Philippines. <https://marina.gov.ph/2024/09/23/ra-12021-consolidates-functions-relating-to-seafarers-education-training-and-certification/>.

Nguyen, T. T., et al. (2025). *Development and research directions in seafarers' welfare and rights: A bibliometric analysis between 1920 and 2023*. *Maritime Policy & Management*.

Republic Act No. 12021. (2024). *An act providing for the Magna Carta of Filipino Seafarers*. Congress of the Philippines. <https://www.officialgazette.gov.ph/2024/09/23/republic-act-no-12021/>.

SWZ Maritime. (2023). *EU decides to recognise certification of Filipino seafarers*. <https://swzmaritime.nl/news/2023/04/03/eu-decides-to-recognise-certification-of-filipino-seafarers/>.

United Nations (n.d.) *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*. https://sdgs.un.org/goals/goal4#targets_and_indicators

United Nations (n.d.) *Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all*. https://sdgs.un.org/goals/goal8#targets_and_indicators

United Nations (n.d.) *Reduce inequality within and among countries*. https://sdgs.un.org/goals/goal10#targets_and_indicators

United Nations Conference on Trade and Development (UNCTAD). (2021). *Review of maritime transport 2021*. United Nations Publications.