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UDC 656.61.08:005.95:81'246

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A SYSTEM OF MULTILINGUAL SAFETY AND INTERCULTURAL INTERACTION IN CRUISE OPERATIONS: THE P.L.I.T.K.O. METHODOLOGY AND PROSPECTS FOR ITS INTEGRATION INTO MARITIME EDUCATION

Summary. *The modern cruise ship is a complex multicultural and multilingual operating environment in which the effectiveness of the safety system depends directly on the quality of communication — between a crew drawn from dozens of countries and passengers from close to two hundred nations. The governing international safety instruments — SOLAS, STCW, the International Safety Management (ISM) Code and the IMO Standard Marine Communication Phrases — set out mandatory requirements for training and communication, yet they do not systematically address the linguistic and cultural variability that shapes how safety instructions are received under critical conditions. The article sets out the architecture of maritime safety and the place of communication within it, and presents the author's P.L.I.T.K.O. methodology: a structured, six-component system spanning performance diagnostics and analytics, linguistic and cultural mapping, implementation design, training, operational integration, and outcome measurement. The dedicated multilingual safety-communication module, Safe-*

Speak Excellence, is examined in detail. The article makes the case for embedding the methodology in the curricula of maritime academies and universities, and proposes a model for that integration.

Key words: *maritime safety, multilingual communication, cultural intelligence, cruise operations, seafarer training, ISM Code, STCW, maritime education.*

Problem statement. The cruise industry brings together, on a single mobile platform, the functions of hospitality, passenger transport, and life-critical maritime operations. The crew of a modern cruise ship is drawn from more than 60 national and language groups, while its passengers come from over 195 countries with different native languages, cultural expectations, and levels of familiarity with safety procedures. Under these conditions, the delivery of instructions during an evacuation, the coordination of crew action in abnormal situations, and the quality of service all depend heavily on linguistic and cultural factors.

The existing international instruments regulate communication chiefly through standardization and English-language proficiency requirements. Necessary as they are, they do not systematically account for the cultural and linguistic variability that affects how safety messages are perceived and how people interact within a multicultural team. Persistent gaps in multilingual safety communication, cultural competence, and intercultural service have been documented, and current industry frameworks do not close them in any systematic way. This creates the need for an integrated methodology suited not only to practical consulting but also to implementation in the programmes that train maritime professionals.

Analysis of recent research and publications. Research on maritime safety rests on three established bodies of regulatory and scholarly knowledge. The first is the industry's regulatory standards — the International Convention for the Safety of Life at Sea (SOLAS), the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), the Maritime Labour Convention (MLC), and the IMO Standard Marine Communication Phrases (SMCP, MSC/Circ.794). The second is the assessment of language competence based on the Common European Framework of Reference for Languages (CEFR), combined with the maritime-specific requirements of the SMCP and STCW. The third is the concept of cultural intelligence, operationalized through validated instruments — the Cultural Intelligence Scale (CQS) and the Intercultural Development Inventory (IDI) — together with Geert Hofstede's cultural dimensions adapted to the maritime environment.

Well developed as each of these strands is in isolation, the scholarly and practical literature lacks integrated models that bring the linguistic, cultural, operational, and safety dimensions together into a single applied and instructional system for cruise operations.

Aim of the article. The article pursues three aims: (1) to set out the architecture of the safety system in the maritime sector and the role of communication within it; (2) to present the P.L.I.T.K.O. methodology in detail as an integrated system for strengthening multilingual safety and intercultural effectiveness; and (3) to substantiate a model for its integration into the curricula of maritime training institutions and universities.

Main body

1. The architecture of safety in the maritime sector and the role of communication

Safety at sea is organized across several levels. At the international level its framework is formed by the SOLAS Convention (technical and operational requirements for the safety of the ship), the STCW Convention (minimum standards for the training, certification, and watchkeeping of crew), and the International Safety Management (ISM) Code, which obliges the operating company to implement a Safety Management System (SMS) with documented procedures, a clear allocation of responsibility, and mechanisms for emergency response. At ship level these requirements are realized through shipboard procedures, drills, musters, emergency action plans, and the audit-ready documentation required for flag-state and port-state inspections.

A key but often underestimated element of this architecture is communication. Most safety procedures — from passenger briefings to evacuation — are carried out by conveying information that the recipient must take in, understand, and act on under stress and time pressure. The SMCP standard partly addresses this through a set of unified English-language phrases, but it does not cover situations in which a passenger or crew member has only limited command of English or comes from a different cultural tradition in how commands and authority are perceived. It is precisely at this junction — between formal compliance with standards and real communicative effectiveness — that the hidden risks arise which the proposed methodology is designed to address.

2. The P.L.I.T.K.O. methodology: overall structure

The P.L.I.T.K.O. methodology is a structured framework that integrates cultural intelligence, operational safety, and technology-enabled implementation into a single system suitable for use aboard cruise ships, in port terminals, and in maritime training institutions. It was developed on the basis of more than nine years of direct operational experience in managing a multinational crew and safeguarding passengers — experience that provided the empirical foundation for systematizing the operational challenges that recur most often.

The methodology's name is an acronym of its six sequential but iterative components, the initial letters of which spell the author's surname:

– **P —** Performance: effectiveness assessment and analytics;

– **L —** Linguistic and cultural mapping;

– **I —** Implementation: implementation design and strategic integration;

– **T —** Training: competence development;

– **K —** Key indicators and operational excellence;

– **O —** Outcome evaluation and demonstration of value.

3. A detailed description of the components

P — Performance: effectiveness assessment and analytics. The diagnostic component establishes baseline indicators through a multidimensional system of metrics covering passenger satisfaction, the rate of safety incidents, and operational efficiency. Satisfaction is assessed using a detailed 47-item taxonomy derived from a systematic analysis of feedback data, while safety data are processed using regression analysis, time-series analysis, and predictive modelling. The component also draws on structured interviews, ethnographic observation of guest–crew

interaction, and benchmarking against the requirements of SOLAS, the USCG, and the flag and port states.

L — Linguistic and cultural mapping. This component carries out a comprehensive analysis of multilingual communication needs: a demographic analysis of passengers across more than 195 countries and a mapping of crew language capabilities across more than 60 languages, with proficiency levels documented. Language competence is assessed in line with the IMO SMCP, the language requirements of STCW, and the CEFR scale, while cultural competence is measured using the validated CQS and IDI instruments. Particular attention is given to scenario-based testing of communication under emergency conditions.

I — Implementation: implementation design and strategic integration. This component develops tailored solutions with implementation roadmaps built on established project-management methodologies (PRINCE2, PMI, Agile) and change-management approaches — Kotter's eight-step process and the ADKAR model, adapted to the maritime organizational environment. It provides for stakeholder mapping, organizational-readiness assessment, and risk planning.

T — Training: competence development. This component builds a taxonomy of competences (technical, linguistic, cultural, and leadership) and role-based training programmes with multimodal delivery that combines classroom instruction, digital platforms, virtual-reality simulations, and on-the-job coaching. It provides for the validation of competences through multi-stage assessment and alignment with recognized maritime certification bodies. It is this component that is central to the subsequent transfer of the methodology into an educational setting.

K — Key indicators and operational excellence. This component embeds the new protocols into daily operations through workflow re-engineering, the development of multilingual standard operating procedures (SOPs), real-time

monitoring, and continuous-improvement cycles (PDCA, Kaizen). Statistical process control and quality-audit programmes are applied throughout.

O — Outcome evaluation and demonstration of value. The final component conducts a multidimensional impact assessment across operational efficiency, guest satisfaction, crew engagement, safety, and financial performance, using before-and-after comparative studies, tests of statistical significance, and longitudinal tracking. The results are documented as case studies and reproducible methods for wider dissemination across the industry and in education.

4. The specialized multilingual safety module "Safe-Speak Excellence"

The applied core of the safety dimension of the methodology is the Safe-Speak Excellence module — a certification programme in multilingual safety communication. Its foundation is a systematized catalogue of 127 distinct emergency scenarios with multilingual communication requirements, compiled from operational experience and from an analysis of maritime-incident reports issued by the United States Coast Guard, the International Maritime Organization, and industry databases. The module provides for:

– the development of standardized emergency-communication scenarios in more than 60 languages, with cultural adaptation and the use of pictographic and symbolic elements to overcome language barriers;

– a multi-channel emergency-alerting architecture that combines visual, audible, and tactile channels with real-time translation technologies;

– role-based crew training with scenario practice in a virtual-reality environment and stress-testing of communication under high-pressure conditions;

– validation of effectiveness during drills, with measurement of response time and message comprehension across different language groups, together with

the creation of audit-ready documentation for inspections by the competent authorities.

The module is aligned with the regulatory-compliance component — the requirements of the United States Coast Guard, the International Safety Management Code, and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers — which makes it suitable both for practical application and for the training of future professionals.

5. Integrating the methodology into the curricula of maritime training institutions and universities

The structured, modular nature of the methodology makes it well suited to transfer into an educational setting. Its built-in taxonomy of competences, its role-based training programmes, and its competence-validation systems effectively form a ready framework for a course of study. The proposed model of educational implementation provides for:

– establishing a "Multilingual Maritime Safety Communication" teaching module on the basis of the Safe-Speak Excellence module, aligned with STCW requirements, which makes it possible to integrate the module into existing seafarer-training programmes without conflicting with mandatory standards;

– introducing a course in cultural intelligence that uses the validated CQS and IDI instruments to develop the intercultural competence of cadets and of students in the relevant specialities;

– using simulation technologies and virtual reality to rehearse emergency scenarios in a safe learning environment;

– certifying instructors through train-the-trainer programmes that ensure a single standard of teaching quality and the reproducibility of knowledge;

– disseminating results through teaching materials, methodological guidelines, and scholarly publications, which contributes to the advancement of industry knowledge and standards.

This approach enables universities and maritime training institutions working with students and cadets to integrate the methodology into their educational systems, ensuring the preparation of professionals able to act effectively in the multicultural and multilingual environment of modern maritime operations.

Conclusions. The article has set out the architecture of maritime safety and substantiated the decisive role of multilingual and intercultural communication in ensuring its effectiveness. It has presented the P.L.I.T.K.O. methodology as an integrated six-component system that combines diagnostics, linguistic and cultural mapping, implementation design, training, operational integration, and outcome measurement, and has examined in detail its safety module, Safe-Speak Excellence. It has shown that, owing to its modularity, its alignment with international standards, and its established taxonomy of competences, the methodology is well suited to integration into the curricula of maritime training institutions and universities. A direction for further research is the conduct of prospective field and instructional trials to confirm empirically the effectiveness of the methodology in both practical and educational application.

References

1. International Convention for the Safety of Life at Sea (SOLAS), 1974. International Maritime Organization. URL: https://www.imo.org/en/about/conventions/pages/international-convention-for-the-safety-of-life-at-sea-(solas),-1974.aspx

2. International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978 (as amended). International Maritime Organization. URL: https://www.imo.org/en/OurWork/HumanElement/Pages/STCW-Convention.aspx

3. International Safety Management (ISM) Code. International Maritime Organization. URL: https://www.imo.org/en/ourwork/humanelement/pages/ismcode.aspx

4. International Maritime Organization. Standard Marine Communication Phrases (SMCP, MSC/Circ.794). URL: https://www.imo.org/en/OurWork/Safety/Pages/StandardMarineCommunicationPhrases.aspx

5. Council of Europe. Common European Framework of Reference for Languages (CEFR). URL: https://www.coe.int/en/web/common-european-framework-reference-languages

6. Ang S., Van Dyne L. Cultural Intelligence: Theory, Measurement, and Applications. Cultural Intelligence Center. URL: https://culturalq.com

7. Hammer M. R. The Intercultural Development Inventory (IDI). URL: https://www.idinventory.com

8. Hofstede G. Culture's Consequences: Comparing Values, Behaviors, Institutions and Organizations Across Nations. URL: https://geerthofstede.com

9. Cruise Lines International Association (CLIA). State of the Cruise Industry Outlook, 2022. URL: https://cruising.org/en/news-and-research/press-room/2022/january/cruise-industry-2022-outlook-report-quantifies-value-of-cruise-tourism