

A LONGITUDINAL FRAMEWORK FOR THE ASSESSMENT AND BEHAVIOURAL MODELLING OF LEADERSHIP AND COMMUNICATION SKILLS

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The rapid evolution of global maritime operations demands naval officers who are not only technically proficient but also possess exceptional leadership, communication, and conflict management skills. However, traditional military higher education often prioritises tactical instruction over the deliberate modelling of interpersonal competencies. Recognising that character and leadership development function as a continuous learning ecosystem rather than isolated curricular interventions, this paper proposes a comprehensive four-year longitudinal study to be implemented at the Portuguese Naval Academy.

The primary objective is to track a single cohort of naval cadets from their initial enrolment to their graduation, addressing a critical gap in educational management regarding the durability and crystallisation of soft skills. The methodological framework integrates three theoretical pillars: Functional Leadership for foundational tactical command, Transformational Leadership (assessed via 360-degree evaluations) for intermediate years, and the Strategic Military Bio-leader model as the ultimate proficiency standard. Evaluation centres on nine validated transversal competencies, establishing a dynamic progression of required proficiency levels for each academic year. To effectively measure these behavioural traits, data collection employs active and experiential learning methods. These include Practical Leadership Tasks enhanced with secret role-play injections—simulating conflict, insubordination, and trauma—and video-assisted self-reflection reports tailored to modern learning preferences. A highly innovative aspect of this research design is the utilisation of near-peer mentoring. The empirical execution, continuous behavioural monitoring, and facilitation of Individual Development Plans are conducted by a second-year cadet researcher operating under senior academic supervision. This strategy specifically mitigates the social desirability bias commonly triggered by senior officer evaluations, while simultaneously accelerating the peer-evaluator's own leadership maturation.

Quantitative and qualitative data will be analysed using Latent Growth Curve Modelling to map individual competency baselines and growth slopes, stratifying results across different naval specialisations. This approach is anticipated to demonstrate that targeted, continuous behavioural modelling and near-peer feedback can effectively mitigate initial deficits in leadership and communication, levelling the performance of the cohort regardless of their innate baseline talent.

Ultimately, this longitudinal framework seeks to demonstrate scientifically that exceptional military leadership is a systematically trainable attribute. The anticipated outcomes will directly inform curriculum redesign, bridging the gap between traditional military doctrine and modern pedagogical strategies for undergraduate education.

Keywords: Longitudinal Study, Leadership Development, Communication Skills, Active Learning, Behavioural Modelling, Higher Education.