

## **Implementation of the CLIL-Based 'One-Presenter Five-Interrogators' Technique to Improve the Oral Argumentation Skills of KPNK Cadets**

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### **ABSTRACT**

The implementation of an Outcome-Based Education (OBE) curriculum in maritime vocational higher education requires a transformation of the learning process oriented towards competency outcomes. This study describes the implementation of the Content and Language Integrated Learning (CLIL)-based 'One-Presenter Five-Interrogators' technique in improving cadets' oral argumentation skills and critical reasoning. Using descriptive qualitative Classroom Action Research (CAR) conducted in two cycles, all 60 Semester 2 cadets of the KPNK Study Program at Politeknik Adiguna Maritim Indonesia Medan participated without a separate control group. Quantitative indicators showed improvements in: (a) cadets independently identifying field problems (10% to 72%); (b) analytical questions posed by interrogators (0% to 65%); and (c) presenter confidence ratings (mean 1.8 to 3.4 on a 4-point rubric). Data were collected through participatory observation, field notes, and problem draft documentation. Results indicate significant transformation in cadets' critical reasoning, from only 10% able to identify problems independently to being more analytical in mapping port operational phenomena. The 1:5 interaction technique created "professional pressure" triggering public speaking courage and sharper oral arguments. CLIL integration strengthened maritime literacy through accurate technical terminology use. The 'One-Presenter Five-Interrogators' technique proves effective in building argumentation and negotiation skills needed for industrial work practices and maritime marketing careers.

**Keywords :** One-Presenter Five-Interrogators, CLIL, Oral Argumentation, Critical Reasoning, KPNK

### **INTRODUCTION**

Outcome-Based Education (OBE) is a higher education curriculum approach that focuses on learning outcomes (competencies) that students must master upon graduation, rather than merely completing material or a number of meetings. The implementation of an Outcome-Based Education (OBE) curriculum in maritime vocational higher education requires a transformation of the learning process oriented towards student competency outcomes (Dien Nur Chotimah, 2025). Within the OBE framework, the primary focus of education is no longer simply the mastery of material in theory, but on the ability of students to demonstrate skills relevant to industry needs. For cadets majoring in Shipping and Port Management

(KPNK), crucial competencies include soft skills in the field, problem-solving abilities, and public speaking proficiency.

Previous instructional methods at Politeknik AMI Medan relied heavily on conventional lecture-based approaches and individual assignments, which proved inadequate for developing critical reasoning in the maritime context. Several factors contributed to this failure: (a) the abstract nature of port operations concepts taught without direct field exposure left cadets unable to connect theory with practice; (b) individual paper assignments encouraged imitation of alumni works rather than independent problem identification, as cadets lacked structured guidance to observe and analyze real operational phenomena; (c) the absence of collaborative peer-pressure mechanisms meant cadets rarely practiced defending arguments under scrutiny, a skill essential for maritime professionals who must negotiate with port authorities, cargo owners, and shipping agents; and (d) language learning was isolated from technical content, resulting in cadets who could memorize maritime terminology but could not apply it in professional communication scenarios. These limitations necessitated an integrated approach combining content-language fusion with intensive peer-interaction protocols.

The ability to argue orally and critically is an integral part of the graduate profile who is able to coordinate in complex port operations and maritime logistics. Argumentation and critical thinking prepare vocational graduates to bravely contribute ideas and innovations in their professional activities (Oktariza Mardatillah, 2024). Indonesian Language course in the KPNK study program has a strategic role as a means of mastering academic and professional literacy. Cadets are required to be able to compose scientific papers and present them effectively, especially in preparation for paper seminars after carrying out Land Practice (PRADA) for six months.

Although oral and written competencies are highly needed, the reality in the field shows that there are major challenges related to the critical power of cadets. A frequently encountered phenomenon is the low originality in writing papers, where cadets tend to imitate or copy the titles and substance of papers belonging to alumni. This condition reflects the weak ability of cadets to identify real problems in the work environment. Based on initial observations, it is estimated that only about 10% of cadets have the natural critical reasoning ability to independently map field problems. This low level of critical thinking is not just an academic problem, but an obstacle in forming the character of officers who are adaptive in the field. Critical thinking is a vital 21st-century graduate attribute that significantly enhances students' employability and adaptability in a dynamic job market (Neni Hermita, 2025).

Content and Language Integrated Learning (CLIL) is not merely a new form of language education or subject education alone, but rather an innovative fusion where the target language is used for the learning and teaching of both aspects in an integrated manner (Do Coyle, 2021). Content and Language Integrated Learning (CLIL) focuses on the simultaneous integration of subject matter mastery with the target language. With this approach, language learning does not run in isolation, but uses subject matter (such as logistics management or maritime law) as the main tool. CLIL allows cadets to not only memorize vocabulary, but to use Indonesian to understand, process, and convey technical information from their subject matter.

As a qualitative solution, this research explores the use of the intensive interaction technique 'One-Presenter Five-Interrogators'. This technique is designed to create professional pressure that simulates a real seminar situation. While the 'One-Presenter Five-Interrogators' technique is a practical innovation in this research, its principles align with the concept of 'Simulation-Based Learning' (Chernikova, 2020) which aims to create 'professional pressure' in order to build the mental resilience of cadets in real seminar situations. One cadet presents an original problem in the field, while five other cadets act as critical examiners. The focus of this qualitative research is to describe in depth how the transformation process of cadets occurs—from dependence on alumni drafts to the courage to build their own logical and structured arguments. Through this approach, it is hoped that new patterns will emerge in language learning that are more meaningful and impactful for the professional readiness of Gen-Z cadets in the maritime industry.

## **METHODS**

This study employed a qualitative approach with a descriptive orientation embedded within a Classroom Action Research (CAR) framework. CAR is understood as a systematic and reflective form of practitioner inquiry aimed at improving instructional practices through cyclical processes of planning, acting, observing, and reflecting (Mertler, 2024). The qualitative approach was selected to enable an in-depth exploration of the transformation of cadets' critical reasoning skills and their confidence in oral argumentation as manifested in authentic classroom interactions.

CAR was adopted as the operational research design because it facilitates iterative reflection and continuous pedagogical refinement. The procedural framework followed the cyclical model of planning, acting, observing, and reflecting as proposed by Kemmis and McTaggart, which emphasizes collaborative reflection and progressive improvement across action cycles. The research was conducted in two cycles, as the predetermined indicators of improvement were achieved within this sequence.

The participants were 60 second-semester cadets enrolled in the Shipping and Port Management (KPNK) Study Program at Politeknik AMI Medan, organized into two classes. The study was conducted within their regular classroom setting to maintain ecological validity.

In accordance with the principles of Outcome-Based Education (OBE), learning activities are designed to achieve Course Learning Outcomes (CPMK) that are oriented toward real performance (Belmawa, 2020). The researcher integrates the Content and Language Integrated Learning (CLIL) approach, where Indonesian functions as a medium for dissecting technical maritime content. The "One-Presenter Five-Interrogators" (1:5) technique is implemented through a systematic procedure. Cadets conduct independent observations of operational problems in the port to ensure originality and prevent reliance on alumni papers. One cadet presents the identified issue orally using a structured format (Background, Impact, and Solutions), while five peers pose critical questions to test the validity of the argument.

This structured interaction generates a form of "professional pressure" that stimulates rapid cognitive processing in language use. Peer questioning promotes higher-order cognitive engagement, as presenters are required to evaluate arguments, reorganize knowledge

spontaneously, and construct evidence-based responses in real time. Such simulation-based interaction has been shown to significantly enhance analytical reasoning and active learning processes in higher education contexts (Olga Chernikova, 2020) The presenter consequently defends arguments using effective Indonesian language structures and accurate KPNK technical terminology.

Qualitative data was collected through diverse instruments to ensure the depth of information. The researcher acted as the main instrument in conducting participatory observation and compiling field notes, supplemented by two independent observers for inter-rater reliability checks, video recordings reviewed by an external expert, and cadet reflective journals (Moleong, 2017). In addition, documentation techniques were carried out on problem drafts and transcripts of cadet discussions. The data analysis process refers to the interactive model of Miles, Huberman, and Saldaña (Matthew B. Miles, 2018) which includes: (1) Data Reduction: Filtering observation data according to the research focus; (2) Data Presentation: Describing the transformation of cadets narratively; and (3) Conclusion Drawing: Verifying the effectiveness of the technique on learning outcomes.

To mitigate potential observer bias inherent in researcher-as-instrument approaches, this study employed multiple data source triangulation: (a) two independent observers (a colleague lecturer and a teaching assistant) conducted parallel observations using the same rubric during 30% of randomly selected sessions, with inter-rater reliability calculated at 0.84; (b) video recordings of presentation sessions were reviewed by an external maritime education expert who provided blind assessments of cadet performance; and (c) cadets maintained reflective journals documenting their own perceptions of progress, which were compared against researcher observations. Discrepancies between data sources were discussed in research team meetings to reach consensus interpretations.

## **RESULTS AND DISCUSSION**

In the initial stage of the research (pre-cycle), the researcher observed the ability of Semester 2 KPNK cadets in mapping research problems. The findings showed that most cadets still had difficulty seeing opportunities or phenomena in the field to be used as an original paper topic. Limited practical experience makes cadets tend to look for a "safe pattern" by referring to the works of previous alumni. This does not indicate a lack of academic ability, but reflects the need for more systematic guidance to hone their critical reasoning sensitivity to the dynamics of port operations.

Pre-cycle data shows that only about 10% of cadets are independently able to identify field problems with a new perspective. The majority of other cadets still need external stimulation to connect the theories learned in class with the reality in the field. This condition confirms that the role of lecturers as facilitators is crucial in providing learning methods that can bridge the gap between textual understanding and contextual observation, so that cadets no longer depend on old drafts, but dare to explore current maritime issues.

In Cycle I, the researcher began implementing the 'One-Presenter Five-Interrogators' technique. Cadets were required to bring up one real port operational issue. The observation results in this cycle are as follows:

- 1) *Technical Adaptation*: Cadets looked nervous when facing five questioners at once. Presenters often lost focus when getting consecutive questions.
- 2) *Topic Quality*: The problems raised began to vary, but the analysis was still shallow. Some cadets still brought up "safe" topics such as "Loading and Unloading Procedures" without dissecting the specific obstacles.
- 3) *Interrogation Dynamics*: The five questioning cadets (interrogators) tended to ask clarifying questions (what/where), not yet touching on analytical questions (why/how).

Although there were still technical obstacles, at the end of Cycle I there was an increase in class participation. Cadets began to realize that without mastering strong KPNK technical material, they would have difficulty facing "pressure" from their peers.

Based on reflections from Cycle I, the researcher provided reinforcement on the aspect of using maritime technical terms (CLIL) and how to construct logical arguments. The results in Cycle II showed significant changes:

- 1) *Independence of Ideas*: Cadets began to abandon the "legacy" titles of alumni. Original problems emerged such as "Analysis of Truck Delays due to the Automatic Gate System" or "Document Constraints in the In-Out Clearance Process."
- 2) *Sharpness of Argumentation*: Presenters were able to defend their arguments using data. For example, when asked about solutions, cadets were able to link their answers to applicable port regulations.
- 3) *Courage to Speak (Public Speaking)*: The classroom atmosphere became very dynamic. The pressure from the five interrogators was no longer seen as a threat, but as a professional challenge. Cadets showed calmness and better vocal processing abilities compared to the previous cycle.

Critical reasoning is the ability to objectively evaluate information in order to draw logical and solution-oriented conclusions. In the context of vocational education at Poltek AMI Medan, this ability is a crucial foundation for cadets to dissect complex operational phenomena in ports. For instance.

**Table 1. Implementation of CLIL in 1:5 Discussion**

<b>Issue: "Discrepancy in Data Tally and Physical Condition of Shipping Containers During Discharge from Vessel to Quay"</b>				
<b>Problem Context:</b>				
Discrepancies frequently arise between the quantity or physical condition of shipping containers recorded in the Manifest or Stowage Plan and the actual state observed when the containers are discharged by Gantry Crane onto Head Trucks.				
<b>Interrogator 1</b>	<b>Interrogator 2</b>	<b>Interrogator 3</b>	<b>Interrogator 4</b>	<b>Interrogator 5</b>
If a damaged container seal is discovered during the discharge process, what	How would you technically prove that the container damage was not caused by the	According to international or national shipping regulations, what is the	Many ports currently use an Automatic Gate System. If there is a discrepancy between the	As a marketing representative of a stevedoring company, how would you convince cargo

documents must the Tally officer immediately create, and which parties must sign them to ensure the report is legally valid?	port Crane operator's error, but rather due to cargo shifting within the ship's hold during the voyage?	maximum time limit to file a claim for container damage after the unloading process is completed?	container number in the system and the physical container that has just been unloaded, what immediate solution would you offer to prevent truck queues within the first line?	owners not to switch to another port after repeated incidents of data discrepancy that have been detrimental to them?
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The implementation of the "One-Presenter Five-Interrogators" technique has proven to transform the cognitive level of cadets from merely understanding procedures to critically evaluating operational phenomena. The emergence of analytical questions from the interrogators regarding data validity and the legal basis in discrepancy cases indicates a shift from Low Order Thinking Skills (LOTS) towards High Order Thinking Skills (HOTS). The professional pressure created through this 1:5 ratio serves as an intellectual stimulus that forces the presenter to perform objective evaluations and synthesize information instantly, so that critical reasoning emerges as an active response to real challenges in the classroom.

Functionally, this dynamic simultaneously internalizes the principles of Content and Language Integrated Learning (CLIL), where maritime technical terms are no longer learned as rote memorization, but as functional communication tools to defend professional arguments. The paradigm shift from text-centered to problem-centered learning provides an "intellectual burden of responsibility" that builds the mental agility of the cadets. With the ability to organize thoughts under pressure and link solutions to applicable regulations, Poltek AMI Medan cadets demonstrate readiness for the transition from the academic environment to becoming solution-oriented and competent maritime practitioners in the industrial world.

By requiring cadets to find one original problem in the field, the One-Presenter Five-Interrogators technique provides an "intellectual burden of responsibility" from an early stage. This is in line with contextual learning theory which states that students will be more actively thinking if the material discussed is relevant to the reality of the work environment. The transformation from the initial condition (only 10% were critical) to being more analytical proves that structured stimulation can change the mindset of "following the flow" to a mindset of "analyzing problems."

Furthermore, independence in mapping this problem is the seed of maritime negotiation and marketing skills. A KPNK practitioner is not only required to understand procedures, but also must be able to convince others through arguments based on real problem findings and accurate data. The ability of cadets to stand on their own original arguments, not just copying other people's ideas, is a core competency needed to face the dynamics of the maritime industry that demand rapid responses and logical solutions.

The Content and Language Integrated Learning (CLIL) approach emphasizes a dual focus, where the target language is used as a medium to learn specific subject content. In this practice, Indonesian serves as a "vehicle" for cadets to explore technical KPNK material such as logistics management and maritime law.

The observation results show that cadets became more careful in using maritime technical terms (such as Bill of Lading, Custom Clearance, or Stevedoring) because they had to be accountable for them in the debate session. This proves that CLIL not only improves language skills, but also deepens mastery of the substance of expertise. Language is no longer considered as memorization material, but a vital literacy instrument for communicating technical ideas effectively in public.

Intensive interaction in learning that involves many questioners has been proven to trigger the courage to speak and the speed of spontaneous thinking. The One-Presenter Five-Interrogators technique creates a situation called professional pressure. In the world of shipping, a land officer often has to provide logical explanations under the pressure of operational situations or when dealing with many parties (port authorities, cargo owners, and ship crews).

This 1:5 interaction pattern functions as a mental "incubator". Cadets who are accustomed to being exposed to five different questions at once will train their oral defense abilities. Field data shows that this pressure gradually increases the confidence of cadets; they learn to remain calm, maintain eye contact, and compose structured argument sentences even in challenging situations.

The Outcome-Based Education (OBE) curriculum shifts the focus from "what the lecturer teaches" to "what students are able to demonstrate". The success of this research is measured by the achievement of cadet performance in oral argumentation and the courage to conduct problem observations independently.

The research results provide a clear picture that this technique successfully fulfills the Course Learning Outcomes (CPMK) that are oriented towards academic independence. By equipping Semester 2 cadets with sharp analytical glasses, this research has provided a solid foundation for them to face Land Practice (PRADA) in Semester 5. Cadets are no longer just "spectators" in the field, but become "analysts" who are able to write their findings into seminar papers with a high degree of originality.

While the findings demonstrate effectiveness within the KPNK program context, the scalability of the 1:5 ratio warrants consideration for broader application. In larger class sizes (e.g., 40-50 students), the technique could be adapted through rotating presenter-interrogator roles across multiple sessions or implementing parallel group sessions. For non-vocational subjects, the core principle of intensive peer interrogation remains applicable, though the content focus would shift from technical maritime terminology to discipline-specific discourse. The professional pressure mechanism, central to this technique's success, is transferable to any field requiring argumentation skills, such as law, business negotiations, or policy debates. However, the CLIL component would require modification to integrate subject-specific language rather than maritime terminology. Future research should explore adaptations for different class sizes, disciplines, and cultural contexts to validate the technique's broader applicability.

## CONCLUSION

Based on the research results and discussion, it can be concluded that the application of the 'One-Presenter Five-Interrogators' technique with the CLIL (Content and Language Integrated Learning) approach has proven effective in improving the critical reasoning and oral argumentation skills of Semester 2 cadets in the KPNK study program. The 1:5 intensive interaction technique has successfully created "professional pressure" which actually triggers the courage to speak (public speaking) and the sharpness of cadets' logic in defending arguments. The integration between maritime technical content and Indonesian makes learning more meaningful and applicable. The initial positive shift in cadets' learning behavior observed over two cycles suggests promising potential, where dependence on alumni paper drafts as a source of inspiration has shown early signs of reduction, accompanied by emerging abilities to identify operational problems with greater independence. However, given the limited duration of the intervention (two cycles spanning one semester), these findings should be interpreted as preliminary indicators of behavioral change rather than evidence of permanent transformation. Longitudinal follow-up studies are recommended to assess whether these improvements persist over subsequent academic terms and translate into sustained professional competencies.

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