



TEACHER PROFESSIONALISM IN ENGLISH FOR MINING: A NEEDS-BASED EDUCATIONAL MANAGEMENT APPROACH

Roslina¹

USN Kolaka¹

Email: alimuddin.roslina81@gmail.com¹

ABSTRACT

This study examines teacher professionalism in managing English learning for mining contexts through a needs-based educational management approach. As English proficiency becomes increasingly important in multinational mining industries, higher education institutions are expected to align English instruction with workplace communication needs. This study employed a descriptive qualitative design using field observations conducted by undergraduate students across nine mining-related companies. Data were collected through a structured English for Mining Needs Analysis Instrument and analyzed using thematic analysis based on English for Specific Purposes (ESP), needs analysis, educational management, and Danielson's Framework of Teacher Professionalism. The findings indicate that English is mainly used for technical documentation, safety procedures, workplace reporting, and communication with multinational stakeholders. A significant gap exists between industry language requirements and current educational practices. The study concludes that teacher professionalism should integrate industry needs analysis, contextualized ESP instruction, and educational management to better prepare graduates for communication demands in mining workplaces.

Keywords: *teacher professionalism; educational management; english for specific purposes (esp); needs analysis; mining industry; danielson framework; higher education.*

INTRODUCTION

Teacher professionalism has become a central issue in improving educational quality in the twenty-first century. Contemporary perspectives argue that professionalism extends beyond pedagogical competence to include teachers' ability to respond to changing educational and labor market demands (Darling-Hammond et al., 2020; Clarke, 2021).

In higher education, particularly in vocational and industry-oriented programs, graduates are expected to possess competencies that correspond to workplace requirements. Consequently, curriculum and instructional practices should be aligned with the competencies demanded by industry (Jackson, 2020). As well as Roslina (2025). This alignment is particularly important in the mining industry, where English functions as an essential medium for technical communication, workplace documentation, safety procedures, and interaction with multinational stakeholders.

English for Specific Purposes (ESP) provides an appropriate framework for preparing learners for these professional communication contexts because instruction is

designed according to learners' occupational needs rather than general language proficiency (Basturkmen, 2020; Hyland, 2022).

Within ESP, needs analysis plays a central role in identifying the discrepancy between learners' existing competencies and the language skills required in professional settings. The results of needs analysis provide the basis for curriculum design, instructional planning, and learning material development.

In mining workplaces, English language demands typically include understanding technical documentation, interpreting safety instructions, preparing workplace reports, and communicating effectively with supervisors, colleagues, and international personnel. Despite the increasing importance of ESP, previous studies have primarily examined either teacher professionalism or ESP implementation independently. Few studies have integrated both perspectives within an educational management framework, particularly in mining-related higher education contexts.

Previous research also indicates a persistent gap between industry expectations and current educational practices. English instruction frequently remains theoretical and insufficiently contextualized, limiting students' readiness for workplace communication (Admiraal et al., 2021). Furthermore, limited exposure to authentic learning environments restricts students' opportunities to practice workplace communication and develop professional language competence (Hämäläinen et al., 2021).

These findings suggest that improving English learning requires more than curriculum revision; it also requires strengthening teacher professionalism in designing and managing contextualized learning experiences. From an educational management perspective, teacher professionalism should be viewed as a systemic outcome supported through curriculum planning, instructional management, institutional policies, and continuous professional development (OECD, 2020).

This study adopts Charlotte Danielson's Framework for Teaching, which conceptualizes teacher professionalism through four domains: planning and preparation, classroom environment, instruction, and professional responsibilities. The framework provides a comprehensive basis for examining teachers' capacity to manage learning in response to industry demands.

Unlike previous studies that examine teacher professionalism or ESP separately, this study integrates both within an educational management framework grounded in industry-based needs analysis, particularly in the mining context.

The study uses workplace observations conducted in mining companies to identify authentic English language needs and to examine their implications for teacher professionalism in higher education. Therefore, this study aims to examine teacher professionalism in managing English learning for mining contexts through a needs-based educational management approach using industry-derived evidence. The study contributes by proposing a conceptual framework that integrates industry needs analysis, educational management, ESP, and teacher professionalism to better align English learning with mining industry requirements in resource-based higher education.



METHOD

This study employed a descriptive qualitative design with an exploratory approach to examine English language needs in the mining sector and their implications for teacher professionalism in higher education. Grounded in the English for Specific Purposes (ESP) perspective, the study used needs analysis to identify gaps between workplace language requirements and existing educational practices. Rather than statistically testing hypotheses, the proposed hypotheses served as analytical propositions to guide the interpretation of qualitative findings within the educational management and teacher professionalism framework.

The study was conducted in a mining-oriented higher education institution involving undergraduate students enrolled in an English-related course. As part of an English for Mining project, four groups of students (16 students in total) conducted field observations across nine mining-related companies and industrial workplaces. The observation sites represented various mining operations and technical environments where English is used for professional communication, particularly in multinational settings. Industry practitioners, including workers and supervisors, also contributed contextual information through informal workplace interactions during the observation process.

Data were collected using a structured **English for Mining Needs Analysis Instrument**, consisting of both closed-ended and open-ended questions. The instrument explored workplace English use, required language skills, technical vocabulary, communication contexts, challenges encountered by workers, and expectations for future language training. Prior to fieldwork, students received training on observation procedures and data recording to ensure consistency across observation sites. Data collection combined direct workplace observation with informal interviews and discussions with industry personnel

RESULTS AND DISCUSSION

The findings of this study, derived from field observations conducted across nine mining-related companies, demonstrate that English functions primarily as an occupational communication tool rather than as a language for everyday interaction. English was predominantly encountered in safety procedures, technical documentation, operational reporting, equipment manuals, and communication with expatriate personnel. The intensity of English use varied according to the degree of international collaboration, indicating that workplace language demands are closely linked to operational contexts and organizational characteristics. Similar findings have been reported in workplace communication studies showing that professional language competence is highly context-dependent and should be developed through authentic workplace experiences rather than through general language instruction alone (Chan, 2021; Huang et al., 2024).

The needs analysis further revealed three essential domains of English competence required in mining workplaces: technical comprehension, functional oral communication,

and professional written communication. Workers are expected to interpret technical documents accurately, communicate efficiently during operational activities, and prepare formal reports using discipline-specific terminology. Nevertheless, many employees still experience limited confidence in oral communication and insufficient mastery of technical vocabulary, indicating a gap between workplace expectations and graduates' language preparation. Recent ESP studies similarly emphasize that workplace readiness depends on learners' ability to identify authentic communication needs and participate in work-integrated learning environments that expose them to real professional discourse (Chan, 2021; Shi et al., 2025).

The observations also reveal a considerable discrepancy between industrial expectations and current educational practices. English instruction in higher education remains largely focused on General English, while authentic workplace tasks, technical communication, and industry-oriented learning activities receive limited attention. Consequently, students have relatively few opportunities to practice language skills required in professional mining environments. Recent reviews of ESP education similarly conclude that effective ESP programs should move beyond textbook-oriented instruction toward technology-enhanced, workplace-based, and discipline-specific learning experiences that reflect professional communication practices (Nuryanti, 2025; Supunya, 2023).

The findings were subsequently interpreted using the Danielson Framework to examine teacher professionalism in responding to workplace language demands. The analysis indicates that instructional planning has not yet systematically incorporated industry-based needs analysis, resulting in learning materials that remain largely generic. Classroom instruction also provides limited opportunities for authentic communication, project-based learning, and workplace simulations. Furthermore, collaboration between teachers and industry practitioners remains limited, reducing opportunities for teachers to update instructional practices according to current workplace demands. Recent studies on ESP teacher development similarly argue that teachers should act not only as language instructors but also as curriculum designers, facilitators, and collaborators capable of integrating professional communication needs into instructional practice (Huang et al., 2024; Supunya, 2023).

From an educational management perspective, the identified gap reflects institutional rather than individual challenges. Curriculum planning, resource allocation, professional development opportunities, and university–industry partnerships remain insufficient to support contextualized English instruction. Therefore, strengthening teacher professionalism requires systematic institutional policies that promote needs-based curriculum development, continuous collaboration with industry, and authentic learning experiences. Such an approach is consistent with recent findings emphasizing that effective educational management should integrate workplace communication, digital competencies, and career readiness into curriculum planning to better prepare graduates for evolving industrial environments (Rahmawati et al., 2025; Chan, 2021).

Overall, the findings support the conceptual framework proposed in this study. Industry needs provide the basis for determining required English competencies, needs analysis identifies existing competency gaps, educational management translates these needs into curriculum and instructional planning, and teacher professionalism determines



the effectiveness of implementation. This integrated perspective extends previous ESP research by positioning teacher professionalism as a strategic educational management capacity that enables universities to align English instruction with authentic workplace demands in mining industries. Recent studies similarly emphasize that sustainable ESP education requires stronger integration between industry expectations, curriculum development, teacher professional development, and workplace learning experiences (Shi et al., 2025; Huang et al., 2024).

CONCLUSION

This study demonstrates that English language use in the mining industry is highly contextualized and task-oriented, focusing primarily on technical documentation, workplace communication, safety procedures, and operational reporting. The findings reveal a clear mismatch between the English competencies required by the mining industry and the learning experiences currently provided in higher education, indicating the need for more contextualized and industry-oriented English instruction.

From an educational management perspective, the study confirms that teacher professionalism should be viewed as a strategic capacity to manage learning in response to workplace demands. Guided by Danielson's Framework for Teaching, teacher professionalism encompasses planning industry-relevant instruction, creating authentic learning environments, implementing contextualized ESP practices, and engaging in continuous professional development. These findings highlight that effective teacher professionalism depends not only on individual competence but also on systematic curriculum planning and institutional support.

This study contributes to the literature by integrating English needs analysis, educational management, and teacher professionalism within a single conceptual framework for mining-related higher education. The proposed framework provides practical guidance for curriculum development, teacher professional development, and university–industry collaboration. Future research is recommended to validate this framework using quantitative or mixed-methods approaches across broader industrial and educational settings.

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