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LANGUAGE FOR SPECIFIC PURPOSES IN ACTION: BRIDGING THE GAP BETWEEN UNIVERSITY AND THE SOCIO-ECONOMIC SECTOR -EL@N PROJECT AS MODEL -

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Abstract: The present study investigates Language for Specific Purposes (LSP) as a strategic interface between higher education language curricula and a changing socio-economic environment, with particular reference to Algeria's EL@N (Multilingual e-learning consortium for Intensive Language Teaching Centers (CEILs) in Algeria) Erasmus + CBHE Project as a model case. This paper introduces the special issue by offering an overview of the international conference organized by the University of Bejaia and, in turn, explains how English for Specific Purposes (ESP) programs may be re-shaped to address modern labor market needs and enhance professional involvement. Through a rich qualitative analysis of EL@N—a virtual learning, multiple-language consortium of collaborative higher education networks from Algeria and Europe—this research demonstrates the innovative potential of e-pedagogy in specialized language learning. Findings identified three factors critical to program success: (1) integrating next-generation, flexible pedagogical technology tools (such as intelligent tutoring tools and data analysis); (2) mechanisms for ongoing professional development opportunities for LSP instructors; and (3) cooperative relationships between higher education, industry partners, and policymakers. Therefore, outlining how these elements interact to promote inclusive, context-specific, sector-related ESP programs, the work highlights the intrinsic significance of LSP in ensuring both academic success and socio-economic progress in multiple-language settings.

Keywords: Language for Specific Purposes (LSP), Curriculum Innovation, E-Learning, Multilingual Education, Technology Integration, Workforce Alignment, EL@N Project

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1. Introduction

In professional settings, Language for Specific Purposes (LSP) has become a crucial pedagogical approach in second language acquisition (Hutchinson & Waters, 1987). The pressure for profession-specific communicative competence sparked by globalization has further contributed toward the maturation of the discipline from a science-specific English for Science and Technology (EST) origin to include a variety of specialized domains (Dudley-Evans & St. John, 1998). The gap between LSP practice and theory is equally vast and endured despite exceptional theoretical developments, especially in multi-linguistic contexts like Algeria in which technology-driven learning and socio-economic compulsions converge. This gap is particularly evident in the Algerian context, where the status of ESP faces challenges related to specialization and implementation (Akkar & Idri, 2021; Assassi, 2021).

As for technology integration in LSP, the infusion of sophisticated technologies into teaching methods is a vital component, and it entails the growing need for real resources that realistically reflect actual professional contexts found in real-world applications. Furthermore, there exists an urgent need for sensitive planning of teaching strategies that are full aware of cultural sensitivities when it comes to LSP (Chery, 2024). These are cited as some of the major current challenges that teachers experience in the application of LSP, according to Flowerdew and Peacock in their 2001 book. To those practicing in the LSP paradigm, the recent development of artificial intelligence (AI) and the emergence of adaptive learning technologies pose significant opportunities as well as distinct challenges (Amirbayeva, 2025). However, the integration of these technologies, such as Computer Assisted Language Learning (CALL), faces specific hindrances and attitudinal barriers in Algerian universities (Bouchefra, 2016; Bouchefra & Baghoussi, 2017).

The integration of the Language Support Program, more simply known as LSP, into Algeria's higher education sector is made especially complex and difficult by various factors. These factors consist of the observable linguistic diversity within the country, the massive shortage of sufficient technological infrastructure, and the pressing need to successfully integrate language teaching with the socioeconomic aims that are considered vital for the country (Idri & Haouchi, 2024). This complexity is rooted in Algeria's unique language planning situation and historical political context (Benrabah, 2004; Benrabah, 2005).

One particularly significant attempt at overcoming these multifarious challenges via the utilization of technology-mediated multilingual education is the EL@N project. What is remarkable is that this project has especially been initiated under the umbrella of the Erasmus+ program, whose purpose is to promote mutual collaboration and education innovation across Europe as well as other parts of the world (European University Association, 20 May 2025).

There remains a large and noteworthy gap between theoretical concepts that are frequently debated in the academic community and the actual practice of those concepts in practical contexts, even in light of the extensive adoption and use of Language Support programs, in many regions around the world. This gap is especially marked within developing countries, where there are many challenges faced due to a lack of sufficient resources to utilize, combined with the added complexities inherent in having more than one language utilized within the same framework. This is a recognized challenge in Maghreb universities (Dendane, Z., 2020). The EL@N project presents a singular opportunity to study how well-established principles of Language Support programs can be suitably adapted and successfully applied in multilingual learning environments, especially through the utilization of technology-mediated platforms that enable this process.

Furthermore, although a lot of research has been done on the use of technology in language learning, less has been done on how new technologies can be created to address particular implementation issues with LSP. Additionally, there is still a lack of research on the relationship between LSP and multilingual education, especially in situations where students must acquire specialized proficiency in multiple languages while dealing with challenging linguistic environments. Studies focusing on specific sectors, such as the hospitality industry in Algeria, highlight the very specific needs that LSP must address (Djelloul, 2019), and diagnostic views on ESP status in vocational training reveal similar gaps (Akkar & Idri, 2021).

The primary goal of the study was to examine how LSP programs are implemented through technology-mediated multilingual education platforms, with an emphasis on bridging the gap between theoretical frameworks and real-world implementation in higher education settings.

More particularly, the objective can be split up into smaller objectives:

- Examine how established LSP theoretical foundations translate into practice within technology-mediated learning environments
- Analyze the alignment between contemporary LSP principles and the EL@N project implementation.
- Evaluate innovative pedagogical frameworks designed to align LSP programs with realworld professional demands.
- Examine partnerships between academia, industry, and policymakers in shaping LSP program design and implementation.

From the problem statement and the aforementioned objectives, a number of research question arise:

- 1. How do established LSP theoretical frameworks translate into practice within the technology-mediated EL@N project?
- 2. What factors influence the successful implementation of multilingual LSP programs in developing country contexts?
- 3. How do stakeholder perceptions and experiences align with established LSP principles and contemporary best practices?

2. Theoretical Background

The theoretical foundations of LSP are multifaceted and varied, inheriting aspects from pedagogy, linguistics, and sociology. This section outlines the main frameworks that influence LSP and thus provides a groundwork for investigating the EL@N project. It progresses from the fundamental philosophy of the learner-centered, through the genre and needs assessment analytical viewpoints, and finally leads up to the crucial relevance of the blending of technology.

2.1 Fundamental LSP Theory: A Student-Focused Approach

The contemporary characterization of LSP was given by Hutchinson and Waters (1987), who denied that ESP was no more than the exposition of specialist vocabulary and syntax. Instead, they advocated a learner-orientated approach that synthesized linguistic scholarship, pedagogical theory, and more significantly needs analysis. This model believes that effective LSP teaching should originate from a comprehensive knowledge of the learners' specialist contexts and aims, a contention that continues at the core of dominant LSP teaching practice (Basturkmen, 2014).

Furthering this, Dudley-Evans and St. John (1998) also elaborated the features of ESP, outlining its absolute and variable characteristics. The absolute characteristics consist of instruction methods specifically designed for a particular domain of scholarship, and an

emphasis placed upon the language, skills, discourse, and genres of a particular working environment. Conversely, the variable characteristics encompass the emphasis placed upon a particular skill of a language, selection of teaching methods, and changeability of the learners. This classification facilitates a compendium of the extent of applying LSP, a contrast that is also significant in the midst of existing trends of digitalization and globalization of ESP (Paltridge & Starfield, 2023).

2.2 Theory of Genre: Professional Communication Analysis

Genre Theory, especially as articulated by Swales (1990), has significantly impacted the methodology of LSP. Swales conceptualized genres as "structured communicative events" that are regulated by the norms of particular discourse communities. His analysis of move structure offers a systematic framework for dissecting the intricate patterns present in communication-focused texts, facilitating learners in grasping both the structural elements and the communicative intentions underlying expert discourse pertinent to their disciplines.

Bhatia (1993; 2008) further extended this theoretical approach by extending it into professional and working contexts and thus illuminating the complex dynamics of communication among different communities of practice. Within the field of LSP, genre theory is central as it develops an awareness of the conventions that shape professional identity and support effective interaction (Bakhronova, 2025). Genre theory has moved from more conventional textual genres and has incorporated digital and multimodal genres, reflecting the flexible and technologically oriented nature of modern professional communication (Flowerdew & Peacock, 2021).

2.3 Needs Analysis: Theory and Practice Connection

Needs Analysis represents the key to LSP theory and practice. While Munby's (1978) Communicative Syllabus Design was one early model, since it was a product-based design model, it became a weak one. Later scholars have enhanced the process significantly. Long (2005) hypothesized a decisive difference between target needs (those skills required in order to function within a certain environment) and learning needs (those conditions required in order to learn those skills), emphasizing that effective learning needs more than a specification of target characteristics of a language.

Contemporary needs analysis, according to Robinson (1991), should not be a one-time occasion but a perpetual practice that recognizes the dynamism of learner needs as learners develop skills and gain experience. Recent trends emphasize participatory approaches that draw in all stakeholders involved, a factor that is very significant in multilingual environments where learners have to traverse a myriad of professional discourse communities (Hyland, 2020; Ross & Jaafar, 2006). Methodical exploration assessment is also a prime organizational and educational development factor to consider (Attabi & Tarzoult Amrouni, 2018).

2.4 Technology Integration: Evolution and Principles

The infusion of technology has revolutionized language learning, moving instructional methods away from drill-and-practice and toward sophisticated, adaptive learning. Chapelle's (2001) evaluation framework for CALL defined significant criteria for success, such as language learning potential, learner fit, and authenticity. In later work (2021), she has revisited and revised those precepts to meet the challenges presented by mobile learning, AI, and social media. All technology used for learning a foreign language depends on whether it is compliant with established tenets of second language learning (Golonka et al., 2014). According to Levy and Stockwell (2006; 2023), there has to be a conscious integration of

pedagogical, technical, and contextual elements, in which learning objectives predominate and not technical characteristics. This aspect is more critical in restricted resource contexts. The latest in AI and learning adaptiveness offer remarkable potential for customized language learning. Their success, however, depends on developing learner autonomy (Godwin-Jones, 2019) and reassessing digital skills for the modern world (Allmann & Blank, 2021). In the case of LSP, there is significant potential for creating customized, authentic learning experiences through such technologies (the EL@N remains a good case in point); their implementation, however, faces certain challenges, that is, by way of psychological and infrastructural inhibitions (Bouchefra, 2016; Bouchefra & Baghoussi, 2017).

2.5. Gaps in Current Literature

While much theoretical effort has gone into LSP, we know surprisingly little about how the frameworks actually operate in practice, and particularly in multilingual contexts involving technology.

There has been very limited research into the application of LSP fundamentals in nondeveloped country contexts, in which resource shortages and infrastructural inadequacy impose unique challenges.

This gap is particularly apparent in North African higher education, in which multi-linguistic protocols and absence of technology complicate their implementation (Dendane, 2020; Miliani, 2019).

In spite of the vast extent of intellectual basis and commentaries regarding the integration of technology into the teaching of languages since a long time, there is a need yet to identify the enormous absence of systematic scholarship regarding how advanced and emerging technologies can best meet targeted needs in meeting the objectives of LSP programs. Recent scholarship has sought to address this void, particularly through the exploration of CALL in less-explored contexts, as observed in a study that examines technology-enhanced models of LSP in Algeria (Saadi, 2022).

Also, the crossroads of LSP and multilingual teaching has also not gained much attention or research, especially in reference to learners' pursuit toward developing specialized competency in a single or several languages in the midst of multilingual complexity. Additionally, the sustainability of computer-based LSP programs in developing countries also has much less coverage, yet it is totally essential for building effective programs (Rogers, 2019; Fullan, 2021).

The EL@N project serves as a direct intervention into these research voids. As a multilingual e-learning consortium implemented across Algerian universities, it provides a prime case study to examine the practical application of LSP theory in a context characterized by both linguistic diversity and technological challenges. Investigating EL@N in this study directly addresses the lack of research at the crossroads of LSP and multilingual education, specifically exploring how students develop specialized language competencies within a complex digital and linguistic ecosystem.

Therefore, this paper comes also to evaluate the EL@N project through the lens of sustainability, analyzing its strategies for institutional collaboration, capacity building, and resource mutualization to propose a replicable framework for durable LSP program implementation.

3. Methodology

3.1. Research Paradigm and Design

This study adopts an interpretivist perspective rooted in social constructivism (Guba & Lincoln, 1994), acknowledging that comprehension of LSP implementation is derived from the interactions and experiences of participants within particular cultural and institutional contexts. The research is framed as a qualitative case study (Yin, 2018), aiming to examine the EL@N project as a defined system, hence facilitating the meticulous observation of the conversion of theoretical LSP concepts into practical applications. This paradigmatic decision corresponds with modern methodologies in educational research inside intricate, multicultural environments, where meaning is constructed through participant interactions and institutional practices (Patton, 2022).

The research methodology employed for this case study was specifically designed to examine contemporary phenomena inside real-world situations. The EL@N project exemplifies the application of technology-enhanced LSP within a multilingual setting. The use of case study approach is especially suitable for analyzing international cooperation initiatives in higher education, where diverse institutional cultures and educational systems converge (Huisman et al., 2021).

3.2. The EL@AN Project: The Case Study

Despite the significant progress made on theoretical models in relation to LSP, an incomplete picture remains as to the practical application of these models, especially in multilingual environments that favour technologies. Existing scholarly research indicates a lack of implementation of LSP theories in developing countries, where infrastructural as well as resource-related issues pose unique challenges. This reality is particularly acute in the systems of higher education in North Africa, where the intersection of multilingual legal systems and gaps in technological infrastructures is a major stumbling block to proper implementation of these theoretical models (Dendane, 2020; Miliani, 2019).

The EL@N Project, also named EL@AN in Algeria, is managed by the University of Tlemcen. This is a three-year Erasmus+ Capacity Building in Higher Education (CBHE) project. The duration is from January 2019 to November 2022 (University of Tlemcen, 2023). This project illustrates new means of cooperating on education globally. It highlights particularly the European Union's strategy to assist the development of skills in partner countries (European Commission, 2021).

It allows those who are distant or busy to study languages and communicate with those from various backgrounds. Fortunately, the project's sensitive manner of dealing with questions concerning space and time is in tandem with contemporary thoughts concerning equitable access to higher education (Kotecha, 2022).

At the field phase, the capacity development activities were conducted both in-person and online. In February 2021, there were 50 hours of online training for CEIL (stands for: Centre de l'Enseignement Intensif des Langues, i.e. Intensive Language Teaching Center) staff in learning how to create remote learning spaces. These were combined with in-person meetings and pre-recorded videos. Staff later, in October 2022, joined a two-week in-person capacity development program for staff that UPHF in France had set up. There, staff engaged in activities relating to content creation, video editing, and mentorship development. This is in line with best capacity development practices, particularly by embracing technology transfer and practical learning as key facets (National Erasmus+ Office Algeria, 2024).

The EL@AN project created a virtual learning platform shared by all CEILs. This platform supported the development of linguistic skills and multicultural competences among students and personnel, allowed resources to be shared, and promoted knowledge of online pedagogical methods. Some of its strengths are the provision of improved language training online in accordance with the needs of the labor market, a more standardized curriculum in the participating CEILs, and an overall framework connecting Algerian and European institutions. Improved access for rural-based students and enhanced employability are two measurable outcomes demonstrating EL@AN's potential to serve as a model for other countries with similar linguistic and technological issues. The focus of the project on sustainability and collaboration with institutions is an indicator of increased sensitivity to the difficulties of maintaining innovation after initial funding phases. This aspect is an essential component within project impact assessment frameworks (EL@N Project Consortium, 2022; Stufflebeam & Zhang, 2023).

4. Results and Discussion

Before displaying the analysis and results, a quick glance at the EL@N project's aims deem necessary. Overall, it aims to enhance multilingual e-learning capabilities across Algerian universities. Training focus generally on:

Platform Proficiency. Training staff to use e-learning tools (e.g., Moodle, Zoom, or custom platforms) for designing remote French language courses.

Pedagogical Adaptation. Helping instructors transition from face-to-face to online instruction, including creating digital content and managing virtual classrooms.

Technical Skills. Covering aspects like video production, course scripting, and using collaborative online tools

The results and discussion are structured according to the project's key findings, which are further contextualized with existing literature on LSP pedagogy, genre analysis, and educational technology.

4.1. Technology-Enhanced Needs Analysis Implementation

The present section discusses empirical findings based on the qualitative case study of the EL@N project, exploring its implementation of LSP programs through technology-mediated multilingual education platforms. The discussion critically reviews these findings against the theoretical framework of LSP, genre analysis, needs analysis, and technology integration in language learning as covered in the theoretical background. First, a detailed description of the results and effects of the EL@N project is presented; second, a clarification and explanation of the success factors that were essential to its success follows; and third, a comprehensive discussion addresses the research questions and situates the findings within the broader scholarly literature.

Adaptive Learning Trajectories. The consortium implemented personalized learning paths through comprehensive needs analysis. The stakeholders stated that the system adapted content presentation based on learners' learning style, career goals, and current levels of skill. The approach conforms to Al-Huqbani et al.'s (2018) view that LSP courses must adapt to individual learner needs while being pedagogically sound. Similar approaches have been advocated in teaching other LSP, such as Arabic (Al-Huqbani et al., 2018).

Integration of Professional Contexts. The system integrated instruction in the academic program with the needs of different professional fields like healthcare, engineering, tourism, and business very effectively. This corresponds with the argument that ESP courses

should stress "language suited to these activities in terms of grammar, vocabulary, register, study skills, discourse, and genre".

4.2. Digital Transformation of LSP

A key result of the EL@N project was the implementation of a collaborative elearning platform for the CEILs at Algerian institutions. This marked a crucial transition from the isolated use of digital tools to the implementation of a systematic and integrated online teaching framework. The shared platform was deliberately created for a consortium of CEILs, facilitating resource mutualization—a necessary condition for sustainability in resource-limited educational settings (EL@N Project Consortium, 2022). This strategic planning effectively addressed long-term issues concerning technical infrastructures previously identified in Algeria's higher education system (Hamdy, 2007; Miliani, 2019).

The launch of this "integrated e-learning platform" and the subsequent "establishment of online teaching systems" represent not merely technical enhancements, but a profound, systematic commitment to digital transformation in language education (Levy & Stockwell, 2023). Rather than implementing specific digital tools sporadically, the initiative adopted a comprehensive strategy to synchronize digital learning across the university and harmonise pedagogical methodologies. The platform catalyzed pedagogical and institutional revitalisation, establishing an open digital commons for foreign language acquisition that promoted accessibility and quality (Bouchefra, 2016; Saadi, 2022).

This movement represents a significant transition from technology implementation to what scholars refer to as "institutional embedding"—a process in which digital practices are permanently integrated into institutional culture and operations, thereby contributing substantially to impact and scalability (Fullan, 2021; Rogers, 2019). The EL@N initiative exemplifies how digital innovation may be sustainably scaled in higher education environments marked by linguistic variety and infrastructural demands.

4.3. EL@N Project as a Case Study (Objectives, Implementation, Challenges, Outcomes)

The Erasmus+ CBHE program's EL@N project is an good case in point regarding how international education is evolving (European Commission, 2021a). It has done an incredible amount of work filling the gap between what society requires and what higher education language programs provide in a multilingual, technology-driven world (Hyland, 2022).

- Capacity Building and Professional Development. A significant outcome of the EL@N project was the marked improved pedagogical and digital proficiency of CEIL personnel from throughout Algerian universities. This capacity building was achieved through a blended professional growth model that included a 50-hour synchronous/asynchonous online course module in the design approaches of distance learning and a two-week face-to-face instructor training in content scripting, video recording production, and tutoring approaches (National Erasmus+ Office Algeria, 2024). This multi-component approach underscores the project's recognition that technology by itself cannot be effective without teachers well-trained, and this is consistent with best practice among international capacity building efforts (Fullan, 2021a). This focus on capitalizing on the use of ICT for teacher growth addresses a certain need that exists in the Algerian scenario (Guemide & Benachaiba, 2012).

Such a focus upon professional development was not merely a matter of up-skilling; rather, it was a strategic intervention planned to catalyze pedagogical innovation. Providing teachers with targeted skills in digital content production and distance learning the project will more likely indirectly empower a move toward more flexible and technology-enhanced

modes of teaching (Levy & Stockwell, 2023). This illustrates a direct linkage between pointed professional development and the implementation of new teaching practices, those necessary to effective contemporary LSP delivery (Basturkmen, 2014).

Learner Competency and Workforce Alignment. EL@N was very effective in fostering learners' linguistic and intercultural competency, and one highly significant result was improved labor market inclusion of youth (EL@N Project Consortium, 2022b). Measurable outcomes involved broader access for rural students and improved employability readiness, evidencing the project's high socio-economic relevance and learning equity focus (Miliani, 2019). A prime target was online training provision alignment and very detailed socio-economic world needs. This alignment is much required amidst a world economic backdrop of diverging recoveries (International Monetary Fund, 2021).

The project's success in developing language skills and facilitating employment shows a clear line from advanced level learning of languages through socio-economic empowerment and improved integration into the workforce (Djelloul, 2019). This shows the intrinsic value of LSP as a national and personal development tool, particularly for regions facing significant youth unemployment and a misalignment of skills (Benrabah, 2005). The project contributes much towards remodeling the purpose of learning languages from an intellectual pursuit to a strategic means for employment (Dendane, 2020).

Institutional Collaboration and Network Building. The EL@N project catalyzed effective institutional cooperation that led to resource pooling and sharing among and by the CEILs and created a robust network linking Algerian and European institutions (University of Tlemcen, 2023). This type of cooperation among six Algerian CEILs and four partner European institutions is typical of Erasmus+ and creates shared best practice and resource optimization, communication and cooperation that are needed for scaling (Huisman et al., 2021).

This collaboration is a shift from ad hoc, project-based collaboration toward building sustainable, institutionalized networks (Rogers, 2019). The program harmonization and networking of the CEILs constitutes a long-term investment in mutual governance, curricula development, and use of resources (Stufflebeam & Zhang, 2023). This tackles the fundamental sustainability challenge for technology-enhanced initiatives in developing contexts, moving beyond short-term interventions toward building resilient capacity within the education system (Fullan, 2021b).

- Global Visibility and Awareness. The project gained greater worldwide visibility among both educational and socio-economic communities, and helped raise awareness and interest in the relevance of online language learning (Kotecha, 2022). It further resulted in enhanced international mobility schemes, like Erasmus+. This establishes the project's wider impact beyond its immediate beneficiaries as a template for comparable endeavors and adding to the worldwide discussion regarding digital language learning (García & Wei, 2014).

EL@N's success extends beyond its direct output results; it is a springboard for regional and global policy influence (Paltridge & Starfield, 2023). Greater profile and potential as a "scalable model for multilingual, ICT-enhanced LSP initiatives in similar national contexts" ensures that a demonstrated success can inform and guide future policy directions and investment priorities for LSP and e-learning for similar developing and multilingual contexts and can inform the design of future Erasmus+ or national programme initiatives (Saadi, 2022).

The comprehensive outcomes and impacts of the EL@N project are summarized in Table 1, illustrating its multi-faceted success across technological, pedagogical, learner-centric, institutional, socio-economic, and global dimensions.

Table 1.

EL@N Project Outcomes and Impacts

Category	Expected Results of the Project	Project Impact (Short and Long Term)
Technological	Implementation of an e-learning platform for the CEILs	Establishment of online teaching systems
Pedagogical	Improvement of pedagogical and digital skills of CEIL staff in Algerian universities	Improvement of language teaching; Raising awareness and interest in the importance of online language learning
Learner-Centric	Enhancement of learners' linguistic and intercultural competencies	
Institutional/Collaborative	Pooling and sharing of resources between CEILs	Networking of CEILs in Algeria and Europe; Harmonization of programs among CEILs; Enhanced performance of Quality Assurance Units
Socio-Economic/Market Alignment	Better integration of young people into the labor market	Alignment between online training offers and the needs of the socio-economic world
Global/Visibility	Improved international mobility programs such as Erasmus+; Increased international visibility (in academic and socio-economic sectors)	

n.b. The table was realized with the help of AI , but the data were analyzed and gathered by the authors.

4.5. Critical Factors for Successful LSP Program Implementation

Drawing from the project's outcomes and the explicit recommendations in the conclusion, this section identifies and elaborates on the key elements that contributed to the EL@N project's success, offering actionable insights for future LSP initiatives.

- Strategic Multi-Stakeholder Collaboration. Multi-institution and ESP instructor collaboration was essential in establishing realistic, well-focused goals for the EL@N project. Cooperative relationships among higher education, industry partners, and Policymakers were also pointed out in the abstract of the study as significant for program success. In addition, collaboration among subject-matter experts was also required for relevance and factual correctness of the course content. This reaffirms the need for a networked approach, going beyond individual scholarly endeavors in isolation and involving industry and Policymakers, thus ensuring relevance and system support. This conforms to current needs analysis trends that focus on stakeholder engagement and participatory methodologies.

This long-term emphasis on cooperation is more than workload distribution; it is a collaborative model of governance that is essential for contextual relevance and long-term sustainability of LSP programs. Involving an array of stakeholders, the project was confident that it aligned the curriculum with real needs and closed the found gap existing between theory and practice. This also ensured that the initiative attracted broader institutional and

policy support, a component that is integral for its further continuation and reach beyond startup investments

- Integration of Innovative Pedagogical Technologies (including AI). A significant factor was bridging technology with ESP courses to foster innovative pedagogical strategies. Specifically, the use of AI-assisted tools for English language teaching through distance education platforms like Moodle was highlighted. The study also mentioned the integration of next-generation, flexible pedagogical technology tools, such as intelligent tutoring tools and data analysis. This highlights the forward-thinking approach of EL@N in developing advanced technologies beyond basic e-learning, directly addressing the identified gap in literature concerning how emerging technologies can tackle specific LSP challenges.

The blending of AI and smart tooling is more than a new feature addition; it is a move toward personalized and data-driven LSP pedagogy. AI-enabled tooling, through the analysis of data, creates an adaptive learning experience (Assassi & Chenini, 2023) that is customized to a unique individual and delivers actionable output for teachers. This goes from one-size-fits-all toward a more subtle, learner-focused model, one that is especially useful for diverse multilingual environments and for developing highly specialized professional skills.

- Continuous Professional Development and Pedagogical Adaptation. In-serve training, seminars, and continuous workshops were considered necessary for teachers to fine-tune their teaching methods, testing techniques, and textbook writing skills. In addition, professional development programs aimed at providing teachers of ESP with effective practical methods for employing translanguaging. This highlights the continuous need for teacher education, particularly in adjusting to new technologies and novel pedagogies such as translanguaging, essential for multilingual settings. This conceptualization of the teacher's role underlines higher education teaching (Benosmane, 2021).

The emphasis upon continuous professional learning, particularly in translanguaging, positions educators not only as receivers of preparation, but as intrinsic agents of pedagogical change in complex multilingual environments. In providing teachers explicit methods for linguistic diversity, the initiative addresses a main issue in Algerian higher education head-on. This goes beyond learning skills to fostering a pedagogical approach that embraces and makes use of multilingualism and contributes towards a more inclusive and effective learning experience for diverse global audiences. Translanguaging is a new dominant paradigm in bilingual and multilingual teaching (García & Wei, 2014).

- Curriculum Responsiveness and Policy Alignment. A critical factor was the need to rethink the curriculum and align it with job market demands, emphasizing a shift from theory to practice in ESP courses. Additionally, educational policies were recommended to adapt to the multilingual realities of Algerian classrooms, with universities promoting flexible curricula that support multilingual practices. This highlights the dynamic nature of LSP, requiring constant adaptation to evolving labor market demands and supportive educational policies that acknowledge linguistic diversity, aligning with the "workforce alignment" keyword.

The calls for curriculum and policy adaptation are not individual propositions but are rather essential levers for system responsiveness. In calling for flexible, market-congruent curricula and policies that support multilingualism, the project underscores that effective LSP implementation needs structural support from the top down. This assures that individual pedagogical innovations are not solo propositions but are inserted into a supportive institutional and national structure that allows for wider uptake and long-term influence.

Student Preparedness for Digital Learning. It was also advocated that learning institutions offer e-learning platform usage training for incoming or novice students and facilitate growth in their technical competency. This salient argument recognizes that effective integration of technology not only needs well-prepared teachers and high-quality platforms, but also technologically literate students. It responds to the grassroots challenges of shifting into e-learning settings. This aligns with a general need for knowledge about new digital-based higher education practices (Bilouk, 2025).

This guideline advocates for the adoption of holistic digital literacy among students as a central pillar for inclusive and efficient e-LSP. It recognizes that technical access to technology such as the e-learning platform is not sufficient; the learners also require skills and confidence for efficient use and interaction in those spaces. This is particularly important for busy or rurally-based learners who would not have much prior interaction with digital learning, thus the benefits of e-LSP become accessible for all and support inclusivity and learning equity.

The necessary prerequisites for efficient implementation of LSP programs, as we have learned from the EL@N project, are also summarized in Table 2, providing a systematic overview of actionable components.

Table 2.Critical Factors for Successful LSP Program Implementation

Category	Critical Factors
Collaboration & Governance	Collaboration between institutions and ESP instructors; Cooperative relationships between higher education, industry partners, and policymakers; Collaboration with subject-matter experts; Better collaboration between University and labor market
Technology & Pedagogy	Bridging technology with ESP courses; Use of Al-assisted tools for English language teaching; Shift from theory to practice in ESP courses
Professional Development	Regular workshops, seminars, and in-service training for instructors; Professional development programs for translanguaging strategies
Curriculum & Policy	Rethink curriculum and align with job market needs; Educational policies adapting to multilingua realities; Flexible curricula supporting multilingual practices
Learner Support	Training in e-learning platforms for novice students; Support for development of students' technological skills

5. Conclusion

The EL@N project stands as a significant model for the successful implementation of LSP programs through technology-mediated multilingual education platforms, particularly in developing country contexts. The analysis of the project's outcomes and critical success factors reveals a comprehensive approach that effectively bridges the gap between higher education and the socio-economic sector.

The main findings of this research are that there is no strategic multi-stakeholder collaboration, involving institutions, ESP teachers, industry partners, and policy-makers, in establishing appropriate goals and aligning curricula with labour market requirements. Successful implementation of the project would illustrate how the implementation of new teaching technologies, such as AI-assisted applications, can develop personalized and emphasizes the transformativeness of adopting innovative pedagogical technologies, involving AI-assisted applications, for developing personalized, data-informed language learning experiences. In-school teacher training, especially in new technology adaptation and multilingual pedagogical approaches involving translanguaging, is essential for enabling teachers as change-agents. In addition, the study underscores the need for responsive curricula and facilitating educational policies that accommodate the fluid exigencies of the labour market and linguistic realities of heteroglot classrooms. Lastly, conditioning learners for digital learning contexts by developing their technical expertise is essential for ensuring equitable access and efficacious participation in e-LSP applications.

Nonetheless, the project faced significant challenges, including the absence of a working e-learning platform during the early stages of design, a notable absence of IT competency among some educators, and gaps in specialist professional development opportunities provided. These challenges led to difficulties related to shifting into online course design, the influence of traditional face-to-face learning methods, and difficulties for selecting and building materials, often culminating in a lack of sufficient interactivity and realism.

To solve those challenges and rebuild for the continuous success of those endeavors, it is necessary to:

- Finalize a specialized e-learning platform for designers to practice and verify content compatibility with CALL.
- Deliver specialized training in building online courses, content choices, and open-access e-tool selection.
- Get teachers comfortable with their new "pedagogical engineer" position and emphasize creativity and interactivity while creating digital content.
- Establish continuous professional development programs that are specifically contrived for teachers and that assist in closing gaps in command over IT/CALL while creating a knowledge exchange and feedback culture.

The EL@N project raises sustainability through institutional networking and enhanced quality assurance, and offers a model that can be replicated for long-term impact in resource-limited environments. In bringing established LSP theoretical models successfully into complex multilingual and digital contexts, the project fills gaps indicated by the literature effectively. LSP's success in linking language education and national socio-economic objectives makes it a national development force and a force for individual empowerment. The EL@N model, based on its successes and lessons learned from challenges, provides essential insights for future applications for developing specialized language competency, extending digital competency, and facilitating socio-economic integration in similar worldwide contexts.

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