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EAP Assessment through the AI-Integrated and Communicative Lens: The Case of English for Industrial Engineering in Iran

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Abstract

This study examines testing practices employed by Iranian content and language teachers teaching Industrial Engineering in the Iranian higher education context through the lens of task types and approaches. The present study also explores challenges these EAP and ESP teachers face in assessing their students. For the purposes of this study, to these ends, a qualitative research design was adopted with a total of 12 language and content teachers selected as participants. Data were gathered through interviews, observations, and document analysis to explore their assessment practices. The study identified several testing formats used by the teachers, including paragraph writing, reading comprehension passages, translation tasks, multiple-choice questions, and cloze tests. Three dominant assessment methods emerged that included integrative, structural, and traditional. Although traditional methods remained common, there was a growing move toward incorporating communicative and AI-enhanced assessment practices. With regard to challenges in assessing English language skills for engineering students, the themes included deficiencies in the EAP curriculum, the absence of a standardized test, a lack of research-based EAP practice and evaluation, ambiguities in writing syllabuses, unclear goals, the absence of authentic assessment methods, undefined and non-standardized objectives, and a lack of student feedback. This study has implications for the training of EAP educators in developing more effective assessment strategies that align with contemporary technological advances and students' communicative needs in the age of Artificial Intelligence (AI).

1. INTRODUCTION

English for Academic Purposes (EAP) courses have a pivotal role in preparing university students for improved academic performance during their undergraduate and postgraduate studies. The

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large number of educational courses offered in English is a testament to the claim. Teaching and testing are regarded as the central components of these EAP courses. They require their own specialized and unique methodology (Dudley-Evans & St John, 1998). Donesch-Jezo (2012) believes that this unique consideration is due to what learners require, their learning conditions, as well as the type of language used in EAP classes. Netiksiene (2006) notes that general English teaching approaches can be moved to EAP classes.

In the Iranian EAP context, different teaching methods in general English have affected ESP/EAP teaching methodology, with communicative teaching still struggling to find room in Iranian EAP classes (Ghajarieh & Mirzabeigi, 2024). Besides teaching, testing and assessment are affected by new approaches in testing students' knowledge in general English classes. Implementing these testing approaches in the Iranian EAP context is challenging for teachers and students (Kaivanpanah et al., 2021), especially tests focusing on communication and learning-oriented assessment, which has received scholarly attention over the past decades (Fazel & Ali, 2022). Assessment has a crucial role in determining the quality of learners' language learning, building their confidence, and improving their engagement (Dudley-Evans & St John, 1998 as cited in Zaki, 2022). Nevertheless, it has received limited attention in ESP/EAP research.

L2 testing has gone through several eras with approaches such as traditional, structural, communicative, and learning-oriented (Fazel & Ali, 2022; Fulcher, 2000). Among different testing approaches, and due to the importance of communication in ESP/EAP (Biglar Beigi Ghajarieh et al., 2023), communicative language tests are relevant and should be considered in testing and emphasized in teacher training or professional development to improve the assessment competence of ESP/EAP teachers. Such tests assess students' ability to use English to communicate, receive, and understand ideas and information. Communicative language tests focus on language use through creating specific tasks and communicative episodes in class (Bakhsh, 2016). Additionally, due to the popularity of online testing approaches and with the recent advent of AI tools for teaching and testing (Ghajarieh et al., 2022; Owan et al., 2023), recent approaches in assessment tend to integrate communicative tests in ESP with AI and online affordances. The use of artificial intelligence in language assessment represents a significant advancement in evaluating language proficiency through automated processes. AI-based assessment systems have been developed to evaluate various language skills, from automated scoring of spoken responses to automated essay scoring (AES) systems for written production (Caines et al., 2023). These systems employ sophisticated technologies to analyze language performance with high accuracy, often achieving agreement levels comparable to those between human raters. The benefits of AI integration in language assessment are substantial. These technologies provide immediate feedback, enabling more efficient learning and testing experiences (Yong, 2020).

Regarding ESP/EAP programs, it should be noted that the courses are developed in Iran by the Iranian Ministry of Science, Research, and Technology in the form of specialized English courses. In the Iranian universities, both instructors specializing in Teaching English as a Foreign Language (TEFL) and course specialists teaching ESP/EAP courses at universities assess students' achievement in teaching courses (Ghajarieh & Aghabozorgi, 2024). Based on previous studies, students face challenges in learning efficiently in ESP/EAP courses, while teachers find both teaching and assessment difficult (Ghajarieh & Mirzabeigi, 2024). The literature on ESP/EAP indicates that very few studies undertaken in Iran examined the types of tests ESP/EAP teachers employ to evaluate L2 learners' achievement in the ESP/EAP courses. The differences between the testing approaches English teachers and content teachers use are also underexplored. Finally, there is a lack of studies examining ESP/EAP teachers' attitudes toward the challenges of testing these courses.

Besides filling these gaps in the literature, this study aims to provide valuable insights into the integration of AI and communicative approaches in English language assessment for Industrial Engineering students in Iran. By examining testing tasks, attributes, and challenges through this innovative lens, the research is expected to contribute to the improvement of language assessment practices in specialized academic contexts with a focus on communication and AI integrations. It also investigates the assessment challenges ESP/EAP teachers encounter in their Industrial Engineering ESP courses. The following research questions guide this study:

RQ1. What task types do Iranian content teachers use for assessment in the Industrial Engineering EAP course when analyzed through the AI-integrated communicative lens?

RQ2. What task types do Iranian English language teachers use for assessment in the Industrial Engineering EAP course when analyzed through the AI-integrated communicative lens?

RQ3. What testing approaches do Iranian language versus content teachers follow in their assessment of the Industrial Engineering courses?

RQ4. What challenges do EAP teachers encounter in their assessments in the Industrial Engineering EAP courses?

2. LITERATURE REVIEW

Teaching ESP or EAP at the university level brings a set of difficulties that are not easily overlooked. Among these, the problem of limited learner motivation has often been noted (Netiksiene, 2006). Added to this are the pressures created by demanding or high-stakes curricula, which carry their own weight in shaping how instruction unfolds. According to Netiksiene (2006), students who take the General English course offered by the English Department are more motivated than those taking ESP/EAP courses, such as learners from the science department who take English for the sciences. It is also believed that the ESP curriculum could be more demanding for ESP students as they need to be proficient in some specific domains besides their general English proficiency (Mao & Zhou, 2024).

While some challenges are specific to the ESP context, there are others that appear to overlap with general English (GE) teaching as well as with ESP/EAP. Among these, recurring references are made to the integration of technology and the internet into EAP programs (Lawrence et al., 2020). Across the literature, a considerable number of studies have examined aspects such as how ESP/EAP should be delivered, what characteristics define an effective ESP/EAP instructor, and even the question of who should be responsible for teaching these courses. For example, Rajabi et al. (2012) explored how an in-service ESP/EAP teacher training program might influence the beliefs and instructional practices of Iranian instructors, together with its effect on students' academic outcomes.

Evidence from such research indicates a noticeable difference in student performance when comparing those taught by trained ESP/EAP teachers with those taught by instructors lacking such preparation. Basturkmen (2010) has highlighted another layer of complexity: teachers are sometimes required to deal with material from a profession or academic discipline in which they themselves have little or no prior background. In certain cases, this may mean teaching in isolation from other staff, or even working with learners whose subject knowledge exceeds that of the instructor. Hyland (2006) offered a widely cited definition of EAP, positioning it as a form of English language education designed to equip learners to meet the language requirements of academic courses they will encounter at higher levels of study. His definition also brings together related components necessary for a full understanding of EAP, covering areas such as the delivery of pre-university, undergraduate, and postgraduate courses (materials design, lecture delivery, and setting assignments).

These areas can be highly practical and correspond directly to what EAP training requires. Yet, as Hyland notes, EAP is also a theoretical domain incorporating curriculum design, needs analysis, and the development of suitable materials. The scope of EAP is broad and has been intensified by the rapid spread of such programs worldwide. Issues affecting both research and practice are frequently identified, and several are relevant to the present discussion. Hyland (2006) draws attention to the challenge faced by non-native speaker instructors in keeping their professional knowledge up to date. This is not something accomplished solely through giving lectures or completing routine administrative duties. Instead, participation in international conferences, producing and publishing research in English, and contributing to disciplinary discussions are increasingly regarded as standard professional activities.

From a program standpoint, many existing university-based EAP provision models require review if they are to address global needs effectively. In contexts where a systematic approach to pre-service and in-service development is lacking, it becomes difficult to resolve curriculum shortcomings or to sustain a meaningful cycle of curriculum renewal.

Flowerdew and Peacock (2001) discuss what they see as a structural imbalance: much of the literature on EAP originates from native speaker authors, whereas much of the teaching is carried out by non-native speaker instructors. This contrast draws attention to a reality in which research expertise is disproportionately weighted toward one group, despite many NNS practitioners holding strong pedagogical qualifications in TESOL. Professional development, therefore, is argued to be necessary for all instructors, regardless of background, and should include structured workshops aimed at improving the delivery of EAP courses in higher education.

Evaluation remains a central stage in any education system. In language teaching, assessment methods have evolved through distinct eras, each tied to the prevailing pedagogical approach of the time. Instructional methodology and testing frameworks are closely linked—the assumptions underlying the audio-lingual method, for instance, align naturally with discrete-point testing. Historically, language testing has moved through three broad phases: pre-scientific, psychometric-structural, and communicative.

ESP/EAP challenges in Iran highlighted through recent research

In the Iranian EAP context, challenges experienced by both teachers and students are well documented. Eslami (2010) identified discrepancies among learners and instructors in EAP educational settings in Iran. Nazakat Jo and Behzadpour (2014) examined what they saw as the main difficulties of English for Academic Purposes (EAP) in Iranian medical sciences universities, basing their analysis on the perspectives of several groups of beneficiaries in two such institutions. Their findings divided the challenges into three broad types: institutional, learner-related, and teacher-related. From the students' side, one prominent concern was with the EAP examination, which many regarded as primarily an assessment of medical subject matter presented in English, placing heavy weight on translation ability rather than broader academic language skills. Teacher responses showed that they did not take the assessment themselves but drew their impressions from what they observed in colleagues' practices.

Given this background of limitations, the role of the teacher includes finding ways to sustain learner interest and active participation in the EAP classroom. One widely confirmed approach is the use of video as part of instruction. Video resources combine visual and auditory input, offering variety and the possibility for creative integration into lesson content. The availability of an extensive range of video materials allows instructors to introduce updated information— that many existing EAP course books are outdated. These authors encourage the design of learner-centered activities that increase engagement. More recently, Lotfi Gaskaree et al. (2025) identified gaps between theory and practice regarding Critical English for Academic

Purposes (CEAP) principles in Iranian EAP classes. They highlighted enough engagement of instructors and EAP learners with the EAP curriculum based on their needs and teaching practices.

Assessment in EAP Contexts with Technology-Integrated Approaches

Research on assessment within ESP and EAP environments continues to focus on specialized contexts and the question of which assessment type best serves learning aims. Recent studies often compare formative and summative assessments, noting their complementary strengths. For instance, Rachmawati et al. (2023) examined practices among ESP lecturers in Indonesia and Thailand, showing how both forms can be integrated to strengthen learning outcomes.

A wider movement is visible toward integrated, learner-centered assessment models that make fuller use of innovative formats (Ghajarieh et al., 2022). Mauludin et al. (2021) reported on the benefits of using dynamic assessment in ESP classrooms—highlighting the merging of assessment and instruction into a single, adaptive process.

Against this backdrop, the present study examines assessment practices in industrial engineering EAP courses at Azad University in Iran, with a specific aim of evaluating how AI might be integrated into assessment processes within this instructional context.

The reviewed literature shows that challenges and evolving trends exist in the assessment and pedagogy of ESP/EAP. Limited motivation, demanding curricula and resource constraints were the emerging themes in several international studies. These challenges will be compounded in Iranian higher education through institutional, learner, and teacher-related factors. Moreover, contemporary assessment practices in ESP/EAP are shifting toward integrated learner-centered assessment approaches that combine teaching and evaluation, yet the use of artificial intelligence in assessment is still under-researched in ESP/EAP scholarly research. Accordingly, this study positions itself to investigate testing practices of ESP and content teachers in the Iranian educational context.

3. METHODOLOGY

The present research is a qualitative study involving language and content teachers. The data were elicited using four types of instruments: checklists, document analysis, semi-structured interviews, and class observation.

Participants

In the present study, the participants were six language and six content teachers teaching industrial engineering courses at Ershad Damavand Institute of Higher Education in Tehran and two branches of Islamic Azad universities, namely Science and Research and South Tehran branches. They had more than five years of experience teaching ESP/EAP courses. All participants were selected through convenience sampling. They were informed about the objectives of the study and their informed consent was obtained. The research participants in the present study were eight males and four females aged between 35 and 60 with five to 15 years of teaching experience.

Instruments and Materials

Semi-structured Interview

Semi-structured interviews were conducted to obtain data about the attitudes of ESP/EAP teachers on the challenges of evaluation and assessment and their justifications for difficulties and problems of testing ESP/EAP within their context. Tsou and Chen (2014) Framework for ESP Program

Evaluation was used to develop the interview items. The learner assessment section of the framework consists of three components: placement test, proficiency test, and authentic assessment. The authentic assessment component includes paper-and-pen tests and performance assessment. The interview items were also drawn from the literature on ESP/EAP assessment. The researchers informed the participants of the study's purpose and obtained their written consent.

Observation

Two sessions of each teacher's class were observed to gather and later analyze data related to the types of tests administered by the ESP/EAP teachers in their classes and the types of formative assessment they had.

Document analysis through Checklists

Two checklists were developed by the researchers for approaches in testing, as well as the type of tests given by the Iranian instructors. The checklists were developed based on Brown and Abeywickrama (2018), Bachman and Palmer (2010), and Farhadi et al. (2021).

Procedure

The data included the tests developed by the English teachers and content teachers during a semester. The tests included both summative (mid-term and finals) and formative assessments. The formative assessments were recorded through class observation and discussions with the teachers. Two sessions of each teacher's class were observed to examine how formative assessment was conducted in the class. The formative assessment practices were primarily a few questions posed at the beginning of each lesson, alongside occasional writing tasks that students were assigned to complete at the end of some sessions. In the final phase of the study, semi-structured interviews were subsequently conducted with all the participating teachers to elicit their attitudes toward ESP/EAP testing.

Data Analysis Procedure

Following the collection of test samples, the researchers applied their prepared checklists to classify both the type and the frequency of tests used by English instructors and subject-specialist instructors in the industrial engineering context for teaching technical English. In approaching the analysis, each test was read and re-read, with the reviewer spending time to gain a complete picture of its content before moving on to checklist completion. For the interview data, analysis followed an established content analysis framework (Graneheim & Lundman, 2004). This model was taken as the basis for structuring the process, and it was applied after the data had been reviewed in full.

4. RESULTS

Task Types and Formats Used by Content Teachers in EAP Assessment

The first research question was about the testing tasks and formats that Iranian content teachers used in the Industrial Engineering ESP/EAP course. To answer this question, two raters analyzed 44 sample tests collected from the ESP teachers at Ershad Damavand Institute of Higher Education in Tehran and two branches of Islamic Azad universities, namely Science and Research and South Tehran branches. Cohen's Kappa was used to calculate the degree of agreement between the analyses of the two raters.

Table 1: Cohen's Kappa Test to Check the Agreement

Approximate Significance	Approximate T	Asymptotic Standardized Error	Value		
.000	3.844	. 138	.854	Kappa	Measure of Agreement
			12		N of Valid Cases

Table 1 presents a Kappa value of 0.854, indicating a statistically significant measure of agreement. The results indicated that the types of tasks used included writing a paragraph, reading passages, translating texts, defining words, and word formation in multiple-choice and cloze test formats were the types of tasks and formats the content teachers used in their exams. The results are given below.

Table 2: Task Types and Formats Used by Content Teachers

Content Teachers	Types of Tasks and Formats
9	Writing
7	Reading Comprehension
10	Translation
8	Definition
9	Multiple-Choice Questions
5	Cloze Test
8	Word formation

Table 2 presents the types and formats of tasks used by content teachers in their final examinations. As shown, the teachers employed seven main task types: writing, reading comprehension, translation, definition, multiple-choice questions, cloze tests, and word formation. Among these, translation tasks were the most frequent (10 instances), followed by writing and multiple-choice questions (9 each). Definition and word formation tasks appeared with moderate frequency (8 each), whereas cloze tests were the least common (5 instances).

Task Types and Formats Used by Language Teachers in EAP Assessment

The second research question was concerned with the task types and formats that language teachers employed to assess their students in EAP classes. The data were examined by analyzing 22 sample tests given by language teachers. The results given below indicate that writing, reading comprehension, translation, definition, multiple-choice questions, cloze tests, and word formation were the test types the English teachers used in their exams.

Table 3: Test Types and Formats Used By English Teachers and Content Teachers

Content Teachers	ESP/EAP Teachers	Types of tasks and formats
9	11	Writing
7	8	Reading Comprehension
10	9	Translation
8	9	Definition
9	10	Multiple-Choice
5	7	Cloze Test
8	9	Word formation
0	0	Online
Online/Pen and Pencil	Online/Pen and Pencil	Pen and Pencil
0	0	AI-assisted-or-based assessment

Table 3 displays a comparison between types and formats of testing tasks applied on the part of ESP/EAP teachers and content teachers. ESP/EAP teachers used a wider range of tasks, with writing (11 instances) and multiple-choice questions (10) being the most frequent. Content teachers also prioritized translation (10) and writing (9). In contrast, cloze tests were less common among both groups (7 for ESP/EAP and 5 for content teachers). Notably, neither group incorporated online or AI-assisted assessment, relying instead on traditional paper-and-pencil exams.

Table 4 compares the rate of content and language teachers' use of different types of tests. For this purpose, the Chi-Square test was used. The findings of this test are presented in the table below.

Table 4: Differences in the Test Tasks and Formats Used by English and Content Teachers

Asymp. Sig. (2- sided)	df	Value	Statistical Test	Test types and formats
.401	2	5.684	Pearson Chi-Square	Writing (paragraph)
.117	1	5.117	Pearson Chi Square	Reading Comprehension
.502	1	6.412	Pearson Chi Square	Translation
.417	1	3.698	Pearson Chi Square	Definition
.366	1	4.771	Pearson Chi Square	Multiple- Choice
.259	2	7.449	Pearson Chi Square	Cloze Test
.318	1	6.198	Pearson Chi Square	Word formation

As shown in Table 4, across all test formats, none of the Chi-Square tests were statistically significant (all $p > .05$). This indicates both groups of teachers, including content teachers and language teachers, have used the same types of tests with almost equal numbers. Although some differences were observed between the two groups, these variations were not statistically significant.

Comparative Testing Approaches of Content and Language Teachers

Table 5: Test Approaches Used by English Teachers and Content Teachers

Test Approaches	Content Teachers	Language Teachers
Pre-scientific	9	11
Integrative	7	8
Pre-scientific	10	9
Structuralism	8	9
Structuralism	9	10
Integrative	5	7
Structuralism	8	9

To address the third research question, a comparison between the testing approaches of both groups of teachers was made. As shown in Table 5, the English teachers used more structural and integrative test types in their exams. The content teachers, on the other hand, tended to use discrete-point tests. Among the 12 EAP teachers, 40% used the structural method, 29% used the traditional (prescientific) method, and 31% used the integrative method. Meanwhile, neither teacher used any online, formative, and AI-based or integrated assessment.

Reported Challenges in EAP Assessment Practices

As mentioned in the methods section, semi-structured interviews were used to elicit information about the language course assessment of engineering students. For this purpose, 12 content and language teachers were interviewed. A summary of the interviews is given in Table 6. It should be acknowledged that some components were jointly stated by the teachers, and to avoid repetition, each of the mentioned items is indicated only once in the table.

Table 6: Sample Quotes from Interviews Conducted by EAP Teachers

EAP Teachers	Interview data
Teacher 1	One of the most important factors of language learning for engineering students is to learn vocabulary specific to their course. In fact, terms that are specific to engineering courses should be considered as a priority and taught to students and taken into consideration in their language assessment.
Teacher 2	Providing authentic content is one of the basic components in teaching language to engineering students. They should be familiar with the texts written in English and this should be taught to them in the form of translation and reading and evaluated in the same form.
Teacher 3	Language assessment of engineering students should be done in different dimensions, and vocabulary in the form of text, as well as multiple-choice questions, is among the most important dimensions.
Teacher 4	Engineering students must have the ability to analyze English texts, and for this reason, reading comprehension can be a good tool for their language assessment.
Teacher 5	When developing tests in the EAP exams, we should follow the educational objectives of EAP textbooks in the tests as well.
Teacher 6	Course content is considered as the main source of engineering students' assessment, and teachers should pay attention to the objectives and headings of the book when assessing the language.
Teacher 7	Engineering terms should be taught in English. In addition to making sense, definitions of terms should also be considered.
Teacher 8	Writing is one of the most important skills of language teaching to engineering students. It should be kept in mind that engineering students must have the ability to write scientific articles in English in order to be able to connect with prestigious international journals.
Teacher 9	Due to continuous developments in engineering fields, new terms are added to these sciences that may be unfamiliar to students. Word formation helps engineering students to analyze and understand new words.
Teacher 10	I normally develop multiple-choice items and true-false questions in my exams in the EAP course. Using multiple-choice and true-false tests is easy for both teachers and students.
Teacher 11	To find out the level of language knowledge of engineering students, different types of tests should be done. This helps the teacher's overall understanding of students' language knowledge.
Teacher 12	Translation is one of the most important tools that measures the understanding of the terms and grammar of a text. Therefore, translation must be taken into account in language assessment.

Eight challenges have been identified for English language assessment among engineering students.

Table 7: Identified Challenges

Content Teachers	Language Teachers	Challenge
5	6	1. The defectiveness of the EAP curriculum in Iran and the lack of a standardized test for it
6	7	2. The lack of research-based EAP practice and evaluation
5	5	3. In writing syllabi, many points have not been clarified and left unexplained and are unfamiliar for students during assessment
1	2	4. Objectives are broad and sweeping
4	4	5. Selecting standard content and learning standards to determine assessment activities
4	3	6. Selection of authentic assessment
4	5	7. Assessing student work based on the learning objectives
3	4	8. Providing feedback and educating students on using feedback to improve learning

As shown in Table 7, research-based EAP practice and evaluation was the most recurring challenge mentioned by both groups of teachers. This shared top concern points to the fact that they are either unaware of or reluctant to adopt research-informed ESP assessment methods.

The next most pressing problem, according to a majority of both groups, was "the defectiveness of the EAP curriculum in Iran and the lack of a standardized test for it." This reveals a problem that is systemic in nature. Without a clear and consistent curriculum to build upon, any effort to create meaningful assessments is fundamentally undermined from the start. Language Teachers (n=5) were slightly more worried than Content Teachers (n=4) about whether they were properly "assessing student work based on the learning objectives." These minor variations, along with a slightly higher number of challenges raised by language teachers, could reflect their better assessment literacy, possibly developed through professional development programs that are more common in EGP contexts in Iran.

5. DISCUSSION

The results of this study indicate that content teachers and language teachers have employed almost the same types of tests. Albeit minor, these differences were not statistically significant. They used a wide range of assessment types, including paragraph writing, reading comprehension, translation, and multiple-choice questions. A predominant tendency to structuralist techniques shows the teachers still prefer form-focused assessment over more communication and discourse-based assessment forms.

Our results endorse previous inquiries in ESP and EGP settings, including Biglar Beigi Ghajarieh et al. (2023), as they highlighted the notion that authentic communication is predominantly missing in ESP pedagogy and assessment. The tests designed by both language and content teachers in our study revealed a major negligence on the part of teachers to develop tasks aimed at assessing the communicative competence of their students. The results also indicate that the tests were not mostly designed based on authentic readings. As David and Șerban-Oprescu (2019) and Nurmetov et al. (2025) note, the use of authentic materials can improve communicative knowledge of learners in ESP classes, despite possible challenges for grading language content.

Gholaminejad (2022) also emphasized the need for EAP courses tailored to the specific linguistic requirements of different engineering disciplines. Our findings show that such courses need to be updated for assessment benchmarks in Iran, which may be addressed through more communicative approaches to language teaching and testing. As we are in the age of AI, the impact of AI in higher education has been discussed (Chiu, 2024), with a few studies exploring the possible assessment changes in higher education (Urquhart & Ngo, 2026). The implementation of AI-integrated evaluations alongside more formative and learning-oriented assessment alternatives offers a feasible approach. Such changes in assessment practices can incentivize learners by shifting emphasis from assessment of learning (Ghajarieh et al., 2022) toward assessment for learning. Despite the affordances of AI tools for better assessment practices (Mi et al., 2025; Owan et al., 2023), most teachers continued to rely on traditional evaluation methods. The call for integrating AI assessment tools in this study in the ESP reflects those earlier studies in the Iranian ESP contexts, such as Atai and Dashtestani (2011), that emphasized the use of online tools in these courses. As Du and Alm (2024) state, such integration can enhance student engagement. Nevertheless, as Oskoui et al. (2024) report, AI was used as an assistant by Iranian IELTS takers whom they did not fully trust.

The participants also reported a lack of any pre- and in-service programs for EAP teaching and assessment. The findings of this study go beyond previous teacher education studies, such as Shahzadi and Ducasse (2022), which indicated that EAP instructors often have little formal training in assessment. In the case of the Iranian EAP teachers, no pre-service training and targeted professional development were reported by the participating teachers. Lack of pre- and in-service courses and professional development for instructors in Iranian EAP settings may increase the

likelihood that teachers persist in continued reliance on conventional, non-communicative assessment methods. Professional development can be an important component of teacher training courses in EAP courses (Li, 2025). In the observation phase of the study, it did not go unnoticed that formative assessment was not used predominantly by both groups of teachers in the observed classes. This could be related to the general situation of language teaching in Iran and some other countries, where the majority of English teachers have a lower level of language assessment literacy (Zhang & Burry-Stock, 2003). Furthermore, this picture is far gloomier and more intense in the case of content teachers with little or no pre-service training before teaching ESP courses in Iranian universities (Ghajarieh & Mirzabeigi, 2024).

6. CONCLUSION

The study found key barriers preventing the implementation of communicative and AI-enhanced assessment, including limited technological infrastructure and training, resistance to changing established assessment practices, and insufficient mentorship for teachers in using communicative testing approaches. It is notable that even in the case of an integrative approach to assessment, the questions were presented to the students in controlled and guided ways without testing the communicative proficiency of the students. While these challenges were noted by some of the participating teachers in the interviews, their practices showed no inclination toward more communicative and formative assessments.

This supports Koloi Keaikitse and Traynor (2023) finding that assessment knowledge may not necessarily translate into assessment practices. The absence of AI-assisted assessment and the lack of online testing in the Iranian EAP courses, as highlighted in this study, show that EAP testing in Iran is still falling behind in integrating innovative and technology-based testing. This could be because EAP teaching in Iran has failed to adopt updated learning approaches (Ostovar Namaghi et al., 2021). An intriguing finding of this study is that none of the participating teachers mentioned any assessment methods differentiated by academic disciplines, such as engineering or social science subjects.

This study indicates that Iranian higher education needs to revisit its approach to testing English for Academic Purposes (EAP), particularly for engineering students. In place of traditional testing, AI-integrated learner-centered assessment through authentic communication should be prioritized. With professional development, EAP instructors could acquire the skills to align their assessment approach to testing for teaching. To achieve better outcomes in practice, they can implement innovative assessment methods such as oral presentations, collaborative projects, and class discussions as they equip learners with enhanced communicative competency to deal with communication challenges in their engineering studies and future careers.

An effective approach toward inspiring such a shift would be assessing speaking, listening, reading, and writing with ample emphasis. This also entails using tasks such as reading research articles, technical presentations, or problem-solving pertinent to engineering fields. To implement this effectively, educators need to have a comprehensive understanding of the engineering domain. Besides classroom-based formative assessment, Iranian higher education lacks high-stakes standardized EAP tests specifically for Iranian engineering students. The challenges mentioned by the participants of the study also indicated a lack of comprehensive EAP teaching and assessment frameworks developed through a participatory and research-informed approach to curriculum development. Establishing standardized, high-stakes summative assessment tools would constitute a significant step toward materializing such a framework. In short, the creation of a standardized EAP assessment for Iran, one specifically designed for engineers, unlike the more general TOEFL or IELTS, would mark a significant step forward for the country's higher education system.

There are several limitations to this study. The research findings are limited to the samples selected through convenience sampling and may not be generalizable to other educational institutions. The study focused primarily on traditional assessment methods and the integration of AI; however, it did not examine students' views regarding assessment techniques as an important tool in the assessment of EAP instruction. The scope of the study was also limited to three universities in Tehran Province. Other studies in the future can explore assessment practices of content versus language teachers in other disciplines and geographical places. Further qualitative and quantitative studies with a focus on developing standardized summative and more authentic formative tests are also warranted in EAP settings where students come from different fields of study to gain a more vivid picture of the current situation of assessment practices and approaches in these educational settings in Iran. Future research can focus on developing standardized assessment frameworks that complement assessment methods with modern technological approaches.

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