

RESEARCH ARTICLE

Learners' need for an AI-integrated, CEFR-aligned advanced Arabic speaking module based on Nahu Wazifi

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Abstract – As one of the most challenging yet under-cultivated skills, the ability to communicate in Arabic in more accurate and fluent ways, particularly in Malaysia, has frequently been impeded by the use of conventional teaching approaches, which are often teacher-centred grammar instruction. Nonetheless, such approaches often lack communicative relevance, which has resulted in learners' persistent difficulty in producing grammatically accurate and context-appropriate utterances, despite years of formal instruction. As such, to resolve the above limitations, the current investigation sought to examine learners' needs as Phase 1 (needs analysis) of a Design and Development Research (DDR) project for an advanced module of Arabic speaking, which incorporated the *Nahu Wazifi* approach as a functional model of grammar based on real-life language use, supported by the use of artificial intelligence (AI) technologies and the Common European Framework of Reference for Languages (CEFR). With the Technological Pedagogical Content Knowledge (TPACK) framework and the communicative competence theory serving as the foundation, a total of 91 students in their second year of enrolment in an Arabic Language with Communication programme were recruited for the current quantitative survey, which included four key areas, namely educational approaches, CEFR-aligned goals of language proficiency, technological instruments, and the requirements of the learning content. The findings indicated that there was a strong overall need across all four domains, with particular emphasis on the availability of speaking content that could enhance grammatical accuracy, confidence, and practical language use. Learners also expressed strong support for the integration of the *Nahu Wazifi* approach and AI technologies as a key means to provide relevant feedback, flexibility, and opportunities for self-paced learning. Thus, the findings highlighted the importance of developing a learner-centred, AI-integrated, and CEFR-aligned Arabic speaking module grounded in functional grammar. Such a module would be expected to support the development of more fluent, confident, and contextually competent Arabic speakers, particularly within non-native learning environments.

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1. Introduction

As one of the key indicators of the overall competence of learners in learning Arabic as a foreign language, speaking proficiency, especially in Malaysia, involves not only the aspects of accuracy, fluency, and understanding but also the skills to develop grammatically accurate sentences and adapt existing communicative styles based on specific settings, including social, academic, and professional settings. Brown (2007) argued that speaking is usually one of the most complex skills of a language to cultivate among learners, as the process requires the incorporation of a combination of cognitive, linguistic, and socio-pragmatic elements. Learners have consistently demonstrated weaknesses in Arabic speaking, due to teacher-centred, grammar-focused instruction that offers limited communicative practice, which limits the development of communicative competence (Hinkel, 2006; Che Haron, 2013). There were also additional hindrances, including low self-confidence, fear of making mistakes, shyness, and limited opportunities to interact with native speakers. Furthermore, existing classroom environments might not support the practice of speaking Arabic, as there has been the overuse of students' first language without adequate communicative practices, exacerbated by weak grammatical competence, low motivation, anxiety experienced during speech, poor pronunciation, and limited vocabulary (Che Haron et al., 2025; Gu & Ismail, 2024).

The above gap in teaching methods has contributed to the growing acceptance of the *Nahu Wazifi* approach, which serves as a functional grammatical framework that prioritises the communicative use of language over traditional syntactic analysis based on *'I'rāb* (referring to the change in the final state of a word (whether nominative, accusative, genitive, or jussive) within a sentence, triggered by governing factors that may be explicit (*zāhir*) or implicit (*taqdīr*) (Sibawayh, 1988). Particularly, the approach conceptualises language as a framework of operations, which can foster different interactions in daily contexts by focusing on the functional role of language elements, including verbs, nouns, and particles, in conveying intended meaning instead of on parsing or case endings (*'I'rāb*) (Sayed, 2020). One of the key characteristics of *Nahu Wazifi* is the use of context-specific language, in which instruction on grammar will be based on more meaningful contexts and purposeful actions, allowing instruction on grammar to be more relevant, accessible, and

applicable in real-world settings of communication, especially for learners of non-native languages (Tominaga, 2019). In addition, *Nahu Wazifi* acts as an instructional approach catered to actual activities of communication, which can assist learners in having a deeper understanding and creating grammatical structures by referring to direct experience instead of instruction that frequently concentrates on rote memorisation, formal rules, and case endings in isolation from real-world scenarios and the sole delivery of theoretical knowledge (Rabab'ah, 2019). As such, *Nahu Wazifi* can allow learners to apply learned grammar spontaneously in actual contexts of communication, further supporting the cultivation of oral skills (Hariri, 2021), which include the use of verbal predicates, nominal sentences, and object constructions in context-specific and effective ways (Adeel, 2002).

As demonstrated by recent studies (Hariri, 2021), when the educational method focuses on functional grammar, the outcomes will be higher levels of learner motivation, self-assurance, critical thinking and communicative competence, which can foster a more collaborative and interactive learning environment and enhance grammatical accuracy. Additionally, learners can more effectively transition from rote memorisation to a more dynamic use of different grammars, which can help reduce the disparity between receptive and productive language competencies (Ali, 2017; Al-Hallaq, 2017). Accordingly, a more effective educational framework can be offered by *Nahu Wazifi*, which is in line with the contemporary principles of teaching communicative language, hence more effectively fulfilling the requirements of learners in the current multilingual and socially interactive contexts. Concurrently, the Common European Framework of Reference for Languages (CEFR) has been increasingly employed as an international standard in the reformative journey of language teaching (Council of Europe, 2020), including in the assessment of the communicative proficiency degree of non-native Arabic speakers, as the framework can offer clearer and more structured indicators of speaking proficiency across different levels in more objective ways. For instance, C1-level descriptors concentrate on the degrees of flexibility, fluency, and the capability to employ complex sentence structures in both academic and professional settings (Council of Europe, 2020).

Alternative opportunities have emerged from the Fourth Industrial Revolution (4IR), especially in facilitating the incorporation of AI tools into language education, to promote innovation in the educational landscape. For instance, Mudawy (2025) demonstrated that automated corrections of grammar, chatbots, and feedback systems on accurate pronunciations could help foster self-directed learning, boost learner motivation, and catalyse the learning pace of Arabic speakers. Nonetheless, there remains a disparity in having more holistic modules of advanced speaking, which can more effectively incorporate the *Nahu Wazifi* approach with the CEFR and AI technologies, particularly when fragmentation continues in the current educational landscape, due to the use of traditional, generic, or misaligned modules, with the latest communicative preferences and requirements of non-native learners. Additionally, the role of learners as the primary end users has frequently been overlooked, which has reduced the contextual relevance and effectiveness of instructional design. Hence, the present study aimed to resolve the above gaps by fulfilling the following research objectives, namely, (i) to appraise the requirements of learners in having an advanced Arabic speaking module according to the current level of proficiency in academic environments and workplaces, (ii) to determine the educational requirements of learners for more effective instruction on speaking through the use of the *Nahu Wazifi* approach, which prioritises contextual usage, and (iii) to explore the technological requirements of learners in improving speaking competencies by adopting AI-embedded tools and aligning with CEFR descriptors.

1.1 Challenges in Arabic Speaking Acquisition among Non-Native Learners

The acquisition of Arabic speaking skills among non-native learners remains particularly challenging in contexts where Arabic is taught as a foreign or third language, as speaking often necessitates real-time processing and the use of a mix of cognitive, linguistic, and socio-pragmatic competencies, reflecting speaking as one of the most challenging skills of different languages (Brown, 2007; Hinkel, 2006). The above challenge has also been aggravated in Malaysia, owing to the environment with limited exposure to the contextual use of Arabic, especially when instruction on the language has been mainly restricted to academic and religious contexts. In a similar vein, existing studies have continually revealed a disparity between the grammatical knowledge of learners and the competence to spontaneously speak the language in grammatically accurate ways (Halali et al., 2022), in which learners with a higher level of formal knowledge constantly encountered challenges in producing more accurate and fluent speeches in academic environments. Additionally, Brosh (2021) indicated the presence of recurrent errors related to syntax among the undergraduate learners of Modern Standard Arabic, especially in the use of definiteness, prepositions, and grammatical agreement, which adversely impacted the level of clarity of communication, mainly owing to the use of teacher-centred educational methods without more meaningful practice of the language in actual settings of communication (Che Haron, 2013). Particularly, oral skills in higher education have often been neglected, as the focus has shifted towards reading and structural analysis, which has reduced the opportunities for learners to engage more in speaking with one another. As such, the above disparity, according to Almelhes (2024), has impeded the cultivation of communicative competence, which has emphasised the importance of having educational methods that concentrate on authentic language use and learner engagement.

1.2 Functional Grammar, Technology Integration, and Pedagogical Gaps

To resolve the constraints of teacher-centred methods on language learning, the *Nahu Wazifi* (functional grammar) approach, which was introduced by Daud Abduh in *Nahwa Ta'lim al-Lughah al-'Arabiyyah Wazifiyyan* (1979), has emerged as a pertinent educational model which embeds grammatical structures within the actual contexts of communication. As a result, grammar has been reconceptualised as a functional tool for generating different meanings

instead of acting as an abstract system of grammatical rules. Prior researchers also explained that the above approach could support learners in producing more coherent and context-specific communicative outputs, as reflected in higher levels of Arabic speaking proficiency. For example, Ilhami et al. (2021) demonstrated profound enhancements in learners' speaking skills when contextualised learning was included through digital channels in existing educational methods. AlSalem (2025) also discovered that instruction on functional grammar, which corresponded to learners' requirements and was supported by the use of relevant technologies, could assist in increasing the awareness of phonology and the cultivation of speaking skills.

Recently, scholars have demonstrated the increasingly important role played by digital technologies, particularly AI, in the education on Arabic language, wherein generative AI can help support the process of instructional design and evaluation, although there have also been concerns about the degrees of language accuracy and cultural authenticity, which necessitates the key principles of technological integration (Alkaabi & Almaamari, 2025). In a similar vein, technology can assist in improving instruction on language most effectively when the process is consistent with intended educational objectives and learners' requirements (Kassim et al., 2024). Furthermore, other researchers have revealed that culture-specific, interactive, and technology-embedded learning contexts can help lower learner anxiety and foster more authentic practice of speaking skills (Faryat, 2025; Mufidah et al., 2025; Yerima & Madjid, 2025). Evaluations that correspond to the intended goals of education can also improve the level of the quality of feedback provided and learning outcomes in the process of cultivating speaking competencies (ElMeftahy, 2025). Nonetheless, there have been three key gaps continuously present in the current body of knowledge. In particular, *Nahu Wazifi* has been underutilised as one of the key models in systematically developing modules related to advanced Arabic speaking, with the alignment with the CEFR also discovered to be scarce, which has limited the comparability and benchmarking of learning outcomes relative to the global standards. Moreover, learners' perspectives have rarely been incorporated in the development of different learning modules, although learners play key roles in ensuring more effective instruction. As such, a more holistic framework, which incorporates CEFR-based goals, functional grammar, and education-focused technological support, can aid in reinforcing the effectiveness of instruction on Arabic speaking in higher education.

2. Methodology

2.1 Research Design and Sampling

In the current study, a quantitative survey design was employed to assess students' needs for the development of an advanced Arabic speaking module, as this approach could allow for systematic data collection within authentic learning environments (Creswell, 2012). Specifically, this study represented Phase 1 (Needs Analysis) within a broader Design and Development Research (DDR) framework, which comprised iterative phases of needs analysis, design, development, and evaluation, and serves to inform subsequent module development. Convenience sampling was used to disseminate online surveys via Google Forms to all accessible learners enrolled in their second year of the Bachelor's Degree of Arabic with Communication (Honours) at the Faculty of Major Language Studies, Universiti Sains Islam Malaysia (USIM) (N = 110) using official academic channels of communication. Using Google Forms could allow a more efficient reach to the target population with lower cost and minimal time (Creswell, 2012). The sampling approach was methodologically suitable, especially when there was a small and readily accessible population (Lavrakas, 2008; Etikan & Bala, 2017). In addition, according to the Krejcie and Morgan (1970) sampling table, the minimum sample size recommended for the current study was 86 respondents, with a total of 91 students responding, which surpassed the threshold. In sum, all respondents, who were scheduled to enrol in the newly introduced course of Advanced Arabic Speaking (BAL3832) in Semester 1 of the 2025/2026 academic batch, represented the intended end-users of the developed module.

2.2 Research Instrument and Data Collection

The main research instrument in the present investigation was a self-reported questionnaire, which was developed to determine the needs of Arabic learners in terms of the content of the module, pedagogy, and technology integration based on two theoretical underpinnings, namely (i) the communicative competence theory by Canale and Swain (discourse, linguistic, sociolinguistic, and strategic components) (Brown, 2007) and (ii) the technological pedagogical content knowledge (TPACK) model by Mishra and Koehler (incorporating pedagogy, content, and technology in instructional design) (Hinkel, 2006). All measurement items developed in the current study were conducted according to the holistic review of the existing body of knowledge on pedagogy for Arabic-speaking learners, methods for teaching functional grammar, and technology-empowered learning of language to guarantee satisfactory degrees of theoretical alignment and contextual relevance. In the current study, the questionnaire comprised a total of 32 items, which were arranged into six sections, namely, Section A (Demographic Information, five items), Section B (Needs for Module Content – Advanced Arabic Speaking, six items), Section C (Needs for the *Nahu Wazifi* Approach, six items), Section D (Needs for Artificial Intelligence (AI) Integration, seven items), Section E (Needs Based on CEFR Speaking Descriptors focusing on B2 and C1, six items), and Section F (Others: Suggestions and Priorities, two items), with Sections B to E using a five-point Likert scale, which ranged from 1 as Strongly Disagree to 5 as Strongly Agree.

To guarantee sufficient degrees of reliability and validity, the instrument was reviewed by three specialists in teaching Arabic language, language evaluation, and technology-embedded education on language, respectively, in terms of alignment with constructs, clarity, and relevance of the measurement items. The feedback collected from the experts was applied to refine certain wording and enhance the level of conceptual coherence, such as including one closed-ended

measurement item related to the preference of module formats and another open-ended item for gathering further suggestions. Subsequently, a pilot study, which involved a total of 40 learners from a comparable academic background, was performed before actual data collection. Accordingly, reliability measured through Cronbach's alpha demonstrated a value of .955, which surpassed the threshold of internal consistency (Tavakol & Dennick, 2011). Simultaneously, item-total correlations were appraised to guarantee that each of the measurement items could meaningfully contribute to the overall measurement of the study constructs, wherein the results demonstrated a high level of internal coherence across the instrument. Before answering the surveys, an introductory statement, which described the study purposes, assurance of information confidentiality, and consent declaration, was provided to each of the respondents.

2.3 Ethical Consideration

Ethical standards were maintained throughout the entire research process, in which the participation of respondents was ensured to be fully voluntary, and they were also informed of the purpose of the current study before answering the surveys. Concurrently, informed consent was acquired. All surveys were completed anonymously. Specifically, no personally identifiable information was gathered. All collected data were employed only for research purposes, thereby guaranteeing data confidentiality and safeguarding the privacy of respondents.

2.4 Data Analysis

The collected data were analysed on the SPSS version 27 software, wherein descriptive statistics, including means (M), standard deviations (SD), frequencies, and percentages, were calculated to help summarise the responses in every area. All measurement items were interpreted according to their mean scores, with higher mean scores interpreted as higher perceived needs for the formulation of the advanced module on Arabic speaking by adhering to the established guidelines of classification (Jamaludin, 2019; Saad et al., 2013; Mohd Majid, 2002), as depicted in Table 1. Furthermore, inferential statistical tests were performed to investigate the variations in the overall needs of learners, wherein an independent samples t-test was administered to discover whether there were significant variations between genders, with a one-way ANOVA also conducted to appraise variations based on self-reported Arabic levels of speaking proficiency. Meanwhile, responses to the open-ended item in Section F were analysed using a two-stage thematic analysis approach (Merriam, 2009). In the first stage, open coding was conducted to identify recurring ideas in the students' responses, followed by analytical coding, in which related codes were grouped into broader categories to represent key themes relevant to the development of the proposed module. The frequency of each of the themes was computed to reveal the level of relative emphasis and to supplement the quantitative results.

Table 1

Interpretation of Mean Score and Standard Deviation (SD)

Mean Score	Interpretation Level	General Description
1.00-1.49	Very Low	Very Insignificant Need / Strongly Disagree
1.50-2.49	Low	Insignificant Need / Disagree
2.50-3.49	Moderate	Moderate Need / Neutral
3.50-4.49	High	Significant Need / Agree
4.50-5.00	Very High	Very Significant Need / Strongly Agree

3. Results

The current survey results were relevant to the self-expressed requirements of learners (content needs, preference for the *Nahu Wazifi* approach, the adoption of AI technologies, and proficiency standards in line with the CEFR), which were referred to when developing a more effective module on advanced Arabic speaking. These encompass:

3.1 Demographic Data

Table 2 presents that a majority of the respondents were female (64%, $n = 58$) compared to their male counterparts (36%, $n = 33$). In terms of the age of the respondents, it was demonstrated that the majority of the respondents were aged between 20 and 21 years old (90.1%, $n = 82$), whereas only nine participants were between 22 and 25 years old. Notably, more than two-thirds of the respondents achieved the Malaysian Higher Religious Certificate or *Sijil Tinggi Agama Malaysia* (STAM) / (72.5%, $n = 66$), followed by approximately 22% ($n = 20$) Malaysian Higher School Certificate or *Sijil Tinggi Persekolahan Malaysia* (STPM) and only five (5.5%) who had completed their matriculation or diploma programmes. Regarding the respondents' Arabic speaking proficiency, the results suggested that more than half of the respondents were at the intermediate level (61.5%, $n = 56$), followed by weak (17.5%, $n = 16$) and good (16.5%, $n = 15$). Moreover, three respondents (3.4%) could be considered very weak, and only one respondent (1.1%) could be considered very good. Furthermore, more than half of the respondents (58%, $n = 53$) indicated that they had participated in at least one course related to Arabic communication, whereas the remaining 41.8% ($n = 38$) did not. Based on the demographic data presented in Table 2, most respondents (78%) reported having intermediate ($n = 56$, 61.54%) to good ($n = 15$, 16.48%) levels of proficiency in Arabic speaking, which indicated that the need for students to engage in an advanced Arabic speaking module was both profound and sustained, serving as a strategic effort to enhance their oral Arabic communication

competence towards higher proficiency levels, specifically from B2 (upper-intermediate) to C1 (advanced) according to the CEFR.

Table 2

Respondents' Demographic Characteristics

Demographic	Category	Frequency (N)
Gender	Male	33
	Female	58
Age	20	42
	21	40
	22	5
	23	3
	25	1
Educational Background	STAM*	66
	STPM*	20
	Foundation/Matriculation	1
	Diploma	4
Current Arabic Speaking Proficiency in Daily or Academic Situations	Very Weak	3
	Weak	16
	Intermediate	56
	Good	15
	Very Good	1
Participation in a course related to Arabic communication has occurred	Yes	53
	No	38

*STAM: *Sijil Tinggi Agama Malaysia/Malaysian Higher Religious Certificate*, STPM: *Sijil Tinggi Persekolahan Malaysia/Malaysian Higher School Certificate*.

3.2 Content Needs of the Advanced Speaking Module

Based on Table 3, it was reflected that there were needs of the learners for the content of the proposed advanced module on Arabic Speaking to concentrate more on strategic competence, accuracy in grammar, confidence in language, and the functional use of Arabic in actual contexts, including academic and professional, with all six measurements items attaining mean scores above 4.50, which implied a substantially high degree of consensus among respondents and that the module was in line with the communicative priorities in Arabic speaking at an advanced level among the learners.

Table 3

Students' Needs Regarding the Content of the Advanced Speaking Module

No.	Statements	M	SD
1.	I need this module to improve my confidence in speaking Arabic.	4.60	0.65
2.	I need this module to help me overcome difficulties in structuring correct sentences when speaking.	4.60	0.61
3.	I need this module to learn strategies to overcome challenges in Arabic-speaking.	4.62	0.61
4.	I need this module to enhance my speaking skills in real-life contexts.	4.55	0.62
5.	I need this module for effective communication in Arabic to support my academic success.	4.58	0.67
6.	I need this module for effective Arabic communication in professional or career development.	4.62	0.66
	Total	4.60	0.58

The highest mean scores were observed in both Items 3 ($M = 4.62$, $SD = 0.61$) and 6 ($M = 4.62$, $SD = 0.66$), and the results implied that it was important to resolve challenges encountered in speaking Arabic more effectively, especially in professional contexts, indicating that learners were highly motivated by both functional enhancement and future career applicability provided by the module. Furthermore, Items 1 ($M = 4.60$, $SD = 0.65$) and 2 ($M = 4.60$, $SD = 0.61$) indicated a higher level of agreement among respondents, which emphasised the importance of enhancing learners' self-assurance and resolving challenges in forming structural sentences, highlighting the relevance of incorporating effective methods of teaching contextual grammar, especially *Nahu Wazifi*. Although Items 5 ($M = 4.58$, $SD = 0.67$) and 4 ($M = 4.55$, $SD = 0.62$) demonstrated relatively lower scores, both items reflected higher requirements for having sufficient support in academic communication and improving speaking competencies in actual contexts. The relatively lower scores for actual contexts implied limited exposure to Arabic as a spoken language in daily life in Malaysia. Summarily, the overall mean

score of 4.60 ($SD = 0.58$) indicated a profoundly high degree of content-related needs, which supported the development of a more goal-oriented and structured module on advanced Arabic-speaking, which could help support CEFR-based performance growth and increase learners' self-assurance in authentic settings of communication.

3.3 Needs for the Nahu Wazifi Approach

Respondents conveyed the importance of using the *Nahu Wazifi* approach to improving proficiency in Arabic speaking, which was measured through dimensions, including ease of forming sentences, the understanding of functional grammar, relevance of the approach, and the influence of the approach on practical communication and learning engagement. All mean scores (M) and SD values were acquired from the six relevant measurement items rated on a five-point Likert scale (see Table 4). Accordingly, the highest mean score was attained by Item 4 ($M = 4.30$, $SD = 0.71$), which indicated a higher recommendation of context-specific instruction on grammar to assist in fostering a deeper understanding of Arabic sentence structures. In addition, as observed in both Items 5 ($M = 4.26$, $SD = 0.80$) and 1 ($M = 4.25$, $SD = 0.71$), there were higher mean scores and SD values, further confirming the relevance of the *Nahu Wazifi* approach in educating grammar according to its key functions in actual contexts of communication. In a similar vein, in Item 2, there was the same mean score ($M = 4.25$, $SD = 0.66$), highlighting the practicality of *Nahu Wazifi*. Meanwhile, Item 3 had the lowest mean score ($M = 4.14$, $SD = 0.72$) relative to other items, despite being regarded as high, which suggested that speaking practices could be fostered through the *Nahu Wazifi* approach. Similarly, Item 6 ($M = 4.23$, $SD = 0.72$) reflected positive acceptance, although the results were slightly below those of other items. In sum, the overall mean score was 4.24 ($SD = 0.62$), reflecting a higher degree of consensus among respondents in terms of the benefits of using *Nahu Wazifi* to promote the cultivation of speaking skills.

Table 4

Students' Needs Regarding Utilising the *Nahu Wazifi* Approach

No.	Statements	M	SD
1.	I understand sentence structure better when grammar is taught based on its function in context.	4.25	0.71
2.	I can construct Arabic sentences more easily using the <i>Nahu Wazifi</i> approach.	4.25	0.66
3.	The <i>Nahu Wazifi</i> approach helps me think more practically when speaking.	4.14	0.72
4.	I better understand word roles in sentences when grammar is taught contextually.	4.30	0.71
5.	I find the <i>Nahu Wazifi</i> approach more relevant than traditional grammar methods.	4.26	0.80
6.	The <i>Nahu Wazifi</i> approach facilitates my interaction with lecturers and peers during learning.	4.23	0.72
	Total	4.24	0.62

3.4 Needs for Artificial Intelligence (AI) Use

Table 5 illustrates different needs of learners pertinent to the use of AI tools to help enhance the proficiency level of Arabic speakers, with relevant measurement items concentrating on their experiences and expectations of AI features, such as amendments of errors, flexibility in learning, chatbots, and speech-to-text feedback, and the need for technical preparedness. In particular, Item 4 was discovered to have the strongest agreement ($M = 4.37$, $SD = 0.71$), which reflected a higher preference for more adaptive contexts of learning using AI tools. Additionally, Items 7 ($M = 4.23$, $SD = 0.75$) and 6 ($M = 4.22$, $SD = 0.76$) had higher scores, which indicated that learners appreciated adequate structured guidance for the effective use of AI technologies. Similarly, Item 1, which was about how learners enjoyed speaking practices through chatbots, attained relatively higher scores ($M = 4.24$, $SD = 0.83$), which implied positive experiences with interactive technologies. Meanwhile, items, which were related to specific functions, including amendments of errors (Item 2, $M = 4.13$, $SD = 0.87$), awareness of pronunciation through speech-to-text technology (Item 3, $M = 4.20$, $SD = 0.81$), and self-directed enhancements (Item 5, $M = 4.19$, $SD = 0.83$), had relatively lower mean values, despite being perceived positively, reflecting that learners were in the journey of exploring or adapting to the above functions. Summarily, the overall mean score of 4.23 ($SD = 0.68$) ascertained a high degree of needs and positive attitudes towards the use of AI technologies, especially when there would be sufficient guidance and a user-friendly design.

3.5 Needs According to CEFR Speaking Proficiency (B2-C1)

The present investigation focused on how learners' perceived personal learning requirements related to achieving a higher degree of proficiency in Arabic-speaking, especially at the B2 and C1 levels, involving important speaking competencies, including spontaneous delivery, argumentation, fluency, and stylistic adaptability, all of which were essential for advanced academic and professional communications. Specifically, the results revealed that learners emphasised the capability to have conversations related to academic, social, or professional topics as the most important aspect ($M = 4.22$, $SD = 0.83$), followed by the importance of adapting language styles based on the types of audiences and circumstances ($M = 4.14$, $SD = 0.80$). Additionally, the learners recognised the importance of incorporating both the *Nahu Wazifi* approach and AI technologies to assist in fulfilling CEFR expectations ($M = 4.11$, $SD = 0.78$). Collectively, the above results suggested a higher degree of metacognitive awareness among learners regarding the context-specific requirements of speaking competencies. Meanwhile, despite being relatively lower than other items, there were items with positive

mean scores, namely, structured delivery of content in spontaneous ways ($M = 4.04$, $SD = 0.82$) and coherent expression of arguments ($M = 4.09$, $SD = 0.81$). In sum, the overall mean score was 4.12 ($SD = 0.74$), which implied a higher degree of perceived needs for the CEFR, wherein CEFR descriptors should be referred to when developing a module related to Arabic speaking to more effectively support learner progression (see Table 6).

Table 5

Students' Needs Regarding AI Use

No.	Statements	M	SD
1.	I enjoy practising Arabic speaking using AI chatbots.	4.24	0.83
2.	AI applications help me quickly identify and correct my speaking errors.	4.13	0.87
3.	Speech-to-text technology helps me recognise my pronunciation weaknesses.	4.20	0.81
4.	The use of AI makes learning more flexible and accessible anytime.	4.37	0.71
5.	I believe AI can enhance my speaking skills through self-learning.	4.19	0.83
6.	I need technical support to use AI applications effectively.	4.22	0.76
7.	I need technological skills training to confidently use AI applications.	4.23	0.75
	Total	4.23	0.68

Table 6

Students' Needs Regarding CEFR Speaking Proficiency (B2-C1)

No.	Statements	M	SD
1.	To speak clearly on familiar topics in daily situations.	4.12	0.84
2.	To participate in conversations about social, academic, and professional issues.	4.22	0.83
3.	To express arguments and opinions fluently and coherently across various contexts.	4.09	0.81
4.	To adapt my language style to suit different situations and audiences.	4.14	0.80
5.	To deliver spontaneous, coherent, and structured oral presentations.	4.04	0.82
6.	I believe that integrating <i>Nahu Wazifi</i> and AI helps me achieve the Arabic speaking level aligned with CEFR standards (B2–C1).	4.11	0.78
	Total	4.12	0.74

The overall analysis revealed four key themes related to the learners' requirements in learning a language, namely, the content of the learning module, educational approach (*Nahu Wazifi*), the use of AI technologies, and CEFR-based speaking proficiency. Particularly, there was a clear hierarchy of needs, wherein, as demonstrated in Table 7, the theme of the advanced speaking module content ($M = 4.60$, $SD = 0.58$) attained the highest mean score, which indicated strong anticipations for more structured learning materials to help develop self-assurance, accuracy, and contextual fluency in Arabic, thereby necessitating a learner-centred and content-rich module corresponding to actual communicative functions. Moreover, the *Nahu Wazifi* approach ($M = 4.24$, $SD = 0.62$) and AI integration ($M = 4.23$, $SD = 0.68$) achieved relatively higher scores, which implied that learners preferred more innovative methods of teaching functional grammar, supported by emerging digital technologies, to have more autonomous and personalised learning in improving personal oral communication skills. Meanwhile, despite having relatively lower scores, CEFR-aligned speaking proficiency ($M = 4.12$, $SD = 0.74$) was also perceived as important, which reflected that learners understood the importance of referring to international benchmarks. The overall mean score of 4.30 ($SD = 0.52$) demonstrated a consistently higher level of needs across all aspects examined above.

Table 7

Overall Needs for an Advanced Arabic Speaking Module Based on *Nahu Wazifi*, AI, and the CEFR

Section	Element	M	SD
1.	Advanced Speaking Module Content	4.60	0.58
2.	<i>Nahu Wazifi</i> Approach	4.24	0.62
3.	Artificial Intelligence (AI) Use	4.23	0.68
4.	CEFR Speaking Proficiency (B2-C1)	4.12	0.74
	Total	4.30	0.52

To determine whether statistically significant variations existed in the overall needs for the advanced module on Arabic speaking across all areas between male and female learners, the independent samples t-test was conducted, which revealed that female students ($M = 4.35$, $SD = 0.46$) had relatively higher needs than their male counterparts ($M = 4.20$, $SD = 0.60$) (refer to Table 8). Nevertheless, the above variation was not statistically significant ($t(89) = -1.322$, $p =$

0.190), which implied that both genders demonstrated similar perceptions regarding the importance of the module. Concurrently, the mean difference was small (- 0.15), with the 95% confidence interval (- 0.37, 0.07) including zero, which affirmed the absence of statistical significance. Notwithstanding, as indicated by the effect size, namely, a Cohen's d of 0.51, there was a moderate effect, which suggested that female students would tend to have a higher need for the module than male students. In sum, gender would not serve as a major determinant of requirements in acquiring Arabic speaking skills.

Table 8

Independent Samples t-test for Students' Needs on Advanced Arabic Speaking Module Content by Gender

Gender	N	<i>M</i>	<i>SD</i>	<i>t(df)</i>	<i>p</i>	Mean Diff.	95% CI (LL, UL)	Cohen's
Male	33	4.20	0.60	-1.322 (89)	.190	-0.15	[-0.37, 0.07]	0.51
Female	58	4.35	0.46					

A one-way analysis of variance (ANOVA) was conducted to compare learners' overall needs for the advanced Arabic speaking module (in all areas) across different self-reported proficiency levels in Arabic speaking (Very Weak, Weak, Moderate, Good, and Very Good). Nonetheless, before conducting the ANOVA, the assumption of homogeneity of variances was tested using Levene's test, in which the results revealed that the assumption was marginally fulfilled ($F [3,86] = 2.696$, $p = .051$), suggesting that the variances across groups were reasonably equal and the ANOVA results could be effectively interpreted. Furthermore, the statistics (see Table 9) demonstrated that the group with the highest mean score was Very Weak ($M = 4.94$, $SD = 0.02$), followed by Very Good ($M = 4.96$), Good ($M = 4.38$, $SD = 0.40$), Moderate ($M = 4.25$, $SD = 0.53$), and Weak ($M = 4.22$, $SD = 0.52$), which indicated that students with both very low and very high proficiency levels tended to express relatively higher needs for the module compared to those with intermediate degrees of proficiency. Meanwhile, the one-way ANOVA indicated that there was no statistically significant variation in the overall needs among the five proficiency groups ($F [4, 86] = 1.948$, $p = .110$), which reflected that, despite having descriptive observations of the mean variations, they were not sufficiently large to achieve statistical significance.

Table 9

One-Way ANOVA Results for Students' Needs Across Different Levels of Arabic Speaking Proficiency

Source of Variation	Sum of Squares	<i>df</i>	Mean Square	<i>f</i>	Sig.
Between Groups	1.998	4	0.5	1.948	0.11
Within Groups	22.058	86	0.256		
Total	24.056	90			

In the present investigation, the preferences of the respondents for the format to be employed in the module on advanced Arabic-speaking when it was completed were investigated, together with their suggestions for. In particular, it was demonstrated that most learners (76.9%) preferred both printed and digital formats, followed by 16.5% the printed format and 6.6% the digital format, which implied that learners emphasised higher levels of flexibility in accessing learning materials and the use of multimodal delivery methods to accommodate different learning environments, especially the post-pandemic contexts, and learners' requirements (refer to Table 10).

Table 10

Preferred Module Format

Module Format	Frequency	Percentage
Hardcopy	15	16.5
Softcopy	6	6.6
Both	70	76.9

3.6 Open-Ended Feedback Analysis: Students' Suggestions for the Advanced Arabic Speaking Module

Figure 1 depicts the suggestions of learners regarding the formulation of the module on advanced Arabic-speaking, which were thematically categorised into the groups of practical application, content and structure, skill development, and technological integration, offering deeper perspectives on the areas of priorities and educational implications for future design of relevant learning modules. Specifically, the most predominant theme was skill development, wherein seven responses anticipated that the course and the module could assist in improving Arabic language fluency, self-assurance, and overall communicative skills, including:

"I hope this helps me become more skilled in speaking Arabic." (S5)

"I hope I can speak Arabic fluently, whether in formal or casual language." (S6)

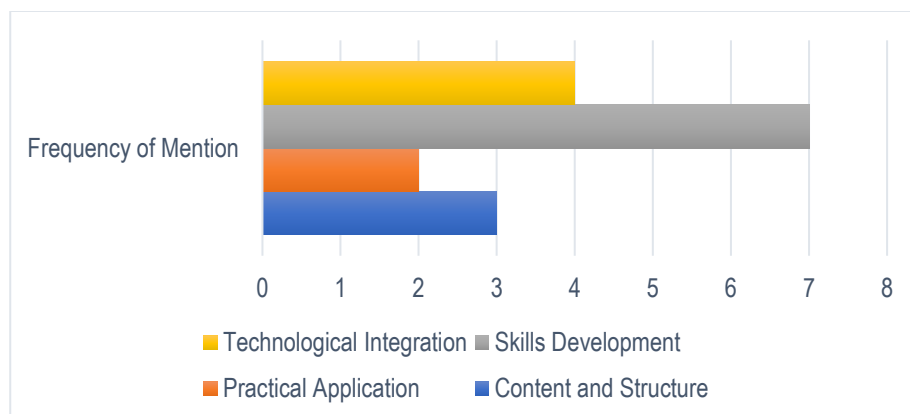
"I hope with this module, students will become more proficient in speaking Arabic, which every Arabic student should master." (S13)

“Hope to enhance my potential in speaking Arabic.” (S17)

“I hope that with the existence of this course, my skills in speaking Arabic can improve.” (S26)

Figure 1

Students' Suggestions for the Advanced Arabic Speaking Module



The above results correspond to previous quantitative results (see Tables 3 and 6), wherein there were high mean scores for items associated with speaking confidence and the capability to communicate fluently in professional settings in Arabic, emphasising the goal of aligning the module with the proficiency targets of the CEFR at both B2 and C1 levels. Furthermore, the second most predominant theme was technological integration, in which the respondents exhibited a higher interest in adopting AI technologies to support the development of Arabic-speaking competencies:

“AI support is very helpful as it can provide interactive exercises, give real-time feedback on pronunciation and sentence structure, and tailor content according to the student’s level.” (S76)

“I suggest using AI technology to help check pronunciation and fluency. Interactive digital modules are highly welcomed.” (S71)

“I hope this module has many speaking exercises, and we can use AI to help with pronunciation and topics relevant to daily life.” (S73)

One of the learners identified both ChatGPT and Copilot as AI instruments that could assist in improving Arabic speaking competencies, which was consistent with the high mean score for AI-related measurement items in Table 5. Another theme was the content and structure, which indicated the preferences of the learners for a more logically sequenced and accessible learning journey, wherein learning progression should begin with the fundamental concepts of grammar before learning more advanced skills of communication:

“I hope this module starts with the basics of the Arabic language so I can review them again.” (S4)

“The module should be simple and easy to understand.” (S77)

The above statements corroborated earlier positive responses related to the *Nahu Wazifi* approach (see Table 4), which was preferred for its contextual and practical method in teaching grammar, emphasising the need to have a higher level of coherence in the existing curriculum to more effectively support learners’ skill acquisition and understanding. The final theme was practical application, which, despite being mentioned less often, reflected learners’ interest in using Arabic in actual contexts of communication. Particularly, learners suggested incorporating activities, including role-plays, presentations, and multimedia projects, to simulate actual use of the language, to help fulfil the larger CEFR-aligned goals of the module, namely, guaranteeing that learners could perform spontaneous, context-specific communication:

“Students really need an advanced Arabic speaking module based on the *Nahu Wazifi* approach and CEFR standards so that they can master speaking skills spontaneously, accurately, and effectively in real-world contexts.” (S76)

4. Discussion

The current investigation discovered the multidimensional requirements of learners to assist in formulating a more effective module on advanced Arabic-speaking based on two theoretical underpinnings, namely the communicative competence theory by Canale & Swain (Brown, 2007) and the TPACK model by Mishra & Koehler (Hinkel, 2006).

4.1 Communicative Competence Theory: Content and Speaking Needs

In this study, the higher mean score for content needs ($M = 4.60$, $SD = 0.58$) suggested students’ strong needs for discourse, linguistic, and strategic competencies, which corresponded Canale and Swain’s communicative competence theory, highlighting the importance of having not only grammatical accuracy but also the functional use of the specific language in actual scenarios (Brown, 2007). Accordingly, the respondents reflected that it was important to enhance the sentence structure, resolve challenges in speaking, and accomplish communicative objectives in both academic and

professional areas, which were in line with Al-Mahrooqi (2012), who revealed that learners in higher education emphasised practical use of language over the mastery of grammar. Additionally, it was revealed that there was a higher need for functional communication in Arabic, which could be guaranteed through the inclusion of discourse and strategic elements of the communicative competence theory in the learning module (Brown, 2007). In a similar vein, learners' self-reported levels of intermediate to good speaking proficiency (78%) indicated a higher degree of preparedness for more complex tasks that necessitated more strategic skills of communication, which suggested the suitability of using CEFR descriptors at the B2 and C1 levels, as recommended by the Council of Europe (2020). In sum, the current learning module, which could help facilitate higher levels of fluent, context-specific, and structured communication, was theoretically supported.

4.2 TPACK Framework: Pedagogical and Technological Integration

The integration of the *Nahu Wazifi* approach ($M = 4.24$, $SD = 0.62$) reflected the pedagogical dimension of the TPACK framework, which values content-specific teaching strategies (Hinkel, 2006). Respondents emphasised the importance of understanding grammatical structures in actual contexts, which aligned with pedagogical content knowledge (PCK) in the TPACK framework and correspond to the results of Alharthi (2020), which demonstrated how teaching grammar using contextual methods could substantially enhance the capability to construct sentences among learners (Alharthi, 2020). Concurrently, respondents expressed a higher level of needs for AI integration ($M = 4.23$, $SD = 0.68$), which reflected the technological aspect of the TPACK framework, wherein learners preferred the interactivity, flexibility, and support offered by AI technologies, allowing autonomous learning and real-time feedback. In a similar vein, Saeed and Al-Jarf (2022) demonstrated that there were enhancements in learner engagement and speaking proficiency after using AI technologies in the process of teaching Arabic. Li (2024) also revealed how the use of ChatGPT could more effectively support the process of second language acquisition in terms of vocabulary, grammar, and coherence, while facilitating higher levels of learner autonomy and motivation. Nonetheless, there were also challenges, including creating effective prompts and preventing over-reliance on AI tools, indicating the importance of having more careful use of AI technologies in education.

Zhu and Wang (2025), through their systematic review of the use of AI technologies in language education, discovered that the most effective tools were automated assessments of writing, chatbots, and automatic recognition of speech, especially in facilitating the acquisition of skills related to writing and speaking. The issues of equity, reliability, and ethical considerations were also highlighted by Zhu and Wang (2025), as they continued to be important topics in guaranteeing sustainable integration in the long term. In sum, the current results and prior studies indicated that having only technological knowledge (TK) would not be effective in the long run without aligning with the intended educational objectives. In particular, the call by respondents for more training in the use of AI tools reflected the need to cultivate technological pedagogical knowledge (TPK), which could guarantee that the adoption of AI technologies would be based on more reflective and structured practices without unguided use. Similarly, Kessler (2018) and more recent research on the international scale (Li, 2024; Zhu & Wang, 2025) contended that the use of AI tools should be guided by pertinent educational models, which could help maximise the intended learning outcomes while safeguarding academic integrity. As such, the triadic interaction between content knowledge (grammar and speaking), pedagogical knowledge (*Nahu Wazifi*), and TK (AI technologies), as discovered in this study, corroborated the relevance of the TPACK model as a guiding framework for developing an integrative, future-proof module on advanced Arabic speaking.

4.3 CEFR Alignment and Global Benchmarks

Respondents' perspectives on CEFR-aligned speaking proficiency ($M = 4.12$, $SD = 0.74$) indicated a clear need to fulfil international standards in language competencies, as reflected in the highest level of emphasis on engaging in professional and academic discourses and adapting existing styles of language use to the specific group of audiences and context, which were in line with the components of sociolinguistic and discourse competencies of the communicative competence theory (Brown, 2007). Similarly, the above emphasis was consistent with CEFR descriptors at both B2 and C1 levels, which focused on the thematic range, interactional sensitivity, and discourse coherence. Contrary to past research (El-Dakhs & Al-Ahdal, 2019), in which learners encountered challenges in ensuring satisfactory fluency and coherence in academic tasks of speaking, the current results highlighted a more self-aware group of learners, which could be attributed to a higher level of exposure to CEFR standards. The results were consistent with Waluyo et al. (2024), who developed and validated a CEFR-based English proficiency test (WUTEP) in Thailand, which achieved a satisfactory degree of predictive validity according to global standards, including TOEIC, suggesting that the CEFR could offer an effective educational model and a psychometric reference for the development of curricula, student evaluations, and placement through adequate contextualisation.

In Malaysia, there have been several impediments to the adoption of CEFR standards. Specifically, Sukri et al. (2024) demonstrated key difficulties in the use of the CEFR-M, especially low levels of preparedness among teachers, over-centralised processes of decision-making, uneven training at different levels, and continual concerns related to teachers' language proficiency, hence adversely impacting the depth and sustainability of CEFR alignment in classrooms, namely, how students could more effectively meet the standards. Summarily, existing international and domestic perspectives have reflected that the sustainable adoption of the CEFR necessitates both rigorous test validation and systemic support systems. Accordingly, the present study recommended the incorporation of CEFR descriptors into a *Nahu Wazifi*-based module on advanced Arabic speaking, which could help reduce existing gaps by aligning with international standards, while concurrently resolving existing contextual challenges in educational approaches and teacher capacity. Thus, the

current study demonstrated that learners' needs involved all facets of communicative competence and TPACK, namely contextual application, grammatical accuracy, functional pedagogy, and AI-supported autonomy, with the results fostering the formulation of a theoretically robust, integrative Arabic-speaking module to help connect pedagogical tradition with technological innovation.

Figure 2

Conceptual Framework of the Advanced Arabic Speaking Module

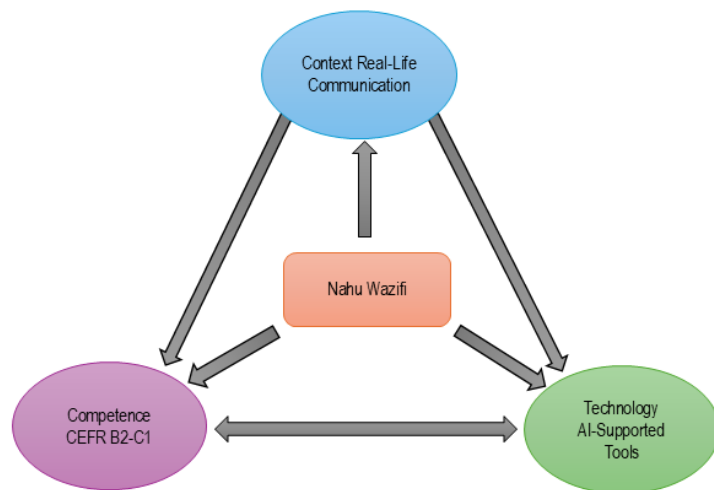


Figure 2 demonstrates the dynamic interaction between authentic communicative contexts, CEFR-aligned competencies, and AI-supported learning, with the *Nahu Wazifi* approach functioning as the central mechanism that integrates the above elements into meaningful language use. Collectively, the discussion in sections 4.1 to 4.3 has highlighted that the development of advanced Arabic speaking skills requires a closer alignment among context-driven communication, competency-based progression, and technology-enhanced support within a functional grammar framework.

5. Conclusion

This study was designed to comprehensively investigate students' articulated needs for an advanced Arabic speaking module, focusing on three core dimensions: content expectations, pedagogical strategies—particularly the *Nahu Wazifi* approach—and technological support aligned with CEFR benchmarks. Guided by the Communicative Competence Theory and the TPACK framework, the research aimed to address how these components could be systematically integrated to enhance oral proficiency among Malaysian undergraduate learners of Arabic. The findings affirm the high demand for an integrated module that not only prioritises functional language development but also accommodates learner expectations for structured pedagogical approaches and digital support systems. Content-wise, learners showed the strongest preference for materials that could enhance their communicative confidence and career applicability. Pedagogically, the *Nahu Wazifi* method was valued for its practical and contextual delivery, affirming its relevance to strategic and discourse competence. Technologically, although the open-ended responses were less vocal, the structured responses indicated a clear orientation towards AI-supported learning, particularly for pronunciation, feedback, and flexible learning. CEFR-aligned expectations, particularly at B2 and C1 levels, revealed learners' aspirations for greater fluency and adaptability across social, academic, and professional contexts. The combination of these needs affirms the necessity for a holistic and learner-responsive module that bridges content mastery, pedagogical efficacy, and technological affordances.

These insights yield critical implications for module development, implementation, and evaluation. Firstly, module design should adopt a TPACK-based integration of pedagogical strategies, Arabic linguistic content, and user-friendly technology. Secondly, implementation efforts must consider learners' readiness and provide adequate training to maximise engagement with AI tools. Thirdly, module effectiveness should be gauged not only through learner satisfaction, but also through progressive improvement towards CEFR-aligned benchmarks. At the same time, several limitations must be acknowledged. First, the study was limited to a single institution - Universiti Sains Islam Malaysia - which restricts the generalizability of the findings to broader populations of Malaysian Arabic learners. Second, the scope of proficiency was confined to intermediate-to-advanced learners (B2–C1), excluding beginners and near-native speakers who may demonstrate different needs and expectations. Third, the study has not yet validated the long-term effectiveness of the proposed module, and the technological landscape remains constrained by the limited availability of Arabic-focused AI tools optimised for oral proficiency.

Future research should extend this study through comparative investigations across multiple universities and program types, both in Malaysia and internationally, to identify whether learners' needs for CEFR alignment and AI support are consistent or context-dependent. Longitudinal studies are also required to evaluate the sustained impact of the proposed module over several semesters, including its influence on academic performance and professional communication beyond

graduation. In addition, empirical validation through experimental or quasi-experimental designs should compare the *Nahu Wazifi* approach with alternative models, such as task-based or project-based learning, to refine the most effective pathways for oral competence. To maximise technological affordances, collaboration with AI developers and Arabic specialists is essential for producing Arabic-focused tools that deliver accurate pronunciation feedback and adaptive speaking practice aligned with CEFR descriptors. Finally, expert validation involving linguists, curriculum designers, and assessment specialists would provide triangulated perspectives, ensuring that learner needs are addressed without compromising theoretical rigour. Collectively, the above directions can strengthen the empirical foundation for an integrative, context-sensitive Arabic-speaking module that bridges pedagogical tradition, global benchmarks, and digital innovation.

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Conflict of Interest

The authors declare no conflicts of interest.

CRedit Authorship Contribution Statement

Mohd Nizwan Musling: Conceptualization; Methodology; Investigation; Formal Analysis; Writing-original draft

Mikail Ibrahim: Software; Validation; Writing-review and editing

Availability of Data and Materials

The data supporting this study's findings are available on request from the corresponding author.

Declaration of Generative AI Use

The authors used ChatGPT during the preparation of this manuscript for language refinement, idea organisation, and improvement of academic expression. All generated content was carefully reviewed, revised, and verified by the authors, who takes full responsibility for the accuracy, originality, and integrity of the final manuscript. In addition, the revised manuscript also underwent independent proofreading and language editing by a qualified professional proofreader prior to submission.

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