DOI:10.59787/2413-5488-2024-46-2-88-100

¹A.A. Aimoldina*, ²A.S. Smagulova

¹L. N. Gumilyov Eurasian National University, Kazakhstan Branch of Lomonosov Moscow State University, Astana, Kazakhstan

²Astana International University, Astana, Kazakhstan

EXPLORING NEEDS ANALYSIS AMONG HIGHER EDUCATION STUDENTS IN TEACHING LANGUAGES FOR SPECIFIC PURPOSES

Abstract: This article explores contemporary perspectives in linguodidactics regarding the necessity of conducting needs analysis for students studying languages for specific purposes. With a growing emphasis on linguistic proficiency for professional engagement globally, universities, including those in the Republic of Kazakhstan, face the challenge of aligning language education with the genuine needs of graduates and employers. This study systematically outlines primary categories of student needs and facilitates informed decision-making in curriculum design and pedagogy selection. Through analysis of existing research, the investigation informs the development of educational content, instructional methodologies, and technology integration in university-level language courses. Ultimately, this approach aims to adequately prepare students for the current Kazakhstani labor market, ensuring their competitiveness by fostering communicative and professional competencies in multiple languages, such as Kazakh, Russian, English, and other foreign languages, thereby exemplifying the concept of professional multilingualism.

Key words: learner needs analysis, learner-oriented approach, professional multilingualism, expected learning outcomes, language for specific purposes.

Introduction

Currently, the necessity of linguistic proficiency for engaging in professional endeavours across diverse areas is increasingly underscored in contemporary society worldwide, including the Republic of Kazakhstan. Consequently, universities must ensure that the content and teaching methods employed for language education align with the genuine needs of graduates and employers, adequately preparing them for the current Kazakhstani labour market. This ensures that Kazakhstani professionals remain competitive, possessing both communicative and professional competencies in multiple languages, including Kazakh, Russian, and English, thereby exemplifying the concept of professional multilingualism (Aimoldina & Zharkynbekova, 2023).

The objectives of delivering instruction in languages for specific purposes in university discipline courses are in obedience with state educational requirements. The sample program's creators underline the need to give consideration to the needs, interests, and personal characteristics of the student in addition to providing instructional objectives. They support the student's active participation as an essential member of the learning process, encouraging an intentional collaboration and interactive teaching style with the instructor. This approach directly correlates with advancing student independence, fostering their creative endeavours, and instilling personal accountability for the efficacy of their learning (Richards & Rodgers, 2014).

Despite the growing recognition of the importance of needs analysis in language education, particularly within the context of higher education, research addressing this issue remains limited, especially in the context of Kazakhstan. The unique linguistic and educational landscape of Kazakhstan necessitates a deeper understanding of the needs of higher education

students in language learning, especially in the realm of teaching languages for specific purposes. Therefore, this study seeks to fill this gap by conducting a comprehensive investigation into the needs analysis of higher education students in Kazakhstan, shedding light on an area that has received insufficient attention in the country's educational discourse.

The main aim of this study is to systematically outline and comprehend the primary categories of needs identified among students, particularly in the context of languages for specific purposes, through an analysis of existing research conducted by scholars and experts in this field, available in databases such as Scopus, Web of Science over the period. This research aims to facilitate informed decision-making in developing educational content, selecting pedagogical methods, and using educational technologies necessary for designing a curriculum tailored to a professionally oriented language course in a university setting.

Research methodology and data analysis

Initially, the literature review for this study was based on previously published studies addressing needs analysis issues among learners and others stakeholders in language teaching. A comprehensive database search was conducted using Scopus and Web of Science following the algorithm of scientometric analysis. During the initial literature search in these databases, keywords such as "Needs analysis," "Needs", "ESP," "English," "Needs assessment," "Learner needs analysis," and "Learner-oriented approach" were used. The search criteria for Scopus and Web of Science were as follows: ["Needs analysis" AND "Needs" AND "ESP" AND "English" OR "Needs assessment" OR "Learner needs analysis" OR "Learner-oriented approach"]. This search was restricted to English-language studies published between 1980 and 2024. Based on this query, Scopus and Web of Science provided a list of 1,445 publications containing the specified keywords. As shown in Figure 1., the highest contributed documents in needs analysis in language learning process are in journal articles (1024 documents (70,9%)) followed by 194 book chapters (13,4%). As for the subject-wise publication coverage, the scientometric analysis shows that the subject "Social Sciences" covers the highest number of publications (1255 publications) followed by the subject "Art and Humanities" (880 publications), "Computer Science" (120 publications), "Engineering" (79 publications), "Business, Management & Accounting" (58 publications), "Psychology" (56 publications), and others (See Figure 1).

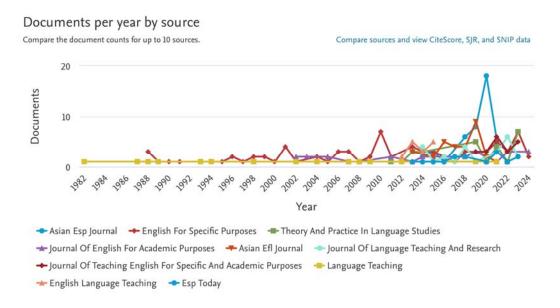
Figure 1 *Publications results Scopus by document type and subject area (based on Scopus).*

Subject area	Document	Documents by subject area
Social Sciences	1255	
Arts and Humanities	880	Energy (0.8%) Medicine (0.9%) Economics, Econ (1.1%) Environmental S (1.2%) Psychology (2.0%) Business, Manag (2.2%) Engineering (3.0%) Computer Scienc (4.6%) Arts and Humani (32.3%)
Computer Science	120	
Engineering	79	
Business, Management &	58	
Accounting		
Psychology	56	
Environmental Science	30	
Economics, Econometrics &	28	
Finance		
Medicine	24	
Energy	22	
Physics and Astronomy	17	
Mathematics	17	
Decision Sciences	14	
Nursing	13	

Multidisciplinary	13	Documents by type
Agricultural and Biological Sciences	10	
Earth and Planetary Sciences	9	Retracted (0.1%) Note (0.3%) Editorial (0.4%) Review (4.0%) Conference Pape (4.9%) Book (5.9%) Book Chapter (13.4%) Article (70.9%)
Pharmacology, Toxicology and Pharmaceutics	8	
Materials Science	7	
Health Professions	7	
Chemical Engineering	5	
Biochemistry, Genetics and Molecular Biology	5	

Regarding the distribution of articles published over a period of time by the journals dealing with the considered topics and its related themes, significant growth in the number of publications on needs analysis in determining learners' needs in teaching languages for specific purposes identified between the period 1980 and 2024. The major contributed journals are English For Specific Purposes (80), Asian ESP Journal (43), Asian EFL Journal (30), Journal of English for Academic Purposes (29), Theory and Practice in Language Studies (26), Journal of Language Teaching and Research (24), Journal of Teaching English for Specific and Academic Purposes (20), Language Teaching (16), English Language Teaching (15), ESP Today (15), and others (See Figure 2).

Figure 2 *Publications results by the journal (based on Scopus)*



The scientometric analysis also indicates the countries with higher productivity of publications on determining learners' need in language teaching at universities globally. Thus, for example, from the figure 3 the top 15 contributors are presented, i.e., Indonesia (136 publications), United States (136), China (121), Iran (96), Spain (84), Malaysia (83), United Kingdom (73), Australia (61), Taiwan (59), Hong Kong (58), Thailand (49), Japan (47), Saudi

Arabia (46), Turkey (42), New Zealand (36). It is interesting to note that seven publications from Kazakhstan have been included in the database on the given topic.

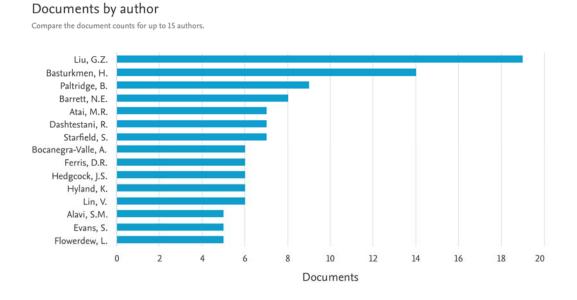
Figure 3 *Publication results by country (based on Scopus)*

Documents by country or territory

Compare the document counts for up to 15 countries/territories. Indonesia United States China Iran Spain Malaysia United Kingdom Australia Taiwan Hong Kong Thailand lapan Saudi Arabia Turkey New Zealand 20 30 40 50 60 110 120 Documents

In addition, the first top 15 authors who produced the highest number of publications on the given subject over the considered period refer to Liu, G.Z. (19), Basturkmen, H. (12), Paltridge, B. (9), Barrett, N.E. (8), Atai, M.R. (7), Dashtestani, R. (7), Starfield, S. (7), Bocanegra-Valle, A. (6), Ferris, D.R. (6), Hedgcock, J.S. (6), Hyland, K. (6), Lin, V. (6), Alavi, S.M. (5), Evans, S. (5), Flowerdew (5), and others (See Figure 4). As for Kazakhstani authors, the most cited researchers on this topic are Valieva et al. (Valieva et al., 2019) and Baimanova et al. (Baimanova et al., 2020).

Figure 4First top 15 authors with the highest number of publications over the period



Thus, for full-text analysis, 46 papers were selected from the initial set of sources. The selection process aimed to reduce the number of works and was based on identifying the most cited publications from the lists obtained from Scopus and Web of Science, sorted by relevance, resulting in a total of 35 publications.

Subsequently, conceptual and comparative analyses were employed in this study to ensure the accuracy and quality of the review process, with a specific focus on the field of research on languages for specific purposes and the analysis of students' needs within the educational context.

Conceptual analysis involves examining, defining, and clarifying the fundamental concepts or ideas central to a particular field of study. This method requires a rigorous examination aimed at comprehensively understanding the nuances, boundaries, and interconnections inherent within these fundamental ideas within a specific contextual framework (Mahoney & Rueschemeyer, 2003). Conversely, comparative analysis is a methodological approach used to systematically examine and evaluate similarities and differences among multiple entities, cases, theories, or phenomena. It entails a meticulous examination aimed at discerning underlying patterns, contrasts, interrelationships, or prevailing trends across the entities under scrutiny (Ragin, 2014). Both conceptual and comparative analyses play pivotal roles in augmenting scholarly comprehension of the subject matter at hand.

Literature review

The literature review showed that numerous experts in linguodidactics emphasize the significance of considering students' needs during the learning process.

Research on the needs of language learners has been conducted since the 1970s. One of the foundational works in this area is Munby's "Communicative Syllabus Design" (Munby, 1981). Munby's book delineates the communicative necessities of students and emphasizes the significance of considering "variables impacting communicative needs" (Munby, 1981, p. 32). He conceptualizes these variables as a dynamic set of parameters encompassing the learner (essential information about the learner), the range of objectives (educational or professional aims in language learning), the environment (both physical and psychological contexts), interaction dynamics (involving participants and the learner's role in communication), instruments (diverse methods and channels of communication), dialects (local language variants), required language skill level), communicative contexts (situations where the language will be used), and communication style (degrees of politeness and other nuances of communication) (Munby, 1981, p. 34). Munby's detailed parameter analysis leads to the proposition of devising a customized list of linguistic aspects recommended for study by individual students. Poliyakov (2014), in his examination of Munby's work, observes that the system proposed primarily concerns "what to teach" (i.e., the learning content), neglecting the methodology of teaching (p. 133). Moreover, in this approach, the learner and their needs seemingly remain peripheral, not within the primary focus of the researcher's interests. Nevertheless, Munby's contributions transformed the educational process and gave rise to the term "needs analysis".

In this regard, gathering data on students and communication tasks is part of needs analysis process, which is an essential step before the course starts. This first phase ensures that resources, materials, and course descriptions are ready before classes begin (Paltridge & Starfield, 2016).

Richards (2014) characterizes needs analysis as the procedure used to collect information about learners' needs, whereas Tudor (2001) describes it as an investigation of learners' cognitive and behavioural aims. Tudor (2001) recommends that language learners create their

own "learning priorities", which include the concepts and goals they aim to express in the target language (p. 76). It is the duty of the instructor to look into and record the goals of the students; students take an active part in this process by communicating their goals and directing their own learning alongside the instructor.

Interestingly, Munby (1981) suggests that needs analysis aims to align language courses with the requirements of distinct student groups, each possessing varying language proficiency levels and diverse learning goals across different countries. Introducing the Communication Needs Processor (CNP), Munby (1981) outlines a series of procedures comprising various inquiries, enabling the identification of the specific needs of student cohorts characterized by distinct language proficiency levels and learning objectives.

Furthermore, West (1994) highlights the practical intent behind conducting a needs analysis. This means that in order to create their course curriculum, educators must investigate the particular needs of students in their intended context. On the contrary, Long claims that a successful instructional design must start with the consideration of needs of the learners (Long & Crookes, 1993; West, 1994).

Moreover, in his work Hyland provides a thorough description of both "needs analysis" and "needs" (Hyland & Rodrigo, 2007). Hyland states that methods aimed at obtaining and evaluating data directly related to creating a course curriculum are included in needs analysis.

Hence, this process aims to address the fundamental inquiries of what and how the course content should be structured. It is an iterative process, adapting teaching approaches as insights about the learners accumulate. Furthermore, needs analysis serves as an evaluation tool, assessing the course's efficacy. "Needs" refers to a broad range of factors, such as learning goals, language ability, motivation for taking a course, preferred instructional strategies, and real-world situations in which students intend to use the knowledge they have learned. It also includes students' present knowledge and abilities, areas of unfamiliarity, and areas they aspire to learn, and this data can be gathered and examined through diverse methodologies. Therefore, needs analysis comprises an examination of both the present situation and the anticipated outcomes, as denoted by "Present Situation Analysis" and "Target Situation Analysis", as articulated in the terminology of Hutchinson and Waters (Hutchinson & Waters, 1987, p. 63).

Results and discussion

The analysis of studies conducted on the considered topic revealed that in the field of linguistics, the concept of "needs" is subject to diverse scholarly perspectives, leading to a range of interpretations and understandings among researchers. For instance, West broadly defines "needs" as an overarching term that encompasses multiple interpretations (West, 1994), while Richterich & Chancerel (1978) goes further to distinguish between "needs" and "wants," where "wants" refer to learners' subjective desires or perceived necessities, which are often unpredictable and challenging to define.

A range of recent studies have explored the needs of students in learning, identifying various factors. The study by Chiu et al. (2023) presents a needs analysis-based approach to design principles for constructing a context-aware English learning system, particularly focusing on English for Fitness. Bocanegra-Valle and Basturkmen (2019) investigates the teacher education needs of experienced English for Specific Purposes (ESP) instructors in Spanish universities, highlighting perceptions of needs in course development, target discipline knowledge, language use in the target discipline, peer collaboration, and professional development opportunities, aiming to inform future teacher development initiatives in the local context. Furthermore, Paltridge and Starfield (2016) provide an overview of the development of genre in ESP, discussing its early origins, its relation with discourse analysis, and the emergence of the Create a Research Space model, alongside highlighting the use of ethnographically oriented research and studies examining speaking rate and content

information in academic settings, aiming to offer insights into ESP language use and disciplinary identity. These studies collectively underscore the importance of addressing a range of factors, including pedagogical approaches, facilities, and student motivation, in meeting students' needs in learning.

Types of learners' needs

Outcomes of conceptual and comparative analyses of research publications on the considered issue gave an opportunity to identify the main categories of students' needs in learning.

Objective and Subjective Needs. Learner needs are commonly categorized into objective and subjective needs. Objective needs pertain to how learners will apply the language upon completing the course, encompassing acquired language elements enabling them to engage in communicative roles. Hence, objective needs are directly linked to the instructional content, while subjective needs concern the learning process itself. It involves all of the steps that students must take to acquire a language, including study habits, motivation, abilities, methods of study, and the implementation of methods of learning (Tzotzou, 2014).

Learners' personal demands, which are shaped by their unique learning strategies or styles, are reflected in their choices for learning techniques. For instance, although some students may find aural or kinaesthetic methods more successful, others may prefer visual assistance or interactive exercises. It is critical to understand that each student's tastes are unique and susceptible to interpretation.

Based on Eragamreddy's perspective on the importance of motivation in English as a Foreign Language (EFL) learning (Eragamreddy, 2015), motivation is shown as an arbitrary requirement serving as a cornerstone of the learning process. It is a critical factor, particularly important in the context of teaching EFL, as student motivation – internal or external – takes on paramount importance. Internal motivation plays a pivotal role, facilitating easier knowledge enhancement and goal achievement in education; it acts as an internal process aiding students in attaining their educational objectives. Conversely, internal motivation intertwines with personal aspirations, enabling students to pursue their passions, interests, and inspirations autonomously. When learners find a task personally engaging, they are more inclined to actively participate and invest genuine effort in seeking solutions (Deci & Ryan, 2013). Furthermore, external motivation can emanate from various sources within students' societal sphere, such as friends, family, institutions, and teachers. Extrinsic motivation drives individuals to perform a task either to attain a reward or to evade a punishment stemming from an external source. Aspuri et al. (2019) emphasize the role of motivation, with Aspuri specifically highlighting the importance of instrumental motivation in EFL learning. This suggests that while motivation is crucial in EFL learning, there may be challenges in fostering intrinsic motivation.

Initial and ongoing needs. Brindley expanded upon Richterich's differentiation between "objective" needs and "subjective" needs (Brindley, 1989). This pertains to the contrast between externally tailored, learner-focused proclivities relate to subjective wants, whereas demanded, standardized demands connect to objective needs. The time and breadth of the assessments distinguish original and continuing evaluations from one another. The former typically falls outside a teacher's control, often determined by curriculum specialists before a course begins, while the latter refers to teachers' more informal assessments conducted once the course is underway. Rocha-Erkaya and Ergünay (2021) further explore the complexities of identifying and addressing these needs, with the former cautioning against relying solely on self-perceptions and the latter revealing the specific instructional and attitudinal needs of preservice ELT teachers.

Language proficiency needs, psychological-humanistic needs and specific-purpose needs. Brindley's categorization of language proficiency needs, psychological-humanistic

needs, and specific-purpose needs has been widely acknowledged in the field of language teaching (Brindley, 1989). The necessary degree of language competence that students must attune themselves to is known as language proficiency needs. Psychological and humanistic needs include the psychological characteristics of language learners in connection to language learning, such as their confidence levels during language acquisition. Specific-purpose demands identify the language skills that students must acquire in order to perform actual job tasks (Tzotzou, 2014; Warti, 2020).

Target and learning needs. Within their framework, Hutchinson and Waters made a distinction between two main types of needs: learning needs refer to those that are vital to the learning procedure itself, whereas target needs are those that are required for students to function successfully in a particular setting. Additionally, target needs are made up of three interrelated elements: "necessities", which are the fundamental skills that learners must have in order to effectively deal with the planned circumstance (as defined by Munby); "wants", which are the knowledge that learners believe is essential for their best performance in the language they are attempting to learn; and "lacks", which are the differences between student present and preferred levels of competency in the language being studied (Huhta et al., 2013). Warti (2020) and Ulfah et al. (2021) both used this model to identify the specific language needs of students and employees, respectively. Warti (2020) found that students in an English Business and Management program required improved English skills for work, while Ulfah et al. (2021) designed an English for Professional Purposes course for government employees based on their needs.

Content and process needs. Keith Johnson departed from the difference between objective and subjective requirements by introducing a distinction between content needs and process needs (Johnson & Swain, 1997). Content needs refer to the specific linguistic elements or content that learners need to acquire or master within the language they are learning. It encompasses the essential components of language such as vocabulary, grammar, syntax, phonology, and discourse patterns. For instance, content needs could involve acquiring a certain number of vocabulary words, understanding grammatical rules, comprehending sentence structures, and recognizing the appropriate use of language in various contexts.

This was further emphasized by Surfaifel & Wirza (2021), who found that students in an English Literature program required prose teaching material that integrated English skills, and preferred group-based teaching methods. Therefore, the ways, techniques, or processes that pupils employ to learn or use language should be the primary concern. The methods, approaches, and tactics that students use to successfully learn, remember, and use the language are all included in the aforementioned requirements. Process needs could include developing successful study habits, comprehending learning styles, using vocabulary acquisition strategies, performing syntax correctly, expanding verbal and written competencies, implementing notes, and strengthening both reading and listening awareness.

Furthermore, based on the above-mentioned information, the most significant students' needs in learning languages were identified.

Relevance and Practicality. Students often seek language learning materials and activities that have immediate relevance to real-life scenarios. They value content that can be directly applied in practical situations, such as travel, work, or social interactions. Research by Richards and Rodgers (2014) emphasizes the importance of meaningful and authentic tasks in language learning, which help students connect their learning to real-world contexts.

Engaging and Interactive Learning. Students appreciate engaging and interactive learning experiences. They value activities that involve collaboration, discussions, role-plays, games, and the utilization of multimedia resources. Miller et al. (2020) emphasizes the importance of creating interactive, media-rich, self-paced lessons, while Qian & Clark (2016) supports the use of interactive tutorials to promote effective learning.

Clear Goals and Progress Tracking. Setting clear language learning objectives and having tools to track progress are essential for students. They benefit from structured learning paths and regular assessments that enable them to monitor their improvement. Nation (2001) emphasizes the importance of goal-setting and progress evaluation in language learning, stating that explicit goals contribute to more effective learning.

Supportive Learning Environment. A supportive atmosphere is pivotal for effective language learning. Students value knowledgeable and approachable teachers, access to adequate learning resources, and classrooms that encourage participation and collaboration. Teachers can support students' self-determined motivation by promoting their sense of autonomy, competence, and connectedness (Dincer et al., 2019).

Customized Learning. Research consistently shows that personalized learning experiences, including tailored feedback and adaptive learning materials, lead to improved student outcomes (Kochmar et al., 2020). These experiences are particularly effective in language curricula, where students benefit from exploring their individual interests (Amzil et al., 2023). Hattie and Timperley's emphasis on the importance of feedback in enhancing student learning is supported by these studies, which demonstrate the positive impact of personalized feedback on student learning (Amzil et al., 2023; Kochmar et al., 2020).

Cultural Understanding. The integration of culture as a key language skill is crucial in language teaching, as it enhances communication and reduces misunderstandings (Syaputri et al., 2021). This is particularly important in foreign language teaching, where the goal is to increase international understanding and awareness. Understanding cultural background information, such as history and social conventions, is also emphasized in English teaching.

Motivation and Confidence Building. Students require motivation and strategies that build their confidence in language learning. Encouragement, positive reinforcement, and opportunities to showcase their language skills contribute significantly to their motivation and self-assurance. Deci and Ryan's Self-Determination Theory also emphasizes the role of motivation in sustained learning efforts and achievement (Deci & Ryan, 2013).

Flexibility in Learning Styles. Recognizing and accommodating diverse learning styles is crucial in education, as it can significantly impact students' assimilation of information and achievement in assessments (Dube & Ma, 2010). This is particularly relevant in the design of flexible learning programs, where individual differences in cognitive style, instructional preferences, and learning strategies must be considered. The development of flexible e-assessment systems, inspired by design methodology management, can further enhance the accommodation of different learning styles (Dube & Ma, 2010).

Techniques for conducting need analysis

Learner needs analysis has been carried out employing a variety of models and methods that have been offered. Tudor (2001) highlights Munby's well-known paradigm, which is well-known for determining how to evaluate students' actual interaction requirements. Individual, effectiveness, setting, communication, purposive area, communicative occasion, and communication keys are among the nine important features that this model assesses.

Tarone and Yule, on the other hand, offered a different requirements analysis model in 1989 that separated language usage by learners into four levels: global, rhetorical, grammatical-rhetorical, and grammatical (Oxford, 2018). Global level refers to the broad communicative purposes for which the language is used. It encompasses overarching functions such as expressing ideas, persuading, informing, or entertaining within various communication contexts. The rhetorical level pertains to the ways in which language is structured and organized to achieve specific communicative purposes. It involves understanding discourse patterns, text organization, and rhetorical strategies employed in communication. Grammatical-Rhetorical level signifies the intersection of grammatical structures and rhetorical functions in language use. It involves analysing how linguistic structures and

grammar choices contribute to achieving communicative goals and rhetorical effectiveness. Grammatical level, the focus is on the specific grammatical features and language structures utilized in communication. It involves the study of sentence structures, vocabulary usage, syntax, and grammatical accuracy.

Analysts have drawn attention to these two models' shortcomings, arguing that they fail to explore learners' "conceptual" and "pragmatic" skills in preference for merely achieving their objective demands.

Needs analysis can be carried out in a number of ways; popular techniques include surveys, evaluations, cases, discussions, polls, employees and learners, pilot programmes, actual data collection, participatory needs analysis, and advice from experienced sources.

A revised strategy to needs analysis is centred on the task-oriented analysis technique, which views the "task" as the main component for evaluation and as the essential component for organizing interactive instruction in class. Such "tasks" specify specific assignments that students must or want to do in the target language (Long & Crookes, 1993).

Task analysis is divided into three key phases, as defined by Long: (1) analysing "target tasks", or the actual tasks people perform on a regular basis, using data gathered from multiple sources through the triangulation methods; (2) determining language samples representative of these tasks and classifying them into "task types", which serve as the basis for course design; and (3) creating pedagogic tasks, which have been altered variations of target assignments designed for teaching purposes in order to accomplish the curriculum's goals (Huhta et al., 2013).

In tandem with Long's research efforts, Chaudron assessed 84 students enrolled in Korean language courses at the University of Hawaii, undertaking one of the initial task-based needs assessments within a postsecondary foreign language curriculum. Similarly, to equip learners with relevant language skills, Van Avermaet and Gysen conducted empirical research to ascertain the educational needs of approximately 200 adult learners studying Dutch as a second language. Lambert contributes valuable insights into task-based needs analysis within tertiary-level English language programs, shedding light on the linguistic tasks encountered by students pursuing careers in business and education (Chiu et al., 2023).

A comprehensive evaluation of needs should include a range of research methods and instruments, as well as interviewees from different backgrounds. Selecting sources and choosing appropriate data collection tools should be carefully considered before beginning a requirements analysis project. As stated by Robinson, groups of people who have an impact on education are alumni, pre-service and in-service students, institutional representatives, employers, and so on. Data from these interested parties can be gathered using a variety of techniques, such as in-person or internet-based inquiries, directed or open-ended surveys, evaluation of interaction processes, examining how language is used in pertinent settings, conversation examples, employment or corresponding papers, assessment of performance, and examples for student assignments in the area of interest.

Thus, as many researchers assert the primary instrument for needs analysis is a survey, either used independently or in conjunction with interviews. This process frequently includes "developing survey responses from data obtained in interviews, or questioning a selected group of the individuals who submitted a survey" (Cohen et al., 2002, p. 564). Using a variety of sources and techniques (triangulation) while gathering data enhances the requirements analysis by offering a range of viewpoints that support conclusions and improve results.

Therefore, recent studies in ESP have highlighted the importance of conducting needs analysis to identify learners' specific needs, wants, and lacks (Kolomiets et al., 2020; Octaberlina, 2021). This analysis is typically carried out through questionnaires and interviews, with a focus on the learners' perspectives. The findings of these studies have emphasized the need for regular feedback from learners to improve the teaching and learning process.

Furthermore, the studies have underscored the importance of considering the professional and academic content, situational content, and pragmatic content in the design of ESP syllabi (Kolomiets, 2020). The ultimate goal of these needs analysis studies is to enhance the effectiveness of ESP teaching and learning by aligning the content and methods with the learners' specific needs and skills (Octaberlina, 2021).

Conclusion

This study provides an overview of literature regarding the significance of students' needs and the pivotal role of needs analysis in language learning, drawing upon insights from various scholars and researchers in linguistics.

A critical point emphasized the indispensable role of needs analysis in tailoring language education to meet the diverse requirements of learners. This involves a nuanced exploration of language proficiency, learning styles, cultural nuances, motivation, and the establishment of a supportive learning environment.

Through analysis, several critical dimensions of students' needs in language learning were highlighted, underscoring the importance of relevance, interactivity, clear goal-setting, supportive environments, customization, cultural sensitivity, motivation, confidence-building, and flexibility in learning styles. These dimensions collectively contribute to effective language education that resonates with learners' real-world experiences and aspirations, fostering their intrinsic motivation to learn.

The findings of a conducted needs analysis will facilitate the development of a personality-oriented program in the discipline of "Language for Specific/Professional Purposes" and enhance awareness of techniques to ensure the efficacy of language education. These insights are evident from both theoretical literature and practical analyses of needs and anticipated outcomes in language acquisition for specific purposes. However, this process is intricate, necessitating thoughtful consideration of numerous factors.

Furthermore, it is imperative to underscore the necessity and relevance of this topic for Kazakhstani higher education and the labor market. Collaboration between academia and the labor market is crucial to prepare professionals equipped with the language skills, cultural competencies, and intrinsic motivation demanded by today's globalized workforce. This collaborative effort ensures that language education programs not only meet academic standards but also align with the practical needs of the labor market, thereby fostering economic growth and competitiveness on both local and international scales.

Funding information

This research has been funded by the Science Committee of the Ministry of Science and Higher Education of the Republic of Kazakhstan (Grant no. AP14970702)

Conflict of Interest Statement

The authors declare no potential conflicts of interest regarding the research, authorship, or publication of this article.

References

Aimoldina, A., & Zharkynbekova, S. K. (2023). Exploring Multilingualism in Professional Context: Scientometric Analysis. *Vestnik Yevraziyskogo Natsional'nogo Universiteta imeni L.N. Gumileva*, 2(143), 8–18.

Amzil, I., Aammou, S., & Zakaria, T. (2023). Enhance Students' learning by Providing Personalized Study Pathways. *Conhecimento & Diversidade*, 15(39), 83–93.

Aspuri, N., Samad, I. A., Fitriani, S. S., & Samad, N. M. A. (2019). The role of instrumental motivation among EFL students in language learning process. *Journal of English*

- Education, 4(1), 48–53.
- Baimanova, U., Akhmedov, B., Niyazov, A., Kiyassova, K., & Kazakov, A. (2020). Training future English teachers for the formation of critical thinking in students. *Asian ESP J*, 16, 116–130.
- Bocanegra-Valle, A., & Basturkmen, H. (2019). Investigating the teacher education needs of experienced ESP teachers in Spanish universities. *Ibérica*, 38, 127–150.
- Brindley, G. (1989). The role of needs analysis in adult ESL programme design. *The Second Language Curriculum*, 63, 78.
- Chiu, W.-Y., Liu, G.-Z., Barrett, N. E., Liaw, M.-L., Hwang, G.-J., & Lin, C.-C. (2023). Needs analysis-based design principles for constructing a context-aware English learning system. *Computer Assisted Language Learning*, *36*(1–2), 176–204.
- Cohen, L., Manion, L., & Morrison, K. (2002). Research methods in education. routledge.
- Deci, E. L., & Ryan, R. M. (2013). *Intrinsic motivation and self-determination in human behavior*. Springer Science & Business Media.
- Dincer, A., Yeşilyurt, S., & Noels, K. (2019). Self-determined engagement in language learning: The relations among autonomy-support, psychological needs, and engagement. *Cumhuriyet Uluslararası Eğitim Dergisi*, 8(4).
- Dube, T., & Ma, M. (2010). A flexible e-assessment system inspired by design methodology management to accommodate diverse learning styles. *International Journal of Digital Society*, *I*(1), 44–52.
- Eragamreddy, N. (2015). Motivating learners to learn: Libyan EFL teachers' strategies and a perspective. *International Journal of English Language & Translation Studies*, 3(02), 42–54.
- Huhta, M., Vogt, K., Johnson, E., & Tulkki, H. (2013). *Needs analysis for language course design: A holistic approach to ESP*. Cambridge University Press.
- Hutchinson, T., & Waters, A. (1987). *English for specific purposes*. Cambridge university press.
- Hyland, K., & Rodrigo, I. H. (2007). English for academic purposes: An advanced resource book. *Miscelánea: A Journal of English and American Studies*, *35*, 99–108.
- Johnson, R. K., & Swain, M. (1997). Immersion education. Cambridge University Press.
- Kochmar, E., Vu, D. D., Belfer, R., Gupta, V., Serban, I. V., & Pineau, J. (2020). *Automated personalized feedback improves learning gains in an intelligent tutoring system*. 140–146.
- Kolomiets, S., Tsepkalo, O., Antonenko, I., & Thompson, J. (2020). A needs analysis in teaching ESP writing at Igor Sikorsky Kyiv polytechnic institute. *Universal Journal of Educational Research*, 8(12), 6361–6368.
- Long, M. H., & Crookes, G. (1993). Units of analysis in syllabus design: The case for task. *Multilingual Matters*, 9–9.
- Mahoney, J., & Rueschemeyer, D. (2003). *Comparative historical analysis in the social sciences*. Cambridge University Press.
- Miller, C. L., Manderfeld, M., & Harsma, E. A. (2020). 10 Strategies for Engaging Learners with Interactive e-Learning Software.
- Munby, J. (1981). Communicative syllabus design: A sociolinguistic model for designing the content of purpose-specific language programmes. Cambridge university press.
- Nation, I. S., & Nation, I. (2001). *Learning vocabulary in another language* (Vol. 10). Cambridge university press Cambridge.
- Octaberlina, L. R. (2021). English For Specific Purposes: Need Analysis.
- Oxford, R. (2018). Language learning strategies. *The Cambridge Guide to Learning English as a Second Language*, 81–90.
- Paltridge, B., & Starfield, S. (2016). English for specific purposes. In Handbook of research in

- second language teaching and learning (pp. 56-67). Routledge.
- Polyakov, O. (2014). Psihologo-pedagogicheskie aspekty proektirovaniya kursa anglijskogo yazyka dlya special'nyh celej: Analiz potrebnostej i vybor podhoda. *Filologicheskie Nauki. Voprosy Teorii i Praktiki*, *9*(39), 133–137.
- Qian, M., & Clark, K. R. (2016). Game-based Learning and 21st century skills: A review of recent research. *Computers in Human Behavior*, 63, 50–58.
- Ragin, C. C. (2014). The comparative method: Moving beyond qualitative and quantitative strategies. Univ of California Press.
- Richards, J. C., & Rodgers, T. S. (2014). *Approaches and methods in language teaching*. Cambridge university press.
- Rocha-erkaya, O., & Ergünay, O. (2021). Pre-service ELT teachers' prospective needs and desires for their pre-service teacher education. *International Journal of Contemporary Educational Research*, 8(3), 1–12.
- Surfaifel, F., & Wirza, Y. (2021). Students' Need Analysis on Prose Studies Course in English Literature. 173–178.
- Syaputri, W., Theresia, F., & Yuniarti, F. (2021). Cultural Understanding in English Language Learning. *SIGEH ELT: Journal of Literature and Linguistics*, 1(1), 27–34.
- Tudor, I. (2001). The dynamics of the language classroom. Cambridge university press.
- Tzotzou, M. (2014). Designing and administering a needs analysis survey to primary school learners about EFL learning: A case study. *Preschool and Primary Education*, 2(1), 59–82.
- Ulfah, B., Petrus, I., & Mirizon, S. (2021). ESP Needs-based course design for the employees of government protocol department. *English Language in Focus (ELIF)*, 3(2), 143–158.
- Valieva, F., Sagimbayeva, J., Kurmanayeva, D., & Tazhitova, G. (2019). The socio-linguistic adaptation of migrants: The case of oralman students' studying in Kazakhstan. *Education Sciences*, 9(3), 164.
- Warti, W. (2020). ESP Students'needs Analysis Based on the Learning-Centred Approached. *Wanastra: Jurnal Bahasa Dan Sastra*, 12(2), 164–170.
- West, R. (1994). Needs analysis in language teaching. Language Teaching, 27(1), 1–19.

Information about authors

Aliya Aimoldina – PhD, Associate Professor of Philology Department, L.N. Gumilyov Eurasian National University, Kazakhstan Branch of Lomonosov Moscow State University, Astana, Kazakhstan, e-mail: aliyaaimoldina@gmail.com

Smagulova Arailym Sabyrgalikyzy – 1st year Master's student, Philological Faculty, Astana International University, Astana, Kazakhstan, e-mail: araylym.smagulova.01@list.ru