INTERDISCIPLINARY APPROACH IN ESP PEDAGOGY FOR PROMOTING LEARNER'S PROFESSIONAL LEXICAL COMPETENCE

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NOFILOLOGIK YO'NALISH TALABALARI KASBIY-LEKSIK KOMPETENSIYASINI RIVOJLANTIRISHDA INTERFAOL YONDASHUV

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МЕЖДИСЦИПЛИНАРНЫЙ ПОДХОД В ПЕДАГОГИКЕ ESP ДЛЯ РАЗВИТИЯ ПРОФЕССИОНАЛЬНОЙ ЛЕКСИЧЕСКОЙ КОМПЕТЕНЦИИ УЧАЩИХСЯ

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Abstract. The pedagogical value of authentic materials in language education has been extensively recognized and debated since the late 19th century, garnering significant attention from researchers and educators across various fields. Despite the theoretical support for using authentic materials, their practical implementation in language teaching has progressed relatively slowly. Textbooks must often address the complexities and demands of integrating such materials effectively. This study investigates the benefits and challenges associated with incorporating authentic materials, such as real-life conversations, authentic texts, and case studies based on the TermoCLIL approach in English for specific classes. The effectiveness of this approach was assessed using an online survey from both students and teachers, emphasising using authentic reading materials specialized to Math students. The findings indicate that authentic materials and academic contexts significantly enhance learner interest and engagement. The research was conducted with first-year math students learning English for a specific purpose at Gulistan State University, and it focused on integrating authentic materials at the B1 proficiency level. A selection of educational resources, including textual and practical, was designed to create meaningful and communicative contexts and was implemented in classroom settings.
Keywords: authentic materials; ESP; reading; TermoCLIL; terminology; professional lexicon; Mathematics; authentic texts; CBI; Task-based instruction.

Annotatsiya. Til oʻrgatishda autentik materiallardan foydalanishning pedagogik qiymati XIX asrning oxirlaridan beri keng tan olingan va muhokama qilib kelingan boʻlib, u turli sohalardagi tadqiqotchilar va pedagoglarning eʼtiborini tortgan. Autentik materiallardan foydalanish nazariy jihatdan qoʻllab-quvvatlanishiga qaramay, ularni amaliy joriy etish jarayoni nisbatan sekin surʼatlarda rivojlanib kelmoqda. Darsliklar bu kabi materiallarni samarali tarzda integratsiya qilishning murakkabliklarini va talablarini yetarli darajada qoplay olmaydi. Ushbu tadqiqot autentik materiallar, yaʼni real hayotdagi muloqotlar, autentik matnlar va TermoCLIL yondashuvi asosidagi keys tadqiqotlardan foydalanishning afzalliklari va qiyinchiliklarini oʻrganadi. Ushbu yondashuvning samaradorligi talabalar va oʻqituvchilardan olingan onlayn soʻrovlar orqali baholandi. Tadqiqotda, xususan, matematika talabalari uchun ixtisoslashtirilgan autentik oʻquv materiallardan foydalanish va uning ixtsisoslikga oid leksik kompetensiyani rivojlantirishdagi ahamiyati haqida soʼz yuritilgan. Tadqiqot Guliston davlat universitetining birinchi kurs matematika talabalarida ingliz tilini maxsus maqsadlar uchun oʻqitish doirasida oʻtkazildi. B1 darajasidagi autentik materiallarni integratsiya qilishga yoʻnaltirilgan taʼlim resurslari tanlanib, amaliy va kommunikativ kontekstlarni yaratish uchun ishlab chiqildi hamda dars jarayonlarida joriy etildi. Natijalar shundan dalolat beradiki, autentik materiallar va akademik kontekstlar talabalarni qiziqtirish va jalb etishda sezilarli darajada ijobiy taʼsir koʻrsatadi.

Kalit soʻzlar: autentik materiallar; ESP; oʻqish; TermoCLIL; terminologiya; professional leksika; matematika; autentik matnlar; CBI; TBI — vazifaga xoslangan taʼlim shakli.

Аннотация. Педагогическая ценность аутентичных материалов в обучении языкам признается и обсуждается с конца XIX века, привлекая внимание исследователей и педагогов из различных областей. Несмотря на теоретическую поддержку использования аутентичных материалов, их практическая реализация продвигается сравнительно медленно. Учебники часто не способны в полной мере учитывать сложность и требования интеграции таких материалов. Данное исследование рассматривает преимущества и трудности использования аутентичных материалов, таких как реальные разговоры, аутентичные тексты и кейс-исследования, основанные на подходе TermoCLIL. Эффективность этого подхода была оценена с помощью онлайн-опросов, проведенных среди студентов и преподавателей. В исследовании особое внимание уделялось использованию специализированных аутентичных учебных материалов для студентов-математиков. Исследование было проведено среди студентов первого курса математического факультета Гулистанского государственного университета, обучающихся английскому языку для специальных целей. Были отобраны учебные ресурсы уровня B1, направленные на интеграцию аутентичных материалов, разработаны практические и коммуникативные контексты, которые применялись в учебном процессе. Результаты показали, что аутентичные материалы и академический контекст оказывают значительное положительное влияние на интерес и вовлеченность студентов.

Ключевые слова: аутентичные материалы; ESP; чтение; TermoCLIL; терминология; профессиональная лексика; математика; аутентичные тексты; CBI, TBI — форма специализированного обучения.

Introduction

The introduction of ESP (English for Specific Purposes) into Uzbekistan's education sector began in 2016 as a result of the EnSPIRe-U (English for Specific Purposes Integrated Reform in Uzbekistan) project, established through collaboration between the British Embassy and the Scientific-Practical Innovation Center under the Ministry of Higher and Secondary Specialized Education of the Republic of Uzbekistan. The main goal of this program was to develop curricula, manuals, and assessment systems for non-philological higher education institutions in the country. It was decided that the assessment criteria and teaching system in ESP education should be based on international CEFR (Common European Framework of Reference) standards and the State Education Standards. According to the decision of the Cabinet of Ministers titled "Requirements for Foreign Language Proficiency at All Levels of Education," students in non-philological fields at all higher education institutions in Uzbekistan are required to achieve a foreign language proficiency level equivalent to B2 under the CEFR system by the end of their 7th semester of study (2).

Main part

Although the implementation of the ESP approach in Uzbekistan was gradual, significant progress has been observed in recent years. One of the most important measures regarding the introduction of foreign language education was the Presidential Decree (1) on "Approval of the Strategy for Innovative Development for 2019-2021" which outlined goals such as positioning Uzbekistan among the world's top 50 countries by 2030, improving the quality and coverage of education, developing a continuous education system, ensuring flexibility, and aligning the training of specialists with the needs of the economy. The increasing openness of Uzbekistan, its active entry into the global market, and the expansion of international cooperation in various fields have heightened the demand for foreign language proficiency. Starting from the 2022/2023 academic year, participation in competitive admissions for postgraduate programs and specializations in higher education institutions requires candidates to possess a national or equivalent international certificate. A minimum C1 proficiency level is required for philology-related specialisations, while for non-philological fields, a B2 level suffices. Decisions like these undeniably enhance the scope and significance of research quality, empowering future researchers to utilize and apply international expertise independently.

Under this framework, the international certificates relevant to English proficiency include IELTS, TOEFL, TEFL, TESOL, GRE (for mathematics, physics, biology, and chemistry), GMAT (for mathematics and computer science), and SAT (for mathematics, physics, biology, and chemistry). However, recognizing that many students in Uzbekistan may only achieve the required levels after a period of time, the project has been designed for phased implementation. For years, ESP classes aimed at specific professional fields involved extracting terms from texts,

translating them, and explaining their meanings by the teacher. Indeed, the Grammar Translation Method (GTM) has been a dominant approach in language education. This method emphasizes teaching the grammar and vocabulary of the target language through translation from one language to another (11, 103–105). However, in recent years, this method has been criticized in developed countries for its deductive and authoritarian approach, which focuses solely on grammar and vocabulary. As Kumaravadivelu states, "The method is a central element of any language teaching framework" (8, 83). However, learning a foreign language outside its context has proven to be less effective for students. To address this, new trends in English as a Foreign Language (EFL) teaching have emerged to engage students and meet their needs. Programs or methodologies such as ESP, CBI (Content-Based Instruction), and CLT (Communicative Language Teaching) were developed to cater to the specific language needs of professionals like entrepreneurs, engineers, flight crews, lawyers, sales managers, tour guides, and others. These approaches emphasize learning the language in real contexts that align with students' needs and interests. In response to global economic changes and increasing demands from employers, several innovative methods have been developed for teaching foreign languages in non-philological fields. These include Communicative Language Teaching (CLT), the Bilingual Approach, Computer-Assisted Language Learning (CALL), Task-Based Teaching, Theme-Based Learning, Content-Based Approach (CBA), and others. Research and practical findings have shown that traditional methods such as the communicative approach do not sufficiently support students' acquisition of specialized knowledge. As a result, approaches like CLIL (Content and Language Integrated Learning) have proven advantageous in equipping ESP learners with specific knowledge. Another effective method for incorporating specialized vocabulary into lessons is using contemporary, authentic texts related to professional activities, presented in a format comprehensible to learners. Students in non-philological fields are now expected not only to develop general language proficiency and communication skills but also to acquire specialized knowledge.

Literature review

Content-Based Instruction (CBI) is an approach widely utilized in the North American educational context, primarily aimed at improving English literacy among individuals whose first language is not English (5, 23- 41). Its emergence in the United States dates back to the 1970s, coinciding with an influx of non-native English-speaking students into the country. These students benefited from programs integrating English language and content, facilitating their success in other academic disciplines (5, 1990). In this context, CBI is recognized as an approach that emphasizes teaching a specific subject through the medium of language. Here, language takes a secondary role to content, and the focus is on aiding students in comprehending the subject matter through cognitive support.

CBI features three primary models:

1. **Theme-Based Learning (TBL):** Centers on teaching language through specific themes, integrating multiple subject areas into a unified curriculum.

2. **Sheltered Content Instruction:** Adapts content to suit learners' language proficiency levels.

3. **Adjunct Instruction:** Combines content and language instruction as complementary components.

Among these, *theme-based learning* has been the most commonly employed model over the past two decades.

Theme-Based Learning (TBL)

TBL is an educational approach where instruction is centered around specific themes, with language and content seamlessly integrated. It connects various subject areas under a common theme, providing structure for lessons and aiding educators in lesson planning. According to Richards and Rodgers (2014), *"Each language teacher has the freedom to apply this approach based on the needs of their specific classes"* (16, 112p). This aligns with Fiorito's (2005) idea of *"learning through doing,"* where the structure of ESP (English for Specific Purposes) lessons is designed based on learners' interests and needs.

In TBL:

• Language skills (e.g., grammar, vocabulary) are taught under the teacher's guidance.

• Themes are chosen based on their relevance and importance to the learners.

This approach allows for customized curricula, fostering academic skills, and enhancing critical thinking abilities among learners.

Task-Based Learning (TBL)

Task-Based Learning is grounded in communicative language teaching and has a strong theoretical foundation supported by successful research (14,15). It emphasizes learning through meaningful tasks rather than merely reading or grammar exercises. Students engage in diverse activities to develop their language skills. As Pica notes, *"The language used in tasks is not predetermined but depends on the linguistic and communicative objectives associated with the task"* (14, 74). This makes TBL an effective approach for strengthening language skills through real-world applications.

Content and Language Integrated Learning (CLIL)

CLIL is a newer approach that integrates content and language learning within the same lesson. Some researchers describe CLIL as an umbrella term encompassing various methodologies focused on combining subject matter with language instruction (13). While it shares similarities with communicative teaching (CLT) and CBI, CLIL prioritizes real-life applications of content and language. Introduced in 1994 by David Marsh and Anne Maljers, CLIL aims to teach subjects using a foreign or second language as the medium of instruction (7, 1-19). Here, both content and

language serve as tools for learning. Teachers act as both subject and language instructors, creating a classroom environment where both areas are integrated.

Key features of CLIL include:
- Content that is current, relevant, and cognitively engaging.
- A focus on language use rather than language learning.
- Emphasis on authentic materials reflective of cultural contexts.

Differences between CLIL, CBI and TBI

Features	CLIL	CBI	Task based instruction
Use of language	Moderate focus	Secondary to content	Task-driven
Learning materials	Authentic	Authentic	Authentic
Lesson objective	Knowledge of both subject and language	Content driven	Topic-specific language use
Classroom focus	Integrated	Content-centric	Task-oriented

Q1. Use of authentic reading materials

TermoCLIL approach in ESP teaching

CLIL is gradually being introduced into Uzbekistan's higher education institutions, particularly in non-philological fields. However, its implementation remains limited due to a lack of research and practical experience. The approach is particularly relevant for ESP (English for Specific Purposes) classes, where balancing subject-specific knowledge with language skills is crucial. By using CLIL, authentic materials, and context-based strategies, educators can create a dynamic learning environment tailored to students' needs.

Based on our research with mathematics students, their main goal in learning English is to improve their academic potential related to understanding textbooks, scientific articles, and lecture materials in foreign languages. These materials cover terminology associated with various mathematical operations, functions, theorems, and concepts that cannot be directly translated into their native language. Students learning mathematics terminology in English aim to understand and use internationally recognized standard terms that are important for their academic and professional development. This enables them to express ideas clearly and effectively in academic and professional environments. It also helps them better understand complex mathematical concepts and stay updated on the latest developments in the field. By learning mathematical terms in English, students can better interpret instructions, problems, and available applications, thus improving their problem-solving abilities in various academic or work-related settings. Knowing mathematical terminology in English prepares students for studying abroad, participating

in international practices, and collaborating in global research projects. It allows them to confidently present their research, participate in discussions, and write articles or reports, all essential for effective collaboration in a global environment.

Considering the importance of mastering terminology for these students, we applied a terminological approach through the CLIL (Content and Language Integrated Learning) methodology. A terminological CLIL approach in ESP (English for Specific Purposes) classes aims to teach the terminology and technical vocabulary related to important fields of study while integrating language and content. In this approach, the terms of a specific field (e.g., medicine, engineering, business) serve not only to expand vocabulary but also as a key element in developing content knowledge and language skills. Since terminology involves collecting, describing, processing, and systematically expressing concepts relevant to a specific field, its use in CLIL education forms the basis of the lesson. When a particular field is new to students, they first introduce the topic through terminology. The CLIL-terminology approach (TermoCLIL) strengthens the beneficial dialogical relationship between CLIL and terminology. This represents the connection between two key criteria: (1) knowledge and competencies (concepts and experiences) and (2) language (knowledge-related speech). Together, these criteria ensure the development of specialized knowledge and effective communication, as a term cannot exist without a concept (knowledge), and vice versa. Terminology is crucial in developing communication processes and exchanging information and knowledge. Knowledge images are conveyed through speech; terminology is the main tool for expressing the link between concepts, text, and terms.

A terminological CLIL approach integrates several characteristics:

1. *Focus on specialized vocabulary* – The main goal of ESP classes is to teach students the language used in academic or professional contexts. The terminological CLIL approach emphasizes learning technical vocabulary and field-specific terms.

2. *Contextualizing terms* – Instead of learning terms in isolation, students learn them through meaningful materials from real life, helping them understand how these terms are used in professional settings.

3. *Learning both language and content together* – Terminology acts as a bridge between content and language. Students are required to understand not only how to use terms correctly but also their meaning and usage.

4. *Integrating functional language skills* – This approach also teaches students the functional language needed to explain, clarify, discuss, or present terms.

5. *Using terminology as a cognitive development tool* – In addition to language acquisition, the CLIL approach aims to develop higher-order thinking skills, such as analysis, synthesis, and evaluation.

The profile of a lesson based on the TermoCLIL method follows the structure of CLIL models, which includes pre-reading, while-reading, and post-reading stages. Initially, content-related knowledge is strengthened, followed by the development of language skills. The first part of the material focuses on expanding knowledge of the subject, while post-

reading activities are centered around developing language skills. This sequence helps students deeply explore both content and language. These stages serve to integrate traditional reading and comprehension concepts while promoting the development of both language and content.

Reading activities can be divided into pre-reading, during-reading, and post-reading. According to Zheng, pre-reading activities help students form concepts by providing clear outlines. The pre-reading stage activates students' prior or background knowledge (19). Unfortunately, teachers often neglect the pre-reading phase due to time constraints, but this phase is essential for motivating students to engage with the main reading process. For example, teachers can ask questions about the topic before reading the text or introduce keywords and concepts.

For mathematics speciality students, reading activities may resemble traditional English reading lessons, but the main difference lies in the focus on mathematics-related professional knowledge. Throughout the lesson, teachers should help students understand English vocabulary and grammatical rules and provide guidance in interpreting the text. Teaching mathematics-related knowledge should be a core part of an English language course. Teachers define learning objectives at the beginning of the semester, divide students into groups, and require independent information gathering, group discussions, and presentations on the topic. As a result of pre-reading activities, students gain a deeper understanding of the topic, increasing their interest in language learning and enhancing their understanding of professional knowledge.

The interactive process of working with the text aims to develop students' ability to comprehend the text by enhancing their linguistic and schematic knowledge. Paran (1996) and Alyousef (2006) suggest combining top-down and bottom-up approaches, giving students flexibility in reading tasks. Haller (cited in Alyousef, 2006) proposed a model that includes post-reading activities to improve learning, such as adjustment exercises and comprehension questions (3, 144p). Basturkman supports that ESP prepares students to use English in academic, professional, or work environments (4, 2006).

Various tasks focused on understanding content and language are carried out during reading:

- Skimming and scanning: Asking students to identify the main idea or key information in the text.
- Comprehension-checking questions: Providing questions that help students understand the key ideas and concepts of the text.
- Identifying terms: Recognizing and noting down terms learned during pre-reading and new ones encountered in the text.
- Summarizing: Asking students to summarize parts of the text.

In the post-reading stage, students deepen their understanding of the text and strengthen their knowledge of both language and content. The focus is on expanding their knowledge in the subject area, applying new terms and concepts in meaningful contexts, and encouraging critical thinking. This stage often involves additional tasks based on the text:

- Debates or discussions: Asking students to discuss or debate the ideas presented in the text.

- Presentations: Assigning tasks like summarizing, solving related problems, or preparing presentations based on the topics.
- Practical application tasks: Encouraging students to apply what they've learned to real-life situations or additional problems.
- Attention to language: Revisiting the text to analyze the language structures or grammatical features used.

All these processes help students master a foreign language and understand content, familiarize themselves with specialized terminology in complex content, and apply it in real contexts. Each stage is designed to help students thoroughly explore both content and language in sequence. This study aims to develop the terminological competence of mathematics specialty students through authentic learning materials. Thus, it is essential to consider authentic reading texts that assist students in mastering specialized field vocabulary.

Authentic Reading Materials

The debate over whether materials selected for ESP lessons should be authentic or non-authentic is widely discussed in ESP literature. Recently, ESP teachers have increasingly preferred authentic materials over non-authentic ones. According to them, texts should be derived from real-life sources rather than being created for specific pedagogical purposes, as such materials naturally connect the artificial environment of the classroom with the real world where the language being learned is used. Reppen (2010) emphasized that "teachers prioritize authentic materials by using language from natural texts rather than examples they create for their lessons." In this sense, such corpora are a ready source of natural or real texts for language learning.

In their studies, Flowerdew and Peacock (2001) compared the advantages and disadvantages of using authentic materials in EAP courses. Firstly, authentic texts reflect the language used in daily life (10). Secondly, authentic texts preserve the overall meaning of the original material. Thirdly, authentic texts prepare learners for real-life situations. On the other hand, the authenticity of a text may mean something other than it is up-to-date. Additionally, such texts are often linguistically very complex. Another drawback of authentic texts is that they may only sometimes be suitable for a particular group of learners.

Authentic reading materials, such as articles, manuals, reports, newspapers, and magazines, are essential for ESP students because they provide real-life context for learners. Based on these accurate materials, tasks directly connect students to the language and help them understand how English is used in their fields. Moreover, authentic materials help boost students' motivation, as they often contain relevant, interesting, or field-specific content. This encourages students to recognize the real-world significance of their learning, leading to greater interest and enthusiasm in the language learning process.

Authentic materials can be sourced from various places. Today, it is necessary to recognize that the internet is one of the most reliable sources for such materials. Unlike printed materials, which quickly become

outdated, the internet is continuously updated, making it an invaluable resource for authentic content.

Methodology

During the research aimed at developing the professional lexical competence of mathematics students, we analyzed existing literature and prior studies, incorporating their strengths and addressing their shortcomings. Additionally, over 10 ESP teachers from various higher education institutions nationwide participated in the study. Data collection methods included surveys and interviews, with the primary tool being the survey.

Two types of surveys were used: one designed for teachers and the other for students, collecting qualitative data. The researcher adapted these surveys from existing surveys related to the topic. Based on the research focus, additional questions relevant to the topic were added to the surveys.

The survey design checklist incorporated elements from the works of Litz (2005), Littlejohn (1998), Ur (1996), Cunningsworth (1995), Eskey and Grabe (1988), and Sheldon (1988). Key features of these checklists were carefully selected and integrated.

The two surveys were conducted via the Google Forms online platform to identify teachers' attitudes toward authentic learning materials and exercises. The first part of the surveys for both students and teachers was designed to gather demographic information. The second part included statements to collect data about the structure of ESP lessons, material selection, skills and strategies, teaching and learning methodologies, and general attitudes toward ESP textbooks. Five ESP teachers from various universities in the country participated in the survey. The questionnaire consisted of 15 questions and was specifically designed to evaluate the effectiveness of authentic (real-world) reading materials in ESP lessons.

Data collection

For this study, the necessary data were collected through surveys and interviews and subsequently analyzed. The aim was to determine the attitudes of students and teachers toward the content structure of ESP lessons and to identify whether there are differences between their perspectives on the organization of these lessons. To achieve this, the content of the responses reflecting the attitudes of both students and teachers was presented for analysis.

Results and discussion

We discuss the findings of a survey conducted among ESP teachers across various institutions. The survey explored the materials used, the benefits of incorporating authenticity, challenges faced, and strategies for effective implementation. The discussion sheds light on the growing importance of authenticity in ESP pedagogy and its implications for curriculum design and teacher training.

Q1. Use of authentic reading materials

The survey reveals that teachers utilize a broad spectrum of reading materials, including textbooks, news articles, blogs, research papers, and case studies. The choice often depends on the students' academic major, reflecting the contextual nature of ESP teaching. For instance, law students are exposed to case studies and reports, while economics students frequently engage with research articles and financial reports. This diversity underscores the flexibility required in selecting materials that cater to specific fields and professional needs.
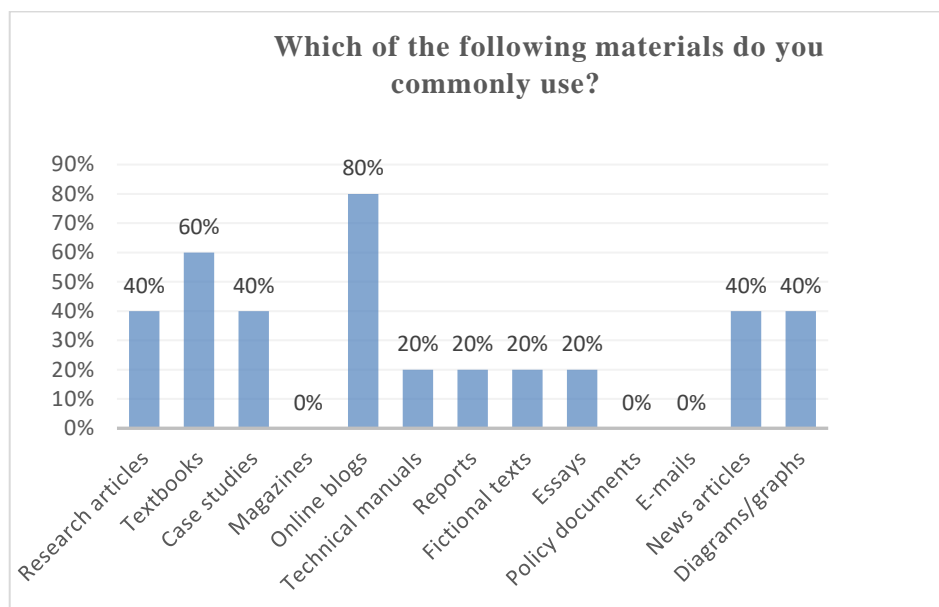

Q2. Value of authentic reading materials

The respondents widely acknowledged the significance of authentic materials in ESP instruction. These materials were regarded as pivotal for developing students' domain-specific vocabulary and equipping them with the linguistic skills necessary for professional and academic careers. Authentic texts, such as industry reports or professional correspondence, simulate real-world communication, making the learning experience more relevant and engaging. However, some participants noted that the effectiveness of authentic materials often depends on their alignment with students' interests and their perceived relevance to future career goals.
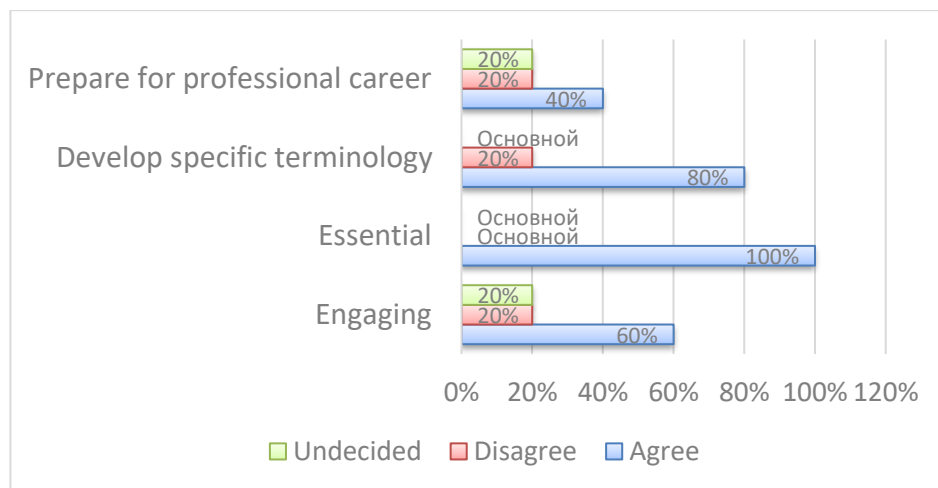
Q3. Challenges in implementation

Despite their benefits, the use of authentic materials is not without challenges. A significant concern among teachers was the complexity of these materials, which are often beyond the English proficiency levels of many students. Additionally, aligning authentic materials with ESP curricula was cited as a major difficulty. Many teachers found it challenging to source materials that meet both linguistic and subject-specific requirements. The time and effort required to adapt authentic texts for classroom use further added to the burden.
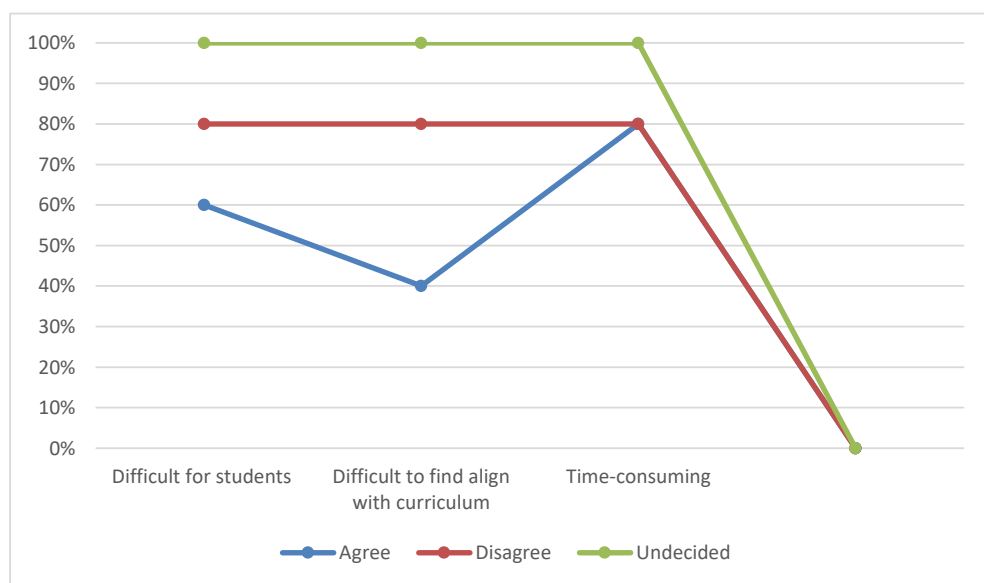
Q4. Strategies for Effective use

Teachers have adopted various strategies to overcome these challenges. Simplifying vocabulary, summarizing content, and breaking materials into smaller sections were common practices. Other approaches included selecting texts based on students' interests and levels to increase engagement and tailoring materials to align with lesson objectives. These methods demonstrate a proactive effort to balance the authenticity of materials with accessibility and pedagogical relevance.

Q5. Engagement and pedagogical balance

While many respondents agreed that authentic materials are more engaging than traditional ESP resources, some emphasized that this depends on factors such as the material's relevance and the students' interests. This highlights the need for a balanced approach that integrates both authentic and traditional resources, ensuring that students benefit from realistic language exposure while maintaining an achievable level of comprehension.

The second method of data collection for the study was interviews. The researcher conducted interviews to gain a deeper understanding of the research questions. Additionally, the researcher could verify the accuracy of the data collected through the survey. The interviews were conducted with 13 students from the Faculty of Mathematics and Information Technology, specializing in "Computer Engineering." of the 13 participants, 4 were female, and 9 were male.

The following questions were asked:

Content of questions	Answers
Do you like learning English through authentic reading materials?	*All of the participants responded "yes" to this question*
Do you consider them interesting and engaging?	*All of the participants responded "yes" to the question*
Which of these authentic reading materials do you find the best?	*6 students selected "case studies", 2 students "scientific articles", 2 students responded "texts"*
Do you think the language using in these materials is difficult?	*All the participants found the level of difficulty was normal. They were able to understand the meaning of texts.*
Do these materials help you to learn specific terminology?	*All the participants responded "yes"*
Do Math related texts improve your reading comprehension? What do you like most about using authentic reading materials in Math classes?	*All the participants responded "yes"5 students responded they are interesting to do, 3 students found them as up-to-date information, 5 students described them as close to their field of study*
What challenges have you faced when using authentic reading materials?	*All of the participants responded presence of unknown words*

Conclusion

The survey highlights the indispensable role of authentic reading materials in ESP classrooms. While challenges such as complexity and adaptation persist, the benefits of enhanced engagement, vocabulary development, and real-world applicability outweigh the difficulties. By adopting innovative strategies and fostering collaboration among educators, the effective integration of authentic materials can transform ESP teaching, bridging the gap between classroom learning and professional practice.

References

1. Burger, S., Weinberg, A., & Wesche, M. (2013). Immersion studies at the University of Ottawa: From the 1980s to the present. Cahiers de L'ilob, 6, 21-43. DOI: https://doi.org/10.18192/olbiwp.v6i0.1130
2. Bruner, J.S. (1990), *Acts of meaning*. Cambridge, Mass.: Harvard University Press, 188 p.
3. Crandall, J., & Tucker, G. R. (1990). Content-based instruction in second and foreign languages. In A. Padilla, H. Fairchild, & C. Valadez (Eds.), Foreign language education: Issues and strategies. Newbury Park, CA: Sage. Retrieved from: https://eric.ed.gov/?id=ED366187
4. Cheng, Y. (2000). *The effects of formal schemata on the reading comprehension of expository texts by Chinese students*. Doctoral Dissertation, South Illinois University, Carbondale
5. Ellis, R. 2003.Task-Based Language Learning and Teaching. Oxford: Oxford Harmer, J. 1996.How to Teach English. London: Addison Wesley Longman
6. Fortanet-Gómez, I. and Räisänen, Ch. (eds.): 2008, *ESP in European Higher Education. Integrating Language and Content*. John Benjamins, Amsterdam.
7. Kumaravadivelu, B. (2006). TESOL Methods: Changing Tracks, Challenging Trends. TESOL Quarterly, 40, 59. Retrieved from:https://doi.org/10.2307/40264511
8. Lightbown, P., & Spada, N. (2013). How languages are learned (4 ed.). Oxford, UK: Oxford University Press.
9. Mehisto, P. 2007, What a school needs to consider before launching a CLIL programme: the Estonian Experience, in D. Marsh and D. Wolff (eds.), *Diverse Contexts – Converging Goals.CLIL in Europe* (61-77). Peter Lang, Frankfurt am Main.
10. Mart, C. (2013). The Grammar-Translation Method and the Use of Translation to Facilitate Learning in ESL Classes. Journal of Advances in English Language Teaching, 1, 103-105.
11. Marsh, D. 2002. Content and Language Integrated Learning: The European Dimension Actions, Trends and Foresight Potential. Retrieved from: http://europa.eu.int/comm/education/languages/index/html
12. Nunan, D. (2004). *Task-based language teaching.* Cambridge: Cambridge University Press.
13. Prabhu, N. S. (1987). *Second language pedagogy.* Oxford: Oxford University Press.

14. Richards, J. C. (2000) *Curriculum Development in Language Teaching,* New York: Cambridge University Press, Retrieved from: https://books.google.ru/books?id=tVhx_B3a3qQC&source=ttb&redir_esc =y

15. Zhang Zicheng. (1993). *Literature review on reading strategy research*, Retrieved from: https://eric.ed.gov/?id=ED366908