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THE IMPACT OF DIGITAL AUTHENTIC MATERIALS IN ESP CLASSROOMS ON STUDENTS' CRITICAL THINKING AND EFFECTIVE COMMUNICATION

Abstract

The main goal of this study was to examine the effectiveness of specific task-design strategies for integrating accurate digital materials into English for Specific Purposes instruction. The study, which involved thirty-five language instructors from the English language departments of two prominent Kazakh universities, used a mixed-methods approach, collecting quantitative data through standardized tests and qualitative data through student interviews and classroom observations. The significant results showed that teaching critical media literacy and using authentic materials in language learning significantly improves language proficiency and student engagement. It equips students with the necessary skills to navigate and evaluate digital information. These findings highlight the potential of authentic digital materials in language instruction, suggesting a promising future in language education. The research findings underscore the crucial role of policymakers and stakeholders in considering these insights when developing effective professional development programs. These programs, informed by the study's findings, can help educators address challenges and acquire essential content knowledge, pedagogical expertise, and technological competence, thereby enhancing the quality of language education.

Key words: authenticity, English for Specific Purposes, digital authentic materials, language proficiency, student engagement, critical media literacy instruction.

Introduction

Language education literature extensively discusses and advocates integrating authentic materials into language learning. However, this study delves into the impact of digital authentic materials (DAMs) on language proficiency and student engagement in English for Specific Purposes (ESP), offering a fresh and compelling perspective on this ongoing discourse. This research investigates the effectiveness of using DAMs in ESP classrooms to enhance students' critical thinking and communicative competence, specifically focusing on the Kazakhstani higher education system.

In an information-saturated world, proficiency in English has become indispensable for professionals and academics in non-English-speaking countries. ESP courses aim to equip learners with the skills to communicate effectively within their respective domains [1]. These courses are tailored to meet learners' needs and focus on language skills directly relevant to their professional or academic fields. However, traditional ESP materials often fall short of engaging students by providing only foundational language skills that do not fully reflect the dynamic nature of language use in real-world professional contexts, depending on the purpose of language usage [2]. This gap between classroom learning and actual language use can hinder students' ability to apply their language skills effectively in their careers [3]. This is where DAMs, with multimedia elements such as videos, podcasts, articles, and interactive activities, come into play. They offer a promising solution, providing engaging, up-to-date, and contextually relevant content that reshapes English as a second language learning for Kazakhstan's education system, especially since its government has incorporated English into its national language policy [4]. The academic work in this field has focused on digitalizing education, particularly in online course design settings where distance learning is embraced. [5]. While the advantages of distance learning in higher education have been discussed, there is still a lack of research on how digital material (DM) usage pedagogy is developed, implemented, and perceived in geographical

contexts where English language authenticity is not the norm, such as in ESP programs in Kazakhstan and similar contexts.

The primary objective of this research is to evaluate the effectiveness of selected task-design strategies integrating DAMs into ESP instruction. Specifically, the study examines explicitly whether Critical Media Literacy Instruction (CMLI) task design for authentic materials (AMs) enhances language proficiency and increases engagement among undergraduate students. To tackle these inquiries, the research employs a mixed-methods strategy that integrates quantitative data from standardized assessments with qualitative perspectives from student interviews and classroom observations.

The study is organized as follows: Section *Literature review* reviews pertinent literature, detailing theoretical viewpoints on authenticity in language learning alongside earlier studies on DAMs in ESP education. Section *Materials and methods of research* outline the research design, covering participants, data collection tools, and analytical techniques. Section *Results and Discussions* presents the findings, emphasizing significant patterns and pedagogical implications. Lastly, Section 5 advises ESP instructors, curriculum developers, and policymakers on effectively incorporating DAMs into language education.

Literature review

In language teaching, "authenticity" and "authentic materials" have several definitions. Traditionally, authenticity means being true to its character, spirit, or source. In language education, authenticity refers to materials or tasks that mirror real-world language use and provide learners with practical communication opportunities [6]. From a digital perspective, authenticity involves using genuine, real-world content in digital formats to ensure learners encounter realistic language and cultural nuances [7].

AMs are valued for exposing learners to real-life language. Nunan states that authentic materials, spoken or written, aren't created specifically for teaching [8]. Hedge agrees, noting AMs lack contrived language [9]. Larsen-Freeman considers AMs essential to communicative language teaching [10]. Tomlinson and Masuhara argue AMs provide experiences of authentic language usage rather than just declarative knowledge [11]. They emphasize AMs help prepare learners for real-world use, enhancing linguistic and pragmatic competence [6.-105]. Exposure to real-life language improves students' context use. Utilizing AMs in teaching has positively influenced students' communicative competence [12]. Despite varying definitions, researchers generally agree AMs are created for authentic audiences and convey genuine messages. Compared to textbooks, AMs are dynamic and engaging, preparing learners for everyday and professional communication [13]. Thus, teaching materials should reflect social and contextual aspects of real-life language use while supporting classroom interactions.

Digital resources (DRs) in language education have become increasingly popular. DAMs have several advantages over traditional materials, including accessibility, flexibility, and the ability to provide immediate feedback. [14]. The potential of digital literacies enhances learner engagement by offering diverse, up-to-date content that can be quickly updated to reflect current trends and developments. This ensures students are exposed to the most relevant language [7. – 10]. Additionally, digital platforms provide instant feedback on exercises and quizzes, facilitating rapid learning and helping to correct mistakes [15].

Selwyn highlights the advantages of DMs, stressing their role in enhancing students' learning by making it more accessible and flexible, catering to their schedules [16]. This flexibility is particularly beneficial for graduate students who often have demanding schedules and may struggle to attend regular classes. The most significant benefit is real-world language use, which helps students develop practical language skills relevant to their everyday and professional lives [17]. Therefore, DAMs serve as learning resources to bridge the gap between classroom learning and real-world application, making language learning more meaningful and effective.

While DRs have significant benefits, their integration has also associated challenges. One major issue is the dependence on technology, which leads to disruptions if there are technical problems or if students need more access to necessary devices and reliable internet [18]. Another challenge is the abundance of DMs with non-educational content available on the internet, potentially disrupting the learning process and making it difficult for students to focus on the most relevant content [19]. Additionally, not all students possess the same level of digital literacy, which creates disparities in learning efficiency and outcomes [7. – 15]. Excessive reliance on DMs reduces face-to-face interaction and communication practice, which are crucial for language development [15. – 142]. *The abundance of digital resources makes it essential to select carefully and vet materials to ensure they meet educational standards and are relevant to the ESP context, which is also challenging. Further, we will discuss the selection criteria for DAMs in language classrooms*.

Materials and methods of research

Task Design Strategies to Integrate Digital Authentic Materials to ESP Classrooms. Establishing effective selection strategies for DAMs ensures the relevance of these materials meets students' learning needs and is suitable for various global purposes. According to Tomlinson, the criteria for selecting authentic materials in media resources include relevance to learning goals, level appropriateness, engagement potential, accessibility, currency, cultural appropriateness, usability, and feedback mechanisms [20]. These criteria ensure that the materials are suitable for the learners' proficiency levels, culturally appropriate, engaging, and relevant to their professional or academic contexts, thereby extending learners' linguistic resources. Widdowson, Kukulska-Hulme, and Shield emphasize the importance of accessibility, noting that materials should be accessible on various devices and platforms to ensure that all students benefit. [17.-162]. Selwyn also underscores the importance of usability and technical quality, arguing that high-quality audio and video materials are essential for effective language learning [16. – 17].

The digital era has transformed how we access and consume information but has also brought significant challenges related to bias and propaganda [21]. With the increasing number of language learners relying on online resources for their studies, it is essential to learn how to identify and avoid biased or propagandistic content. One major challenge is the overwhelming volume of online information, making it difficult to sift through. Content creators are skilled at manipulating algorithms and user behaviour to boost the visibility of their material, irrespective of its accuracy or quality. This results in the spread of false or misleading information, commonly known as 'fake news,' which is detrimental to language learners [22]. Additionally, the digital landscape is characterized by 'filter bubbles,' where individuals are primarily exposed to content that aligns with their existing beliefs and biases. This perpetuates stereotypes and prejudices, which pose challenges for language learners striving to develop a more nuanced understanding of the target culture and language [23].

To tackle these challenges, it is important to use strategies for designing tasks that improve students' digital literacy and promote awareness of bias and propaganda in digital texts. *Critical media literacy instructions (CMLI) consist of media literacy instructions, diverse perspectives and source evaluations, and debate and discussion instructions to help students critically evaluate online sources, recognize bias and propaganda, and consider diverse perspectives within ESP classrooms* (Table 1). By using these strategies, educators can (1) significantly improve language proficiency and engagement and (2) effectively prepare students with the skills they need to navigate and evaluate digital information.

Table 1 – Criteria for Instructions to Integrate Digital Authentic Materials to ESP.

Criteria for Instructions to Integrate Digital Authentic Materials in ESP Classrooms			
Digital Literacy Instruction	Media Literacy Instruction	Diverse Perspectives and Source Evaluation	Debate and Discussion Instruction
Hands-on activity for applying digital tools to complete various tasks (producing media content, doing projects, and gamification).	Hands-on activity where students use the CRAAP test to evaluate a set of preselected articles.	Activity on Evaluation and justification of the assigned sources for trustworthiness and credibility (CRAAP Test).	Group discussion on findings with a focus on identifying bias and propaganda techniques.
Critical Media Literacy Instruction			
Note: The criteria created by authors to navigate and assess digital resources.			

Media literacy teaches students to carefully analyse and assess media sources for credibility, bias, and reliability. This includes using frameworks like CRAAP (Currency, Relevance, Authority, Accuracy, Purpose) to evaluate information (Table 2). Developing critical media literacy (CML) helps students navigate the wide range of online information, discern between credible and biased sources, and make informed decisions. According to McGrew, teaching CML enhances students' ability to evaluate the credibility of online information, which is especially important in a time of information overload and misinformation [24]. Practical exercises, such as having students assess different news articles on the same topic using the CRAAP test, help them understand how to identify reliable information from unreliable sources.

Table 2 – CRAAP Test Evaluation Worksheet.

CRAAP Test Evaluation Worksheet		Response
Currency:	When was the information published or updated? Is the information current or outdated for your topic?	
Relevance:	Does the information relate to your topic or answer your question? Who is the intended audience? Is the information at an appropriate level?	
Authority:	Who is the author/publisher/source/sponsor? What are the author's credentials or organizational affiliations?	
Accuracy:	Does evidence support the information? Has the information been reviewed or refereed? Are there spelling, grammar, or typographical errors?	
Purpose:	What is the purpose of the information? Is the information fact, opinion, or propaganda? Does the point of view appear objective and impartial?	
Note: Table 2 is drawn based on reference [24]		

The *Diverse Perspectives and Source Evaluation* strategy introduces students to various perspectives using global news sources. It prompts students to compare how different cultures report the same events and teaches them to discern between credible and biased sources. Encouraging students to seek diverse perspectives helps them develop a more balanced and comprehensive understanding of global issues, allowing them to actively shape their personal and professional futures [25].

Developing analytical skills through *Debate and Discussion* instructions involves organizing classroom debates on controversial topics. Students are required to use credible sources to support their arguments. Additionally, facilitating group discussions to challenge biased viewpoints and promote collaborative learning is integral to this process. Engaging students in debates and discussions fosters their analytical skills as they learn to evaluate evidence and construct well-reasoned arguments critically. Hosting a classroom debate on a

current event, with students citing reliable sources and identifying biases in their materials, helps them practice evaluating information critically and presenting their findings effectively. Table 3 provides a sample assignment to develop critical evaluation skills in language classrooms.

Table 3 – Sample Activities on Practicing the CRAAP test.

Instruction Classification and Assignment	
Assignment for Teachers	Assignment for Students
Research Assignment: Assign 2-3 sources summary report justifying the credibility of each source based on the CRAAP Test.	Individually find 2-3 sources on the assigned topic. Evaluate each source using the CRAAP Test. Write a brief report summarizing the evaluations and justifying the credibility of each source.
Peer Review and Feedback: Pair students to exchange reports.	Provide feedback based on CRAAP test criteria (Appendix B). Fill out the evaluation worksheet for each source.
Class Discussion: Assign each to present their findings briefly and discuss the evaluations as a class.	Discuss common findings and challenges faced during the evaluations as a class. Highlight key points about source credibility and reliability; focus on identifying bias and propaganda techniques in the sources.
Note: Table 3 is created by the authors to practice the CRAAP test for the assignment.	

One crucial strategy for using authentic digital materials in language learning is to be cautious of sources with a clear agenda or bias and always to verify information from multiple reputable sources. Through developing digital literacy skills and heightened awareness of these issues, educators can empower students with the critical thinking and research skills necessary to identify and steer clear of biased or propagandistic content language. This, in turn, enables learners to access high-quality, reliable information that fosters their language development and cultural understanding.

A. Participants.

Thirty-five (n=35) English language instructors aged between 25 and 61 (M=43) were voluntarily recruited as research subjects. Twenty-one participants were aged 25-44, and fourteen were aged 45-61. Participants were selected through their direct connection to the researchers representing al-Farabi Kazakh National University (al-Farabi University) and Kh.Dosmukhamedov Atyrau University (Atyrau University). Table 4 provides demographic information about participants and their academic background. Overall, there were twenty-eight female and seven male participants. Participants were chosen for their active involvement in ESP instruction and their experience with digital learning resources to guarantee a variety of viewpoints.

Table 4 – Demographic information about participants.

Gender	Al-Farabi University		Atyrau University		Total
Total	21		14		35
	MA	PhD	MA	PhD	
Female	10	7	9	2	28
Male	4	-	2	1	7
Aged 25-44	*9*	*3*	*8*	*1*	*21*
Aged 45-61	*5*	*4*	*3*	*2*	*14*
Note: Table 4 is designed by authors based on the data of the two university participants.					

B. Data Collection.

This research utilizes a mixed-methods strategy combining quantitative and qualitative techniques to evaluate DAMs' effectiveness when integrated into ESP instruction. The quantitative part involves a structured survey by ESP instructors, whereas the qualitative part features semi-structured interviews. This two-pronged approach offers statistical trends and comprehensive insights into the teaching application of DAMs.

All interviews, both conducted online or offline, lasted approximately three hours. Online interviews were chosen due to the interviewer's proximity to the participants. The interviewer ensured that participants felt at ease and could speak openly during the interview to minimize social desirability biases [26]. For example, participants were assured that there were no incorrect responses and that their identities and answers would be kept confidential. With the participants' consent, all interviews were recorded to guarantee the accurate capture of all relevant information for transcription and analysis.

Results and its discussion

The study findings were presented in two stages to gather the data for this study. The first stage reviewed teachers' satisfaction with CMLI after they experienced it in their English classrooms. First, a questionnaire survey was conducted to collect general data from participants. The questionnaire asked students to fill out a closed question form on a five-point Likert scale, where '1 – very effective,' '2 – quite effective,' '3 – somewhat effective,' '4 – ineffective,' and '5 – no difference' concerning CMLI. The recipients' answers were mixed. The survey revealed that 43% of the participants felt unsatisfied with suggested criteria, finding it ineffective, whereas 19% thought it was very effective. Almost 13% said it was quite effective, 16% thought there was no difference, and 9% said it was somewhat effective (Figure 1).

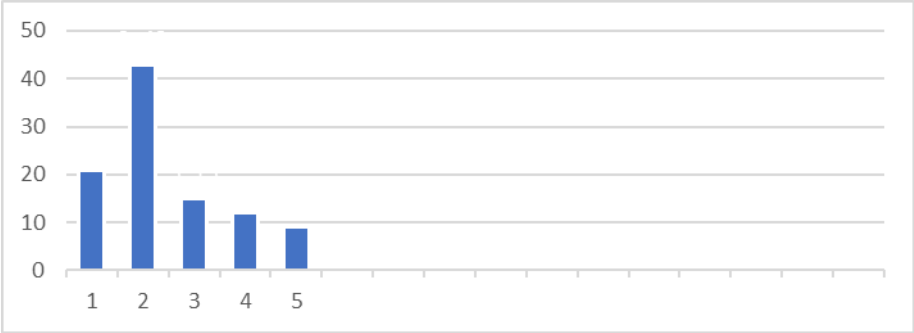

Figure 1 – Teachers' Satisfaction with CMLI.

Note: Figure 1 is designed according to the first stage findings.

The second stage employed semi-structured interviews to capture the insights from participants with personal experiences, beliefs, and attitudes regarding integrating authentic digital materials in ESP classrooms. This method was chosen to understand the subject under investigation comprehensively. The interview protocol encompassed two main areas: background information and central questions. The background information section included the teachers' names, affiliations, genders, ages, designations, years of teaching experience, majors where ESP is being taught, educational qualifications, and the use of authentic materials in class. The central questions section was divided into four subsections: (a) promoting flexibility, which inquired about the time, place, path, and pace of learning; (b) stimulating interaction, which asked about the verbal or non-verbal, spoken or written, and strategies that teachers employed; (c) facilitating learning processes, which asked about orienting/planning, monitoring, adjusting, and evaluating strategies; and (d) fostering an affective learning climate, which asked about how

teachers used affective strategies, promoted a positive attitude towards learning, and engaged students[26. –3]. Each subsection explored how teachers facilitated their classes with CMLI and the challenges they encountered. The interview protocol was validated by two experts with doctoral degrees, multiple publications in reputable journals, and at least ten years of teaching experience in higher education.

The transcribed interviews were thoroughly analysed using predetermined categories based on the conceptual framework and research questions. Initially, the responses were grouped into two general classifications: (1) Facilitating Learning and (2) Other Challenges with CMLI practice. Further classification was conducted within each general category, utilizing the four subcategories outlined by Boelens: promoting flexibility, stimulating interaction, facilitating learning processes, and fostering an effective learning climate [27]. To examine responses within each of the four subcategories about facilitating learning, we developed more detailed classifications based on the Boelens framework. Subsequently, we extracted the relevant codes from each participant's responses and categorized them based on their similarities and relationships. To analyse responses within the "Other Challenges" subcategories, we compared them across the four categories related to facilitating learning.

We performed a constant comparative and progressive analysis of cases to allow the initially identified subcategories to emerge and take shape while remaining open to the possibility of new categories, subcategories, or fine-grained classifications arising from the data. We also conducted a thorough and ongoing analysis of cases to let the initially identified subcategories develop and evolve. We remained open to the potential of new categories, subcategories, or detailed classifications emerging from the data. To ensure reliability, we independently analysed each response in the interview order.

The research delved into how educators in higher education integrate authentic digital materials into ESP classrooms. It focused on cultivating an environment that enhances students' language proficiency and engagement with authentic materials and the challenges they encounter during the teaching process.

Figures 2 – 4 summarize teachers' strategies to support learning within Boelens' categories (incorporating flexibility, facilitating interaction, and facilitating students' learning process) [26. –11]. Overall, teachers most frequently discussed practices related to fostering an effective learning atmosphere; second, followed by facilitating learning; third, incorporating flexibility and facilitating interaction were mentioned the least.

Figure 2 indicates that teachers emphasized flexibility in four critical areas outlined in our conceptual framework, including resource format (paper-based, computer-based, and gamification). This involved giving students choices in the lesson process, setting flexible topics for student discussions, and utilizing paper-based and computer-based materials.

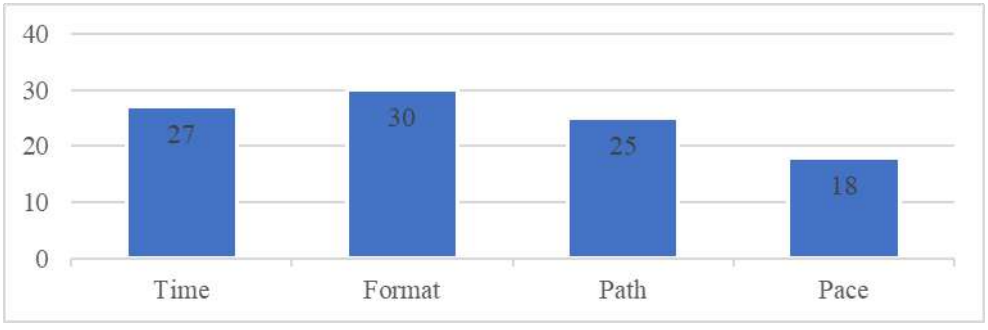

Figure 2 – Teachers' Responses on Incorporating Flexibility

Note: Figure 2 indicates the teachers' results of flexibility in four critical areas.

Teachers demonstrated flexibility in allowing students to produce digital content, such as blogging, microblogging, vlogging, podcasting, and digital storytelling. One teacher allowed her students to choose their learning space based on context. Some teachers adjusted the syllabus content or the course requirements to accommodate the order in which the content was provided. However, less than half of the teachers adjusted their teaching based on students' progress. These teachers allowed students to select study materials and change discussion topics to suit their needs. While many teachers practiced flexibility, some balanced it with inflexibility. One-fifth of participants reported that some teachers strictly followed the course outline and teaching strategies to meet school requirements.

The results show that although numerous teachers acknowledge the importance of flexibility, institutional restrictions and conventional curriculum frameworks hinder its application. The differing levels of flexibility imply that training programs should not only highlight the advantages of digital resources but also prepare teachers with tactics to address institutional and educational barriers. These findings suggest a continuum of teaching flexibility that requires further investigation.

Boelens' framework suggests that practices to encourage interaction include questioning, collaboration, feedback, and learning activities [26. –13]. According to Figure 3, questioning was a popular approach among our teachers. For example, almost one-half of respondents mentioned that they devoted less time to discussion and more time to questions and answers, while others incorporated interactive and gamified learning. Additionally, some teachers employed the Socratic method, engaging in cooperative dialogue with students through asking and answering questions. Meanwhile, one-fourth of the participants facilitated collaborative discussions and debates, allowing students to express their thoughts and engage in learning activities. Furthermore, some teachers allowed students to utilize affordable social media platforms to promote interaction, using video tools and instant messaging, among other affordances.

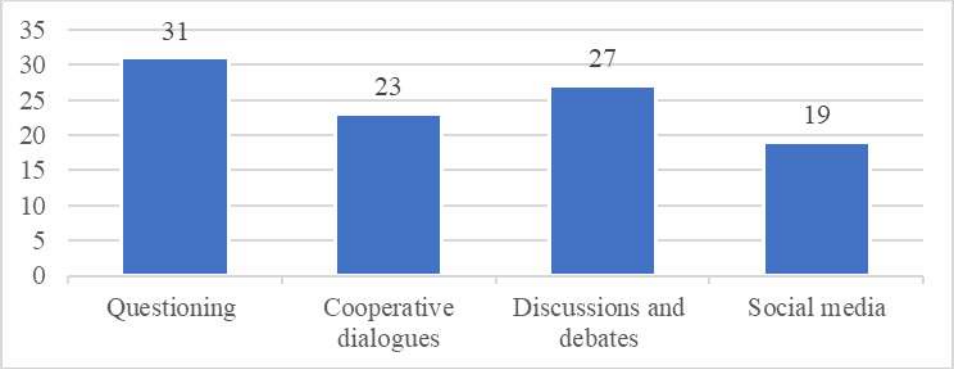

Figure 3 – Teachers' Responses on Facilitating Interaction.

Note: Figure 3 indicates the teachers' results of facilitating interaction.

In the study, teachers utilized various regulatory strategies such as adjusting, monitoring, and evaluating. Many teachers made adjustments based on their students' needs, providing remediation for struggling students or adapting content and activities to suit their students' abilities. They also closely monitored student progress through assessments like quizzes, writing tasks, and reflective essays, as well as by tracking attendance. To assess student learning, teachers employed various methods, including interactive exams, research papers, collaborative video projects, portfolio assessments, and objective tests. These strategies correspond with adaptive learning methods, in which educators adjust content presentation according to student advancements [14. – 138]. Nonetheless, the results indicate that numerous instructors depend on

conventional assessment techniques, which might not adequately reflect students' interaction with digital resources. Professional development programs should incorporate advice on alternative assessment methods, like digital portfolios and self-evaluation tools.

Addressing students' emotions is the most frequently utilized strategy for fostering an affective learning climate (Figure 4). To achieve this, teachers made themselves available to students outside regular class hours and prioritized open communication. Many teachers emphasized the positive impact of open communication, calling students to put more concentration and effort into submitting assignments and encouraging them to participate actively in group activities. Another strategy teachers employ to address students' emotions involves demonstrating empathy and consideration toward students. Some teachers highlighted their commitment to being considerate and attentive to their students' needs and concerns. Additional strategies used by teachers when addressing students' emotions included acknowledging students' efforts and work, promoting optimism, engaging students in reflective activities, discussing mental health, and incorporating humour and background music.

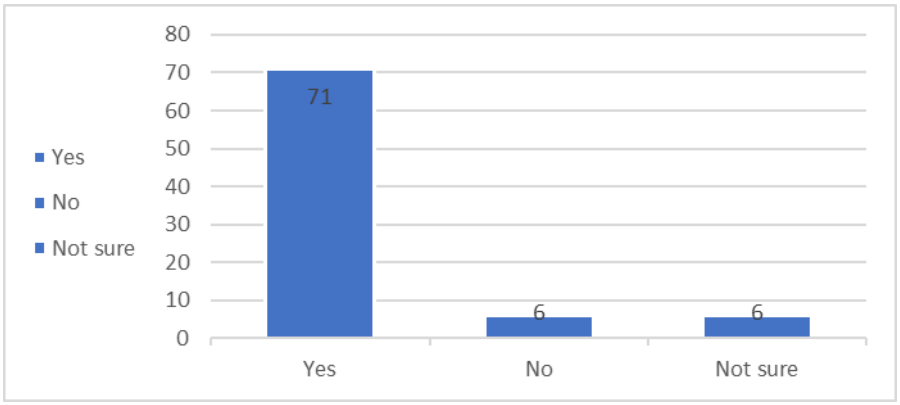

Figure 4 – Effect of CMLI on Students' Motivation.

Note: Figure 4 shows the effect of CMLI on students' motivation.

Another crucial aspect contributing to an effective learning climate is motivating students, nurturing a willingness to learn, and establishing clear expectations about the course and its learning outcomes. To accomplish this, teachers provided positive feedback and reinforcement, used motivational language, implemented personalized teaching methods, clarified learning outcomes, and encouraged peer learning. Regarding concentration and effort, more than half of the responses focused on setting deadlines. The teachers used different methods to engage their students. Half of them used a Socratic method, where they reviewed the previous session, reminded students to focus on learning, and explained the learning tasks. All teachers agreed that self-assessment helped students understand their learning outcomes and develop self-awareness. Additionally, five teachers incorporated appraising into their teaching by explaining the relevance of the learning tasks. For example, one teacher emphasized the importance of completing the assigned task, while another asked her students to write a reflection paper to understand the value of the learning activities.

The findings confirm the severe challenges experienced in technical proficiency, access to resources, time constraints, curriculum compatibility, and enhancing media literacy skills practicing the CRAAP test (Table 5). Most educators have claimed that learner-related and teaching delivery (46% and 51%, respectively) challenges internet connection availability, decreasing student enthusiasm for class engagement. According to Son, limited access to high-quality, authentic digital materials, especially in under-resourced educational settings, poses a significant barrier for teachers to find appropriate and relevant digital content that meets their

students' specific needs [18.-10]. Regarding teaching challenges, teachers expressed concern that some needed more technical skills (43%) to integrate digital tools and resources into their teaching practice effectively. Varying levels of digital literacy among teachers may hinder the effective use of authentic digital materials in the classroom, causing underuse or reliance on these materials based on less effective traditional methods [15. – 144]. As a result, teachers have to spend extra time developing their digital skills, which can distract them from lesson preparation. Some teachers (34%) faced challenges due to time constraints. The preparation and integration of authentic digital materials demand significant time and effort, which can be daunting for many teachers, considering their workload [28]. This can lead to inadequate integration of digital resources into the curriculum, impacting the overall quality of ESP instruction. In terms of teaching delivery and assessment, teachers needed help with curriculum compatibility (37%), developing critical thinking skills (29%), and providing appropriate guidance and support (9%). Most respondents highlighted the difficulty of ensuring that authentic digital materials align with the curriculum and learning objectives. According to Hafner, misalignment can result in ineffective teaching and learning experiences, diminishing the potential benefits of digital integration [29]. Encouraging students to analyse authentic digital materials critically can be challenging, mainly if students are accustomed to passive learning styles. Students may initially resist or need help with tasks that require higher-order thinking skills, such as evaluation and synthesis. It is essential to ensure that students receive adequate guidance and support when using authentic digital materials. Teachers must effectively apply scaffold learning to help students navigate and critically assess digital content [21. – 68]. More support can lead to student satisfaction and reduced engagement. Another major challenge for teachers was enhancing media literacy skills, which involves their exposure to complex content and the nuanced meaning of the text based on the CRAAP test (51%). This challenge was most common when promoting flexibility. Teaching students to identify bias, propaganda, and misinformation in digital materials demands specialized knowledge and skills that some teachers may need to possess [22. – 50]. Therefore, with proper media literacy instruction, students can differentiate between credible and unreliable sources, potentially perpetuating misinformation.

Table 5 – Teachers' Challenges During CMLI Practice

Challenges	In %	Arguments	Justifications
Resource Selection	35%	Finding materials that match specific industry needs and language proficiency levels can be challenging.	Teachers must sift through vast online resources to find relevant content. For instance, selecting articles on recent technological advancements for IT students requires understanding both language complexity and technical content.
Technological Challenges	27%	Not all teachers and students have the necessary digital skills.	Some may need more experience with educational technologies, leading to difficulties in implementing tools effectively. For example, using specialized software for medical terminology might be challenging without prior training.
Time Constraints	25%	Adapting digital materials is time-consuming.	Teachers must modify materials to suit their students' language levels and learning objectives, which can be labor-intensive. For example, creating a custom lesson from a recent news article involves simplifying language and creating comprehension questions.
Assessment	25%	Traditional assessment methods may not apply to digital content.	Teachers must develop new ways to assess engagement and understanding. For example, evaluating a student's podcast response might require rubrics assessing comprehension and critical thinking.

Curriculum Alignment	18%	Ensuring digital materials align with learning goals is crucial.	Materials must fit within the broader curriculum framework, which may only sometimes accommodate digital content. Integrating an industry-specific video series requires careful planning to match course outcomes.
Student Motivation	11%	Some students prefer traditional methods.	Resistance to digital tools can be due to unfamiliarity or perceived difficulty. For instance, older students might need more help with interactive online exercises than traditional textbooks.
Others:			
Quality of Materials	19%	Authentic materials may only sometimes be reliable or relevant.	Teachers must evaluate the credibility of sources and their applicability to the course. An article from a reputable industry journal is more valuable than content from an unverified blog.
Technical Issues	13%	Technical problems can disrupt learning.	Issues such as poor internet connectivity or incompatible devices can hinder access to digital materials. Due to bandwidth limitations, streaming educational videos might not be feasible in remote areas.
Note: Table 5 is designed by the authors based on teachers' challenges during CMLI practice work.			

Based on the findings, several suggestions emerge for enhancing the use of DAMs and CMLI in ESP:

- *Instructors* should consider integrating DAMs via task-based learning to boost engagement. Minor adjustments (like allowing topic selection or implementing self-paced activities) can still improve student motivation in situations with limited flexibility.

- *Administrators* must offer professional development programs emphasizing digital pedagogy and alternative assessment methods, aiding instructors in adapting their teaching approaches.

- *Policymakers* must prioritize ensuring access to high-quality digital resources, especially in under-resourced institutions. Institutional policies should encourage adaptive learning practices rather than strict adherence to fixed curricula.

Addressing these challenges will allow teachers to integrate digital materials more effectively, enhance ESP instruction, and engage students with real-world content. This is an issue for further research to explore strategies to support teachers in overcoming these barriers and maximizing the benefits of digital resources in language education.

Instructors commonly expressed the challenge of inflexibility in their instructional delivery due to various technicalities. Some also acknowledged their struggle to manage their emotions, actions, and thoughts to achieve teaching goals, particularly when implementing new strategies. Few comments addressed issues related to the teaching environment, physical well-being, and technological literacy (26% each). Regarding school policy challenges, some instructors felt restricted by institutional policies, impacting their flexibility with deadlines and course requirements. However, policy creators expressed ownership and trust in their effectiveness, indicating that teachers who trusted the guidelines were likelier to adhere to them.

Conclusion

This study investigated the effectiveness of the CMLI for integrating authentic digital materials into ESP instruction, particularly how teachers navigated this alternative learning environment and the challenges they experienced. The study revealed that these strategies equip learners to navigate the complexities of the digital information landscape, fostering a more informed and discerning generation of language users. Overall data indicated that they promoted flexibility and interaction, facilitated learning processes, and fostered an effective learning climate as much as possible.

However, these teachers faced challenges related to technical proficiency, access to resources, time constraints, curriculum compatibility, and enhancing media literacy skills. Several factors linked their varying experiences to their unique context: available tools, institutional policies, pedagogical goals, teaching delivery, and learner-related factors.

A methodological limitation of this study lies in the questionnaire's design, featuring only one closed-ended question, which limits the potential for in-depth statistical analysis. Nonetheless, this limitation was addressed by enhancing the quantitative data with qualitative insights gathered from interviews and classroom observations. Future research will broaden the questionnaire to incorporate multiple items, facilitating a more detailed statistical assessment of instructors' perceptions and teaching strategies.

Our findings provide several implications. First, this study shed light on the various challenges that language instructors face. It highlighted the importance of their readiness to embark on the authenticity of teaching materials, particularly within a digital learning context. Higher education institutions with similar learning contexts could use these findings to enhance efforts toward a more efficient learning environment. This study would also provide critical information to policymakers, school administrators, and teacher trainers to reflect on the viable professional development programs that allow teachers to overcome these challenges and equip them with the necessary content knowledge and pedagogical and technological competence. Finally, the findings gave us a nuanced understanding that interrelated factors and interdisciplinary approaches shaped teachers' navigation strategies and challenges. As such, addressing the issues requires a systemic approach.

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REFERENCES

1 Widdowson H.G. (2020). Linguistics, language teaching objectives, and the language learning process. *Pedagogical Linguistics*, 1(1), P.34–43.

2 Hyland K. (2018). The Essential Hyland: Studies in Applied Linguistics. P.43-63. London: Bloomsbury Press.

3 Hyland K. (2019). Foreword: Corpora and specialized English in the university curriculum. In: P. Crosthwaite & L. Cheung. (eds). Learning the Language of Dentistry: Disciplinary corpora in teaching English for Specific Academic Purposes. P.57-70 Amsterdam: Bemjamins.

4 Yelubaeva P., Tashkyn, E., Berkinbaeva, G. (2023). Addressing challenges in Kazakh education for sustainable development. *Sustainability*, 15(5). P.19-30.

5 Hajar A., Batyrkhanova G., Manan, S.A. (2024). Understanding challenges, investment, and strategic language use of postgraduate students in an English-medium university in Kazakhstan. *Asian Englishes*, 26 (1), P. 216–232.

6 Gilmore A. (2007). Authentic materials and authenticity in foreign language learning. *Language Teaching*, 40(2), P.97–118.

7 Hafner C.A., Chik A., Jones R.H. (2015). Digital literacies and language learning. *Language Learning & Technology*, 19, P.3-23.

8 Nunan D. (2004). Task-Based Language Teaching: Acknowledgements. 491, P.47-60. Cambridge University Press

9 Hedge T. (2000). Teaching and learning in the language classroom. Vol.13(5) P.635-640, Oxford University Press.

10 Larsen-Freeman D. (2011). A Complexity Theory Approach to Second Language Development/Acquisition. P.167-180.

11 Tomlinson B., Masuhara, H. (2017). The complete guide to the theory and practice of materials development for language learning. P. 5-16.

12 Yelubaeva P. (2017). Authentic materials in English language classrooms. In: Gómez Parra M. E., Johnstone, R. (eds). Nuevas perspectivas en educación bilingüe: investigación e innovation, P.379–389.

13 Huang Y., Xu, W., Sukjairungwattana, P., Yu, Z. (2024). Learners' continuance intention in multimodal language learning education: An innovative multiple linear regression model. Heliyon, 10(6) P.2-12.

14 Seitova G., Kunakova K., Yakunina, T. (2021). The formation of a foreign language professionally oriented competence among students of technical specialties in the Chinese language. International Journal of Society, Culture, and Language, 9(2), P.137–150.

15 Stickler, U., Hampel, R., Emke, M. (2020). A developmental framework for online language teaching skills. Australian Journal of Applied Linguistics, 3 (1), P.133–151.

16 Selwyn N. (2016). Education and technology: Key issues and debates. P.13-32.

17 Kukulska-Hulme A., Shield, L. (2018). Mobile language learning: Affordances and limitations. In the Routledge Handbook of Language Learning and Technology, P. 157–171.

18 Youn-Jung Son, Sejeun Oh Eun Young Kim Patients' needs and perspectives for using mobile phone interventions to improve heart failure self-care: A qualitative study J Adv Nurs. 2020 Sep;76(9). P. 1-16.

19 Mishan F. (2022). Language learning materials in the digital era. In: Norton, J., Buchanan, H. (eds.) The Routledge Handbook of Materials Development for Language Teaching. Routledge, P. 17–29.

20 Tomlinson B. (2016). The importance of materials development for language learning. In: Azarnoosh, M., Zeraatpishe, M., Faravani, A., Kargozari, H.R. (eds) Issues in Materials Development.P.1-2. Critical New Literacies: The Praxis of English Language Teaching and Learning (PELT). Sense Publishers, Rotterdam.

21 Pegrum M., Hockly N., Dudeney G. (2022). Research and resources in language teaching. Digital literacies: P.1-340 Second edition. Taylor & Francis.

22 Tisdell E.J. (2008). Critical media literacy and transformative learning: drawing on pop culture and entertainment media in teaching for diversity in adult higher education. Journal of Transformative Education. P.48–67.

23 Yelubaeva P., Berkinbaeva G., Khamidova A. (2023b). Incorporating media literacy in language education curriculum for sustainable development. Bulletin of the National Academy of Sciences of the Republic of Kazakhstan, 6 (406), P.102-111.

24 McGrew S., Breakstone J., Ortega T., Smith M.D., Wineburg S. (2018). Can students evaluate online sources? Learning from assessments of civic online reasoning. Theory & Research in Social Education, P.165–193.

25 Larsen-Freeman D., Wen Z., Mohebbi H. (2023). The past and the future of language learning and teaching: An interview with Diane Larsen-Freeman. P.1-12.

26 Boelens R., De Wever B., Voet M. (2017). Four key challenges to blended learning design: A systematic literature review. *Educational Research Review,* 22, P.1–18.

27 Bergen N., Labonté, R. (2019). Everything is perfect, and we have no problems detecting and limiting social desirability bias in qualitative research. Qualitative Health Research, 30(3) P.1-17.

28 Kessler G. (2018). Technology and the future of language teaching. Foreign Language Annals, P.205–218.

29 Hafner C.A. (2014). Embedding digital literacies in English language teaching: Students' digital video projects as multimodal ensembles. TESOL Quarterly, P.655–685.

АРНАЙЫ МАҚСАТТАРҒА АРНАЛҒАН АҒЫЛШЫН ТІЛІ САБАҚТАРЫНДАҒЫ ЦИФРЛЫҚ АУТЕНТТІ МАТЕРИАЛДАРЫНЫҢ СТУДЕНТТЕРДІҢ СЫНИ ОЙЛАУ ҚАБІЛЕТІ МЕН ТИІМДІ ҚАРЫМ-ҚАТЫНАС ЖАСАУЫНА ӘСЕРІ

Аңдатпа

Зерттеудің басты мақсаты ағылшын тілін арнайы мақсатта оқыту бағдарламасына шынайы цифрлық материалдарды интергациялау үшін арнайы тапсырмалар стратегиясының тиімділігін зерттеу болды. Оқытушылардың жаңа оқу ортасын қалай басқарып, олардың оқыту барысында кезіктірген қиындықтарға басты назар аударылды. Зерттеу жұмысында аралас әдіс-тәсілі қолданылып, стандартты тест жүргізу арқылы сандық база деректері мен білім алушылармен сұхбаттасып, оларды бақылау барысында сапалы база деректері жинақталды. Зерттеу барысында Қазақстанның екі жетекші университетіндегі тіл бөлімінің 35 тіл маманы қатысты. Алынған маңызды нәтижелер сыни медиа сауаттылықты оқыту және тіл үйретуде шынайы аутентивті материалдарды қолдану студенттердің тілді меңгеру деңгейін және белсенділігін айтарлықтай арттыратынын көрсетті.

Бұл студенттердің цифрлық ақпаратты бағалау, басқара алу үшін қажетті дағдыларын қамтамасыз етеді. Зерттеуден алынған нәтижелер тілдік оқытудағы аутентивті цифрлық материалдардың әлеуетін көрсетіп,тілдік білім берудегі перспективті болашақты меңзейді. Зерттеу жұмысының нәтижелері тиімді кәсіби даму бағдарламасын жасақтау барысында саяси және мүдделі тараптар үшін маңызды инсайт - түсініктерді ұсынады. Бағдарлама оқытушыларға кезіккен қиындықтарды жеңуге, негізгі мазмұнды білімді игеруге, педагогикалық сараптама жасауға,технологиялық құзыреттілік қалыптастыруға көмектеседі.

Негізгі сөздер: шынайылық, арнайы мақсаттарға арналған ағылшын тілі, сандық аутентті материалдар, тілді меңгеру, студенттерді тарту, сыни медиа сауаттылыққа үйрету.

ВЛИЯНИЕ ЦИФРОВЫХ АУТЕНТИЧНЫХ МАТЕРИАЛОВ НА КРИТИЧЕСКОЕ МЫШЛЕНИЕ И ЭФФЕКТИВНУЮ КОММУНИКАЦИЮ СТУДЕНТОВ НА ЗАНЯТИЯХ ESP

Аннотация

Основной целью данного исследования было изучение эффективности конкретных стратегий разработки заданий для интеграции реальных цифровых материалов в обучение английскому языку для конкретных целей. В исследовании, в котором приняли участие тридцать пять преподавателей английского языка с факультетов английского языка двух известных казахстанских университетов, использовался подход со смешанными методами: количественные данные собирались с помощью стандартизированных тестов, а качественные - с помощью интервью со студентами и наблюдений в классе. Значительные результаты показали, что обучение критической медиаграмотности и использование аутентичных материалов при изучении языка значительно повышают уровень владения языком и вовлеченность учащихся. Это дает учащимся необходимые навыки для навигации и оценки цифровой информации. Эти результаты подчеркивают потенциал аутентичных цифровых материалов в обучении иностранному языку и указывают на многообещающее будущее языкового образования. Результаты исследования дают политикам и заинтересованным сторонам важную информацию, которую следует учитывать при разработке эффективных программ профессионального развития. Эти программы, основанные на результатах исследования, могут помочь преподавателям решать сложные задачи и приобретать необходимые знания по содержанию, педагогический опыт и технологическую компетентность, тем самым повышая качество языкового образования.

Ключевые слова: подлинность, английский язык для специальных целей, цифровые аутентичные материалы, владение языком, вовлечение учащихся, обучение критической медиаграмотности.

REFERENCES

1 Widdowson H.G. (2020). Linguistics, language teaching objectives, and the language learning process. *Pedagogical Linguistics*, 1(1), P.34–43. [in English].

2 Hyland K. (2018). The Essential Hyland: Studies in Applied Linguistics. P.43-63. London: Bloomsbury Press. [in English].

3 Hyland K. (2019). Foreword: Corpora and specialized English in the university curriculum. In: P. Crosthwaite & L. Cheung. (eds). Learning the Language of Dentistry: Disciplinary corpora in teaching English for Specific Academic Purposes. Amsterdam: Bemjamins. P.57-70. [in English].

4 Elubaeva P., Tashkyn, E., Berkinbaeva, G. (2023a). Addressing challenges in Kazakh education for sustainable development. Sustainability, 15(5). P.19-30. in English].

5 Hajar A., Batyrkhanova, G., Manan, S.A. (2024). Understanding challenges, investment, and strategic language use of postgraduate students in an English-medium university in Kazakhstan. Asian Englishes, 26 (1), P. 216–232. [in English].

6 Gilmore A. (2007). Authentic materials and authenticity in foreign language learning. Language Teaching, 40(2), P.97–118. [in English].

7 Hafner C.A., Chik A., Jones R.H. (2015). Digital literacies and language learning. Language Learning & Technology, 19, P.3-23. [in English].

8 Nunan D. (2004). Task-Based Language Teaching: Acknowledgements. 491, P.47-60. Cambridge University Press[in English].

9 Hedge T. (2000). Teaching and learning in the language classroom. Vol.13(5) P.635-640, Oxford University Press. [in English].

10 Larsen-Freeman D. (2011). A Complexity Theory Approach to Second Language Development/Acquisition.P.167-180. [in English].

11 Tomlinson B., Masuhara, H. (2017). The complete guide to the theory and practice of materials development for language learning. P.5-16. [in English].

12 Elubaeva P. (2017). Authentic materials in English language classrooms. In: Gómez Parra M. E., Johnstone, R. (eds). Nuevas perspectivas en educación bilingüe: investigación e innovación, P.379–389. Universidad de Granada. [in English].

13 Huang Y., Xu W., Sukjairungwattana P., Yu, Z. (2024). Learners' continuance intention in multimodal language learning education: An innovative multiple linear regression model. Heliyon, 10(6) P.2-12. [in English].

14 Seitova, G., Kunakova, K., Yakunina, T. (2021). The formation of a foreign language professionally oriented competence among students of technical specialties in the Chinese language. International Journal of Society, Culture, and Language, 9(2), P.137–150. [in English].

15 Stickler, U., Hampel, R., Emke, M. (2020). A developmental framework for online language teaching skills. Australian Journal of Applied Linguistics, 3 (1), P.133–151. [in English].

16 Selwyn, N. (2016). Education and technology: Key issues and debates. P.13-32.

17 Kukulska-Hulme, A., Shield, L. (2018). Mobile language learning: Affordances and limitations. In the Routledge Handbook of Language Learning and Technology, P. 157–171. [in English].

18 Youn-Jung Son, Sejeun Oh Eun Young Kim Patients' needs and perspectives for using mobile phone interventions to improve heart failure self-care: A qualitative study J Adv Nurs 2020 Sep;76(9). P.1-16 [in English].

19 Mishan, F. (2022). Language learning materials in the digital era. In: Norton, J., Buchanan, H. (eds.) The Routledge Handbook of Materials Development for Language Teaching. Routledge, P. 17–29.

20 Tomlinson, B. (2016). The importance of materials development for language learning. In: Azarnoosh, M., Zeraatpishe, M., Faravani, A., Kargozari, H.R. (eds) Issues in Materials Development. Critical New Literacies: The Praxis of English Language Teaching and Learning (PELT). Sense Publishers, Rotterdam. P.1-2. [in English].

21 Pegrum, M., Hockly, N., Dudeney, G. (2022). Research and resources in language teaching. Digital literacies: P.1-340 [in English].

22 Tisdell, E. J. (2008). Critical media literacy and transformative learning: drawing on pop culture and entertainment media in teaching for diversity in adult higher education. Journal of Transformative Education, P. 48–67. [in English].

23 Elubaeva, P., Berkinbaeva, G., Hamidova, A. (2023b). Incorporating media literacy in language education curriculum for sustainable development. Bulletin of the National Academy of Sciences of the Republic of Kazakhstan, 6 (406), P.102-111 [in English].

24 McGrew, S., Breakstone, J., Ortega, T., Smith, M.D., Wineburg, S. (2018). Can students evaluate online sources? Learning from assessments of civic online reasoning. Theory & Research in Social Education, P.165–193. [in English].

25 Larsen-Freeman, D., Wen, Z., Mohebbi, H. (2023). The past and the future of language learning and teaching: An interview with Diane Larsen-Freeman. P.1-12. [in English].

26 Boelens, R., De Wever, B., Voet, M. (2017). Four key challenges to blended learning design: A systematic literature review. Educational Research Review, 22, P.1–18. [in English].

27 Bergen, N., Labonté, R. (2019). Everything is perfect, and we have no problems detecting and limiting social desirability bias in qualitative research. Qualitative Health Research, 30(3) P.1-17. [in English].

28 Kessler, G. (2018). Technology and the future of language teaching. Foreign Language Annals, P.205–218. [in English].

29 Hafner, C.A. (2014). Embedding digital literacies in English language teaching: Students' digital video projects as multimodal ensembles. TESOL Quarterly, P.655–685. [in English].

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