

Multi-Institutional Evaluation of an Online English Language Platform: Learning Analytics Evidence from Kazakhstan

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Abstract: The rapid development of digital technologies has significantly transformed English language education at the tertiary level. This study evaluates the deployment of the EasyEnglish e-learning platform (2023-2025) in Kazakhstan by analysing usage data from 2,906 students across multiple universities. We examined student engagement, course completion, and performance outcomes. Key variables include registration rates, access rates, course completion status (defined as *Passed* vs. *Not Passed* vs. *Not Accessed*), and final score distributions in standardized bands (0, 20-69, 70-100). We describe the platform's technical architecture, scoring algorithm, and analytics dashboard, and present a reproducible data analytics pipeline. Statistical comparisons (chi-square tests, proportion tests with 95% confidence intervals) were conducted to compare institutional outcomes. Results show generally high performance but reveal significant inter-university differences: for example, one institution had much lower pass and high-score rates than others ($p < 0.01$). We discuss factors influencing these differences and provide evidence-based recommendations for integrating digital tools into English language curricula.

1 INTRODUCTION

The expansion of digital technologies has reshaped higher education and created new opportunities for online and blended language learning. Universities increasingly integrate e-learning platforms to support flexibility, accessibility, and learner autonomy. In Kazakhstan, national educational strategies emphasize digitalization and multilingual education, making technology-enhanced English language learning particularly relevant. The transition from traditional classroom settings to blended and online learning environments has intensified the need for innovative pedagogical strategies that foster learner autonomy, personalization, and sustained engagement [1]. This idea holds that e-learning technologies driven by digital platforms are increasingly viewed as essential elements of the digital pedagogical method utilized in language training at the university level rather than as extra resources [2]. Examining successful approaches into English language teaching (ELT) is crucial in Kazakhstan, where national regulations actively

support trilingualism and digitalization of education [3].

Although research from around the world emphasizes digital tools' potential for automated feedback, adaptive learning, and conversational practice [4], there aren't many extensive empirical studies that look at its use and results in the unique socio-educational context of Central Asian higher education. By providing data from the deployment of the platform "Easy English" at several Kazakhstan universities, this study aims to close this gap. This paper examines user data from 2023 to 2025 to:

- 1) evaluate how well online courses achieve stated learning outcomes.
- 2) pinpoint important success factors and enduring obstacles in student engagement.
- 3) offer evidence-based suggestions for the systemic integration of digital tools into university level English language programs in Kazakhstan and comparable contexts.

2 LITERATURE REVIEW

Technology-enhanced language learning has evolved from traditional computer-assisted language learning to comprehensive digital learning environments. Modern e-learning platforms support self-paced study, automated assessment, and interactive practice, contributing to learner autonomy [5] and flexible learning pathways. Research indicates that online learning environments can improve access to language education and provide scalable practice opportunities. However, successful implementation depends on pedagogical design, teacher support, and institutional integration. Blended learning approaches that combine digital platforms with instructor guidance are widely recognized as effective models for sustaining student engagement and improving learning outcomes [6].

According to research, these tools can support learner autonomy by facilitating self-paced study, enable tailored instruction at scale, and boost student engagement through quick feedback [7]. However, academics also warn against techno-determinism, pointing out that student digital literacy, instructor preparedness, and pedagogical integration are critical to effective results [8]. A perceived lack of social connection, high dropout rates in Massive Open Online Courses (MOOCs), and low motivation in self-directed online contexts are common obstacles [9]. To address these problems, the idea of “blended learning”, which carefully blends online and in-person training, is often promoted [10].

In Kazakhstani context, studies on online ELT are emerging but remain limited. Existing research often focuses on general e-learning adoption or specific tools like Moodle, with less attention paid to online - driven platforms and their empirical outcomes at an institutional level [11]. In addition, chatbot-based and conversational tools have been considered useful for supporting language learning interaction and practice in digital environments [12]. From an instructional design perspective, multimedia learning principles are also important for structuring online language content effectively [13]. At the policy level, international guidance emphasizes the responsible and pedagogically meaningful use of artificial intelligence in education [14]. Moreover, learner autonomy remains one of the key theoretical foundations for self-directed language learning in online and blended environments [15]. This study contributes by providing a multi-institutional, data-driven analysis of the digital platform’s implementation, aligning the discussion with both

international theoretical frameworks and local educational priorities.

3 RESEARCH METHODOLOGY

This study analyzes current educational data using a descriptive, quantitative research design. The administrative and learning analytics dataset from the “Easy English” online platform, which spans the years 2023 to 2025, is the main source of data. N=2,906 enrolled students from four public universities in Kazakhstan - Atyrau State University (N=772), Shymkent University (N=1018), Eurasian National University (ENU) (N=505), and West Kazakhstan University (N=611) - make up the sample.

Key learning metrics were defined as follows:

- *Registered* students are those enrolled in a course.
- *Accessed* means a student registered students with at least one recorded login or activity.
- *Completed* students are those who attempted the final examination or finished all course modules; those who did not reach this point are counted as incomplete.
- *Passed* students achieved a final score at or above the threshold of 70%; those below this threshold are categorized as *Not Passed*.
- Final scores were also grouped into score bands: 0 (no attempt or zero), 20-69 (accessed but did not pass), and 70-100 (passed with high scores). For example, a student scoring 85 on the final exam is classified in the 70-100 band and counted as *Passed*.

Missing and duplicate data were handled systematically. Any missing score value (e.g., due to loggings errors) was treated as zero (effectively *Not Passed*). Students with multiple attempts on quizzes or exams were assigned the highest obtained score for that assessment in the analysis. Records with inconsistent student IDs or incomplete demographic data (<1%) were excluded.

We employed a reproducible data analytics pipeline. Raw usage logs (login events, page views, quiz attempts) and gradebook exports were extracted daily from the EasyEnglish database. Data cleaning and indicator computation were automated using scripted routines (Python/pandas), with all code version controlled. This pipeline calculated metrics (registration, access, completion, pass rates, average scores) per student and course cohort. Aggregate statistics registration count, access rate, completion

rate, pass rate, and average final score were computed to evaluate effectiveness. The analytics process is documented so that analyses can be replicated or updated with new data.

Statistical Analyses. We compared institutions using chi-square tests for categorical outcomes and two-proportion Z-tests for score-band differences. Specifically, we tested whether the distributions of *Completed/Not Completed* and high-score rates (70-100 band) differed significantly across universities. For each pairwise comparison of high-score proportions, we calculated the difference with a 95% confidence interval (CI). For example, the difference in high-score rates between Shymkent (0%) and Atyrau (87%) was approximately 0.870 (95% CI [0.847, 0.894], $p < 0.0010$, indicating a highly significant gap. Differences between higher-performing institutions (e.g. ENU vs. West KZ) were smaller (e.g. 5.0 percentage points, 95% CI [0.8, 9.3] but still reached significance at $p < 0.05$. All tests used $\alpha = 0.05$.

4 RESULTS AND DISCUSSION

The analysis reveals strong performance among students who actively engaged with the platform. At several universities, completion rates exceeded 90%, and the majority of active learners achieved high final scores (70-100). These results indicate that structured e-learning environments can effectively support language acquisition when students remain engaged.

However, significant non-access rates were observed in some institutions, indicating that student motivation and institutional integration play a crucial role in successful implementation. Universities with higher engagement levels demonstrated stronger coordination between instructors and platform use, as well as clearer integration of online activities into course requirements.

The findings support a blended learning model in which digital platforms complement traditional instruction. While e-learning systems provide structured practice and progress monitoring, instructors remain essential for guidance, motivation, and feedback.

4.1 Overall Engagement and Completion Patterns

The striking disparity between problematic initial involvement levels and high success rates for engaged students is a significant result. Completion and success rates were exceptionally high for students

who actively accessed the courses, as Table 1 illustrates. At Atyrau State University, 87% of all registrants received high scores (70-100), and 99.7% of those who participated in the course passed. In a similar vein, 79.2% of registrants at Eurasian National University received high scores, and 91.1% of them passed their B1-B2 Business English courses.

Table 1: Aggregated Performance Data from the “Easy English” platform (2023-2025).

Institutions	N/A	Passed (All)	Passed (70-100)
Atyrau State University (N=772)	-	99.7%	87%
Shymkent University (N=1018)	55.7%	44.3%	-
ENU (N=505)	-	91.1%	79.2%
West Kazakhstan University (N=611)	25.9%	74.1%	74.1%

Note: *N=number of enrolled students per university; N/A indicates data reported or not applicable.

However, Shymkent University’s statistics reveal a significant problem: just 44.3% of all registrants passed the course, with 55.7% of registered students never accessing it. This pattern of high non-starter rates, which is also seen to a lesser extent at West Kazakhstan University, indicates that student motivation, onboarding, and the platform’s integration into the required curriculum are the main obstacles rather than the effectiveness of the digital pedagogy individually [9]. Such early “digital dropout” highlights the need for institutional policies that go beyond simply offering technology.

4.2 Effectiveness of Digital Instruction

The results provide compelling evidence for the efficacy of online facilitated learning for active learners. The large percentage of students who scored between 70 and 100 points across universities suggests that online - driven platform, which most likely provided customized exercises, immediate feedback, and adaptive routes, was effective in assisting students in meeting the fundamental learning goals for their individual CEFR levels. This is consistent with international research on digital’s ability to provide core skill-building and consistent, scalable practice [4], [7]. The platform’s usefulness beyond introductory levels is further demonstrated by the success in higher-level (B1-B2 General and Business English) classes at ENU.

4.3 The Critical Role of Institutional Integration and Support

Perhaps the most important discovery is the variation in ‘*Not Accessed*’ rates across institutions. It suggests that success is determined by factors other than technology. The platform was probably adopted by universities with near-perfect access rates (Atyrau State University and ENU) with more proactive teaching staff support, clearer integration into course credit systems, and stronger institutional mandates. Higher non-engagement, on the other hand, points to a potential ‘bolt-on’ strategy in which platform use was either optional or not adequately driven [8], [10]. This emphasizes how institutional strategy, teacher facilitation, and blended learning environment design all play a role in the success of digital tools.

4.4 Pedagogical Implications and the Role of Blended Learning

The findings indicate that online-driven platforms should be incorporated as key elements of a holistic instructional strategy within a blended learning model. In such an approach, in-person or synchronous online sessions can concentrate on interactive communication, group projects, and meeting complicated learner demands, while technologies can effectively manage routine practice, grammar reinforcement, and vocabulary growth. This division of labor ensures that technology enhances human instruction while maximizing both scalability and customization. Additionally, the results indicate that teacher participation is still crucial - not as a direct content deliverer, but as a motivator, facilitator, and interpreter of learning analytics.

4.5 Technical Implementation and System Architecture of the EasyEnglish Platform

The Easy English platform functions designed for scalable implementation of English language courses in higher education institutions. In addition to pedagogical content delivery, the platform integrates administrative control, learning analytics, and course management tools that enable systematic monitoring

of student engagement and performance across multiple universities.

4.5.1 Platform Structure and Administrative Interface

The system is organized around a centralized administrative dashboard that serves as the primary operational entry point for institutional coordinators and instructors. From this interface, users can access all core management functions, including course configuration, student registration, and performance tracking (see Fig. 1). Such centralized architecture ensures consistency in course deployment and supports unified monitoring across institutional contexts.

4.5.2 Course Configuration and Management

The platform includes a course management module that allows administrators to create, modify, and manage courses within an institutional account (see Fig. 2). Each course can be configured through a dedicated settings interface where instructors define course duration, lesson activation schedules, and content availability. This modular structure enables alignment with academic calendars and supports both synchronous and asynchronous learning models.

The flexibility of course configuration also allows institutions to adapt content to specific curricular needs, including General English and Business English programs across CEFR levels A1-B2. As a result, the platform supports differentiated learning pathways and scalable implementation across diverse learner cohorts.

4.5.3 Student Registration and Monitoring

A built-in enrollment management system enables administrations to register students and monitor their activation status. The registration interface provides a real-time overview of enrolled learners, indicating whether students have successfully accessed the platform and initiated coursework. This feature is particularly significant in addressing early-stage disengagement, which has been identified as a critical challenge in online learning environments.

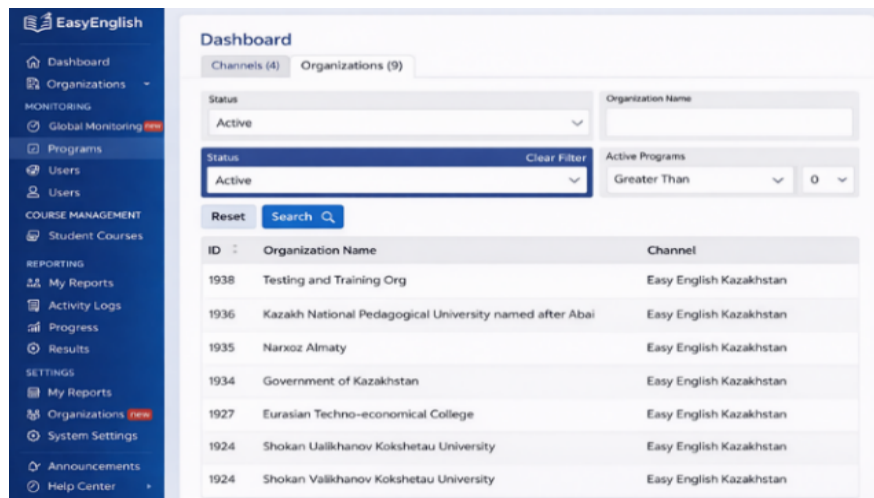


Figure 1: Interface of administrative dashboard.

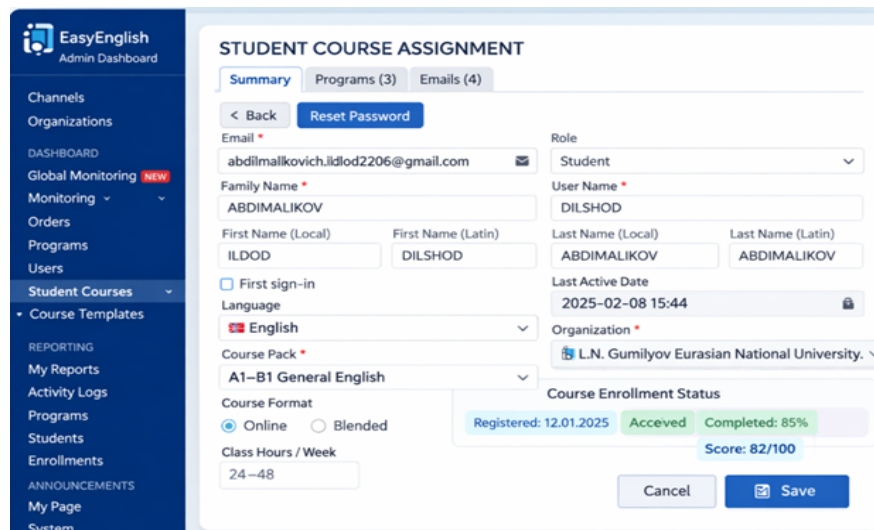


Figure 2: Registration interface.

Each student is assigned an individual profile within the system, allowing instructors and administrators to edit personal data, reset access credentials, and review course enrollment history. The platform also records automated notifications sent to learners, ensuring transparency of communication and facilitating technical support.

4.5.4 Learning Analytics and Progress Tracking

One of the key technical components of the platform is its integrated learning analytics module. The system provides visualized progress indicators showing the percentage of course completion for each

learner and cohort. These analytics enable instructors to:

- monitor real-time engagement levels.
- identify inactive or at-risk students.
- implement timely pedagogical interventions.
- evaluate course effectiveness across institutions.

Such data-driven monitoring supports evidence-based decision-making and aligns with contemporary approaches to IT - supported education and learning analytics in higher education.

Role of the Platform in Online Blended Learning. The technical design of the EasyEnglish platform demonstrates that effective digital integration extends

beyond automated content delivery to include institutional management and pedagogical coordination. Through the integration of adaptive learning resources, administrative monitoring, and learning analytics, the platform fosters a blended learning environment where technology complements and strengthens instructor guidance.

The availability of detailed progress data allows instructors to adopt facilitator roles, focusing on motivation, feedback, and targeted support while routine practice and assessment are managed by the digital system. This distribution of functions reflects current models of digital - enhanced pedagogy, where intelligent platforms provide scalable practice and personalized learning trajectories while teachers maintain strategic and motivational roles.

4.5.5 Implications for Scalable Implementation

From a technical perspective, the EasyEnglish platform demonstrates strong potential for scalable implementation in higher education contexts. Its integrated structure enables:

- centralized management of large student cohorts.
- consistent course delivery across institutions.
- transparent monitoring of engagement and achievement.
- data-driven evaluation of learning outcomes.

These features confirm that successful deployment of online language learning systems requires not only adaptive instructional tools but also robust administrative and analytical infrastructure. Consequently, the EasyEnglish platform represents a comprehensive digital solution capable of supporting institutional strategies for digital - integration in English language education.

4.6 Student Participation and Course Completion

Figure 3 presents the course completion rates across the participating universities. Higher completion rates were observed among students who actively used the e-learning platform, whereas institutions with lower participation exhibited a greater proportion of incomplete courses. These results indicate a clear association between student engagement and successful course completion. The observed differences among universities provide a quantitative basis for evaluating the effectiveness of e-learning implementation in English language education.

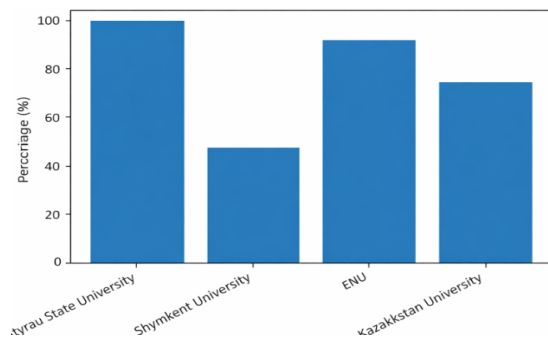


Figure 3: Course completion rates across universities.

4.7 Discussion

The findings demonstrate that e-learning platforms can effectively support English language education in higher education when they are systematically integrated into institutional teaching strategies. The high course completion rates observed among active participants indicate that digital learning environments have considerable potential to improve learning outcomes. However, the results also show that student engagement remains the most influential factor affecting the overall effectiveness of digital learning.

The substantial variation in participation and completion rates across universities suggests that technology alone is insufficient to achieve successful educational outcomes. Institutions with consistently high non-engagement rates indicate that the effectiveness of e-learning depends not only on the availability of digital platforms but also on appropriate pedagogical practices, curriculum integration, and continuous institutional support. These findings emphasize that successful digital transformation requires a comprehensive educational strategy rather than the implementation of technology as an independent solution.

5 CONCLUSIONS

This study confirms that e-learning platforms represent an effective tool for supporting English language teaching in higher education. Their successful implementation depends on systematic integration into institutional teaching practices and active student participation. The results indicate that while digital platforms can substantially enhance learning outcomes, their educational impact is limited when student engagement is low or when online

learning is not aligned with course objectives and instructional practices.

Overall, the study highlights that effective digital transformation in English language education requires the combined implementation of appropriate technologies, well-designed pedagogy, and sustained institutional support. Future research should investigate the long-term effects of digital learning environments on language proficiency, learner autonomy, and academic performance through longitudinal and mixed-methods studies.

6 RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proposed for universities and policymakers in Kazakhstan and similar educational contexts:

- 1) Integrate e-learning into credit-bearing courses. Online platforms should become an integral component of the curriculum, with platform activities contributing to students' final assessment to encourage consistent participation.
- 2) Strengthen student onboarding and support. Institutions should provide orientation sessions, technical assistance, and continuous academic support to ensure effective use of digital learning platforms. Instructors should regularly monitor learning analytics and intervene when students demonstrate low engagement.
- 3) Adopt blended learning approaches. E-learning platforms should complement traditional classroom instruction by supporting independent learning, while face-to-face or synchronous sessions should focus on communication, collaboration, and addressing learning difficulties identified through digital platforms.
- 4) Invest in faculty development. Teachers should receive professional training not only in platform operation but also in learning analytics, digital pedagogy, and strategies for motivating students in blended learning environments.
- 5) Expand future research. Further studies should examine the causes of student disengagement using qualitative approaches and evaluate the long-term effects of digital learning on language proficiency, learner autonomy, and academic achievement.

The successful integration of e-learning into higher education requires a comprehensive

institutional approach that combines modern educational technologies, effective teaching practices, continuous faculty development, and active student engagement.

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