IMPORTANCE OF USING MOODLE LMS IN DEVELOPING MEDICAL STUDENTS

Nasiba Urokova
Master's student of University of Exact and Social Sciences.
Tashkent, Uzbekistan
n.urokova@tmuni.org

Abstract: *This study investigates the effectiveness of utilizing the MOODLE learning management system (LMS) in improving the English grammatical and lexical proficiencies of medical students. A mixed-methods approach was employed, involving 120 first-year medical students divided into an experimental group using MOODLE and a control group undergoing traditional classroom instruction. Pre- and post-assessments of students' English language skills were conducted, and surveys gathered perceptions on the learning experience.*

Keywords*: MOODLE LMS, English proficiency, medical students, grammar, vocabulary*

INTRODUCTION

In an era of globalized healthcare, English has emerged as the lingua franca of medicine, underscoring the necessity for medical students to achieve high levels of English language competency [1]. Proficiency in English grammar and vocabulary is crucial for medical students' academic success, effective communication with patients and colleagues, and engagement with international medical literature [2]. However, traditional classroom-based language instruction often falls short in providing individualized, interactive learning experiences that cater to diverse proficiency levels [3]. The advent of learning management systems (LMS) such as MOODLE offers promising avenues for enhancing English language acquisition in medical education [4]. This study explores the impact of utilizing MOODLE LMS on the development of medical students' English grammatical and lexical competencies.

METHODS AND LITERATURE REVIEW

A mixed-methods approach was adopted to assess the effectiveness of MOODLE LMS in improving medical students' English language skills. The study involved 120 first-year medical students at a leading university, divided equally into an experimental group using MOODLE and a control group receiving traditional classroom instruction. Both groups underwent a 12-week English language course focusing on medical terminology, grammar, and academic writing.

Existing literature highlights the benefits of LMS in language learning, including increased engagement, autonomy, and exposure to authentic materials [5]. MOODLE, in particular, has been lauded for its user-friendly interface, interactive features, and adaptability to different learning styles [6]. Prior studies have demonstrated the positive impact of MOODLE on language acquisition in various disciplines [7][8]. However, research specifically examining its application in medical English education remains limited.

Pre- and post-course assessments were conducted to measure students' English proficiency levels, focusing on grammar accuracy and vocabulary breadth. The assessments comprised multiple-choice questions, fill-in-the-blanks, and short essay writing. Additionally, surveys were administered to gauge students' perceptions of the learning experience and the effectiveness of MOODLE in supporting their language development.

RESULTS

The pre-course assessments indicated no significant differences in English proficiency levels between the experimental and control groups ($p>0.05$). However, post-course assessments revealed statistically significant improvements in the experimental group's grammar accuracy and vocabulary breadth compared to the control group ($p<0.05$). The experimental group demonstrated an average improvement of 25% in grammar scores and 30% in vocabulary scores, while the control group showed improvements of 10% and 15%, respectively.

Survey responses from the experimental group indicated high levels of satisfaction with the MOODLE learning experience. Students appreciated the interactive exercises, multimedia resources, and self-paced nature of the platform. They reported increased engagement and motivation to learn English, attributing it to the personalized feedback and gamification elements integrated into MOODLE.

ANALYSIS AND DISCUSSION

The significant improvements in English grammar and vocabulary competencies observed in the experimental group underscore the effectiveness of MOODLE LMS in enhancing language acquisition. The platform's interactive features, such as forums, quizzes, and multimedia resources, provided students with ample opportunities for practice and exposure to authentic language use. The self-paced nature of MOODLE allowed students to progress at their own speed, accommodating diverse learning needs and proficiency levels.

Moreover, the personalized feedback provided through MOODLE's assessment tools facilitated targeted language support, enabling students to identify and address their weaknesses. The gamification elements, such as badges and leaderboards, fostered a sense of achievement and healthy competition, enhancing motivation and engagement.

The positive student perceptions of the MOODLE learning experience align with previous studies highlighting the benefits of LMS in language education. The increased engagement and autonomy reported by students are crucial factors in successful language acquisition.

However, the study's limitations should be acknowledged. The sample size was relatively small, and the duration of the intervention was limited to 12 weeks. Future research should involve larger cohorts and longer-term interventions to assess the long-term impact of MOODLE on language proficiency.

CONCLUSIONS

This study demonstrates the significant potential of MOODLE LMS in enhancing the English grammatical and lexical competencies of medical students. The interactive, self-paced learning environment provided by MOODLE contributed to improved language proficiency and increased student engagement. The findings underscore the importance of integrating LMS tools into medical English curricula to support students' language development and prepare them for effective communication in global healthcare contexts.

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