The Impact of Learning Management System "arabi.id" Web-Based Application on Developing Arabic Language Skills

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Abstract

Until recently, few educational institutions have developed and integrated Arabic language learning curricula with LMS. This study aims to develop a proposed Learning Management System (LMS) program designed to enhance the Arabic proficiency of non-native speakers. It investigates the impact of this program on cognitive fulfilment and language advancement among non-native Arabic learners at the University of Darussalam Gontor, Indonesia. The researcher utilized a quasi-experimental and descriptive research approach, deemed most suitable for this study's nature. Data collection involved 80 students from the University of Darussalam Gontor, employing various tools such as tests, questionnaires, interviews, and observation. The study yielded significant outcomes, including creating the proposed LMS, arabi.id. After completing the research, statistically significant improvements were observed in the experimental and control groups' listening, speaking, reading, and writing abilities, with a more substantial positive impact on the experimental group. Moreover, the experimental group's pretest and post-test results showed statistically significant differences in proficiency levels (listening, speaking, reading, and writing). The study's findings suggest that non-native Arabic speakers can benefit from e-learning courses to enhance their language skills. Recommendations include implementing LMS-based Arabic instruction, encouraging instructors to integrate LMS into the Arabic teaching curriculum, and increasing the availability of Arabic educational websites.
Keywords: Arabic language teaching, Arabic language skills, LMS, e-learning

Abstrak

Hingga saat ini lembaga pendidikan yang mengembangkan dan mengintegrasikan kurikulum pembelajaran bahasa arab dengan LMS masih sangat sedikit. Studi ini bertujuan untuk mengembangkan program Learning Management System (LMS) yang digunakan untuk meningkatkan kemampuan berbahasa Arab bagi penutur non-Arab. Penelitian ini berusaha mengetahui dampak program tersebut terhadap peningkatan aspek kognitif dan kemajuan bahasa pada pelajar non-Arab di

Universitas Darussalam Gontor, Indonesia. Peneliti menggunakan pendekatan penelitian quasi-eksperimental dan deskriptif, yang dianggap paling sesuai untuk sifat penelitian ini. Pengumpulan data melibatkan 80 mahasiswa dari Universitas Darussalam Gontor, dengan menggunakan berbagai alat seperti tes, kuesioner, wawancara, dan observasi. Studi ini menghasilkan temuan signifikan, termasuk pembuatan program LMS, yaitu "https://arabi.id". Setelah melakukan penelitian, terdapat peningkatan signifikan secara statistik dalam kemampuan mendengarkan, berbicara, membaca, dan menulis di kedua kelompok eksperimental dan kontrol, dengan peningkatan positif yang lebih kuat pada kelompok eksperimen. Selain itu, terdapat perbedaan yang signifikan secara statistik dalam tingkat kemahiran (kemampuan mendengarkan, berbicara, membaca, dan menulis) antara hasil pre-tes dan post-tes kelompok eksperimental. Temuan penelitian ini menyarankan bahwa penutur bahasa non-Arab mampu mendapatkan manfaat dari kursus e-learning untuk meningkatkan kemampuan berbahasa mereka. Rekomendasi meliputi implementasi pembelajaran bahasa Arab menggunakan program LMS, mendorong untuk mengintegrasikan kurikulum pembelajaran bahasa Arab dengan LMS, dan meningkatkan ketersediaan situs website pembelajaran bahasa Arab.

Kata Kunci: Pembelajaran Bahasa Arab, Keterampilan Bahasa Arab, LMS, E-Learning.

INTRODUCTION

Arabic language learning involves reconstructing the learner's experience through acquiring knowledge, skills, attitudes, and values. Learning Arabic is a conscious mental process to acquire proficiency in phonological, grammatical, and lexical patterns. For effective teaching, the teacher needs to interact and discuss with students. The teacher is the driving force behind all educational elements and plays a central role in the educational process (Jasni et al., 2018).

The education system represents the essence of human society, constantly seeking new learning tools and methods. Learning Management System (LMS) is one of the most advanced tools. LMS is an education management system that uses modern communication technologies such as computers and associated networks to deliver material to learners in less time with less effort and higher benefit (Al-Mamary, 2022).

Technical and pedagogical considerations are the most critical factors when proceeding with an LMS to a new system. Most Arabic educators utilize Moodle, Blackboard, and other LMS software. An LMS is a comprehensive software that enables course planning, delivery, evaluation, and administration in traditional face-to-face, blended, or online learning situations. The LMS can also support a blended learning environment (Sabri Sahrir et al., 2016).

The computer distinguishes itself from traditional educational tools by encompassing all self-learning components in its programs. It is a means of self-learning as an integrated educational tool that combines information presentation, learner response, and feedback. The web-based learning management system is an integrated learning and training machine that has contributed to changing the structural framework of education towards systematic approaches, such as system

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input and programmed instruction, considered the most compatible methodologies in the information age (Fonna et al., 2022).

Learning management system instruction aims to achieve several individual and societal objectives, including enhancing teacher effectiveness and increasing their expertise in instructional material preparation. It enables access to information sources, images, videos, and research papers through the Internet, facilitating the explanation and clarification of the educational process. Moreover, it provides educational material in electronic format to students and teachers and facilitates organized and streamlined communication between the school, educational institutions, and government bodies. Implementing E-learning does not eliminate the importance of teachers as educators; instead, it is a valuable tool that supports teachers and students in completing their educational materials. Utilizing E-learning as a learning medium makes it more convenient for teachers and students to access educational resources and communicate beyond regular school hours (Ritonga et al., 2021).

University of Darussalam Gontor is a private Islamic endowment university known for its internal system. Since its establishment, the university has upheld the values, principles, and system of "Pondok Modern Darussalam Gontor (PMDG)" in fulfilling its three missions: education, scientific research, and social services. PMDG has effectively merged the pesantren education system with the madrasa system, establishing Gontor as a contemporary model of pesantren education during its era. This achievement surpassed the expectations of its time (Ikhwan et al., 2023). Throughout its extensive history, the university has achieved significant accomplishments in various fields and has contributed to the development of Muslim society in Indonesia. University of Darussalam Gontor places great importance on preserving the values and principles derived from the teachings of Islam while simultaneously prioritizing the development of human resources and improving their scholarly level (Buchori et al., 2017).

There are several reasons for utilizing e-learning during the pandemic to enhance learning Arabic. Firstly, it allows for quick initiation of learning, enabling the completion of Arabic courses in just a few weeks. Secondly, students can determine their learning pace, saving time as they no longer need to travel to physical classrooms. Thirdly, students can selectively study specific and relevant areas of Arabic without being restricted to a linear progression. For instance, they can prioritize certain materials while temporarily setting aside others. Lastly, establishing an online learning community facilitates unlimited interaction and knowledge exchange in a centralized platform (Rosyadi & Ilmi, 2021).

Provided the current education trend of integrating technology in teaching and the availability of an affordable digital learning management system, which has not been widely used in public educational institutions at the University of Darussalam Gontor Indonesia, as well as the difficulties students face when learning Arabic language courses (Mohamed, 2023).

This research topic has similarities and differences with previous research. Among the critical points related to this are as follows. The *"Development of Learning Management System Based on Kitāb Al-'Arabiyah Li An-Nāsyi'īn"* study uses the Research and Development (R&D) research methodology. The educational platform

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created within this research was tested with 42 eleventh-grade students at the Muhammadiyah Boarding School in Yogyakarta. The study's outcome is a learning management system (LMS) designed for eleventh-grade students at the Muhammadiyah Boarding School Yogyakarta, built upon the *Kitāb Al-Arabiyah Li An-Nāsyi'īn.* Expert assessments of its feasibility have confirmed the high suitability of the LMS developed in this research for Arabic language education (Ridha et al., 2023).

The research's similarity with previous research lies in using the Research and Development (R&D) approach. However, there are differences in the LMS model developed. Rasyid Ridha's research used the "Open Learning" model, whereas this study employed the Moodle model. Other differences include the focus on content material, where Rasyid Ridha's research focused on the *Kitāb Al-'Arabiyah Li Al-Nāsyi'īn* for beginner users. In contrast, this research encompassed material development from beginner to advanced.

The research entitled *"Development of Learning Media for Maharah Kalam Through LMS Moodle at MAN 1 Situbondo".* This research analyzes the development of learning media using LMS for speaking skills. The media used is LMS Moodle, and the research primarily focuses on developing speaking skill content (Fadhili & Hidayat, 2023).

The similarity with previous research lies in using the Research and Development (R&D) research method and LMS Moodle as the learning platform. However, the most significant difference is in the content focus. This research emphasizes developing speaking skill material catering to beginner-advanced users. In contrast, Ahmad Fajri's research is more limited in scope, concentrating on beginner-level users in speaking skill content.

The purpose of the research, titled "Promoting Interactions in Learning the Arabic Language via Learning Management System: A Theoretical Framework", is to create a theoretical framework that, when used in conjunction with a learning management system (LMS), promotes interactions between students, teachers, content, and systems. Through the exchange of critical comments among peers, instructor feedback, and interactive learning content, these interactions give Arabic language learners a chance to connect new information with what they already know and create new meanings (Azrien et al., 2015).

The similarity with Muhammad's research lies in using LMS developed for Arabic language learning as the primary medium. However, the difference lies in the focus on the use of the LMS. Muhammad's research underscores that the Learning Management System aims to enhance effective learning through learner collaboration. In contrast, this research places more emphasis on the Student-Centered Learning approach. In this approach, students are directed to learn independently by utilizing the features of the LMS that provide them with greater autonomy in managing the learning process.

The study titled "Online-Based Arabic Learning Management During the Covid-19 Pandemic Era: Plan, Implementation, and Evaluation" seeks to offer an overview of Arabic language learning management, with a specific focus on the planning, implementation, and evaluation aspects. These efforts are coordinated by teachers who are members of the Arabic teachers' forum. The study employs a

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descriptive research method and incorporates data analysis techniques following Miles and Huberman's framework (Yahya et al., 2021).

The similarity with Muhyidin's research lies in using an Arabic language learning model using a Learning Management System (LMS). However, a significant difference is found in the evaluation method. Muhyidin's research relied solely on written tests presented via Google Forms and the Quizizz platform as evaluation tools. In contrast, this research developed and used LMS arabi.id to teach all four language skills in Arabic, encompassing the presentation of material and Arabic language tests. The emphasis on using LMS arabi.id creates a significant difference in the approach and methods of teaching Arabic during the Covid-19 pandemic.

The study titled "An Arabic Web-Based Exam Management System" is focused on the design of a web-based online examination system. This system serves the purpose of conducting examinations and is equipped to evaluate students' exam results automatically. It streamlines the administration of exams, the collection of answers, automated assessment, and the generation of exam reports. Furthermore, the system accommodates various question types and is accessible over the Internet, making it suitable for exams administered in local and remote settings (Rashad et al., 2010).

The similarity with Magdi's research lies in the focus on Arabic language learning and online technology for exam management. However, a significant difference is in the programming language model used. Magdi created the system using various open-source technologies, including AJAX, HTML, PHP, and MySQL. Furthermore, Magdi generalized the automated assessment module to support various exams and questions. In contrast, this research used Moodle to develop LMS arabi.id, which employs a different approach to Arabic language learning management.

This research has novelties that previous researchers have yet to discuss. The research presented great innovation in creating Arabic language learning resources for non-Arab speakers. This innovation includes several unique features of the research. The creation of the arabi.id web based LMS is newly discovered. Using an LMS platform created especially for learning Arabic is a creative strategy. Students' learning experiences may be improved by arabi.id's distinctive features and methods for teaching Arabic. The examination shows the originality of Arabic language competency's listening, reading, and writing abilities. By emphasizing these abilities, a thorough and well-rounded learning framework is produced. It is essential because it allows pupils to improve their Arabic language proficiency simultaneously.

Larger sample sizes typically produce more reliable and representative study results, which boosts trust in the efficacy of arabi.id. This study uses a student-centered learning methodology, giving users more control over their education. As a result, the learning environment is more receptive to the unique needs of each student and promotes engagement with the material. This study significantly advances the creation of media for Arabic language instruction. The research findings provide a basis for creating more pertinent Arabic language teaching methodologies within the framework of Arabic language instruction and assisting in developing more successful LMS.

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The current research question concerns the impact of adopting the arabi.id e-learning program on developing Arabic skills among non-native speakers at the University of Darussalam Gontor in Indonesia.

METHOD
Research Design
To carry out this research and achieve its objectives, the researcher employs a descriptive approach in designing a learning management system program and an experimental approach in measuring the program's impact on language skills development. The researcher utilizes three data collection tools: tests, questionnaires, and interviews (Johnson & Christensen, 2017).
Data Collection Techniques
The pretest and post-test help the researcher collect data on the impact of the proposed program on Arabic language skill development (Triono et al., 2020). The researcher distributes the questionnaire to computer programming professionals, Arabic language teachers for non-native speakers, and a sample of students at the University of Darussalam Gontor. The goal is to evaluate the effectiveness of the programs before using them with pupils.

The researcher conducts multiple interviews to collect data. These comprise interviews with professionals in Arabic language teaching, curriculum development, educational materials production, and computer programming experts for Arabic language teaching. These interviews aim to understand the teaching tactics, curriculum, materials, and resources employed. The researcher also interviewed the head of the learning center and the instructors in charge of establishing the Arabic language curriculum for non-native speakers at the University of Darussalam Gontor. These interviews aim to investigate the construction of an Arabic language curriculum for non-native speakers and improve language activities at the institution (Emzir, 2018).
Data Analysis Techniques
The sample for this study was obtained from the previously indicated target demographic. Stratified random sampling, a probability sampling strategy that divides the population into different groups based on the characteristics we wish to assess, was utilized as the sampling method. The aim is to achieve a high level of homogeneity within each stratum, reducing variations within strata compared to variations between strata. The symbol used for sampling is the Slovin formula (Keith et al., 2023).

The researcher collected a random sample from the original population and divided it into experimental and control groups. The experimental group is where the researcher measures the relationship between the independent and dependent variables. It is also the group in which the researcher introduces specific conditions intended to affect the experimental results. Conversely, the control group does not have measurements taken to determine the link between the independent and dependent variables. After the field research, the dependent variables between the control and experimental groups must be compared (Wijayanti et al., 2019).

The current study included 80 students from the Arabic Language Teaching department, who were evenly divided into control and experimental groups of 40

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students each. In the case of linguistic ability, the two groups were comparable. The current sample was chosen based on particular criteria, including the homogeneity of persons in both the experimental and control groups regarding hearing, speaking, reading, and writing skills. The researcher chose 40 students for the experimental group and 40 participants for the control group. The researcher relies on the Statistical Package for the Social Sciences (SPSS) to process the data from this study after it has been transcribed.

RESULT

There are three essential skills to acquire when learning Arabic. The first is linguistic competence, which involves understanding Arabic pronunciation, recognizing the language's structure, grasping fundamental grammar concepts, and building vocabulary. The second is communication competence, which entails using Arabic fluently and effortlessly to express ideas and share experiences, quickly absorbing knowledge from the language. The third is cultural competence, which aims to comprehend the cultural elements embedded in Arabic, including its speakers' expression of thoughts, values, customs, ethics, and art (Rosyadi & Ilmi, 2021).

The designs of learning management system programs have varied according to the objectives they seek to achieve (Palahicky, 2015). While they share similarities in several steps, they differ in minor procedures. In developing and designing the proposed program, the researcher adopted a model consisting of six main stages: analysis, design, production, experimentation, implementation, and evaluation (Ashrafi et al., 2022).

The researcher designed an e-learning program, arabi.id, by conducting the fundamental steps, which included determining the educational objectives, identifying and organizing the program's content, ensuring the validity and reliability of the program's content, establishing the instructional sequence for the program topics, and designing the website of the learning management system program using the Moodle platform with JavaScript and HTML languages to incorporate interactivity into the program (Alkhateeb & Abdalla, 2021). This learning management system program was a web-based application, and the design process involved stages ranging from initial development to final website refinement.

The arabi.id e-learning program for teaching Arabic to non-native speakers is illustrated below.

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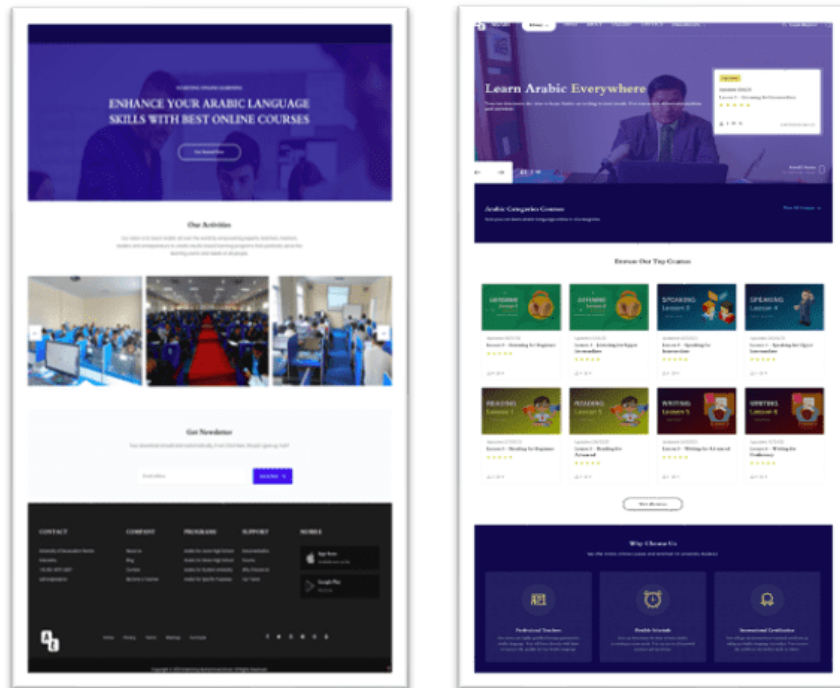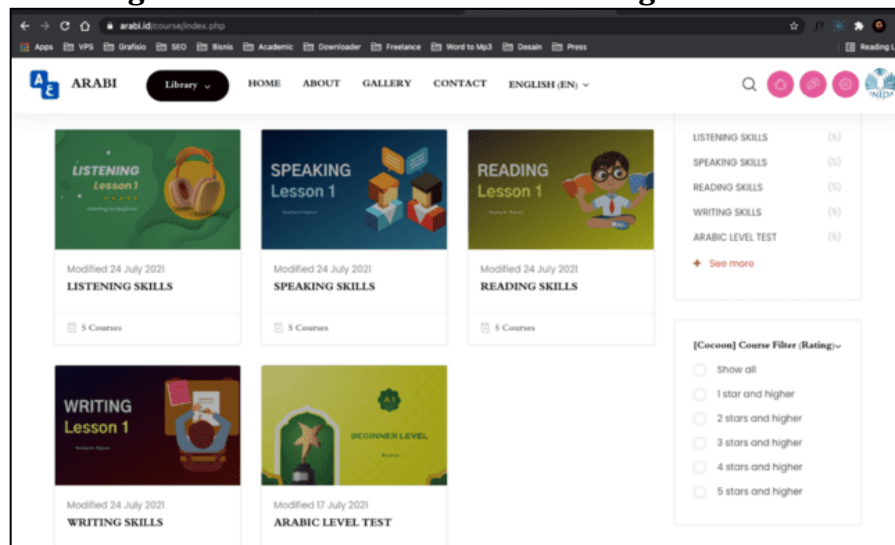
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Image 1: Homepage of arabi.id

Image 2: Arabic Course and Content Pages of arabi.id

At the University of Darussalam Gontor, the researcher spoke with the department director for Arabic language instruction. According to the interview, the Arabic Language Teaching Department has 413 pupils., including students from various islands in Indonesia and other countries such as Malaysia, Thailand, Turkey, Japan, Sudan, Chad, and others. The department has 14 male teachers and 14 female teachers. The Arabic Language Teaching Department has established distinct methods for teaching Arabic to non-native speakers, such as direct, auditory-oral,

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and audiovisual instruction. The University of Darussalam Gontor prefers the direct method for teaching Arabic without translation into Indonesian (Bergman, 2021).

In order to teach Arabic to non-native speakers, the Arabic Language Teaching Department makes use of technology. The department benefits from devices and instructional materials when teaching speaking and listening skills, and also develops digital programs for teaching Arabic online. According to the head of the Arabic Language Teaching Department, establishing and implementing an online Arabic language curriculum must be completed (Alshawabkeh et al., 2021).

The researcher discussed this with the Department of Language Development director at the University of Darussalam Gontor. According to the interview, the DLD is essential in developing and teaching Arabic to all University of Darussalam Gontor students. The university is dedicated to directly teaching Arabic to non-native speakers, emphasizing Arabic discussion in all academic events. One of the goals of establishing the DLD is to improve students' Arabic language proficiency and skills. Through in-class and out-of-class language activities, the center attempts to establish a language-rich atmosphere within the institution. In addition, the center provides Arabic language seminars and workshops for non-native speakers to help them improve their Arabic language skills.

Arabic is taught in an integrated manner at the University of Darussalam Gontor. Some students study Arabic for specialized goals, such as economics, technology, and politics. The DLD oversees language skills instruction in both academic and non-academic environments. Academic activities include curriculum and instructional material development in collaboration with the Arabic Language Teaching Department and other departments involved in teaching Arabic within the classroom, including assessments and evaluations during individual and group study periods and seminars. Non-academic activities include listening training in dormitories, daily conversations, Arabic camps, and utilizing the language laboratory.

One of the challenges in Arabic language teaching is the disparity in students' language proficiency levels. Some students enter the university with no prior Arabic language skills, while others possess a good level of proficiency (Alowaydhi, 2016). The DLD strives to address this difference by implementing various language programs within and outside the classroom. It includes increasing lessons during designated times, such as the morning language program after Fajr prayer.

The Department of Language Development benefits from technology resources such as the language laboratory for training in Modern Standard Arabic through YouTube channels featuring native Arabic speakers and reading electronic news and alikhtibar.com as a language test standard. The DLD conducts language proficiency tests twice a year using the Alikhtibar Test. The director of the DLD sees the need to develop an online Arabic language curriculum, especially during the COVID-19 pandemic, to facilitate teaching Arabic to non-native speakers (Raza et al., 2021).

Analysis of Observation Results

The researcher conducted the observation and found that University of Darussalam Gontor students are not limited to Indonesian students only but also include students from various regions outside Indonesia, such as Australia, Turkey,

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France, and Southeast Asian countries. The current number of graduates exceeds ten thousand, and they are spread across various fields of life, including university presidents, deans, lecturers, diplomats, politicians, institute directors, judges, and other positions (Ismail et al., 2022).

The number of Arabic language teachers at the University of Darussalam Gontor is 28, and they specialize in teaching Arabic to non-native speakers. They graduated from various universities, including the University of Ummul Qura in Makkah, Islamic University in Madinah, Al-Azhar University in Cairo, and the University of Omdurman in Sudan.

The University of Darussalam Gontor uses Arabic and English for teaching, daily communication, and scientific research. The university implements the on-campus residence system, one of the features of Islamic institutions known as the Islamic Institute. The University of Darussalam Gontor focuses on developing Arabic language abilities for non-native speakers by creating a linguistic environment. The university teaches Arabic using a variety of approaches, including direct, communicative, multimedia, and others. Teachers use these strategies to teach language skills within and outside the classroom. The university uses many ways of teaching Arabic (Rahmaniah, 2022).

At the University of Darussalam Gontor, technological resources such as computers, the Internet, and ready-to-use projectors are available in classrooms, which students can utilize anytime. The quality of the Internet at the University of Darussalam Gontor is excellent and fast, which facilitates online Arabic language teaching. It supports instructors in teaching Arabic by using electronic media and computer programs.

Through careful observation in the classroom, the researcher discerned several noteworthy aspects of the study. The teacher employed Classical Arabic as the primary medium of instruction for teaching Arabic, refraining from relying on translation into Indonesian. This pedagogical approach aims to foster direct exposure to Arabic, enabling students to enhance their linguistic proficiency and comprehension within this language framework (Hasanah & Mubarok, 2023).

The teacher demonstrated effective teaching strategies specifically designed for Arabic language instruction. It indicates a deliberate effort to employ instructional methods tailored to the unique characteristics and requirements of the Arabic language, ensuring a comprehensive and targeted learning experience for the students. The teacher also actively engaged students in dialogue, discussion, and problem-solving activities in the Arabic language teaching process. By providing opportunities for interactive exchanges, the teacher promoted an environment conducive to developing linguistic competence, critical thinking skills, and collaborative learning among the students (Wijayanti et al., 2019).

Additionally, the teacher displayed a practice of posing questions to students following the delivery of study materials. This practice aimed to stimulate student participation, comprehension, and retention of the subject matter, fostering a deeper understanding of the Arabic language concepts and principles. (Subakir & Amalia, 2022; Wekke & Andriansyah, 2016). The teacher effectively utilized various teaching aids, including computers, books, and whiteboards, to enhance the instructional process. These tools served as visual and interactive aids, facilitating

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the students' engagement, comprehension, and integration of the Arabic language materials (Rochma, 2021).

The teacher actively encouraged learners to utilize printed and electronic knowledge resources. By promoting the utilization of traditional and digital sources of information, the teacher aimed to cultivate self-directed learning habits among the students, enabling them to explore and access a wide range of Arabic language resources. The teacher encouraged learners to employ computer programs in the language learning process. By integrating technology into the instructional approach, the teacher sought to enhance students' language acquisition and proficiency through interactive and multimedia-based learning experiences (Haghshenas, 2019).

Furthermore, the teacher employed diverse assessment methods to evaluate cognitive learning outcomes. It entailed employing oral questioning techniques and written exams, allowing for a comprehensive assessment of student's language proficiency, comprehension, and application of Arabic concepts. The teacher encouraged learners to engage in multiple educational activities like project design and Arabic language competitions. This approach aims to foster an active and holistic learning environment, promoting the practical application of Arabic language skills and encouraging students to demonstrate their knowledge and abilities through creative and competitive avenues.

Statistical Analysis Method

The results of this calculation are the mean (Mean) and standard deviation (Standard Deviation). The descriptive statistics findings are presented in the table below:

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Pre–Test Control	40	56	82	69.68	6.285
Post–Test Control	40	64	88	77.58	5.163
Pre–Test Experiment	40	63	90	78.43	6.857
Post–Test Experiment	40	80	98	90.78	4.928
Valid N (listwise)	40				

After conducting the necessary calculations using the SPSS software, the researcher observed that the results obtained from the descriptive statistics analysis exhibited a normal distribution. The summary of the results is as follows: (1) The minimum recorded value for the control group sample's pretest readings was 56, and the maximum was 82. The mean value was determined to be 69.68, with a standard deviation of 6.285. (2) The minimum and maximum post-test results for the control group sample were 64 and 88, respectively. The mean value for this group was 77.58, with a standard deviation of 5.163. (3) Regarding the experimental group sample's pretest values, the lowest reported value was 63, and the highest observed value was 90. The computed mean value for this group was 78.43, with a standard deviation of 6.857. (4) In terms of post-test values for the experimental group sample, the lowest value achieved was 80, while the highest value recorded

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was 98. This group's mean value was discovered to be 90.78, with a standard deviation of 4.928.

Normality Test

The researcher chose to use the Kolmogorov-Smirnov test for assessing normality. The Kolmogorov-Smirnov test is a statistical test that compares the distribution of a statistical population through two independent samples taken from a study population.

Additionally, the researcher utilized the Shapiro-Wilk test as an alternative normality test to compare any theoretical distribution with the observed distribution. The Shapiro-Wilk test is a statistical test where the null hypothesis assumes that the studied sample belongs to a normally distributed population according to the variable under study. Compared to other tests aimed at assessing normality, the Shapiro-Wilk test is known for its suitability for small sample sizes. The results of this test are presented in the following table:

Tests of Normality

	Class	Kolmogorov–Smirnov[a]			Shapiro–Wilk		
		Statistic	df	Sig.	Statistic	df	Sig.
Test Results	PreTest Control	.133	40	.070	.967	40	.279
	PostTest Control	.144	40	.035	.966	40	.261
	PreTest Experiment	.098	40	.200[*]	.972	40	.410
	PostTest Experiment	.099	40	.200[*]	.962	40	.195

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

The table shows the following notable results: (1) The control group's pretest result is 0.070 (higher than the significance level of 0.05). (2) The control group's post-test result is 0.035 (higher than the significance level of 0.05). (3) The experimental group's pretest result is 0.200 (higher than the significance level of 0.05). (4) The experimental group's post-test result is 0.200 (higher than the significance level of 0.05).

The test reveals that the significance level from the Kolmogorov-Smirnov and Shapiro-Wilk tests is larger than the significance threshold of 0.05. Therefore, it means that the data is normally distributed. Based on the above results, the researcher analyzed the data using parametric statistics (Paired Sample t-test and Independent Sample t-test).

Test of Homogeneity

The homogeneity test evaluates the assumption of equal variances between groups. It allows us to assess if this assumption is correct by doing a statistical test of variance homogeneity between two groups, considering the null and alternative hypotheses. The researcher uses this test as a requirement for doing an independent sample t-test in ANOVA. The researcher uses the independent sample t-test to assess the mean difference in student scores by analyzing the homogeneity test between the post-test findings of the two groups (control and experimental). The results of the homogeneity test are shown in the table below:

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Test of Homogeneity of Variance

		Levene Statistic	df1	df2	Sig.
Result of Arabic Test	Based on Mean	.095	1	78	.759
	Based on Median	.183	1	78	.670
	Based on Median and with adjusted df	.183	1	73.126	.670
	Based on trimmed mean	.063	1	78	.802

Validity Testing

Validity testing ensures that a test measures what it is supposed to measure and is used to evaluate the accuracy of the test given to the sample group. The researcher presents a validity test to determine the soundness of the test. The researcher obtained a value of 0.312 from the critical values table for Pearson's correlation coefficient at a significance level of 5%. The validity test was completed, and the findings for each item in the survey were more significant than the crucial value of 0.312 at a 5% significance level. Therefore, the survey is valid and can be reliably used. The interpretation for each question in the table indicates that the results are valid.

Reliability Test

Reliability is a condition that must be met by a measurement tool. It is a desirable characteristic of a good measurement tool, indicating that the test scores are consistent and stable over time. To assess the consistency of the questionnaire measurement, the researcher completed a reliability test. After computing the questionnaire scores with SPSS software, Cronbach's Alpha coefficient is 0.740, more significant than 0.60. The research instruments are highly dependable and valid for measurement purposes, as can be seen.

Analysis of Test Results

The researcher used the Independent Sample t-test to compare two groups, one receiving treatment and the other collecting results for both groups. The means of the two groups are compared, with particular attention paid to disparities in student test scores. The researcher carried out the study using the Statistical Package for the Social Sciences (SPSS) software.

This test aims to answer the question, "Is there a difference between the results of the control and experimental groups?" The researcher gave the post-test data analysis from the two groups. The computations yielded the following results:

Group Statistics

	Class	N	Mean	Std. Deviation	Std. Error Mean
Result of Arabic Test	Control Class	40	77.58	5.163	.816
	Experiment Class	40	90.78	4.928	.779

The table shows that the mean of the post-test scores for the control group is 77.58, whereas the mean for the experimental group is 90.78. It implies that studying Arabic utilizing the modern approach with the arabi.id program has a substantial influence on boosting Arabic skills.

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Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Significance		Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						One-Sided p	Two-Sided p			Lower	Upper
Result of Arabic Test	Equal variances assumed	.095	.759	−11.697	78	<.001	<.001	−13.200	1.129	−15.447	−10.953
	Equal variances not assumed			−11.697	77.830	<.001	<.001	−13.200	1.129	−15.447	−10.953

The t-test for independent samples was also used on two groups to investigate the impact of using the learning management system program arabi.id on the Arabic proficiency of non-native Arabic speakers at the University of Darussalam Gontor. For the assumption of equal variances, the computed significance value (Sig.) is 0.001, which is less than 0.05. It signifies that the study outcomes varied significantly between the two groups. Therefore, it is evident that the learning management system arabi.id impacts enhancing Arabic proficiency among Indonesian students in the University of Darussalam Gontor.

Hypothesis testing is one of the fundamental topics in statistical inference. It allows researchers to conclude the research problem and the hypotheses formulated, which are interpretations of the factors under investigation. These conclusions can be correct or incorrect, and certain conditions should be met for the hypotheses.

Based on the data presented by the researcher in the previous tables, the researcher performed hypothesis testing and obtained the following result:

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pre–Test Control	69.68	40	6.285	.994
	Post–Test Control	77.58	40	5.163	.816
Pair 2	Pre–Test Experiment	78.43	40	6.857	1.084
	Post–Test Experiment	90.78	40	4.928	.779

The table shows that the mean values of both the control and experimental groups rise in the pretest and post-test. The pretest mean value for the experimental group (Pair 2) is 78.43, while the post-test result is 90.78. The value has increased by 16%.

Paired Samples Correlations

		N	Correlation	Significance	
				One–Sided p	Two–Sided p
Pair 1	Pre–Test Control & Post–Test Control	40	.555	<.001	<.001
Pair 2	Pre–Test Experiment & Post–Test Experiment	40	.631	<.001	<.001

The table reveals that the significant result for the control (Pair 1) and experimental (Pair 2) groups is 0.001, less than 0.05. It shows that disparities exist between the pretest and post-test scores.

Paired Samples Test

| | | Paired Differences | | | | | | | Significance | |
| | | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | t | df | One–Sided p | Two–Sided p |
					Lower	Upper				
Pair 1	Pre–Test Control – Post–Test Control	−7.900	5.490	.868	−9.656	−6.144	−9.100	39	<.001	<.001
Pair 2	Pre–Test Experiment – Post–Test Experiment	−12.350	5.352	.846	−14.062	−10.638	−14.594	39	<.001	<.001

Based on the preceding information, the research hypotheses are acceptable and can be interpreted as follows: The use of the learning management system arabi.it impacts non-native speakers' development of Arabic language abilities. As a result, the implemented program effectively teaches Arabic to non-native speakers.

DISCUSSION

All research questions on the learning management system program arabi.id have been addressed, suggesting that the program obtained an excellent grade and may be utilized to teach non-native speakers language skills. The researcher discovered that the learning management system software arabi.id impacts the development of listening, speaking, reading, and writing skills among students at the University of Darussalam Gontor by testing the research hypothesis and assessing the research results.

After evaluating all hypotheses, the researcher discovered statistically significant changes in the experimental and control groups' levels of listening, speaking, reading, and writing skills in the post-test, favoring the experimental group. There were also statistically significant variations in the experimental group's levels of listening, speaking, reading, and writing skills in both the pretest and post-test, with the post-test outperforming the pretest.

The researcher can interpret these findings by examining the proposed learning management system arabi.id affects non-native speakers' development of Arabic language abilities. At a significance level of 0.05, there were statistically significant variations in the achievement level of the experimental group that studied using the learning management system software arabi.id. It is also known that students in the experimental group who used the electronic curriculum outperformed the control group who conventionally learnt Arabic in the classroom and relied entirely on the prescribed textbook in the post-test (Moh. Ismail, 2019).

Notably, using the e-learning curriculum as a supplementary curriculum improved the students' performance more than relying solely on traditional curricula (Choiroh, 2021). The study results also demonstrated the importance of employing an e-learning curriculum in improving students' ability to build Arabic language abilities for foreign speakers (Al-Hail et al., 2023).

These findings suggest that the learning management system arabi.id impacts the learning and acquisition of Arabic language skills for people who do not speak the language as a contemporary educational method, particularly in teaching Arabic to foreign speakers at the University of Darussalam Gontor. It increases students' motivation to learn Arabic through e-learning (Yauma et al., 2021). The proposed learning management system program provided enjoyment for students

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while learning this way, which sparked their curiosity to follow the program's contents (Alshorman & Bawaneh, 2018).

These study results are consistent with previous studies conducted by Othman Mazen Dahlan, entitled "The Effectiveness of a Program Enhanced with the Moodle System in Teaching Lesson Planning Skills and Students' Attitudes Towards It", and Aymen Eid Bakri Mohamed, entitled "An Integrated Model of Receptive Skills (Listening-Reading) in Entrepreneurship Content to Develop the Listening Dispositions and Language Confidence of First Grade Students in Industrial Education." In both studies, the researchers discovered statistically significant variations in several variables between the two participant groups, demonstrating the increased program efficiency.

Another study by Khaled Bin Abdulmohsen Fattah Al-Shammary, entitled "The Impact of Using a Computer Program in Teaching Instructional Techniques on the Achievement of College of Education Students in Hail City (A Quasi-Experimental Study)", appeared to be statistically significant variations in the overall achievement of College of Education students in Hail City at an average significance level of 0.05 between the mean scores of the experimental and control groups.

CONCLUSION

The research findings highlighted the significant positive impact of the "arabi.id" learning management system on enhancing Arabic language proficiency among students at the University of Darussalam Gontor, Indonesia. The LMS "arabi.id," designed to foster an interactive educational environment and effectively manage content, exhibited remarkable results. Students who engaged with the program experienced significant improvements in listening, speaking, reading, and writing skills.

The study revealed that students in the experimental group achieved notable advancements in listening skills, allowing them to comprehend everyday speech in diverse contexts and engaged in spontaneous conversations on various topics. Moreover, their speaking skills improved significantly, enabling them to discuss personal matters and travel situations and effectively express their thoughts and ideas. The research also highlighted substantial progress in reading and writing skills, demonstrating students' ability to understand texts and produce coherent written content. Future research may explore the system's long-term impact, adaptability in different educational settings, and potential enhancements to optimize language learning outcomes further.

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