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Moodle-Based A2 German Language Exam Training for High School Students in Bogor

Pelatihan Ujian Bahasa Jerman Tingkat A2 berbasis Moodle bagi Siswa SMA di Bogor

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Abstract

This community service program aimed to enhance the readiness of high school students in Bogor for the A2-level German language proficiency exam in an online format. Conducted through a blended learning model using the Moodle platform (simujerman.com), the program involved 46 students from partner schools. The team developed A2-level exam simulations, provided technical training, and facilitated independent practice and evaluation. Results showed a significant improvement in students' understanding of the exam format and interface. Participants also reported increased confidence and independence in taking the test. Feedback collected through questionnaires confirmed the effectiveness of this approach. The program demonstrates that Moodle-based simulation training offers a practical and replicable strategy to support foreign language competency development at the secondary school level.

Keywords*: Moodle, A2 German language exam, online simulation, language proficiency, high school students*

Abstrak

Program pengabdian kepada masyarakat (PkM) ini bertujuan meningkatkan kesiapan siswa SMA di Bogor dalam menghadapi ujian kompetensi bahasa Jerman tingkat A2 berbasis daring. Kegiatan dilakukan secara blended melalui platform Moodle (simujerman.com) dan melibatkan 46 siswa dari beberapa SMA mitra. Tim pelaksana menyusun simulasi soal ujian A2, memberikan pelatihan teknis, serta memfasilitasi latihan mandiri dan evaluasi. Hasil kegiatan menunjukkan peningkatan signifikan dalam pemahaman siswa terhadap format dan antarmuka ujian daring. Peserta juga menunjukkan peningkatan kepercayaan diri dan kemandirian dalam menghadapi ujian. Hasil evaluasi via kuesioner menunjukkan efektivitas pendekatan ini. Kegiatan ini menunjukkan bahwa pemanfaatan Moodle untuk pelatihan berbasis simulasi dapat menjadi strategi yang praktis dan replikatif dalam mendukung pengembangan kompetensi bahasa asing di tingkat sekolah menengah.

Kata kunci*: Moodle, ujian bahasa Jerman A2, simulasi daring, pembelajaran bahasa, siswa SMA*

1. INTRODUCTION

The increasing importance of German language competency exams, especially in secondary education, has become a key factor in evaluating students' linguistic proficiency. These assessments follow standardized methods to measure various language skills, including reading, writing, listening, speaking, grammar, and vocabulary (de Valenzuela et al., 2022; Fleckenstein et al., 2016; Klomp, 2023). These assessments follow the Common European Framework of Reference for Languages (CEFR), which classifies language skills from A1 to C2 and is widely recognized globally (Arnott et al., 2017; North, 2021).

In Indonesia, German is offered in a growing number of high schools and German language education is becoming more prevalent in secondary school, particularly those affiliated with the PASCH (Schulen: Partner der Zukunft) initiative, supported by the German government. As of 2024, there are 28 PASCH schools in Indonesia, including SMA Dwiwarna and SMA Madania in Bogor. In addition to these two PASCH-affiliated schools, there are approximately 12 other high schools in Bogor and surrounding areas that offer German as part of their language curriculum.

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These schools demonstrate a growing interest in German language education and represent a significant potential target group for language proficiency development initiatives.

However, despite this institutional presence and increasing interest, a number of persistent challenges remain. In regions like Bogor, student performance in German language Olympiads does not always reflect their enthusiasm and engagement. Despite high participation levels, results remain suboptimal. For example, in the 2023 National German Olympiad in West Java, 37 out of 73 participants were from Bogor, but only three ranked in the top 10, and 45% scored below the passing mark of 64%. This gap between enthusiasm and performance indicates a lack of readiness, likely in navigating online exam formats, which are now increasingly relevant in the post-pandemic era (Anastasakis et al., 2023; Basilaia & Kvavadze, 2020).

Digital readiness is a critical factor in language assessment today. As online formats become the standard in international certification, students must develop not only linguistic skills but also familiarity with the digital interface, exam navigation, and self-regulated online learning (Carter et al., 2020; Jin et al., 2023; Yu, 2023). Furthermore, Wahyuni et al. (2023) argue that in today's digital age, learning evaluations should be conducted online, enabling accessibility regardless of time or place. This is particularly relevant with the context of Bogor's students, who lack sufficient exposure to online exam formats.

In addition, there is a broader urgency to strengthen foreign language competencies among Indonesian youth in response to globalization. Language skills are essential for international mobility, education, and employment, particularly for students from institutions that promote global citizenship (Mouboua et al., 2024). However, existing school programs often lack resources or systems to offer high-quality, exam-aligned training that prepares students for such certifications.

To address these challenges, this community service program (*Pengabdian kepada Masyarakat* or PKM) was developed to support high school students in Bogor by offering Moodle-based simulations of the A2-level German language exam. The program offers online simulations that replicate the structure and format of the A2-level exam. Through this platform, students are provided with the tools and training to improve their proficiency and performance in both the Goethe-Zertifikat and the National German Olympiad.

This program aimed not only to familiarize students with the format of the exam but also to leverage digital tools to provide realistic exam practice, reduce anxiety, improve test-taking strategies, and promote self-paced and autonomous learning (Permana et al., 2023). By integrating of Moodle, a widely-used open-source learning management system, serves as a scalable and sustainable model for addressing these educational gaps in a digital learning context (Ain et al., 2016; Al-Azawei et al., 2019; Young, 2021), this initiative also aims to bring long-term benefits to both students and educators across other regions.

As a web-based software platform, Moodle facilitates interactive online learning by automating the administration, delivery, and reporting of learning outcomes (Arora et al., 2022; Santosa & Nugraha, 2022; Turnbull et al., 2020). Additionally, LMS platforms remove the constraints of time and space in learning interactions (Ain et al., 2016; Altinpulluk & Kesim, 2021; Lonn et al., 2011). Moodle is particularly noted for its widespread use and support from a large global community (Badia et al., 2019; Gamage et al., 2022).

A number of previous research highlighted Moodle's flexibility and interactivity as a powerful tool for exam preparation, particularly in environments where assessment formats vary (Gamage et al., 2019; Jackson, 2017). Studies by Hongsuchon et al. (2022) emphasize that LMS platforms not only facilitate online assessments but also promote self-directed learning, making them ideal for student preparation in competency-based exams. In German language education, LMS platforms have been effectively employed to simulate exams and provide feedback, ultimately improving learners' performance and test-taking strategies (Permana et al., 2020; Tinmaz & Lee, 2020).

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Moodle's potential to enhance online learning is further demonstrated through its numerous tools that complement traditional, hybrid, or fully online education models (Bradley, 2020; Holiver et al., 2020). Its capabilities in language learning are also well documented (Acar & Kayaoglu, 2020; Maulana & Lintangsari, 2021; Permatawati et al., 2020), particularly through its support for autonomous and interactive learning. Among Moodle's many features, the Quiz module stands out as an essential tool for exam preparation (Amer & Daher, 2018; Deepak, 2017). Educators can create quizzes with a variety of question types, allowing students to practice with multiple formats (Al-Azawei et al., 2019; Permana et al., 2020).

In this community service program, the Quiz module serves as the primary tool for providing online training for the A2-level German language exam. By integrating Moodle's features into the training, this initiative aims to significantly improve student performance in the West Java German Language Olympiad.

2. METHOD

This community service program (PkM) was conducted from May to November 2024, divided into two sessions: the first held online and the second in-person at SMA Dwiwarna Boarding School. The partner schools for this program were located in the Bogor area and nearby regions, namely SMA Al Umanaa Boarding School, SMA Budi Cendekia Islamic School, SMA Dwiwarna Boarding School, SMA Negeri 1 Cianjur, SMA Negeri 1 Leuwiliang, SMA Negeri 15 Depok, and SMK ITA ELMAMUR. A total of 46 students from these schools participated in the program.

The program utilized a web-based LMS platform, Moodle (https://simujerman.com), managed by the German Language Education Study Program at FPBS UPI. This platform provided simulation exams to help students prepare for the A2-level German language proficiency test. The program was organized into five key stages, as illustrated in Figure 1 below.

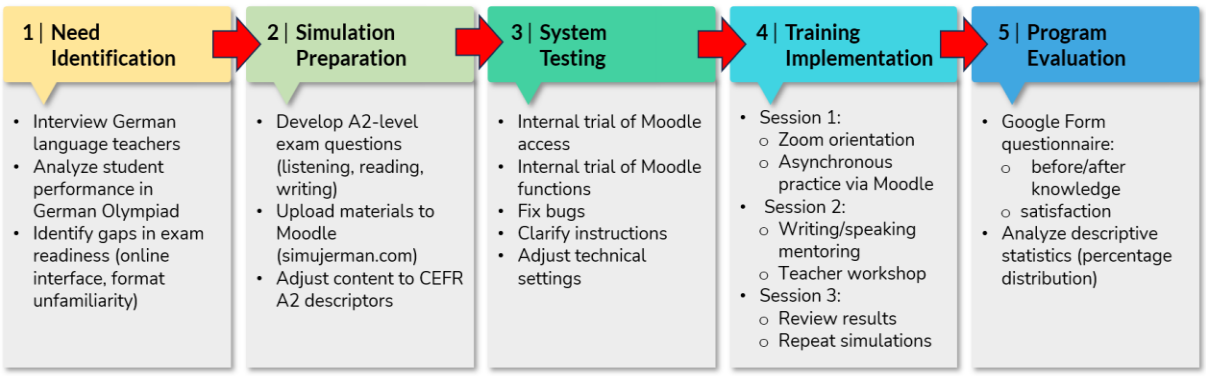

Figure 1. Flowchart of PKM Activity Implementation Stages

2.1 Needs Identification

The initial phase involved identifying key challenges students face in preparing for the A2-level German language exam, especially in digital formats. Data were gathered through informal interviews with German language teachers and analysis of previous Olympiad results. Key findings included low familiarity with online test interfaces and a lack of exposure to structured digital training. This phase informed the design of the simulation content and the support mechanisms provided in the program.

Table 1 below summarizes the specific problems identified and the corresponding solutions implemented during the program.

Table 1. Problem-Solving Methods for PKM Program Implementation

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Problem	Problem-Solving Method
Students are unfamiliar with the A2-level German language proficiency exam format.	Provide an introduction to the details of the A2-level German language exam format.
Students are unaware of the appearance and format of the A2-level German language exam in an online format.	Provide an introduction to the features of the Moodle LMS and how the A2-level German language exam is presented online.
Students do not know how to answer German language exam questions effectively.	Provide training and tips on how to approach and answer A2-level German language exam questions.
Students have never practiced online German language exam questions.	Provide students with the opportunity to independently simulate answering A2-level German language exam practice questions online.

2.2 Simulation Preparation

In the preparation stage, the team developed a series of Moodle-based simulations that reflected the structure, content, and difficulty of the official A2-level German language exam. The simulations included listening, reading, and writing components Materials were reviewed internally and adapted to ensure alignment with CEFR descriptors. The Moodle Quiz module was used to support interactive and repeatable practice.

2.3 System Testing

Before implementation, system testing was conducted to test accessibility, functionality, and user experience on *simujerman.com*. This testing phase was essential in preventing technical issues that could arise during the online training and simulations. Any errors or issues found during this phase were addressed to ensure a seamless user experience for the students.

2.4 Training Implementation

The training and simulation execution phase served as the core of the program. This phase was carried out in three sessions:

1. Session 1 (Online): Held on *August 3, 2024*, via Zoom. Students were introduced to the Moodle platform and completed their first round of listening and reading simulations asynchronously between *August 3–9, 2024*.
2. Session 2 (Offline): Conducted on *August 9, 2024*, at SMA Dwiwarna Boarding School. This session focused on writing and speaking skills and included direct mentoring from instructors. A parallel workshop was also held for accompanying teachers.
3. Session 3 (Feedback & Follow-up): On *August 16, 2024*, students received individualized feedback through Moodle and repeated selected simulations using new sets of questions.

Throughout the training, students could access the platform without restriction and repeat simulations as often as needed. The flexibility of Moodle allowed students to learn at their own pace.

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2.5 Evaluation

The program's effectiveness was evaluated using a structured Google Form questionnaire administered after the training. The questionnaire consisted of three parts: (1) Self-assessment of knowledge before and after training; (2) Perceived usefulness and relevance of the training; and (3) Evaluation of training materials, delivery method, and instructor quality.

Responses were analyzed descriptively using percentage distribution to measure shifts in perceived readiness and satisfaction. While no formal pretest-posttest scores were recorded, perceived knowledge gains were tracked via comparative self-reporting.

3. RESULTS AND DISCUSSION

3.1 Results

The Community Service Program (PkM), which provided A2-level German language exam training through blended learning, was implemented from May to November 2024 and focused on students in the Bogor region. The main phase of the program occurred between August 3 and 20, 2024, combining synchronous (Zoom) and asynchronous (Moodle) sessions on *simujerman.com*. A total of 46 students from seven schools participated. The program emphasized familiarity with the exam interface, format, and independent simulation practices. The results are presented in three main categories: training implementation, participants' knowledge development, and their perceptions and evaluations of the training.

3.1.1 Training Implementation

The A2-level German language competency test training for high school students in Bogor was conducted using a blended learning model, combining both synchronous and asynchronous methods. Central to this training was the use of the Moodle platform, which served as the primary medium for students to engage with exam simulations and practice the skills needed for the A2-level German language exam. The program was structured into three sessions, each reinforcing different aspects of the training while leveraging Moodle's interactive features to enhance student preparedness and confidence.

Session 1: Online Exam Simulation

The first session was initiated with a virtual meeting on August 3, 2024, via Zoom. During this session students were introduced to the key features of the Simujerman Moodle platform. They were guided through the layout and tools available on the platform, which would be used for the exam simulations, ensuring that they understood how to navigate and use Moodle for their upcoming practice sessions. The session also provided an overview of the A2-level exam format, as well as tips and strategies for approaching listening and reading comprehension questions. This initial session was vital in helping students feel comfortable using Moodle as their primary learning tool and familiarizing them with the exam format. Documentation of the synchronous meeting can be seen in Figure 2.

Following this introduction, the asynchronous phase of the training, conducted from August 3 to August 9, 2024, allowed students to access Moodle for comprehensive practice. They were tasked with completing listening, reading, and writing simulations directly on the platform. Moodle's flexibility enabled students to engage with the training materials anytime, from any location, at their own pace. Additionally, Moodle's interactive quizzes and feedback system provided immediate scoring and feedback on their performance, allowing them to track their progress in real-time. Furthermore, an online speaking simulation was conducted via Zoom, under the guidance of some faculty members, to complement the skills being practiced on Moodle.

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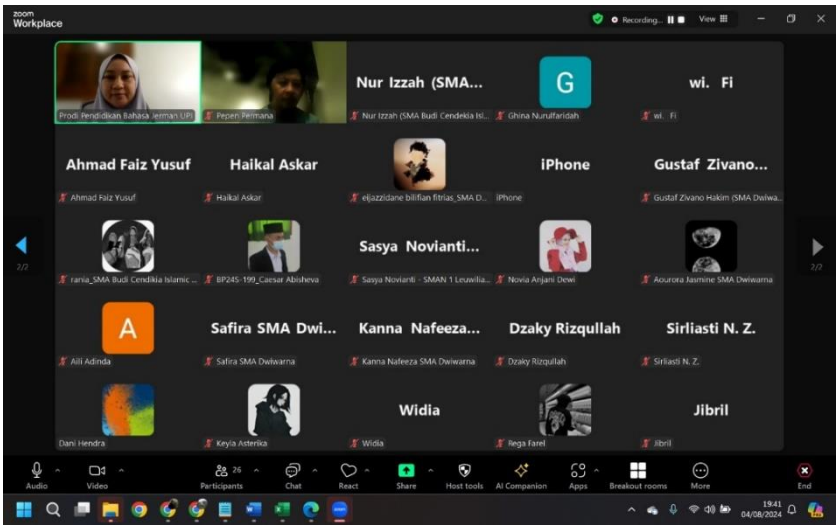

Figure 2. Screenshot of the training program via Zoom Meeting

Session 2: Offline Training

On August 9, 2024, the training continued with an in-person session at SMA Dwiwarna Boarding School in Bogor. This session, as documented in Figure 3, shifted focus to enhancing students' writing and speaking skills, with the Moodle platform still playing a supporting role in the preparation process. While students were given hands-on guidance from instructors, the simulations they had practiced on Moodle provided a strong foundation for their face-to-face training. The in-person session also included workshops for teachers, aimed at improving their ability to teach A2-level skills effectively, leveraging Moodle as a teaching aid. The use of Moodle in the prior sessions ensured that students came into the offline training well-prepared, having already engaged deeply with the exam materials and format.

Figure 3. Collage of the in-person training program

Session 3: Follow-up and Feedback

The final session, held on August 16, 2024, focused on reviewing the students' performance, particularly in writing, and providing detailed feedback through Moodle. Moodle's feedback system was instrumental in this phase, as students could review their performance on previously completed simulations. The platform's ability to store responses and provide personalized feedback allowed students to identify specific areas for improvement. As shown in Figure 4, participants can view the score they received, the duration spent completing the exercises, information about passing, and the correct answers for each question they answered. Additionally, students were allowed to retake listening and reading simulations on Moodle, with new questions, to further hone their skills. The flexibility and interactive nature of Moodle enabled students to continue improving through repeated practice, reinforcing the knowledge and strategies they had learned throughout the training.

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Figure 4. Screenshot of review page of the simulation program

Moodle played a crucial role in ensuring that students could engage with exam simulations in a structured yet flexible environment. The platform's user-friendly interface, coupled with its immediate feedback system, allowed for self-paced learning and continuous improvement. Participants were encouraged to repeat the simulations as many times as necessary, with no restrictions on attempts, further solidifying their understanding of the exam format.

The Moodle platform enabled students to access and repeat simulations freely. Its auto-feedback and tracking features enhanced autonomous learning (Kaleci, 2025; Permana et al., 2020). By integrating Moodle into the training process, this program was able to create an effective, scalable, and flexible learning experience for students. This ultimately prepares them for success in the online A2-level German language competency test.

3.1.2 Participants' Knowledge Before and After the Training

Students were asked to self-assess their knowledge before and after the training. The results showed a significant increase in three main areas: familiarity with the online exam interface, understanding of the exam format, and knowledge of the overall test structure.

As shown in Figure 5, students exhibited low familiarity with the online exam format prior to the training. A majority (65%) rated their knowledge as "Low," with 50% unfamiliar with the format and 40% lacking understanding of the exam structure. Additionally, 30% reported "Very Low" knowledge of the interface, and 19% had "Very Low" understanding of the overall format. Only 33% rated their knowledge as "Moderate," and a mere 8% felt confident at the "High" level. These findings highlight a substantial gap in students' digital exam readiness before the intervention.

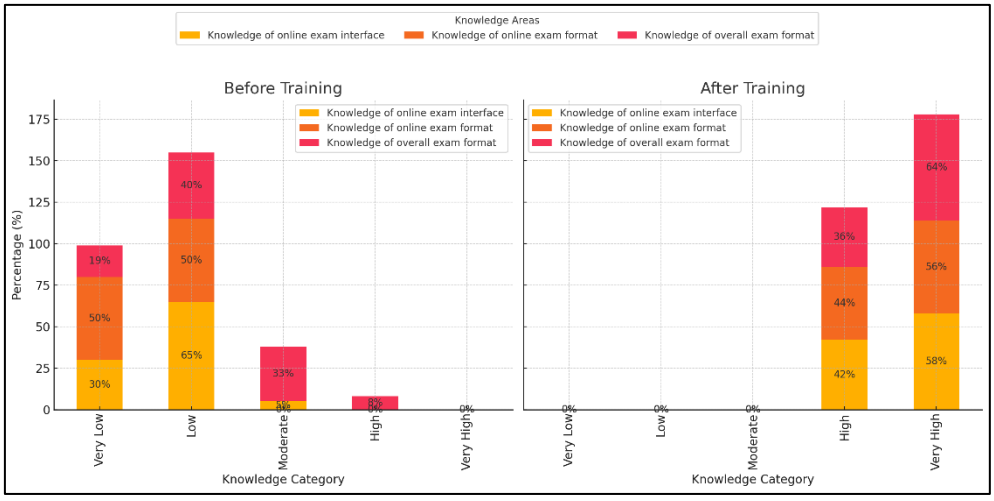

Figure 5. Graphs of students' knowledge before and after training

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After the training, students' knowledge showed significant improvement across all categories. A majority reported "Very High" familiarity, with 58% for the exam interface and 64% for the overall format, while 56% also rated the exam format itself as "Very High." Additionally, 42% and 44% of students reported "High" knowledge of the interface and exam format, respectively. Importantly, no students indicated "Low" or "Very Low" knowledge in any category. This suggests that the training effectively closed the initial readiness gap.

This data demonstrates a strong shift in student readiness and aligns with findings by Gamage et al. (2019), who emphasized that repeated simulation in LMS environments can increase confidence and familiarity with test mechanics. Similar studies (Mejeh et al., 2024; Sun et al., 2025) suggest that immediate feedback and the ability to self-regulate learning are core advantages of digital exam training.

The findings here reflect those observations: students who initially lacked exposure to online testing showed considerable improvement when provided with structured, repeated practice opportunities. The upward shift across all knowledge indicators points not only to content acquisition but also to digital confidence.

3.1.3 Students' Perceptions of the Training

The students' perception of the training program was overwhelmingly positive across multiple dimensions. When evaluating how the training encouraged independence, 45% of the students strongly agreed, while 37% agreed, indicating that the program successfully fostered self-reliance in learning. However, 18% of the students were uncertain, suggesting room for improvement in this area. In terms of providing insights into the real exam, 50% of students strongly agreed, with an additional 28% agreeing, highlighting the program's effectiveness in offering relevant exam preparation. Nevertheless, 22% of the students remained uncertain about this aspect.

As shown in Figure 6, s significant portion of students (61%) strongly agreed that the training effectively measured their German language proficiency, marking this as the highest-rated perception category. Furthermore, 30% agreed with this statement, while only 9% expressed uncertainty. This indicates that the training's assessment components were particularly successful in helping students gauge their language skills. When assessing the overall benefit of the training for their learning process, 46% of the students strongly agreed, and 34% agreed, while 20% were unsure. This feedback demonstrates the program's general success, with the majority of students perceiving it as beneficial for their learning, although some were still ambivalent about its impact.

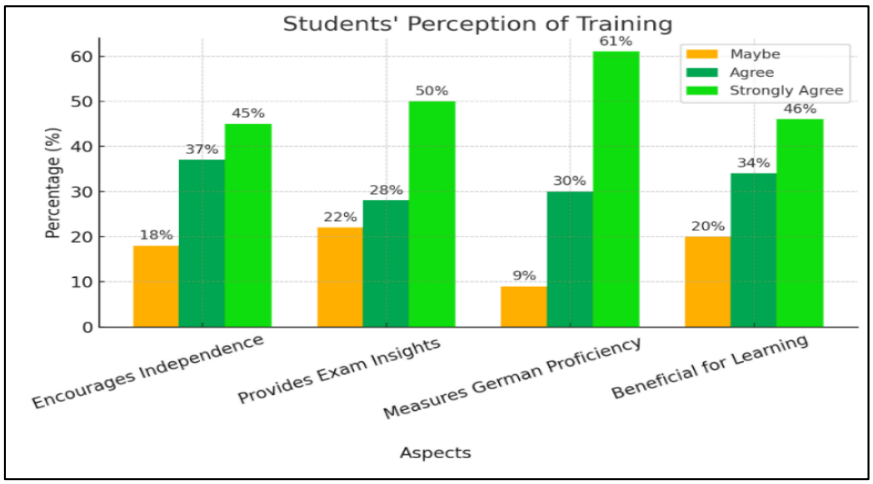

Figure 6. Graphs of students' perceptions of the training

These perceptions affirm the importance of LMS-driven simulations in building learner autonomy, a central aspect in recent studies on online language education (Bailey et al., 2021;

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Hongsuchon et al., 2022). The Moodle environment allowed students to learn at their own pace, make mistakes safely, and retry without pressure. These factors support deep learning, according to Gamage et al. (2022) and Muangbangyung & Srisawasdi (2023).

However, 18–22% of respondents were "uncertain" about some aspects, such as independence and relevance to the actual test. This feedback may point to individual differences in digital literacy or learning preferences, as also noted in research by Getenet et al. (2024) and Setyaedhi & Pramana (2025), where LMS platforms were more effective when combined with guidance and teacher scaffolding.

3.1.4 Students' Evaluation of the Program

In addition to the students' perceptions of the training's content, their evaluation of the implementation of the program was also largely positive. Regarding the overall quality of the training, 66% rated it as very good, and 22% rated it as good, while only 12% rated it as moderate. This feedback suggests that the majority of students were highly satisfied with the structure and execution of the program. The media and website quality were similarly well-received, with 68% rating it as very good, 22% as good, and only 10% as moderate. This reflects a strong approval of the digital platforms used in the training.

As illustrated in Figure 7, the highest approval ratings were observed for the quality of the training materials, where 70% of the students rated them as very good, and 21% as good. Only 9% of the students rated the materials as moderate, showing that the training content was well-regarded by most participants. Finally, the quality of the instructors was also highly praised, with 69% rating them as very good, 26% as good, and 5% as moderate. This indicates that the teaching staff played a critical role in the program's overall success and contributed significantly to the students' positive experiences.

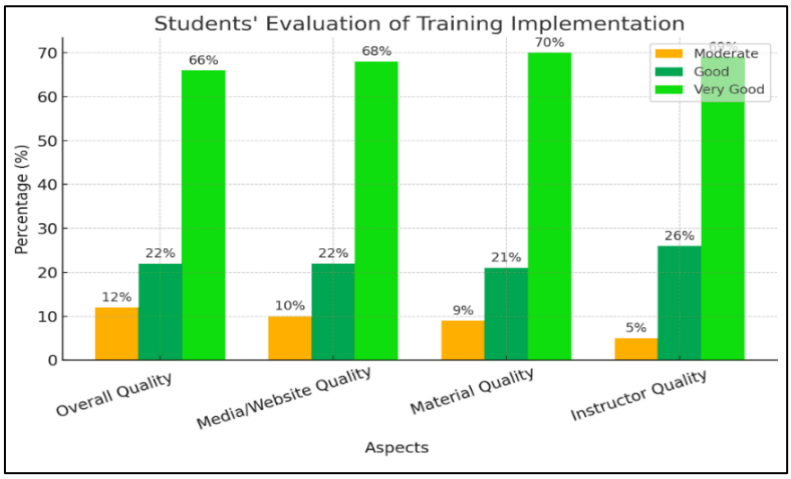

Figure 7. Graphs of students' evaluations of the training's quality

These evaluations reflect high satisfaction across all implementation aspects. The role of instructors in combining Moodle with clear instruction was essential, echoing findings by Ong & Quek (2023), who highlighted the importance of teacher presence in online environments. The quality of the materials, carefully modeled on CEFR-level A2 standards, also contributed to the effectiveness of the program, consistent with studies such as Fleckenstein et al. (2016) and de Valenzuela et al. (2022).

3.1.5 Summary of Findings

The training yielded several key outcomes. First, students demonstrated improved digital test literacy, becoming significantly more confident and capable in navigating the online exam interface. Second, their familiarity with the test format increased markedly, as exposure to real-format simulations deepened their understanding of question types and exam structure. Third, the use of the Moodle platform fostered greater learner autonomy by supporting independent,

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self-paced learning. Fourth, student feedback reflected a generally positive perception of the training, with most participants finding it both beneficial and relevant to their exam preparation. Finally, high levels of satisfaction were reported regarding the quality of the training materials, instructional delivery, and overall program implementation.

3.2 Discussion

The findings of this community service initiative indicate that Moodle-based training, delivered through a blended model, significantly enhanced students' readiness for the A2-level German language exam. In line with the goals of the program, the discussion below explores: (1) the critical success factors of the training, (2) challenges and limitations, (3) theoretical implications for digital language learning, and (4) practical recommendations and future replication potential.

3.1.1 Critical Success Factors

One of the most prominent outcomes of the training was the marked improvement in students' familiarity with the online exam interface and structure. This result confirms previous studies showing that interactive, web-based platforms such as Moodle can significantly support learners' readiness in digital assessment environments (Gamage et al., 2019, 2022; Muangbangyung & Srisawasdi, 2023). The structure of the training, which emphasizes repetition, guided practice, and individualized feedback, allowed students to progress at their own pace. This structure increases not only their technical competence but also their confidence in facing the exam.

The training's effectiveness also stems from its alignment with key features of self-regulated learning. According to Zimmerman's theory (Zimmerman, 2002), learners develop autonomy through cyclical processes of planning, monitoring, and evaluating their own progress. Moodle's architecture enabled this through its quiz modules, progress tracking, and real-time feedback, thus supporting each phase of self-regulation. Ang et al. (2024) similarly argued that LMS-based courses enhance metacognition and strategy use, particularly when students engage asynchronously.

Another critical factor was the hybrid nature of the program. By integrating synchronous (Zoom) and asynchronous (Moodle) components, the training provided both structured guidance and flexible learning opportunities. This blend aligns with what Basilaia & Kvavadze (2020) describe as a "resilient learning framework" in post-pandemic education. Studies by Walsh et al. (2022) have also demonstrated that repeated simulation across distributed sessions improves retention and performance in high-stakes testing.

Importantly, the in-person session (Session 2) provided scaffolding, teacher modeling, and peer interaction, elements still considered crucial in digital language learning (Bradley, 2020; Ong & Quek, 2023). These live sessions served as social-cognitive reinforcement, particularly for skills like writing and speaking that benefit from real-time feedback.

4.2 Challenges and Limitations

Despite its overall success, the program faced several limitations. The exclusion of speaking skills from the core Moodle simulations was due to technical constraints and the structure of the German Language Olympiad, which does not assess oral performance at the provincial level. However, this choice limits the comprehensiveness of the training. Bailey et al. (2021) have shown that speaking skills are the hardest to train asynchronously due to the absence of interactive turn-taking.

Another challenge was variability in digital literacy among participants. As reported in studies by Anastasakis et al. (2023), student anxiety and confusion with digital platforms can hinder learning unless adequate onboarding is provided. Although the first synchronous session addressed these issues, some students reported uncertainty about navigating the Moodle

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interface. This indicates that LMS platforms must be paired with robust orientation strategies and continued support.

The evaluation method also presents a limitation. The absence of formal pretest-posttest scores makes it difficult to measure objective gains in language proficiency. Although student self-assessments provide insight into perceived learning (Yan et al., 2023), they may not always reflect actual skill improvements. Future iterations of the program should incorporate direct assessment instruments aligned with CEFR standards to capture proficiency gains more rigorously.

Moreover, the scope of the program was limited to students from selected schools in Bogor. While this allowed for focused implementation, it also raises questions about the program's scalability and adaptability across different demographic or technological contexts. Access to stable internet and adequate devices may still pose barriers in less privileged areas (Raihan et al., 2024).

4.3 Theoretical and Pedagogical Implications

The outcomes of this program contribute to broader discussions on how technology-enhanced learning (TEL) can bridge readiness gaps in language education. The use of Moodle as both a content delivery and assessment simulation tool exemplify how open-source LMS platforms can be repurposed for practical, exam-oriented training.

From a pedagogical standpoint, the program supports the constructivist approach, where learners actively build knowledge through interaction and feedback (Szabó & Csépes, 2023). The simulations provided in Moodle encouraged experimentation, trial-and-error, and gradual mastery, key principles in language acquisition (Boudadi et al., 2024). These findings also align with Shadiev & Yang's (2020) assertion that technology, when designed to mirror real-world tasks, enhances not just engagement but also performance.

The positive student perceptions reflect increased motivation and self-efficacy, which are vital in successful language learning. As noted by Amerstorfer & von Münster-Kistner (2021) students who perceive themselves as capable of managing test-related challenges are more likely to perform well. The training's ability to build such perceptions indicates its impact on affective dimensions of learning, not just cognitive or technical aspects.

Additionally, this program affirms the relevance of digital exam readiness in today's globalized education system. As international certification becomes a benchmark for academic and professional mobility, digital literacy is no longer optional but essential (Iskandar et al., 2022). The results of this program suggest that schools and education systems must institutionalize digital training as part of language curricula.

4.4 Recommendations and Replication Potential

Given its success, this training model demonstrates strong potential for replication in other regions. Its scalability is supported by several key factors. First, Moodle's status as an open-source platform, with its flexibility, low implementation cost, and robust global community, makes it suitable for a wide range of educational contexts (Gamage et al., 2022). Second, the hybrid delivery format, which combines online and in-person sessions, allows the program to be adapted according to local infrastructure and needs. Third, its modular design enables customization for other language levels, such as B1 or B2, or even for use in different language subjects.

Nevertheless, successful replication requires certain enhancements. These include improved onboarding materials to guide students in using the LMS effectively, the integration of oral skills training through video conferencing tools like BigBlueButton or Zoom, and the implementation of pretest-posttest instruments to more rigorously measure learning outcomes. In addition, establishing partnerships with organizations such as PASCH or the Goethe-Institut will help ensure content relevance and alignment with international certification standards.

Stakeholders, such as school administrators, language teachers, and curriculum developers, can adopt this model to embed structured online assessment training into their

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existing programs. Furthermore, institutions may consider forming regional consortia to share resources and expertise, thereby enhancing sustainability and broadening the program's impact.

From a policy perspective, the program reinforces the importance of community-university collaboration. Higher education institutions can play a key role in addressing real-world education gaps by translating research-based methods into practical interventions. This resonates with the core mission of community service programs in Indonesia and aligns with the national agenda of digital transformation in education.

4.5 Summary of Discussion

In summary, the program proved effective in enhancing students' digital readiness for the A2-level German language exam, primarily due to its blended learning model and simulation-based approach. Moodle served as a suitable platform to support self-paced and feedback-driven learning, enabling students to engage meaningfully with the exam format. Key strengths of the program include its scalability, cost-efficiency, and alignment with CEFR-aligned assessment frameworks. Despite these advantages, certain limitations were identified, notably the absence of speaking assessments and the program's reliance on self-reported evaluation data. Nonetheless, the findings are consistent with existing literature on technology-enhanced learning, self-regulated learning, and digital literacy in language education. With targeted improvements, particularly in terms of assessment methods and integration of oral skills components, the program is well-positioned for replication in other regions and contexts.

4. CONCLUSION

This community service program successfully enhanced high school students' readiness for the A2-level German language exam by integrating Moodle-based simulations within a blended learning model. Through structured practice and repeated exposure to real-format exam tasks, students demonstrated improved familiarity with the digital exam interface, increased test-taking confidence, and greater independence in learning.

The positive outcomes indicate that Moodle, as an open-source learning management system, is a practical and scalable tool for language exam preparation—particularly in contexts where access to standardized, exam-aligned training is limited. The blended delivery model proved effective in balancing flexibility with structure, and the interactive simulations provided valuable formative assessment opportunities.

Practically, this program offers a replicable blueprint for other regions in Indonesia and beyond. Schools with limited resources can adopt similar models by leveraging digital platforms, local partnerships, and CEFR-aligned training content. The approach is especially relevant for preparing students for international certifications and national language Olympiads.

Future initiatives are encouraged to expand the training scope to include speaking assessments, implement more rigorous evaluation instruments (e.g., pretest-posttest designs), and develop collaborative teacher training components. Sustained partnerships with PASCH schools, language associations, and universities can further institutionalize such practices within language education ecosystems.

In conclusion, this program illustrates how digital tools, when combined with context-sensitive design and collaborative implementation, can bridge readiness gaps and promote equitable access to high-quality language assessment preparation.

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