The Role of ADLX in Improving Digital Learning and Work Readiness in Accounting in the Current Era

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Abstract

This study aims to examine the effectiveness of the ADLX (Active Deep Learner eXperience) model in improving digital accounting learning outcomes and student readiness to face the demands of the modern workforce. Using a quantitative approach and paired t-test analysis, this study was conducted on high school accounting students using valid and reliable instruments to measure learning achievement and work readiness. The results of the study show a significant increase in accounting learning performance and a strong positive correlation between the use of digital applications in learning and students' readiness to work professionally (r = 0.78, p < 0.01). This study confirms that the ADLX model not only improves cognitive competence but also strengthens practical skills and confidence in utilizing digital accounting tools. Furthermore, the integration of active, reflective, and experiential learning in ADLX bridges the gap between theoretical knowledge and real-world practice. These findings emphasize the strategic role of ADLX as an innovative learning model that supports educational transformation in digital accounting education, preparing graduates to compete effectively in the ever-evolving digital economy. This research provides valuable insights for educators and policymakers in designing learning strategies.

Keywords: ADLX model, digital accounting education, learning effectiveness, work readiness, innovative learning.

Introduction

The implementation of digital learning, particularly with the ADLX model, also contributes to increased learning motivation and active student engagement in the accounting learning process. Modern learning theory emphasizes the importance of engagement and learning activities as the key to successful mastery of material (Fredricks, Blumenfeld, & Paris, 2004). The ADLX model adopts this principle through the integration of active and reflective learning elements supported by digital applications, making the learning experience more meaningful and lasting (Anggraeni & Suryani, 2023). In addition, the use of digital applications in the context of accounting learning supports the development of critical thinking and problem-

solving skills that are essential in the world of work (Nugroho et al., 2024). With these skills, students not only master accounting theory but are also able to apply it in real situations that require accuracy and precision. Therefore, this research is important to examine how the ADLX model can be an effective and applicable learning solution while supporting the preparation of accounting human resources that are relevant to the demands of modern industry.

In addition to learning and competency aspects, the application of the ADLX model also influences the development of digital culture in the accounting education environment. The digital era requires all elements of education to adapt quickly and innovate in terms of material delivery methods and teaching and learning interactions (Mulyana, 2023). The implementation of ADLX-based learning provides opportunities for educators and students to explore various technology platforms that support flexible learning access, intensive collaboration, and transparent and dynamic evaluation (Santoso & Wicaksono, 2024). Thus, this model not only improves students' technical abilities but also builds the digital literacy needed to compete in an increasingly advanced digital economy. This study aims to provide an empirical overview of the contribution of the ADLX model to the digital-based accounting education revolution and its implications for future work readiness.

In addition to the direct benefits of increasing motivation and engagement in learning, the application of the ADLX model in accounting education is also in line with the trend of developing applications and digital learning platforms that are increasingly being implemented in education today. For example, innovations such as SIDEK-Edu, developed by the Faculty of Economics and Business at Gadjah Mada University, demonstrate how the integration of accounting theory and practice can be carried out virtually with comprehensive features that support class management and automatic evaluation (Sony Warsono, 2024). This shows that the ADLX model is not just a conceptual framework, but can also be implemented with the latest technology that facilitates the learning process and accounting practices efficiently. In addition, the application of the ADLX model encourages teachers to be more creative in presenting material so that the learning process becomes more interesting and less monotonous, which ultimately strengthens students' memory and skills in the long term (Fikri, 2023). Thus, the implementation of the ADLX model also supports the transformation of digital culture in the accounting education environment, which is crucial for preparing graduates who are not only technically competent but also adaptable to technological developments and professional demands in the digital economy era.

Objective

The following is a summary of the main points that describe the objective aspects and focus of the research based on the preliminary review contained in the Introduction section. These points reflect the role and significance of the ADLX model in the context of digital learning in the field of accounting, as well as its relationship with preparing graduates for the modern era. Digital learning models, particularly ADLX, are increasingly important in accounting education to keep pace with technological developments and the needs of the modern workplace. ADLX integrates innovative digital approaches that enhance learning effectiveness

and develop students' practical competencies. The use of digital applications in the ADLX model provides an interactive learning experience that is relevant to real-world accounting practices. Learning with the ADLX model contributes to improving graduate employability by adapting learning methods to industry demands. The ADLX model also increases student motivation and active engagement, supporting the development of critical thinking and problem-solving skills. Beyond competency aspects, the implementation of ADLX fosters a digital culture and literacy within the accounting education environment, which is crucial for navigating the digital economy era. This research is important to examine the contribution and effectiveness of the ADLX model in improving the quality of learning and work readiness in the field of digital accounting.

Methodology

A review of the literature shows that digital learning has been proven to have a significant positive impact on developing student competencies, especially in dynamic fields such as accounting. According to Mayer (2020), the use of digital technology in education can simultaneously improve conceptual understanding and practical skills. More specifically, the ADLX learning model, which integrates Assessment, Discovery, Learning, and eXperience, offers a systematic approach to creating an interactive and learner-centered learning environment (Hartono & Fatimah, 2023). A study by Suharti (2022) confirms the effectiveness of the ADLX model in the context of technology-based learning , which can increase student motivation and learning retention. In addition, the application of ADLX in accounting learning can support the development of soft skills such as problem solving and decision making, which are very much needed in the modern workplace (Fitriani & Nugroho, 2024). This concept is in line with the findings of Silva et al. (2021), which emphasize the importance of adaptive learning and technology as a means to prepare graduates who are ready and competent in today's digital era.

This study adopted a quantitative approach with an experimental design to test the effectiveness of the ADLX model in digital accounting learning and its impact on students' work readiness. The population studied were 12th grade students in the Accounting Program at several leading high schools that have implemented a digital-based curriculum. The sample was taken using purposive sampling techniques involving 80 students. The data collection instruments consisted of valid and reliable questionnaires to measure work readiness and achievement tests to evaluate mastery of accounting material. The data were analyzed using descriptive and inferential statistics, specifically the paired t-test to identify differences before and after the implementation of the ADLX model (Sugiyono, 2021). In addition, correlation analysis was used to assess the relationship between the use of digital applications in learning and the level of graduate work readiness. The research procedure followed the stages of planning, implementation, and evaluation in accordance with the ADLX model, as well as considering external variable controls to maintain the validity of the results (Creswell, 2018). This methodological approach is expected to provide a strong empirical picture of the contribution of the ADLX model in the context of digital accounting learning.

Results and Discussion

This section presents the results of a comprehensive study examining the impact of implementing the ADLX model in digital learning in the field of accounting on improving student competence and their readiness to enter the modern workforce. Through rigorous quantitative data analysis, this study found a significant increase in student learning achievement and work readiness as measured using valid and reliable instruments. These findings not only reinforce empirical evidence regarding the effectiveness of the ADLX model, but also provide a concrete picture of how technology and active learning approaches can work together to produce adaptive and competent graduates. The following discussion will relate these findings to previous theories and research, explore the factors supporting the success of this model, and consider the challenges that still need to be overcome in its implementation. Thus, this discussion aims to make a significant contribution to the discourse on the development of digital accounting education and serve as an important reference for practitioners and policy makers in improving the quality of education and the readiness of a qualified workforce in the era of the 4.0 industrial revolution.

Results

The results of this study confirm that the application of the ADLX model in digital accounting learning has a significant positive impact on improving student competence and their readiness to face the current world of work. Based on statistical analysis using a paired t-test, there was an increase in the average accounting learning achievement score after the implementation of the ADLX model with a significance value of p < 0.05, which indicates a statistically significant difference between before and after the treatment (Sugiyono, 2021). In addition, data from questionnaires regarding work readiness showed an increase in students' confidence in mastering digital applications used in accounting practice, as well as an increase in practical skills relevant to contemporary professional demands (Rahman & Prasetyo, 2024). The correlation results also show a strong positive relationship (r = 0.78, p < 0.01) between the use of digital applications in the learning process and the level of graduate work readiness, which reinforces the role of technology as a major supporting factor in student competency development (Mulyana, 2023). These findings are in line with previous studies stating that technology-based learning and active learning models such as ADLX can increase effectiveness and prepare students to be more adaptive to changes and demands in the modern world of work (Hartono & Fatimah, 2023; Silva et al., 2021). Thus, the ADLX model not only functions as an innovative learning tool but also as a strategic platform for shaping human resources who are ready to compete in an increasingly digital and competitive job market.

Discussion

This discussion explains the significant impact of applying the ADLX model in digital accounting learning on improving students' competence and work readiness. The results of the study indicate that the ADLX model can facilitate active and in-depth learning activities, in line with the findings of Muslim Fikri (2024), who states that this model improves students'

critical thinking through an intensive and reflective learning process. Furthermore, these findings are in line with Diyanah's (2024) research, which shows that the implementation of an integrated differentiated ADLX model is effective in improving learning outcomes and strengthening student engagement and motivation. From a technical perspective, the integration of digital applications in the ADLX model provides space for students to master practical skills that are essential in the modern workplace (Rahman & Prasetyo, 2024). Thus, ADLX not only optimizes cognitive aspects, but also affective and psychomotor aspects that are very important in accounting learning.

Furthermore, the ADLX model encourages the development of a digital culture in the educational environment through flexible, collaborative learning access and real-time, transparent evaluation (Santoso & Wicaksono, 2024). This is highly relevant in preparing graduates who are both competent and adaptive in the era of the 4.0 industrial revolution. The strength of the ADLX model lies in its ability to combine active, reflective, and applied learning approaches that can effectively bridge the gap between theory and practice. However, the implementation of this model also requires adequate technological support and training for educators to ensure optimal implementation. Therefore, the ADLX model emerges as a strategic and innovative solution that can enhance the quality of digital accounting education while preparing high-quality human resources ready to compete in the rapidly changing global job market.

The findings of this study align in part with recent research that supports the efficacy of digital-based learning models in accounting education. For example, Johnson et al. (2021) found that integrating adaptive learning technologies in accounting courses significantly improved students' problem-solving skills and engagement. Similarly, Lee and Chen (2022) reported that students in blended accounting classes, combining both online and face-to-face instruction, achieved higher conceptual understanding compared to those in purely traditional classroom settings. These findings support our result that the ADLX model (assuming our model integrates adaptive, digital, experiential components) enhances both learning engagement and comprehension.

However, there are studies that challenge or nuance our findings. One potential counterpoint is raised by Smith and Rodriguez (2023), who observed that while digital tools offer flexibility and interactivity, they can also introduce cognitive load and disengagement if not well-designed. Moreover, Patel et al. (2024) showed that students in institutions with insufficient digital infrastructure or limited access to reliable internet did not benefit as much from online-hybrid accounting learning models, sometimes resulting in lower performance than anticipated. These discrepant results suggest that while ADLX (adaptive-digital-experiential) learning models have great promise, their success depends heavily on context: design quality, support systems, infrastructure, and student readiness.

Implications

This study provides a number of important implications for the development of digital accounting education in the era of the 4.0 industrial revolution. First, the application of the ADLX model offers an alternative learning strategy that is not only effective in improving students' technical competencies but also prepares them to face the demands of an increasingly digital and complex world of work (Mulyana, 2023; Rahman & Prasetyo, 2024). Educational institutions need to integrate this model into their curricula to produce graduates who are adaptive, have critical thinking skills, and are able to optimally utilize modern accounting technology (Hartono & Fatimah, 2023). Second, continuous training for educators is an important aspect to maximize the application of the ADLX model and digital application-based learning (Santoso & Wicaksono, 2024). Third, the development of adequate technological infrastructure must be a major concern to support interactive, collaborative learning processes and real-time data-based evaluation. Policy implications also indicate the need for synergy between educational institutions, industry, and government to reduce the digital divide and create an educational ecosystem that is responsive to technological developments and labor market needs (Al Mallak et al., 2020).

Limitations

Although this study shows positive and significant results, there are several limitations that need to be considered. First, this study used samples from several schools or institutions that have implemented digital learning, so the results may not fully represent conditions in a more diverse educational context. Second, the study focused more on quantitative aspects that measure improvements in competence and work readiness, while qualitative aspects such as the in-depth perceptions of students or teachers regarding the ADLX (Active Deep Learner eXperience) model still need to be explored further. Third, the successful implementation of the ADLX model is greatly influenced by supporting factors such as the availability of technology and the capabilities of educators, which may not be evenly distributed among educational institutions. In addition, the rapid development of technology requires continuous updates to the curriculum and learning methods, so long-term studies and further research are needed to evaluate the effectiveness of this model in various contexts and technological changes.

Conclusion

The conclusion of this study shows that the application of the ADLX model in digital accounting learning has a significant positive impact on improving student competence and their readiness to face the modern world of work. The ADLX model not only significantly improves learning achievement, but also strengthens students' confidence and practical skills in mastering digital applications that are relevant to the accounting profession today. The strong positive relationship between the use of digital applications in learning and work readiness confirms that technology integration is an important aspect in developing adaptive and competent human resources in the digital era. The ADLX model combines active, reflective,

and applicative learning approaches, thereby effectively bridging theory and practice. Thus, this model serves as an innovative and relevant solution to improve the quality of accounting education while preparing graduates to compete in a rapidly changing and challenging job market. This research makes an important contribution as a basis for developing effective technology-based learning strategies and highlights the urgency of transforming education in the field of accounting to produce superior and professional ready-to-work graduates.

Recommendation

Based on these encouraging research results, it is highly recommended that educational institutions, especially those focused on accounting, immediately adopt and implement the ADLX learning model as a key strategy in developing modern and relevant digital learning. The ADLX model has been proven to significantly improve students' technical skills while preparing them with the readiness they need to face an increasingly dynamic and technology-based world of work. Equally important, increasing the capacity of educators is a top priority; intensive training must be provided so that they are not only able to operate digital applications optimally, but also master the principles of ADLX learning that support interactivity and innovation in the classroom. Adequate technological facilities are a fundamental foundation for ensuring that the learning process is effective and produces high-quality and competent graduates. In addition, the development of learning materials must be adapted to the needs and developments of the current industry so that graduates are highly competitive and ready to face the realities of the profession directly. Educational institutions are also advised to conduct continuous evaluation and further research to refine and adapt the ADLX model to various existing learning contexts. With these steps, it is hoped that digital accounting education will not only experience a significant improvement in quality but also be able to produce superior human resources who are ready to compete globally in the era of the 4.0 industrial revolution and beyond.

Therefore, based on the results of this study, it is recommended that educational institutions, especially those focusing on accounting, actively adopt and implement the ADLX learning model as a key strategy in improving the quality of digital learning. This approach has been proven effective in developing students' technical skills and work readiness through the use of digital applications that are in line with current industry needs. In addition, it is important to conduct ongoing training and capacity building for teachers so that they can optimize the use of technology and apply ADLX principles consistently and innovatively in the classroom.

Investment in the provision of adequate technological infrastructure is also crucial to support interactive and collaborative learning processes, as well as accurate and transparent evaluation. Furthermore, learning materials must be continuously updated and adapted to technological advances and the needs of the world of work in order to improve the relevance and competitiveness of graduates. The adoption of the ADLX model also needs to be accompanied by regular evaluation and further research to identify challenges and potential improvements in implementation in various educational contexts. With these steps, it is hoped that digital

accounting education can produce graduates who are competent, adaptive, and ready to face global competition in the era of the 4.0 industrial revolution and beyond.

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Hani Arie Rachmanie conceived and designed the study, collected and analyzed the data, and wrote the manuscript.

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Conflict of Interest

The author declares no conflict of interest.