JOURNAL OF EDUCATION AND APPLIED TEACHING (JEAT)

Volume 2 Nomor 2, 2026, 937-949
E-ISSN: 3090-0360

A SWOT Analysis of Chromebook Utilization in Supporting the Implementation of ANBK at SD Negeri 148 Palembang Elementary School

Saparudin [1]
[1]*Universitas PGRI Palembang*
**Corresponding author: saparudinpsupgri@gmail.com*

Abstrak

Asesmen Nasional Berbasis Komputer (ANBK) merupakan evaluasi penting untuk mengukur mutu pendidikan di Indonesia dengan menggunakan teknologi komputer. SD Negeri 148 Palembang menggunakan Chromebook sebagai perangkat utama dalam pelaksanaan ANBK. Penelitian ini bertujuan untuk menganalisis kekuatan, kelemahan, peluang, dan ancaman (SWOT) dari penggunaan Chromebook dalam pelaksanaan ANBK di sekolah tersebut. Penelitian ini menggunakan metode deskriptif dengan pendekatan analisis SWOT yang didasarkan pada observasi, wawancara, kuesioner, dan dokumentasi. Hasil penelitian menunjukkan bahwa Chromebook memiliki beberapa keunggulan, seperti mudah digunakan, harga terjangkau, dan mendukung aplikasi berbasis web yang diperlukan dalam ANBK. Namun, ditemukan beberapa kelemahan, seperti ketergantungan pada koneksi internet yang stabil dan kapasitas penyimpanan yang terbatas. Peluang yang muncul antara lain adanya dukungan pemerintah terhadap digitalisasi pendidikan serta peningkatan literasi teknologi bagi guru dan siswa. Akan tetapi, terdapat ancaman berupa gangguan jaringan, keterbatasan pelatihan pengguna, dan kendala teknis yang dapat mempengaruhi pelaksanaan ANBK. Kesimpulannya, penggunaan Chromebook memiliki potensi besar dalam mendukung keberhasilan pelaksanaan ANBK apabila didukung dengan infrastruktur yang memadai, koneksi internet yang stabil, serta pelatihan yang cukup bagi pengguna.

***Kata kunci*:** *Chromebook, ANBK, Analisis SWOT, Teknologi Pendidikan, Asesmen Digital*

Abstract

Computer-Based National Assessment (ANBK) is an important evaluation used to measure the quality of education in Indonesia through computer technology. SD Negeri 148 Palembang implements Chromebooks as the primary devices for conducting ANBK. This study aims to analyze the strengths, weaknesses, opportunities, and threats (SWOT) of using Chromebooks in the implementation of ANBK at the school. The research employed a descriptive study with a SWOT analysis approach based on observations, interviews, questionnaires, and documentation. The results indicate that Chromebooks provide several advantages, including ease of use, affordability, and compatibility with web-based applications required for ANBK. However, several weaknesses were identified, such as dependence on a stable internet connection and limited storage capacity. Significant opportunities arise from government support for the digitalization of education and the improvement of technological literacy among teachers and students. Nevertheless, potential threats include network disruptions, limited user training, and technical problems that may affect the implementation process. In conclusion, the use of Chromebooks has strong potential to support the successful implementation of ANBK, provided that it is accompanied by adequate infrastructure, stable internet connectivity, and sufficient training for users.

Keywords: Chromebook, ANBK, SWOT Analysis, Educational Technology, Digital Assessment

1. INTRODUCTION

Computer-Based National Assessment (Asesmen Nasional Berbasis Komputer / ANBK) is a national evaluation program implemented by the Indonesian government to measure the quality of education using digital technology. The assessment is designed to evaluate

History:
Received : 1 March 2026
Revised : 1March 2026
Accepted : 2 March 2026
Published : 5 March 2026

Publisher: Horizon Edukasi Prima Indonesia

students' competencies, learning environment, and educational processes in schools through a computer-based system. The use of digital devices in ANBK requires schools to provide reliable technological infrastructure to ensure that the assessment can be conducted effectively and efficiently (Ministry of Education, Culture, Research, and Technology, 2023). Furthermore, the overall digital transformation in education requires a strategic framework for institutional readiness (Vargo et al., 2021). In the current era of educational digitalization, the integration of information technology into assessment systems has become an important indicator of educational quality and institutional readiness (Nisa et al., 2023; Rahman & Wibowo, 2022).

One of the devices widely used to support ANBK implementation in Indonesian schools is the Chromebook. Chromebooks are lightweight laptop devices that use Chrome OS and are designed to operate mainly through web-based applications. These devices are considered suitable for educational environments because they are relatively affordable, easy to operate, and compatible with cloud-based systems commonly used in digital learning and assessment platforms (Google, 2022; Kresnadi et al., 2023). Recent reviews have highlighted that these digital technologies play a transformative role in modern classroom operations (Haleem et al., 2022). Several studies have shown that the use of Chromebooks in schools can increase efficiency in managing digital learning activities and improve students' technological literacy (Amalia & Hayati, 2025; Qosim et al., 2023).

The implementation of technology in education, however, does not only depend on the availability of devices but also on the readiness of human resources, infrastructure, and management systems. According to educational management theory, the quality of education is influenced by several important factors, including human resources, organizational structure, facilities, and the learning environment (Ardiansyah, 2021). Teachers play a crucial role in the success of technology integration because they act as facilitators, supervisors, and problem solvers during the learning and assessment process (Hidayat, 2023; Suryadi & Kurniawan, 2022). UNESCO also emphasizes that teachers must be viewed as reflective practitioners and active partners in educational policy implementation, especially in the digital era (UNESCO, 2021). To succeed, teachers must possess a solid integration of technology, pedagogy, and content knowledge (Mishra & Koehler, 2021).

In addition to human resources, the availability of appropriate technological facilities is another determining factor in the successful implementation of computer-based assessment. Schools that lack stable internet connections, sufficient devices, or technical support often experience difficulties during ANBK implementation (Nugroho & Santoso, 2021). Therefore, schools must carefully evaluate their technological readiness before conducting digital assessments. One of the strategic approaches that can be used to evaluate readiness is SWOT analysis.

SWOT analysis, which stands for Strengths, Weaknesses, Opportunities, and Threats, is a strategic planning tool used to identify internal and external factors that influence organizational performance. This method helps institutions understand their current condition and develop appropriate strategies based on real situations (Romadoni et al., 2024). In the context of education, SWOT analysis can be used to evaluate the implementation of technology, identify potential problems, and determine strategies to improve effectiveness (Anti, 2024; Ayyash et al., 2025).

Several recent studies have applied SWOT analysis in educational settings, particularly in the evaluation of digital learning and technology integration. For example, Maghfiroh et al. (2022) stated that SWOT analysis is effective for identifying strengths and limitations in the use of digital technology in organizations. Similarly, Saputra and Kusumaningrum (2022) found that SWOT analysis can help institutions develop strategies to maximize technological benefits while minimizing potential risks. In the field of educational technology, SWOT analysis has been used to evaluate e-learning readiness, digital literacy programs, and computer-based learning systems (Anti, 2024; Ayyash et al., 2025).

Despite the rising use of Chromebooks in Indonesia, SWOT-based research on their application for ANBK at the elementary level remains scarce. Most studies focus on general digital learning or secondary education, leaving a gap in understanding the specific challenges faced by primary schools (Kresnadi et al., 2023; Nisa et al., 2023).

SD Negeri 148 Palembang uses Chromebooks as its primary ANBK device, yet faces obstacles such as internet instability, hardware limitations, and user readiness. Addressing these issues is vital for optimizing assessment effectiveness. Therefore, this study conducts a comprehensive SWOT analysis to identify internal and external factors influencing the program's success. The findings are expected to guide schools and policymakers in enhancing the quality of computer-based national assessments.

Therefore, the objective of this study is to analyze the strengths, weaknesses, opportunities, and threats of Chromebook utilization in supporting the implementation of ANBK at SD Negeri 148 Palembang Elementary School.

2. METHOD

This study employed a descriptive qualitative research design using a SWOT analysis approach to examine the utilization of Chromebooks in supporting the implementation of the Computer-Based National Assessment (ANBK) at SD Negeri 148 Palembang Elementary School. A descriptive method was chosen because it allows the researcher to provide a detailed explanation of actual conditions, identify factors influencing the implementation process, and describe the strengths and limitations of technology use in real educational settings. Qualitative descriptive research is appropriate when the objective is to understand a phenomenon comprehensively without manipulating variables (Creswell & Creswell, 2021; Sugiyono, 2022).

The SWOT analysis approach was used as the main analytical framework because it enables the identification of internal factors (strengths and weaknesses) and external factors (opportunities and threats) that influence the effectiveness of a program or technology implementation. SWOT analysis has been widely used in educational research to evaluate institutional readiness, technology integration, and strategic planning in schools (Gürel & Tat, 2022; Anti, 2024). Through this approach, the researcher can systematically analyze the real conditions of Chromebook utilization during the ANBK process and provide recommendations for improvement.

2.1 Research Site and Participants

The research was conducted at SD Negeri 148 Palembang, a public elementary school that has implemented Chromebooks as the primary devices for conducting ANBK. The school was selected because it has experience in using digital devices for national assessments and represents a typical public elementary school implementing educational digitalization programs.

The participants of this study consisted of stakeholders who were directly involved in the implementation of ANBK. A purposive sampling technique was used, meaning that participants were selected intentionally based on their roles, experience, and relevance to the research objectives (Etikan & Bala, 2021). The total number of participants was 15 respondents, consisting of:

1. One school principal responsible for overall management and supervision
2. Six teachers who served as proctors and technical coordinators
3. Six students who used Chromebooks during ANBK
4. Two administrative staff members who provided technical and logistical support

Purposive sampling is commonly used in qualitative research because it allows the researcher to obtain detailed and relevant information from individuals who have direct experience with the phenomenon being studied (Campbell et al., 2021).

2.2 Instruments and Data Collection Techniques

To obtain comprehensive and valid data, several data collection techniques were used, including observation, interviews, questionnaires, and documentation. The use of multiple techniques was intended to ensure data triangulation and improve the credibility of the findings (Miles et al., 2022).

1) Observation

Observation was conducted during the preparation, implementation, and evaluation stages of ANBK. The researcher observed how Chromebooks were used in real situations, including device preparation, student interaction, technical issues, and overall effectiveness of the assessment process. Observational data are important in qualitative research because they allow the researcher to understand actual behavior and conditions directly (Creswell & Creswell, 2021).

2) Interviews

Semi-structured interviews were conducted with the school principal, teachers, students, and administrative staff. The interviews aimed to obtain in-depth information about participants' experiences, perceptions, and difficulties in using Chromebooks during ANBK. Semi-structured interviews were chosen because they allow flexibility while still focusing on the research objectives (Kallio et al., 2021). The interview questions focused on several aspects, such as ease of use, technical problems, advantages of Chromebooks, limitations, and suggestions for improvement.

3) Questionnaires
Questionnaires were distributed to teachers and students to collect data related to their level of satisfaction, ease of use, and perceived effectiveness of Chromebooks. The questionnaire included both closed-ended and open-ended questions to obtain quantitative and qualitative responses. Questionnaires are useful for collecting data from multiple participants efficiently and for identifying general patterns in participants' opinions (Taherdoost, 2022).

4) Documentation
Documentation was used to support the data obtained from observation and interviews. Documents collected included school reports, ANBK guidelines, photographs, schedules, and technical manuals. Documentation helps strengthen the validity of research findings by providing written evidence of the activities studied (Bowen, 2021).

2.3 Data Analysis Technique

The data obtained from observations, interviews, questionnaires, and documentation were analyzed using the SWOT analysis framework. The analysis followed several steps adapted from strategic analysis procedures (Gürel & Tat, 2022).

1) Data Reduction
All collected data were reviewed, selected, and simplified to identify important information related to Chromebook utilization. Data that were not relevant to the research objectives were excluded, while important statements were categorized for further analysis (Miles et al., 2022).

2) Data Categorization
The data were classified into internal and external factors. Internal factors consisted of strengths and weaknesses related to school resources, device performance, and user ability. External factors consisted of opportunities and threats related to government policy, technological development, and environmental conditions.

3) SWOT Matrix Development
After categorization, the data were organized into a SWOT matrix to clearly illustrate the relationship between strengths, weaknesses, opportunities, and threats. The matrix helps researchers identify strategic positions and determine possible improvement strategies (Gürel & Tat, 2022).

The final step was interpreting the SWOT results to understand how the identified factors influence the effectiveness of Chromebook utilization in ANBK implementation. Based on the analysis, conclusions and recommendations were formulated to improve future implementation.

3. RESULT AND DISCUSSION

Result
This study aimed to explore the utilization of Chromebooks in supporting the implementation of the Computer-Based National Assessment (ANBK) at SD Negeri 148 Palembang. The research employed a qualitative descriptive approach. Data were obtained through observations, interviews, questionnaires, and documentation involving 15 participants

consisting of the school principal, teachers, administrative staff, and students. The data were analyzed using a SWOT framework to identify internal and external factors affecting the implementation. The questionnaire data were used as supporting information to strengthen the qualitative interpretation of participants' perceptions.

3.1 Findings from Questionnaire and Field Data

The questionnaire results indicated that most participants had positive perceptions regarding the use of Chromebooks for ANBK implementation. The average score of user satisfaction reached M = 3.87 (SD = 0.52) on a five-point scale, indicating a relatively high level of acceptance among participants. Meanwhile, the aspect of ease of use obtained a mean score of M = 4.02 (SD = 0.48), suggesting that the majority of respondents perceived the Chromebook interface and operating system as simple and easy to operate. In addition, the effectiveness of Chromebooks in supporting ANBK obtained a mean score of M = 3.79 (SD = 0.55). Based on descriptive interpretation standards, a mean score above 3.50 reflects a positive response toward the technology used (Taherdoost, 2022).

Observation results also showed that the ANBK implementation using Chromebooks was generally carried out according to the planned schedule. Students were able to log in to the ANBK system and complete the assessment with minimal technical interruptions. However, several technical issues were observed during the assessment sessions, particularly related to unstable internet connections. This finding is consistent with previous studies which indicate that device usability and network stability are critical factors in the successful implementation of digital assessment systems (Nisa et al., 2023; Kresnadi et al., 2023).

To obtain a deeper understanding of the implementation process, the qualitative data were analyzed using a SWOT framework that identifies strengths, weaknesses, opportunities, and threats related to Chromebook utilization.

Strengths

The findings revealed several internal strengths of Chromebook usage in supporting ANBK implementation. First, Chromebooks were considered efficient due to their lightweight operating system, Chrome OS, which allows the devices to start quickly and operate smoothly even with relatively low hardware specifications. Observation results indicated that most devices could run the ANBK application without significant delays.

Second, affordability became an important advantage. Compared with conventional laptops, Chromebooks are relatively more economical, making them suitable for schools with limited financial resources. Questionnaire results showed that 86% of respondents agreed that Chromebooks are cost-effective for school operations.

Another strength identified was the ease of operation. Interview results indicated that teachers and students found the Chrome OS interface simple and easy to understand. This perception is supported by the questionnaire result showing a mean score of M = 4.02, which indicates that most users did not encounter major difficulties when operating the devices.

Furthermore, Chromebooks demonstrated good compatibility with web-based applications used in ANBK. Since the assessment system operates through an online platform, the browser-based capability of Chromebooks became a significant advantage. Field observations confirmed that the devices could access the ANBK system without requiring additional software installation.

Finally, long battery life was identified as another supporting factor. During the assessment sessions, most Chromebooks were able to operate continuously for several hours without requiring charging, ensuring that the assessment process could proceed without interruption.

Weaknesses

Despite the strengths, several weaknesses were identified during the implementation. The most significant limitation was the dependence on a stable internet connection. Observations showed that several delays occurred during the ANBK sessions due to unstable network conditions. This issue was also reflected in the questionnaire results, where 73% of respondents identified internet stability as the main challenge in using Chromebooks for the assessment.

Another limitation is the relatively small storage capacity of Chromebooks. Because these devices rely primarily on cloud-based storage systems, they have limited internal memory. This condition sometimes created difficulties when teachers attempted to store large files or install additional applications.

Limited offline functionality was also identified as a weakness. When the internet connection was disrupted, several features could not function properly. As a result, the assessment process experienced temporary interruptions until the network connection was restored.

In addition, compatibility issues were occasionally reported during the technical preparation stage. Some applications used for administrative preparation were not fully compatible with Chrome OS. Although these problems were not frequent, they required additional technical assistance from the school's IT support team.

Another challenge was related to user readiness. Interview and questionnaire data indicated that several students were not yet familiar with using laptops or Chromebooks. The mean score for user readiness was M = 3.45 (SD = 0.60), indicating a moderate level of preparedness.

Opportunities

The analysis also identified several external opportunities that support the continued use of Chromebooks in schools. One major opportunity is the strong support from the Indonesian government in promoting digital transformation in education. Various national policies encourage the integration of technology in teaching, learning, and assessment processes.

Another opportunity lies in the automatic update and security system provided by Google for Chromebook devices. Regular updates help maintain system performance and ensure data security during the implementation of computer-based assessments.

Additionally, the use of Chromebooks contributes to the improvement of digital literacy among both teachers and students. Observation results indicated that regular interaction with digital devices increased students' confidence and skills in using technology for academic purposes.

The successful implementation of Chromebooks for ANBK also creates opportunities to expand their use beyond assessment activities. Schools can utilize the devices for digital learning, online assignments, and collaborative classroom activities, thereby supporting the development of technology-based education.

Threats

Several external threats were also identified in the implementation process. The most prominent threat is the possibility of internet disruption during ANBK sessions. Network instability may cause delays in the assessment process and potentially require rescheduling of certain sessions.

Another threat is the potential risk of device damage. Since the number of Chromebooks available at the school is limited, technical malfunction of several units could significantly affect the smooth implementation of the assessment.

Lack of adequate training also emerged as a potential challenge. Interview results indicated that some teachers and students still required additional training to operate the devices more effectively. Questionnaire data showed that 67% of respondents expected more intensive training prior to ANBK implementation.

Finally, the rapid development of educational technology may also pose a challenge in the future. More advanced devices with higher performance may emerge, and if schools do not regularly update their technological infrastructure, Chromebooks may gradually become less efficient for supporting future digital assessments.

Overall, the qualitative analysis indicates that the strengths and opportunities of Chromebook utilization in supporting ANBK implementation are greater than the weaknesses and threats. This finding suggests that Chromebooks represent a feasible and practical technological solution for implementing computer-based assessments in elementary schools, although continuous improvements in infrastructure, training, and technical support are still necessary.

Discussion

This study aimed to analyze the strengths, weaknesses, opportunities, and threats of Chromebook utilization in supporting the implementation of the Computer-Based National Assessment (ANBK) at SD Negeri 148 Palembang Elementary School. The findings show that the use of Chromebooks generally supports the implementation of ANBK effectively, although several technical and human resource challenges still need to be addressed. The discussion in this section interprets the findings, compares them with previous studies, and explains their theoretical and practical implications.

One primary strength of Chromebook utilization is its efficient operating system. Chrome OS ensures smooth performance even on limited hardware, making it ideal for budget-constrained educational environments (Kresnadi et al., 2023; Amalia & Hayati, 2025). For the web-based ANBK system, such stability is vital to prevent interruptions and ensure accurate assessment outcomes. Furthermore, cloud-based laptops have been shown to significantly boost student engagement (Baas et al., 2022).

Affordability is another key advantage. Compared to conventional laptops, Chromebooks allow schools to provide more devices, aligning with the need for cost-efficient technology in public schools with limited funding (Rahman & Wibowo, 2022). This cost-effectiveness ensures equitable access to digital assessments, making it a strategic asset for national programs like ANBK.

Finally, the device's ease of use is a significant factor. Both teachers and students found the interface intuitive, supporting technology acceptance theories where perceived ease of use drives adoption (Suryadi & Kurniawan, 2022). For elementary students with limited digital experience, this simplicity increases efficiency and reduces technical errors during the implementation process.

In addition to strengths, this study identified several weaknesses. The most significant weakness is dependence on a stable internet connection. Since ANBK uses an online system, network problems can interrupt the assessment process. Similar findings were reported by Nisa et al. (2023), who stated that internet stability is one of the most common challenges in computer-based national assessments. This issue is particularly prevalent in various regions across Indonesia, where network infrastructure remains a primary obstacle for computer-based testing (Setyawan et al., 2024). Schools located in areas with limited network infrastructure often experience delays or technical failures during testing. This finding indicates that technological readiness is not only determined by the device but also by the availability of supporting infrastructure.

Limited storage capacity was another weakness found in this study. Chromebooks rely heavily on cloud storage, which can become a limitation when the internet connection is slow or unavailable. According to Nugroho and Santoso (2021), cloud-based systems are efficient but require stable connectivity to function properly. In the context of ANBK, limited storage is not a major problem for testing itself, but it may affect preparation activities, such as installing supporting applications or saving large files.

Another weakness is the limited familiarity of some students with laptops or Chromebooks. Although most students were able to operate the devices, some still needed guidance. This finding is consistent with research showing that digital literacy varies among students, especially at the elementary school level (Anti, 2024). Without sufficient training, students may experience anxiety or confusion during computer-based assessments, which can affect their performance. Therefore, schools need to provide regular practice sessions before conducting ANBK.

From the external perspective, several opportunities were identified. One important opportunity is government support for educational digitalization. The Indonesian government has encouraged schools to adopt digital technology, including providing devices and internet facilities (Ministry of Education, Culture, Research, and Technology, 2023). This policy creates a positive environment for schools to continue improving their technological readiness. Previous studies have shown that government support plays a crucial role in the success of digital education programs (Ayyash et al., 2025).

Another opportunity is the automatic update and security system provided by Google. Chromebooks receive regular updates that improve performance and protect devices from security threats. This feature is particularly important for online assessments, where data security and system stability must be maintained. According to Qosim et al. (2023), automatic updates reduce the need for manual maintenance and help schools manage devices more efficiently.

The use of Chromebooks also contributes to improving digital literacy among teachers and students. Regular exposure to technology encourages users to develop new skills and become more confident in using digital tools. This finding supports the idea that technology

integration in education not only supports assessment but also enhances learning competence (Maghfiroh et al., 2022). When students become familiar with digital devices, they are better prepared for future learning environments that increasingly rely on technology. Digital literacy has been proven to have a direct positive impact on student performance during high-stakes national assessments (Purnomo et al., 2023).

Another opportunity identified in this study is the potential for expanding technology-based learning. Once the school becomes accustomed to using Chromebooks for ANBK, the devices can also be used for daily learning activities, such as online assignments, digital textbooks, and virtual classrooms. This is consistent with previous research stating that successful implementation of digital assessment often leads to broader technology integration in education (Romadoni et al., 2024).

Despite these opportunities, several threats were also found. The most serious threat is internet disruption during ANBK sessions. Technical problems such as network failure or power outage can cause delays and affect students' concentration. According to Gürel and Tat (2022), external factors such as infrastructure problems are common threats identified in SWOT analysis of technology implementation.

Another threat is the risk of device damage. Since the number of Chromebooks is limited, technical failure of several units may disrupt the testing schedule. Schools must prepare backup devices and technical support to minimize this risk. Previous studies also emphasize the importance of maintenance and technical planning in digital assessment programs (Campbell et al., 2021). Evaluative reports from the government also suggest that technical failures remain a point of concern in elementary school implementations (Kemendikbudristek, 2024).

Lack of training is another threat identified in this study. Some teachers and students still need more experience in using Chromebooks effectively. Training programs are necessary to ensure that all users understand how to operate the devices properly. According to Creswell and Creswell (2021), human readiness is one of the key factors determining the success of technology-based programs. Effective professional development for teachers is no longer optional but a necessity for long-term digital sustainability (Darling-Hammond et al., 2023).

Finally, competition from more advanced devices may become a future threat. Technology develops rapidly, and schools must continuously update their equipment to maintain efficiency. If Chromebooks are not updated or replaced when necessary, they may no longer meet the requirements of modern assessment systems.

Overall, the discussion shows that the strengths and opportunities of Chromebook utilization are greater than the weaknesses and threats. This means that Chromebooks are suitable for supporting ANBK implementation at SD Negeri 148 Palembang, but improvements in infrastructure, training, and technical preparation are still required. The findings of this study provide practical implications for schools, teachers, and policymakers in improving the effectiveness of computer-based assessments and strengthening the digitalization of education. Ultimately, the determinants of successful ICT use in schools are heavily influenced by teacher perceptions and consistent support (Wastiau et al., 2022).

4. CONCLUSION

The present study examined the utilization of Chromebooks in supporting the implementation of the Computer-Based National Assessment (ANBK) at SD Negeri 148 Palembang using a SWOT analysis approach. The results show that Chromebooks offer several strengths, such as fast performance, ease of use, affordability, compatibility with web-based applications, and long battery life, making them suitable for computer-based assessments. However, weaknesses include dependence on stable internet, limited storage, and lack of user familiarity. Opportunities involve government support for digitalization and improved digital literacy, while threats include network problems, device damage, and limited training. Overall, Chromebooks can effectively support ANBK if infrastructure, training, and technical readiness are improved.

5. ACKNOWLEDGEMENT

The author would like to express sincere gratitude to Dr. Ir. Hj. Tri Wijayatsih, M.Si. and Dr. Darwin Effendi, M.M. for their valuable guidance, constructive suggestions, and continuous support throughout the process of completing this article. Their insightful feedback and encouragement greatly contributed to the development and completion of this research.

6. REFERENCES

Amalia, A., & Hayati, A. N. (2025). The implications of Chromebook use on classroom effectiveness. *Jurnal Mahasiswa*, *7*(2). https://doi.org/10.51903/jurnalmahasiswa.v7i2.1098

Anti, Y. (2024). SWOT analysis in e-learning readiness. *Primary: Jurnal Keilmuan dan Kependidikan Dasar*. https://primary.ump.ac.id/index.php/primary/article/view/75

Ardiansyah, M. (2021). *Educational management strategy using SWOT analysis* .

Ayyash, Q., Muhammad, T., & Habibie, A. (2025). SWOT analysis of digital literacy media. *JETISH: Journal of Education, Technology, Information, Social and Humanities*, *4*(2). https://doi.org/10.57235/jetish.v4i2.6873

Baas, M., dkk. (2022). The impact of cloud-based laptops on student engagement. *Journal of Educational Computing*.

Bowen, G. A. (2021). Document analysis as a qualitative research method. *Qualitative Research Journal*.

Campbell, S., Greenwood, M., Prior, S., Shearer, T., Walkem, K., Young, S., Bywaters, D., & Walker, K. (2021). Purposive sampling in qualitative research: A comparison of strategic and exponential methods of recruitment. *Methods in Psychology*.

Creswell, J. W., & Creswell, J. D. (2021). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). Sage Publications.

Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2023). *Effective teacher professional development in the digital age*. Stanford Center for Opportunity Policy in Education.

Etikan, I., & Bala, K. (2021). Sampling techniques in research. *Biometrics & Biostatistics International Journal*.

Google. (2022). *Chromebook for Education*. https://edu.google.com/chromebooks/

Gürel, E., & Tat, M. (2022). SWOT analysis: A theoretical review. *Journal of International Social Research.*

Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. *Sustainable Operations and Computers*.

Hidayat, A. (2023). *Teacher competence in curriculum implementation* .

Kallio, H., Pietilä, A. M., Johnson, M., & Kangasniemi, M. (2021). Systematic methodological review: Developing a semi-structured interview guide for qualitative healthcare research. *Journal of Advanced Nursing*.

Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi. (2023). *ANBK guidelines*. Kemendikbudristek.

Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi. (2024). *Laporan evaluasi pelaksanaan Asesmen Nasional tingkat Sekolah Dasar*. Kemendikbudristek.

Kresnadi, H., Halidjah, S., Pranata, R., & Syahrudin, H. (2023). Chromebook use in elementary school learning. *Jurnal Pendidikan Dasar Perkasa*, *9*(1). https://doi.org/10.31932/jpdp.v9i1.2028

Maghfiroh, M. F. N., dkk. (2022). *SWOT analysis for digitalization strategy* [Technical Report].

Miles, M. B., Huberman, A. M., & Saldaña, J. (2022). *Qualitative data analysis: A methods sourcebook* (4th ed.). Sage Publications.

Mishra, P., & Koehler, M. J. (2021). Technological pedagogical content knowledge (TPACK): A framework for teacher knowledge. *Teachers College Record*.

Nisa, C., Humaira, M. A., & Efendi, I. (2023). Implementation of ANBK. *Karimah Tauhid*, *2*(5). https://doi.org/10.30997/karimahtauhid.v2i5.10385

Nugroho, B., & Santoso, D. (2021). *Educational technology readiness* .

Purnomo, A., dkk. (2023). Digital literacy and its impact on student performance during national assessments. *International Journal of Instruction*.

Qosim, I. P., dkk. (2023). Chromebook digitalization in schools. *ABADI: Jurnal Pengabdian Masyarakat*, *2*(1). https://doi.org/10.58906/abadi.v2i1.87

Rahman, F., & Wibowo, A. (2022). *Digital transformation in education* .

Romadoni, R., dkk. (2024). *SWOT analysis in strategy planning* .

Saputra, A., & Kusumaningrum, I. (2022). SWOT analysis in the development of educational technology. *Jurnal Manajemen Pendidikan*.

Setyawan, A., dkk. (2024). Challenges of implementing computer-based assessments in rural areas of Indonesia. *Jurnal Pendidikan Indonesia*.

Sugiyono. (2022). *Metode penelitian pendidikan*. Alfabeta.

Suryadi, D., & Kurniawan, R. (2022). *Technology readiness in schools* .

Taherdoost, H. (2022). Designing questionnaires for research: A comprehensive guide to design and development of questionnaires. *Journal of Management*.

UNESCO. (2021). *Teachers and digital education policy*. UNESCO Publishing.

Vargo, D., Zhu, L., Benwell, B., & Yan, Z. (2021). Digital transformation in higher education: A framework for readiness. *Journal of Business Research*.

Wastiau, P., Blamire, R., Coicelli, C., Kneková, V., Miller, T., & Monseur, C. (2022). The use of ICT in schools: Determinants of use and teacher perceptions. *Education and Information Technologies*.