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Strategic Management In Improving Literacy And Numeracy Skills Of High School Students In Malinau Regency

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Abstract

This study aims to analyze the implementation of strategic management in improving students' literacy and numeracy skills at SMA Negeri 4 Malinau and SMA Negeri 14 Malinau, and to identify supporting and inhibiting factors. The study used a qualitative approach with data collection techniques in the form of interviews, observation, and documentation. Research informants included the principal, vice principal for curriculum, and teachers. Data analysis was conducted using the interactive model of Miles, Huberman, and Saldaña, which includes data collection, data reduction, data presentation, and drawing conclusions. The results showed that the implementation of strategic management was carried out through three main stages: planning, implementation, and evaluation and monitoring. In the planning stage, both schools conducted an analysis of student needs based on previous learning outcomes. In the implementation stage, strategies were implemented through the integration of literacy and numeracy across all subjects, reading habits, and the use of contextual learning. SMA Negeri 4 Malinau has advantages in more systematic facilities and programs, while SMA Negeri 14 Malinau emphasizes teacher creativity in dealing with limited resources. In the evaluation stage, both schools conducted periodic assessments to measure student progress and improve learning strategies. Supporting factors include principal commitment, teacher participation, and support from

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the school environment and parents. Meanwhile, inhibiting factors include limited facilities, access to technology, and differences in student abilities. This study concludes that systematic, adaptive, and collaborative strategic management plays a crucial role in sustainably improving students' literacy and numeracy skills.

Keywords: Strategic Management, Numeracy Literacy, Secondary School Learning

INTRODUCTION

The increasingly rapid development of science and technology demands that the education system be able to produce adaptive, critical, and competent human resources to face various global challenges. Education no longer functions merely as a means of transferring knowledge, but also as a process for developing higher-order thinking skills and character in students. In this context, schools play a strategic role in shaping students' abilities to actively participate in modern society. Therefore, systematic efforts are needed to improve the quality of learning across various aspects. One of the main focuses in today's education is strengthening students' basic competencies. These competencies must be able to meet the needs of a dynamic and complex era. Therefore, education must be designed innovatively and oriented towards the development of essential skills. One of the key competencies of concern is literacy and numeracy. These two abilities are the main foundations of the lifelong learning process.

Literacy is an individual's ability to understand, analyze, and critically use information from various sources. Meanwhile, numeracy relates to the ability to understand the concepts of numbers, data, and the application of mathematics in everyday life. These two skills play a crucial role in developing students' critical thinking and problem-solving abilities.[1]states that literacy and numeracy are core competencies that every individual must possess to face global challenges. These abilities are also closely related to a person's readiness to make rational decisions. Furthermore, literacy and numeracy support analytical skills and information interpretation. Therefore, strengthening these two aspects is a priority in the modern education system. Without good literacy and numeracy, students will struggle to understand various learning concepts. This demonstrates the importance of integrating literacy and numeracy in the educational process.

Various studies show that literacy and numeracy have a major contribution to students' academic success.[2]explains that strong reading and numeracy skills correlate with readiness to face global economic challenges.[3]also emphasized that effective learning strategies in literacy and numeracy can significantly improve student learning outcomes.[4]stated that a contextual

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approach to mathematics learning can improve conceptual understanding in depth. This demonstrates that learning methods have a significant influence on improving student competency. Therefore, innovative and relevant learning strategies are needed, tailored to students' needs. Learning should not only focus on theory but also on real-life applications. This allows students to understand concepts more meaningfully. This approach is expected to improve the overall quality of education.

In Indonesia, strengthening literacy and numeracy has become a primary focus for the government through various education policies. One such program is the National Literacy Movement (GLN), which aims to foster a reading culture in the community. This program is reinforced by the School Literacy Movement (GLS), implemented in formal education settings. Furthermore, the Independent Curriculum policy emphasizes the importance of strengthening literacy and numeracy as core competencies for students. Regulation of the Minister of Education, Culture, Research, and Technology Number 12 of 2024 emphasizes that learning must be contextual and student-centered. This approach aligns with the opinion of[5]which states that educational reform must focus on developing core competencies. With this policy, it is hoped that the quality of education in Indonesia will improve. However, the implementation of this policy still faces various challenges. Therefore, an appropriate strategy is needed for its implementation. This is crucial to ensuring the success of educational programs.

Despite the implementation of various policies, international assessments show that Indonesian students' literacy and numeracy skills remain relatively low. Based on PISA results,[1]Indonesian students' reading and math skills are below the average for OECD countries. This situation indicates a gap in education quality that needs to be addressed immediately. Low literacy and numeracy skills can impact the quality of human resources and, in turn, affect the nation's global competitiveness. Therefore, improving the quality of education is imperative. These efforts must be carried out systematically and sustainably. One approach that can be used is strategic management in education. This approach allows schools to design more effective programs. Thus, improving the quality of education can be achieved optimally.

Literacy and numeracy issues are also evident in areas with limited access to education, such as Malinau Regency in North Kalimantan. Difficult geographical access is a major obstacle to equitable education. Furthermore, limited facilities and learning resources are also major obstacles. The Head of the North Kalimantan Education Office stated that the 3T (Uninhabitable, Remote, and Remote) regions still face various challenges in strengthening literacy and numeracy. These include limited infrastructure and suboptimal learning quality. This situation demonstrates

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that improving literacy and numeracy cannot be achieved instantly. Appropriate and sustainable strategies are needed to address these issues. Furthermore, support from various parties, including the government and the community, is essential. This will minimize educational disparities. These efforts are crucial for improving the quality of education equitably.

Data from the Ministry of Education in 2023 shows that numeracy skills in North Kalimantan remain low. Although there has been an improvement compared to the previous year, the results do not yet reflect optimal achievement. This indicates that efforts to improve literacy and numeracy still need to be strengthened. Furthermore, the Community Literacy Development Index (PLDI) also shows that public interest in reading remains low. The average person reads only about 2.8 books per year. This condition indicates that a culture of literacy has not yet developed optimally. Limited access to reading materials is also a hindering factor. Therefore, strategies are needed to increase public interest in reading. These efforts must involve various parties, including schools and families. This way, a culture of literacy can develop more broadly.

To overcome these various problems, appropriate strategies are needed to improve students' literacy and numeracy skills. The strategy not only focuses on classroom learning, but also includes comprehensive management of educational resources. Strategic management is one approach that can be used to achieve this goal.[6]explains that strategic management encompasses the processes of planning, implementation, and evaluation. In an educational context, this approach can be used to improve the quality of learning. Furthermore, strategic management enables schools to optimize their resources. Thus, educational programs can run effectively and efficiently. This approach also helps schools address various educational challenges. Therefore, the implementation of strategic management is crucial. This is expected to improve the quality of student literacy and numeracy.

Data from the Malinau Regency education report shows variations in literacy and numeracy skills at the secondary school level. Some schools demonstrate relatively good results, while others remain in the low category. This indicates an imbalance in the quality of education between schools. Therefore, more in-depth research is needed to understand the factors influencing this condition. This research is expected to provide an overview of the strategies implemented by schools. Furthermore, this study aims to identify supporting and inhibiting factors. Therefore, the research results can be used as a basis for educational policy-making. This effort is crucial for improving the overall quality of education. Furthermore, this study can serve as a reference for further research. This demonstrates the importance of research in educational development.

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Strategic management in education has an important role in improving the quality of learning.[7]states that strategic management consists of three main stages: strategy formulation, implementation, and evaluation. The formulation stage involves analyzing the school's internal and external conditions. The implementation stage focuses on implementing the designed program. Meanwhile, the evaluation stage is used to assess the effectiveness of the implemented strategy. With these stages, schools can manage their educational programs systematically. Furthermore, strategic management also enables schools to undertake continuous improvement. This approach is particularly relevant for improving student literacy and numeracy.

Therefore, the implementation of strategic management is crucial in education. This is expected to significantly improve the quality of learning. Besides strategic management, another factor influencing literacy and numeracy improvement is teacher competence. Teachers play a crucial role in designing and implementing effective learning.[8]emphasizes the importance of formative assessment in improving the quality of learning. This assessment allows teachers to identify students' difficulties. Furthermore, teachers can provide constructive feedback. This helps students better understand concepts. Therefore, improving teacher competency is crucial. Training and professional development programs need to be implemented continuously. This will improve the quality of learning. This has a positive impact on students' literacy and numeracy skills. The use of technology is also an important factor in improving literacy and numeracy.[9]stated that technology can help students understand mathematical concepts more concretely. Furthermore, technology also makes learning more interactive and engaging. The use of digital media can increase student motivation to learn. However, the implementation of technology also faces various obstacles, especially in remote areas. Limited internet access is one of the main obstacles. Therefore, appropriate solutions are needed to overcome this problem. Schools can utilize available alternative learning resources. Furthermore, the government also needs to improve educational technology infrastructure. This way, the use of technology in learning can be optimal.

Parental and community involvement also plays a crucial role in improving student literacy and numeracy. Parental support in home learning activities can increase student motivation. Furthermore, collaboration between schools and the community can create a conducive learning environment.[10]emphasizes the importance of stakeholder involvement in improving the quality of education. With strong collaboration, educational programs can be more effective. Therefore, the participation of all parties is essential. This demonstrates that education is a shared responsibility. Efforts to improve literacy and numeracy cannot be undertaken by schools alone.

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Support from various parties is essential. This way, educational goals can be optimally achieved.

Based on the various problems and theories explained, this research focuses on the application of strategic management to improve student literacy and numeracy. This research was conducted at SMA Negeri 4 and SMA Negeri 14 Malinau. These two schools have different characteristics, thus providing a comprehensive picture. This study aims to analyze the strategies implemented by the schools. In addition, this study also identifies supporting and inhibiting factors. Thus, the research results can contribute to educational development. This research is also expected to serve as a reference for other schools. Furthermore, the results of this study can be used as a basis for educational policy-making. This demonstrates the importance of research in improving the quality of education.

Thus, this research has strategic value. Overall, improving literacy and numeracy is a complex challenge and requires a comprehensive approach. Strategic management is one solution that can be used to address this problem. Through systematic planning, implementation, and evaluation, schools can improve the quality of learning. Furthermore, the success of the strategy is also influenced by various factors, such as teacher competence, facilities, and stakeholder support. Therefore, collaboration between all parties is needed to improve the quality of education. These efforts must be carried out sustainably and integrated. Thus, students' literacy and numeracy skills can improve significantly. This is expected to improve the quality of human resources. Ultimately, quality education will contribute to the nation's progress. Therefore, this research is crucial.

METHOD

This study uses a qualitative approach to deeply understand the phenomenon of strategic management in improving students' literacy and numeracy skills. A qualitative approach was chosen because it can explore the meanings, processes, and experiences that occur in real-world educational settings.[11]explains that qualitative research is a method used to understand social phenomena through descriptive and interpretive analysis of non-numerical data. In line with this,[12]states that qualitative research focuses on understanding human experiences through data obtained from various sources. In this study, a qualitative approach was used to explore how management strategies are implemented in schools. The researcher acted as the primary instrument in the data collection and analysis process. This enabled the researcher to gain a deep understanding of the context under study. Furthermore, this approach provided flexibility in gathering information from informants. Thus, this study is expected to provide a comprehensive

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overview of literacy and numeracy improvement strategies. The qualitative approach also allowed for a more in-depth analysis of the factors influencing the strategy's success.

This research was conducted at SMA Negeri 4 Malinau and SMA Negeri 14 Malinau, located in Malinau Regency, North Kalimantan. The selection of the research locations was based on considerations of differences in facilities, resources, and school characteristics. This research was conducted over a specific timeframe according to the needs of data collection in the field. Data sources in this study consisted of primary and secondary data. Primary data were obtained through interviews with the principal, vice principal for curriculum, and teachers involved in the literacy and numeracy program. In addition, observations were conducted to directly observe the learning process in the classroom. Documentation was also used to collect data in the form of program reports, curriculum, and other related documents. These data collection techniques were used to obtain complete and accurate information. The researcher also used an interview guide as an aid in the data collection process. With this combination of techniques, it is hoped that the data obtained can describe the actual conditions in the field. This is important to ensure the validity and accuracy of the research results.

Data analysis in this study uses an interactive analysis model proposed by[13]The data analysis process was carried out through several stages, namely data collection, data condensation, data presentation, and drawing conclusions. In the data collection stage, the researcher gathered information through interviews, observation, and documentation. Next, in the data condensation stage, the researcher selected and simplified data relevant to the research focus. The selected data was then presented in the form of a systematic narrative description. The final stage was drawing conclusions based on the interpretation of the analyzed data. To ensure data validity, this study used source triangulation and informant verification techniques. Triangulation was carried out by comparing data from various informants, such as principals and teachers. In addition, data confirmability was maintained by systematically documenting the entire research process. Thus, the research results are expected to have a high level of reliability. This analytical approach allows researchers to understand the phenomenon more deeply and comprehensively.

RESULTS AND DISCUSSION

Results

The results of the study indicate that strategic management in improving students' literacy and numeracy skills at SMA Negeri 4 Malinau and SMA Negeri 14 Malinau is carried out through

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three main stages: planning, implementation, and evaluation and monitoring. Both schools apply a systematic approach in designing learning programs integrated with literacy and numeracy. In the initial stage, the schools conduct a student needs analysis based on previous learning outcomes. This analysis is used as a basis for developing learning programs appropriate to the students' conditions. Furthermore, the planning also involves the principal, teachers, and the curriculum team collaboratively. This indicates that strategic planning is carried out in a participatory manner. This approach allows schools to design more relevant strategies. Thus, the programs developed have a clear direction. Good planning is the main foundation for successful strategy implementation. Therefore, this stage is crucial for the final outcome of the literacy and numeracy program.

During the implementation phase, both schools implemented various learning strategies aimed at improving students' literacy and numeracy skills. SMA Negeri 4 Malinau integrated literacy and numeracy into all subjects and implemented a 15-minute reading habit before class. Furthermore, students were given real-life context-based assignments to enhance their understanding. Meanwhile, SMA Negeri 14 Malinau implemented simpler yet effective strategies, such as shared reading activities and basic numeracy exercises. These differences in strategies were influenced by the facilities and resources available at each school. SMA Negeri 4 had more comprehensive facilities, such as a library and internet access. Meanwhile, SMA Negeri 14 relied on teacher creativity in developing learning methods. Despite their differences, both schools remained committed to improving the quality of learning. The strategies were implemented consistently and sustainably. This demonstrated that the strategies were able to adapt to the conditions of each school.

The evaluation and monitoring phase is crucial to ensuring the success of the implemented strategies. Both schools conduct regular evaluations using various methods, such as diagnostic tests, formative and summative assessments, and teacher reflections. These evaluations aim to measure the development of students' literacy and numeracy skills. Furthermore, the evaluation results are used as a basis for improving learning strategies. At SMA Negeri 4 Malinau, evaluations are conducted more systematically, utilizing educational reports and classroom observations. Meanwhile, SMA Negeri 14 uses simple yet effective student progress reports. Teachers also play an active role in providing feedback to students. This evaluation process demonstrates that both schools employ an adaptive approach. Continuous evaluation allows learning strategies to be tailored to students' needs, a crucial factor in improving the quality of education.

The research also revealed supporting and inhibiting factors in the implementation of

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literacy and numeracy strategies. Key supporting factors include the principal's commitment, active teacher participation, and support from parents and the community. Furthermore, the availability of facilities, such as libraries and learning resources, also contributed to the program's success. At SMA Negeri 4 Malinau, relatively comprehensive facilities were a key factor in supporting the strategy's implementation. Meanwhile, at SMA Negeri 14 Malinau, teacher enthusiasm and creativity were key success factors. However, both schools also faced several inhibiting factors. These factors included limited facilities, limited access to technology, and differences in student abilities. Difficult geographic conditions also posed a challenge, particularly for SMA Negeri 14. To overcome these obstacles, the school implemented various alternative strategies. This demonstrates the school's ability to adapt to the current conditions.

Overall, the research findings indicate that the success of improving literacy and numeracy depends not only on the availability of facilities but also on the effectiveness of the strategic management implemented. Both schools demonstrated that with good planning, consistent implementation, and ongoing evaluation, students' literacy and numeracy skills can be improved. Furthermore, collaboration between all parties in the school is a crucial factor in the program's success. The results also demonstrate the importance of a flexible and adaptive approach in addressing various educational challenges. Differences in conditions between schools do not hinder the achievement of educational goals. Instead, these differences encourage innovation in learning. Thus, appropriate strategies can be tailored to the specific conditions of each school. This research illustrates the crucial role of strategic management in improving the quality of education. Therefore, the systematic implementation of strategies needs to be continuously developed. This is expected to improve the quality of student literacy and numeracy sustainably.

DISCUSSION

The research results show that the application of strategic management to improve literacy and numeracy skills at SMA Negeri 4 Malinau and SMA Negeri 14 Malinau was carried out through systematic planning, implementation, and evaluation stages. This finding aligns with the strategic management concept proposed by[7]which states that organizational success is determined by the ability to formulate, implement, and evaluate strategies on an ongoing basis. In the educational context, the application of strategic management enables schools to manage programs in a more targeted manner. Furthermore, this approach also helps schools optimize available resources. The results of the study indicate that both schools have implemented these stages consistently. This indicates that the designed strategies have a strong planning foundation.

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With thorough planning, program implementation can be more effective. Furthermore, ongoing evaluation also allows for continuous strategy improvement. Therefore, strategic management is a relevant approach to improving the quality of education. These findings reinforce the importance of data-driven planning in educational decision-making.

In the strategic planning stage, both schools conducted a student needs analysis based on previous learning outcomes. This is in line with David and[6]which states that strategic planning must be based on an analysis of the organization's internal and external conditions. In this study, SMA Negeri 4 Malinau has an advantage in terms of data availability and supporting facilities. Meanwhile, SMA Negeri 14 Malinau places more emphasis on analyzing students' actual conditions in the field. Despite their different approaches, both schools focus on student needs. This shows that strategic planning is not rigid but can be adapted to the conditions of each school. This approach is also in line with the principles of contextual learning, which emphasize relevance to students' lives. Thus, the designed program becomes more effective and applicable. Furthermore, teacher involvement in the planning process is also a crucial factor. This collaboration enables the creation of a more comprehensive strategy. Therefore, strategic planning based on student needs is key to the success of literacy and numeracy programs.

During the implementation phase, both schools implemented strategies that emphasized the integration of literacy and numeracy across all subjects. This finding aligns with Boaler's (2020) view that numeracy learning is more effective when linked to real-life contexts. SMA Negeri 4 Malinau implemented a more systematic approach supported by adequate facilities. Programs such as 15-minute reading sessions and project-based learning demonstrate innovation in learning. Meanwhile, SMA Negeri 14 Malinau developed simpler yet contextual strategies. Teachers at this school creatively utilized limited resources. This demonstrates that limited facilities are not always the primary obstacle. Instead, teacher creativity can be a solution to overcome these limitations. This approach also aligns with the concept of experiential learning. Thus, students can understand the material more deeply. The implementation of this adaptive strategy demonstrates flexibility in educational management.

Regular evaluation and monitoring are important factors in the success of the implemented strategy. This is in line with the opinion[8]which emphasizes the importance of formative assessment in improving the quality of learning. In this study, both schools used various evaluation methods, such as diagnostic tests and teacher reflections. SMA Negeri 4 Malinau had a more structured evaluation system, while SMA Negeri 14 Malinau used a simpler approach. Nevertheless, both schools were still able to utilize the evaluation results to improve their

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strategies. This shows that evaluation does not have to be complex, but rather consistent and relevant. Furthermore, teacher involvement in the evaluation process is also crucial. Teachers can provide direct feedback to students. This way, students can identify their strengths and weaknesses. This ongoing evaluation process supports the improvement of the quality of learning. Therefore, evaluation is a crucial component of strategic educational management.

The supporting factors found in this study indicate that the success of the strategy is greatly influenced by commitment and collaboration between parties in the school. This finding is in line with[10]which emphasizes the importance of stakeholder involvement in organizational success. At SMA Negeri 4 Malinau, facility support was a key factor. Meanwhile, at SMA Negeri 14 Malinau, teacher enthusiasm and collaboration were key strengths. This demonstrates that the strategy's success depends not only on physical resources. The human factor also plays a crucial role. Furthermore, parental and community involvement also contributed to the program's success. This support created a conducive learning environment for students. Thus, improving literacy and numeracy can be more effective. Strong collaboration between all parties is key to success. Therefore, a collaborative approach needs to be continuously developed in education.

On the other hand, this study also identified various inhibiting factors affecting strategy implementation. Limited facilities and access to technology were the main obstacles, particularly at SMA Negeri 14 Malinau. This finding aligns with the report[1]This indicates that disparities in educational facilities affect student learning outcomes. Furthermore, differences in student abilities also pose challenges in the learning process. This requires a more flexible and differentiated learning approach. Teachers must be able to adapt learning methods to students' needs. Difficult geographical conditions are also a significant inhibiting factor. However, schools are attempting to overcome these obstacles through various alternative strategies, such as the use of local learning resources and contextual learning. These efforts demonstrate adaptation to existing conditions. Thus, obstacles can be minimized through appropriate strategies.

Overall, the discussion of the research findings indicates that strategic management plays a significant role in improving students' literacy and numeracy skills. This finding supports the theory that systematic educational management can improve the quality of learning. Furthermore, this study also demonstrates that flexibility and adaptation are crucial factors in the strategy's success. Differences in conditions between schools do not hinder, but rather encourage innovation in learning. Thus, each school can develop strategies tailored to its individual needs and circumstances. This aligns with the concept of context-based education, which emphasizes

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relevance to the student's environment. Therefore, the application of strategic management needs to be continuously developed in the world of education. This research contributes to understanding how educational strategies can be implemented effectively. Furthermore, the results can serve as a reference for developing educational policies. Thus, improving literacy and numeracy can be carried out sustainably and systematically.

CONCLUSION

Based on the research results, it can be concluded that the implementation of strategic management to improve students' literacy and numeracy skills at SMA Negeri 4 Malinau and SMA Negeri 14 Malinau was carried out through three main stages: planning, implementation, and evaluation and monitoring. In the planning stage, both schools conducted a student needs analysis using learning outcome data as the basis for program development. The implementation stage showed that learning strategies were implemented in an integrated manner across various subjects, with an approach tailored to the conditions of each school. SMA Negeri 4 Malinau tended to implement a more systematic strategy supported by adequate facilities, while SMA Negeri 14 Malinau relied on teacher creativity in dealing with limited resources. In the evaluation stage, both schools conducted regular monitoring through various assessment methods. The results of these evaluations were used as a basis for improving and developing learning strategies. This indicates that the strategic management implemented was adaptive and sustainable. Thus, the implementation of strategic management has been proven to support the improvement of student literacy and numeracy. This success depends not only on facilities but also on appropriate strategic management.

Furthermore, the successful implementation of literacy and numeracy strategies is influenced by various supporting and inhibiting factors. Key supporting factors include the principal's commitment, active teacher participation, and support from parents and the school community. Conversely, inhibiting factors identified include limited facilities, limited access to technology, and differences in student abilities. Geographical conditions also pose challenges, particularly for schools located in remote areas. However, both schools were able to overcome these obstacles through flexible and innovative approaches. This demonstrates that effective strategies do not necessarily rely on complete facilities, but also on adaptability and collaboration between stakeholders. Therefore, improving literacy and numeracy can be achieved through planned, integrated, and sustainable strategic management. The results of this study illustrate that strengthening literacy and numeracy requires synergy between various educational

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components. Therefore, efforts to improve the quality of education must be carried out comprehensively and continuously.

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