

Influence of Digital Management on the School Improvement at Beijing Normal University

You Bei^{1*}, Asrin², Mohamad Mustari³
University of Mataram

Corresponding Author: You Bei sinoeducationcenter@gmail.com

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ABSTRACT

The adoption of digital management in educational settings, specifically at Beijing Normal University (BNU), reflects the ongoing transformation of academic environments through technology. This study explores the comprehensive impact of digital management practices on school improvement. Specifically, the study aims to investigate the influence of six dimensions of digital management, including school visions, school leadership, pedagogical practices, teaching community practices, school-level knowledge practices, and digital resources, on school improvement at Beijing Normal University. Employing a quantitative research methodology, this study utilizes correlation and regression analyses to assess the impact of digital management practices on school improvement. Data were collected via structured surveys from a sample of 351 teachers at BNU. The findings indicate significant positive correlations and effects across all digital management dimensions on school improvement, with school-level knowledge practices and pedagogical practices showing higher substantial influence. This study contributes to the understanding of digital management's pivotal role in enhancing educational quality and administrative efficiency in higher education settings. It offers a validated framework for other institutions aiming to leverage technology for comprehensive school improvement

INTRODUCTION

The integration of digital management within educational institutions has gained momentum over the last decade, driven by rapid technological advancements and the increasing need for efficient administrative and pedagogical practices. Digital management refers to the utilization of digital tools, platforms, and resources to streamline operations, enhance communication, support pedagogical innovation, and improve overall institutional performance (Alenezi, 2023). Educational institutions worldwide have adopted digital management systems to support decision-making, facilitate teaching and learning processes, and foster collaboration among stakeholders (Van Luong et al., 2024). Beijing Normal University (BNU), one of China's leading educational institutions, has been at the forefront of integrating digital management practices as part of its commitment to educational excellence and innovation (Xiao & Zhang, 2022).

The concept of digital management in schools has been studied, with Ilomäki & Lakkala (2018) offering a comprehensive framework that categorizes digital management into six dimensions: school visions, school leadership, pedagogical practices, teaching community practices, school-level knowledge practices, and digital resources. These dimensions highlight the multifaceted nature of digital management and its potential to influence various aspects of school improvement. School visions and leadership are critical for setting strategic goals and guiding the effective use of digital tools (Acebuche, 2024), while pedagogical practices and teaching community practices emphasize the role of technology in enhancing teaching methods and fostering a collaborative culture (Ammar et al., 2024). School-level knowledge practices focus on how digital tools can facilitate data-driven decision-making and support knowledge sharing across the institution, and digital resources refer to the availability and utilization of technology infrastructure and tools to support educational activities (Ilomäki & Lakkala, 2018).

As one of the premier universities in China, Beijing Normal University has consistently strived to implement innovative strategies for school improvement (Li & Eryong, 2020). The university's commitment to digital transformation is evident in its adoption of advanced digital management systems, aimed at enhancing administrative efficiency, supporting innovative pedagogical practices, and promoting a culture of continuous improvement. However, while the integration of digital management is widely seen as a key driver of school improvement, there is still limited empirical evidence on how these practices influence institutional outcomes, particularly in the context of higher education institutions like Beijing Normal University.

In recent years, the role of digital management in enhancing educational outcomes has become increasingly prominent, particularly as educational institutions seek to harness the potential of digital tools to drive school improvement (Qureshi et al., 2021). Beijing Normal University has been a leader in adopting digital management systems, investing in advanced technological infrastructure, and promoting the use of digital tools across various levels of the institution (Guo et al., 2023). Despite these efforts, the impact of digital

management on school improvement remains underexplored, especially in the context of higher education in China. While many studies have examined the effectiveness of digital management in primary and secondary education (Aidarbekova et al., 2021; Valverde-Berrocoso et al., 2021), limited research has focused on its influence within a university setting, where the dynamics of management and pedagogy may differ significantly.

The lack of research on the specific impacts of digital management in the context of higher education creates a gap in the understanding of how digital tools and practices contribute to institutional improvement. Additionally, existing frameworks, such as the one proposed by Ilomäki & Lakkala (2018), which outlines six dimensions of digital management, have primarily been applied in the context of K-12 education. There is a need to examine whether these dimensions are equally applicable and impactful in a higher education context, particularly in a leading institution like Beijing Normal University. As the university seeks to leverage digital management to enhance its educational offerings and institutional performance, it is crucial to gain a deeper understanding of the specific factors that drive successful implementation and the outcomes associated with these practices.

The problem lies in the limited empirical evidence on the influence of digital management practices on school improvement in higher education. Without a clear understanding of how digital management affects different aspects of institutional performance, there is a risk that universities may not fully realize the potential benefits of these technologies. Moreover, the rapidly evolving nature of digital tools and the increasing complexity of managing educational institutions in a digital era underscore the need for ongoing research to keep pace with these changes and provide actionable insights for educators and administrators.

To address this gap, the present study aims to investigate the influence of digital management on school improvement at Beijing Normal University. The study examines how the six dimensions of digital management, including school visions, school leadership, pedagogical practices, teaching community practices, school-level knowledge practices, and digital resources, contribute to different aspects of institutional performance and educational outcomes.

By exploring these questions, the study aims to provide a comprehensive analysis of the role of digital management in school improvement, offering insights into the specific practices and strategies that contribute to successful implementation. The findings of this research will be valuable for educators, administrators, and policymakers at Beijing Normal University and beyond, providing evidence-based recommendations for leveraging digital management to enhance institutional performance.

LITERATURE REVIEW

Digital Management

Digital management has emerged as a significant area of interest in the field of educational administration and pedagogy (Zawacki-Richter & Bozkurt, 2023), reflecting the growing influence of technology on school operations and educational processes. Digital management refers to the use of digital tools, platforms, and systems to streamline administrative processes, enhance communication, support pedagogical practices, and facilitate data-driven decision-making (Ilomäki & Lakkala, 2018). The focus of digital management in education has expanded over time, evolving from simple administrative automation to a comprehensive approach that integrates technology across various aspects of institutional functioning.

Ilomäki & Lakkala (2018) offer a comprehensive framework for understanding digital management in educational settings, categorizing it into six dimensions: school visions, school leadership, pedagogical practices, teaching community practices, school-level knowledge practices, and digital resources. These dimensions illustrate the multifaceted nature of digital management, encompassing both strategic and operational elements. School visions and leadership play a critical role in guiding the integration of digital management systems, as they set the overall direction and ensure alignment with institutional goals (Ruloff & Petko, 2022). Effective digital leadership involves not only the adoption of technology but also a shift in organizational culture towards embracing digital innovation (Wang et al., 2022). The pedagogical practices dimension focuses on the integration of digital tools into teaching methods, aiming to enhance instructional quality and student engagement. This includes the use of digital platforms for lesson planning, interactive learning, and real-time student assessment (Valverde-Berrocoso et al., 2021). Teaching community practices emphasize collaboration among educators, facilitated by digital platforms that enable resource sharing, peer support, and collective problem-solving (Hirsch et al., 2023). School-level knowledge practices involve the use of data analytics and digital tools to support informed decision-making, track student progress, and identify areas for improvement (Neugebauer et al., 2021). The digital resources dimension highlights the importance of having adequate technological infrastructure, such as hardware, software, and digital content, to support educational activities (Timotheou et al., 2023).

In summary, these six dimensions provide a comprehensive framework for understanding digital management in educational settings. They emphasize the importance of strategic planning, strong leadership, effective integration of technology into pedagogy, collaboration among educators, data-driven decision-making, and the availability of digital resources. These elements form the foundation of successful digital management, enabling schools to enhance their overall performance and adapt to the challenges of a rapidly changing educational landscape.

School Improvement

Research on school improvement focuses on enhancing student outcomes and involves a variety of strategies aimed at restructuring school practices, such as leadership roles, pedagogical methods, and teacher collaboration (Hamdan & Fradi, 2024). Key studies highlight how changes in these areas can drive improvements in educational systems. For instance, restructuring teacher roles, engaging in professional collaboration, and implementing new leadership practices have all been identified as beneficial strategies to meet developmental challenges (Eisenschmidt et al., 2024). Central to these efforts is the creation of a shared vision among staff members and the adoption of distributed leadership, which are foundational for achieving school-wide improvements (Hopkins, 2024).

The approach to school improvement is influenced significantly by national educational policies and societal goals, with considerable variation between countries. For example, the United Kingdom typically follows a hierarchical, top-down model, whereas the Nordic countries prioritize democratic practices, giving more responsibility to schools and teachers for initiating changes (Hardman & Sandi, 2024). This divergence in approach reflects differing educational philosophies, which in turn shape the strategies employed in school improvement efforts. In contexts where teachers have more autonomy, the focus tends to be on fostering a strong professional teaching community, underpinned by shared values and collaboration aimed at enhancing student learning (Nadeem, 2024).

Many research also conceptualizes schools as learning organizations, where mutual trust, open communication, and a shared commitment to student learning are central components (Neelam et al., 2020). In such environments, knowledge sharing and collaborative practices are vital, as they contribute to the professional growth of teachers and the continuous development of the school (Forman et al., 2021). Effective school improvement efforts often include practical measures such as allocating time for teacher collaboration and involving staff in decision-making processes, which help build a strong, cohesive teaching community (Oppi et al., 2023).

Leadership plays a critical role in driving school improvement (Prenger et al., 2021). Effective principals manage the processes of change, motivate staff, and foster a shared vision for the school's future (Stronge & Xu, 2021). They also play a key role in creating an environment that encourages collaboration and experimentation, essential for ongoing improvement (Darling-Hammond et al., 2022). The concept of distributed leadership, where leadership roles are shared across the school community, has been shown to enhance teacher engagement and foster a collaborative culture (Day et al., 2020). Additionally, networking with other school leaders and external stakeholders can offer new perspectives and facilitate sustainable improvement initiatives (Askill-Williams & Koh, 2020).

The perspective of schools as knowledge work organizations provides additional insights into school improvement. Drawing on the work of Caduff et al. (2023), schools can be seen as entities where practices and knowledge are shared through collaborative efforts, often facilitated by boundary objects, shared tools or methods that help bridge different groups within the organization. This perspective highlights the importance of common knowledge practices, including the use of technology, to support the development and dissemination of innovative teaching methods. By leveraging these practices, schools can enhance their capacity for continuous learning and adaptation.

Relationship on Digital Management and the School Improvement

Many recent research has identified a strong link between digital management practices and school improvement, with several studies demonstrating the positive influence of digital management on educational outcomes, administrative efficiency, and overall school performance.

Pata et al. (2022) explored how the adoption of digital management systems in schools contributes to improvement in organizational efficiency and academic outcomes. The study focused on the implementation of comprehensive digital platforms that integrated various administrative tasks, such as student attendance tracking, grading systems, and communication tools. The study found that schools utilizing a centralized digital management system exhibited significant improvements in both academic performance and administrative coordination. Specifically, the study highlighted how the streamlined processes enabled by digital management tools allowed teachers and administrators to focus more effectively on instructional quality and student support. The automation of routine tasks, such as attendance tracking and grading, reduced administrative burdens and allowed for more data-driven decision-making, leading to a more responsive and adaptive learning environment. The research concluded that digital management systems, when implemented effectively, could serve as a catalyst for school improvement by enhancing operational efficiency and supporting better instructional practices.

Navaridas-Nalda et al. (2020) examined the influence of digital management tools on school improvement, with a focus on enhancing student learning experiences and outcomes. The research utilized quantitative data from standardized test scores and qualitative data from interviews with teachers and school leaders. The findings demonstrated a consistent positive impact of digital management on the overall learning environment of schools. One of the key aspects highlighted by the study was the improved access to real-time data that digital management systems provided, allowing educators to tailor instruction to meet student needs more effectively. This personalized approach was facilitated by the ability to quickly analyze student performance data and adjust teaching strategies accordingly. Furthermore, the study noted that digital management systems fostered better communication among staff, students, and parents, creating a more cohesive and supportive educational environment. The study concluded that digital management was a critical component of effective school improvement strategies, as it enhanced both the quality of education and the school community's engagement.

Rauseo et al. (2023) examined the impact of integrating digital management systems on enhancing teaching and learning processes within schools. The research focused on the implementation of digital platforms designed to support curriculum management, teacher collaboration, and student progress monitoring. The study found that the adoption of digital management tools significantly improved the quality of teaching and facilitated better collaboration among educators. The study highlighted several positive outcomes, including increased teacher efficiency, improved student engagement, and higher academic achievement. By leveraging digital management tools, teachers were able to access and share resources more easily, plan lessons more effectively, and provide timely feedback to students. The integration of digital management systems also enabled a more holistic approach to student assessment, allowing for a broader range of metrics beyond traditional test scores to be considered. The study concluded that digital management was instrumental in driving school improvement, as it supported a more dynamic and flexible educational environment that responded better to the diverse needs of students.

These studies underscore the positive influence of digital management on school improvement. By streamlining administrative processes, enhancing data-driven decision-making, and fostering a more collaborative educational environment, digital management systems have proven to be a valuable asset in supporting schools' efforts to enhance their overall performance. The evidence suggests that when schools invest in and effectively implement digital management tools, they are more likely to experience significant improvements in both administrative efficiency and student outcomes.

Literature Summary

Previous studies have consistently shown the positive effects of digital management on school improvement, emphasizing its role in enhancing both administrative efficiency and educational outcomes. Ilomäki and Lakkala (2018) introduced a framework with six key dimensions of digital management: school visions, school leadership, pedagogical practices, teaching community practices, school-level knowledge practices, and digital resources. These dimensions reflect a holistic approach, integrating technology across strategic planning, teaching practices, and data-driven decision-making.

Despite these insights, a research gap exists in understanding the impact of digital management within higher education institutions, particularly in leading universities like Beijing Normal University (BNU). While the majority of studies have focused on primary and secondary education, the unique context of universities with their complex structures and diverse pedagogical approaches remains underexplored. It is unclear whether the framework proposed by Ilomäki and Lakkala (2018) can be directly applied to higher education, where strategic goals and implementation dynamics differ significantly. This lack of empirical evidence in the university setting suggests a need for further research to evaluate how digital management influences institutional performance in this context.

The study aims to investigate the influence of digital management on school improvement at Beijing Normal University, applying the six dimensions framework to analyze its effects on educational quality and administrative efficiency. The findings are expected to provide valuable insights for enhancing digital management practices in higher education.

METHODOLOGY

Research Design

The study adopts the quantitative research approach to investigate the influence of digital management on school improvement at Beijing Normal University (BNU). This methodological choice is informed by the objective of the study to assess measurable outcomes related to the implementation of digital management practices across the university. The quantitative research method involves the use of structured data collection tools, such as surveys, to gather numerical data that can be statistically analyzed, providing a clear and objective understanding of the relationships between variables.

The selection of the quantitative research method for this study is driven by the need to gather empirical evidence and quantify the impact of digital management practices on school improvement. Quantitative research allows for the collection of data from samples, which enhances the generalizability of the findings. Moreover, the use of statistical analysis techniques, such as correlation and regression analysis, enables the identification of patterns and the determination of the strength and direction of relationships between digital management dimensions and school improvement. Given the study's focus on measurable outcomes, a quantitative approach is well-suited to provide reliable results that can inform evidence-based decision-making at BNU.

Sampling and Data Collection

According to the official human resource data from Beijing Normal University in 2024, the total number of teachers employed at the university is 3,513. To determine an appropriate sample size for the survey, the study used the Raosoft sample size calculator, which is widely recognized for its accuracy in sample size estimation. With a 5% margin of error and a 95% confidence level, the recommended sample size was calculated to be 347 respondents, which is presented in figure 1. However, to account for potential non-response and invalid responses during the data collection process, the target sample size was adjusted upward to 360 participants.

The study employed a random sampling method, ensuring that each teacher had an equal chance of being selected. This method reduces selection bias and increases the representativeness of the sample, making the findings more generalizable to the broader population of teachers at BNU.

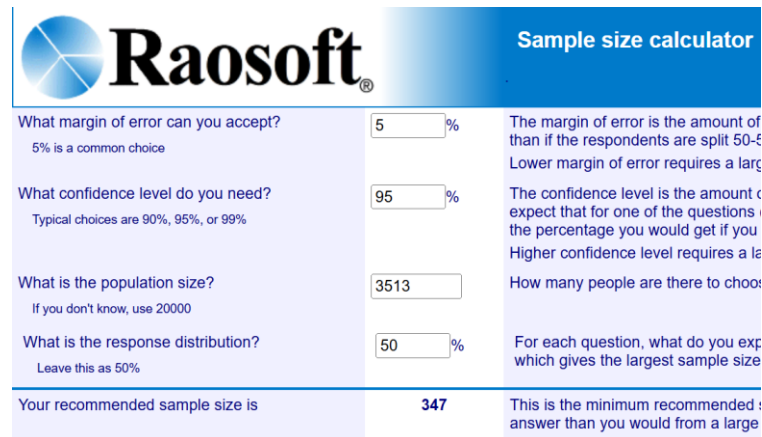


Figure 1. Raosoft Sample Size Calculation Results

Data Collection

The data for this study was collected through a structured survey, utilizing a 5-point Likert scale for the questionnaire items. The Likert scale, which ranges from “strongly disagree” (1) to “strongly agree” (5), was chosen for its effectiveness in capturing the participants’ attitudes and perceptions regarding digital management practices and school improvement. The items were adapted from validated instruments used in previous studies on digital management and school improvement, ensuring that the measures used are reliable and reflect the constructs being studied.

The questionnaire was designed and administered using Wenjuanxing, a widely used online platform in China for creating and distributing questionnaires. This platform facilitated efficient data collection and ensured that the survey could reach a broad range of participants across different faculties and departments at BNU. In total, 353 responses were received. After removing two invalid responses, the final dataset comprised 351 valid questionnaires, which were used for subsequent analysis.

Data Analysis Methods

The collected data were analyzed using correlation analysis and regression analysis methods. Correlation analysis was conducted to examine the relationships between the six dimensions of digital management (school visions, school leadership, pedagogical practices, teaching community practices, school-level knowledge practices, and digital resources) and school improvement. This method helps determine the strength of the associations between these variables, providing insights into how different aspects of digital management may contribute to school improvement.

Regression analysis was employed to assess the predictive power of the digital management dimensions on school improvement. This method allows for a more detailed examination of the extent to which specific digital management practices influence school improvement. By using regression analysis, the study can identify the most impactful factors for enhancing school improvement at BNU.

RESULTS

Correlation Analysis Results

The study utilized the correlation analysis method to explore the relationships between the six dimensions of digital management and school improvement at Beijing Normal University. Results in table 1 indicate significant positive correlations for all dimensions of digital management, affirming their collective impact on enhancing school improvement.

Table 1. Correlation Analysis Results

Variables	School Visions	School Leadership	Pedagogical Practices	Teaching Community Practices	School-Level Knowledge Practices	Digital Resources	School Improvement
School Visions	1.00						
School Leadership	0.32**	1.00					
Pedagogical Practices	0.30**	0.37**	1.00				
Teaching Community Practices	0.28**	0.33**	0.34**	1.00			
School-Level Knowledge Practices	0.34**	0.35**	0.38**	0.36	1.00		
Digital Resources	0.35**	0.31**	0.36**	0.35**	0.39**	1.00	
School Improvement	0.56**	0.59**	0.64**	0.58**	0.67**	0.62**	1.00

The analysis of the direct relationship between the six dimensions of digital management and school improvement at Beijing Normal University reveals significant positive correlations across all dimensions, highlighting the influence of these factors on enhancing school improvement. School visions show a moderate positive correlation with school improvement ($r = 0.56$). This suggests that a clear, technology-driven vision is integral to fostering an environment conducive to educational advancements. When universities establish a strategic vision focused on digital innovation, it aligns the goals of the institution, staff, and students, creating a shared understanding of the role of digital tools in enhancing both administrative efficiency and educational outcomes. The significant relationship implies that a strong digital vision helps guide consistent efforts towards leveraging technology for continuous improvement.

School leadership displays a notably strong positive relationship with school improvement ($r = 0.59$). Effective digital leadership involves the capacity of administrators to guide the adoption and integration of digital management practices. The strong correlation underscores the importance of leadership in driving the change necessary for digital transformation. Leaders who promote a culture of innovation, support professional development, and allocate resources effectively can directly impact the success of digital initiatives, ultimately contributing to enhanced academic performance and organizational effectiveness.

Pedagogical practices exhibit one of the highest correlations with school improvement ($r = 0.64$), indicating a substantial direct impact. This dimension reflects the integration of digital tools into teaching methodologies, suggesting that when digital technologies are embedded in pedagogical strategies, they significantly enhance the quality of instruction and student engagement. The strong relationship implies that digital tools, when effectively used in teaching, can lead to improved learning experiences and outcomes, aligning with the broader goals of school improvement.

The dimension of teaching community practices also shows a strong positive relationship with school improvement ($r = 0.58$). This result indicates the importance of fostering a collaborative teaching environment through digital tools. By facilitating resource sharing, communication, and professional collaboration among educators, digital management practices can enhance the collective teaching capacity, leading to more effective instructional strategies and better student support. The findings suggest that building a cohesive teaching community supported by digital tools is a key factor in driving school improvement.

School-level knowledge practices demonstrate the strongest correlation with school improvement ($r = 0.67$), highlighting the critical role of data-driven decision-making in enhancing institutional performance. The ability to utilize digital tools for data analysis and knowledge management allows educational institutions to track student progress, identify areas needing intervention, and make informed decisions that directly impact educational quality. This strong relationship indicates that robust knowledge practices, enabled by digital management systems, are instrumental in supporting a culture of continuous assessment and improvement.

Digital resources show a substantial positive correlation with school improvement ($r = 0.62$). The availability and effective use of digital infrastructure, such as hardware, software, and digital content, are essential for implementing digital management practices effectively. The strong relationship suggests that when universities invest in high-quality digital resources, they enable educators and administrators to carry out their tasks more efficiently, leading to enhanced teaching quality and better student outcomes.

In summary, all six dimensions of digital management have a positive and statistically significant relationship with school improvement, with school-level knowledge practices and pedagogical practices showing the strongest direct impact. These findings highlight the importance of a holistic approach to digital management, integrating strategic vision, strong leadership, effective pedagogy, collaborative practices, data-driven decision-making, and adequate digital resources to drive meaningful improvements in higher education settings like Beijing Normal University.

Regression Analysis Results

The study employed the regression analysis method to assess the impact of digital management dimensions on school improvement at Beijing Normal University. The specific regression analysis results are presented in the table 2.

Table 2. Regression Analysis Results

Variable	β	SE	t	P
Constant	2.173	0.327	6.645	0.000
School-Level Knowledge Practices	0.398	0.059	6.746	0.000
Pedagogical Practices	0.369	0.063	5.857	0.000
Digital Resources	0.283	0.054	5.241	0.000
School Leadership	0.276	0.049	5.633	0.000
School Visions	0.255	0.042	6.071	0.000
Teaching Community Practices	0.247	0.038	6.500	0.000

The regression analysis results presented in table 2 delineates the effects of six dimensions of digital management on school improvement at Beijing Normal University.

School-Level Knowledge Practices exhibit the most substantial influence on school improvement with a beta coefficient of 0.398, suggesting that using digital tools for data analysis and knowledge management has a profound impact. This dimension enhances the ability to track progress, make informed decisions, and adapt to educational needs swiftly. The relatively high t-statistic (6.746) reinforce the robustness of this variable's predictive power, indicating that effective knowledge management practices are critical to improving the overall quality of education at the university.

Pedagogical Practices follow closely with a beta coefficient of 0.369, underscoring the importance of integrating technology into teaching methods. This dimension's strong influence on school improvement highlights how digital tools can enhance instructional quality and engagement. The high t-statistic (5.857) and significance level suggest that innovations in teaching practices through digital means are highly effective in promoting better educational outcomes.

Digital Resources hold a beta coefficient of 0.283, signifying that the availability and utilization of adequate technological infrastructure and tools support educational activities substantially. This finding points to the necessity of investing in and maintaining high-quality digital resources to facilitate teaching and administrative processes, thereby boosting school performance.

School Leadership has a beta of 0.276, emphasizing the role of effective leadership in implementing and sustaining digital management practices. Leaders who actively promote and support the use of digital tools are fundamental in achieving the strategic goals associated with digital transformation. The importance of leadership is further highlighted by its significant impact on fostering a culture that embraces digital advancements.

School Visions are also crucial, with a beta of 0.255. This suggests that a clear and forward-thinking vision regarding the role of digital technology in education is vital for aligning the institution's objectives with digital initiatives. The significant coefficient illustrates that having a strategic vision can catalyze the adoption and effective utilization of digital tools across university operations.

Teaching Community Practices have a beta of 0.247, indicating the importance of collaboration among faculty facilitated by digital platforms. This dimension enhances the collective teaching capacity, which in turn improves educational delivery and student support. The strong positive relationship between collaborative teaching practices and school improvement reinforces the value of a united teaching community in higher education settings.

These results affirm that six dimensions of digital management, including school visions, school leadership, pedagogical practices, teaching community practices, school-level knowledge practices, and digital resources, significantly enhances school improvement. The positive correlations across all dimensions of digital management and school improvement indicate that a holistic approach, where technology is embedded in every facet of university operations, is instrumental in advancing school improvement at Beijing Normal University.

DISCUSSION

Based on the results of correlation analysis and regression analysis, the quantitative study at Beijing Normal University (BNU) has established significant positive relationships between digital management practices and school improvement. The findings align with existing research indicating that effective digital management significantly contributes to school improvement by streamlining operations and enhancing educational processes.

The data from Beijing Normal University provides robust empirical support for the assertion that digital management plays a crucial role in advancing school improvement. This aligns with Papa (2010), who have documented the benefits of digital management practices in enhancing school improvement within educational settings. Digital management tools not only simplify administrative tasks but also enrich the educational experience by facilitating a more interactive and responsive learning environment.

Comprehensive digital platforms integrate various administrative tasks, improving coordination and efficiency. Such systems enable educators and administrators to concentrate more on instructional quality and less on routine tasks, fostering a more adaptive learning atmosphere conducive to student success. Furthermore, the availability of real-time data through digital management systems allows for a more personalized and agile educational approach, meeting students' individual needs more effectively.

The implications of these findings are significant, suggesting that universities like BNU can achieve substantial improvements in both pedagogical and administrative domains by strategically implementing digital management systems. By doing so, they not only enhance operational efficiency but also foster an environment that supports dynamic teaching and learning experiences. The study reinforces the notion that digital management is not merely a facilitative tool

but a transformative force within educational settings, driving schools toward more comprehensive and sustainable improvements. These insights are invaluable for policymakers and educational administrators aiming to leverage technology for better educational outcomes and institutional performance.

CONCLUSIONS AND RECOMMENDATIONS

The study conducted at Beijing Normal University underscores the transformative impact of digital management on school improvement, validating the integration of technology across various dimensions as pivotal for enhancing educational quality and administrative efficiency. The positive correlations and significant regression coefficients across all six dimensions of digital management, including school visions, school leadership, pedagogical practices, teaching community practices, school-level knowledge practices, and digital resources, demonstrate a holistic influence of digital management on school improvement. The findings emphasize that a strategic, technology-driven approach, where digital tools are seamlessly incorporated into every facet of the institution, significantly contributes to educational advancement and operational effectiveness. This comprehensive utilization of digital management not only optimizes teaching methods and resource allocation but also fosters a collaborative, informed, and adaptable educational environment. By highlighting the substantial benefits of digital management systems, the study presents a case for other higher education institutions to adopt similar strategies to realize potential improvements in both pedagogical and administrative domains.

FURTHER STUDY

Every research is subject to limitations; thus, you can explain them here and briefly provide suggestions to further investigations.

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