



PRACTICES OF KNOWLEDGE MANAGEMENT: MULTIPLE CASE STUDY IN CONFESSIONAL BASIC EDUCATION SCHOOLS

PRÁTICAS DE GESTÃO DO CONHECIMENTO: ESTUDO DE CASO MÚLTIPLO EM ESCOLAS DE EDUCAÇÃO BÁSICA CONFESSIONAIS

PRÁCTICAS DE GESTIÓN DEL CONOCIMIENTO: ESTUDIO DE CASOS MÚLTIPLES EN ESCUELAS CONFESIONALES DE EDUCACIÓN BÁSICA

ABSTRACT

Objective: The main objective of this research is to analyze the main Knowledge Management practices in Private and Confessional Basic Education Schools in Brazil.

Design | methodology | approach: This research adopted a qualitative methodology, using a multiple case study that involved directors, supervisors and coordinators of private schools from different confessional education networks. From November 2022 to March 2023, 7 managers from 4 traditional confessional basic education schools were interviewed.

Results: The results demonstrate that the understanding of the importance of Knowledge Management in school management practices is unanimous, however the formality and maturity with which Knowledge Management is implemented is different between the educational institutions studied. KM practices categorized into 7 dimensions were identified: diagnosis, types of knowledge, senior management, technology, learning, difficulties and benefits.

Theoretical implications: As a theoretical contribution, this work deepens knowledge about Knowledge Management in Basic Education in private confessional institutions.

Practical implications: Practical contributions present managers with the possibility of analyzing these results in relation to their reality and identifying possible improvements to be adopted.

Originality: The originality of the research is the investigation of the practices of Knowledge Management in a profile of Basic Education schools that, second to literature, is a topic that has not been explored in the research.

Keywords: Knowledge Management. Basic Education. Knowledge Management Practices. Explicit Knowledge. Tacit Knowledge.

 Jader Luiz Henz

Ph.D. Student

Pontifícia Universidade Católica do

Rio Grande do Sul – Brazil

jader.henz@edu.pucrs.br

 Mírian Oliveira

Ph.D.

Pontifícia Universidade Católica do

Rio Grande do Sul – Brazil

Universidade de Lisboa – Portugal

miriano@pucrs.br

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RESUMO

Objetivo: O objetivo principal desta pesquisa é analisar as principais práticas de Gestão do Conhecimento em Escolas de Educação Básica Privadas e Confessionais no Brasil.

Design | metodologia | abordagem: Esta pesquisa adotou a metodologia qualitativa, utilizando o estudo de caso múltiplo que envolveu diretores, supervisores e coordenadores de colégios privados de distintas redes de ensino confessionais. Foram entrevistados, de novembro de 2022 a março de 2023, sete gestores de quatro tradicionais escolas de educação básica confessionais.

Resultados: Os resultados demonstram que é unânime o entendimento da importância da Gestão do Conhecimento nas práticas de gestão escolar, porém a formalidade e maturidade com que a Gestão do Conhecimento é implementada é diferente entre as instituições de ensino estudadas. Foram identificadas práticas de GC categorizadas em sete dimensões: diagnóstico, tipos de conhecimento, alta administração, tecnologia, aprendizagem, dificuldades e benefícios.

Implicação teórica: Como contribuição teórica, este trabalho aprofunda o conhecimento sobre a Gestão do Conhecimento na Educação Básica em instituições privadas confessionais.

Implicações práticas: As contribuições práticas apresentam aos gestores uma possibilidade de analisar esses resultados em relação à sua realidade e identificar possíveis melhorias a serem adotadas.

Originalidade: A originalidade da pesquisa está na investigação das práticas de Gestão do Conhecimento em um perfil de escolas da Educação Básica que, segundo a literatura, é um tema pouco explorado nas pesquisas.

Limitação e estudos futuros: Uma limitação precisa ser

Palavras-chave: Gestão do Conhecimento. Educação Básica. Práticas de Gestão do Conhecimento. Conhecimento Explícito. Conhecimento Tácito.

RESUMÉN

Objetivo: El principal objetivo de esta investigación es analizar las principales prácticas de Gestión del Conocimiento en Escuelas de Educación Básica Privadas y Confesionales en Brasil.

Diseño | metodología | enfoque: Esta investigación adoptó una metodología cualitativa, utilizando un estudio de casos múltiples que involucró a directores, supervisores y coordinadores de escuelas privadas de diferentes redes educativas confesionales. Desde noviembre de 2022 hasta marzo de 2023, se entrevistó a 7 directivos de 4 escuelas de educación básica confesionales tradicionales.

Resultados: Los resultados demuestran que la comprensión de la importancia de la Gestión del Conocimiento en las prácticas de gestión escolar es unánime, sin embargo la formalidad y madurez con la que se implementa la Gestión del Conocimiento es diferente entre las instituciones educativas estudiadas. Se identificaron prácticas de GC categorizadas en 7 dimensiones: diagnóstico, tipos de conocimientos, alta dirección, tecnología, aprendizaje, dificultades y beneficios.

Implicaciones teóricas: Como aporte teórico, este trabajo profundiza el conocimiento sobre la Gestión del Conocimiento en la Educación Básica en instituciones confesionales privadas.

Implicaciones prácticas: Las contribuciones prácticas presentan a los gestores la posibilidad de analizar estos resultados en relación con su realidad e identificar posibles mejoras a adoptar.

Originalidad: La originalidad de la investigación es la investigación de las prácticas de Gestión del Conocimiento en un perfil de escuelas de Educación Básica que, según la literatura, es un tema poco explorado en la investigación.

Palabras clave: Gestión del Conocimiento. Educación Básica. Prácticas de Gestión del Conocimiento. Conocimiento Explícito. Conocimiento Tácito.



INTRODUCTION

Knowledge Management (KM) is relevant for organizations to maintain a sustainable competitive edge (Forés & Yánes, 2023). According to Porter (1989), companies gain a competitive edge when they manage to create a superior capability or value, making them stand out from the others in the eyes of their customers. Integrating KM into the management processes of Basic Education, presenting a potential implementation model, offers an alternative to improve management processes, qualify pedagogical deliveries and, consequently, increase competitiveness (Machado, Urpia, & Dal Oven, 2019). Basic Education, as per the Guidelines and Bases Act (LDB, 1996), comprises the stages of Early Childhood Education, Elementary Education and Secondary Education.

Schools are knowledge-intensive systems. While they create intangible resources, they also support the development of intellectual capital and enable the creation of value for stakeholders (Iacuzzi, Fedele, & Garlatti, 2021). Educational organizations that support the basis of academic training across all generations in a community are considered privileged spaces for generating knowledge. Chu (2016) suggests that schools retrieve and store the knowledge produced by teachers — who prepare study plans, design projects, and develop them in the classroom — through electronic records and database systems. In the meantime, school management plays a key role, but research suggests that leaders often neglect the importance of KM strategies to achieve effective use of knowledge in different organizational environments, including schools (Hansen et al., 1999). Moreover, schools have been slow to adopt KM practices (Asad, Rind, & Abdulmuhsin, 2021), and KM in Basic Education is still a concept little explored in academia (Cheng, 2020).

However, what has already been researched clearly shows that KM has impacts on improving literacy and educational quality (Adhikari, 2010; Edge, 2005), strengthens teaching and learning processes (Tippins, 2003), and influences *performance* of basic education (Cordeiro, Oliveira, & Sanchez-Segura, 2022).

This study aims at analyzing the main KM practices in Private and Confessional Basic Education Schools in Brazil. This research theoretically contributes to increasing knowledge surrounding the adoption of KM in Private and Confessional Basic Education in Brazil. In practical terms, the results of this research can help managers identify potential improvements that KM can have on private and confessional basic education.

This article, in addition to this introduction, is divided into other four sections. The second section covers the literature review. In the third section, the research method is presented. The fourth section presents the analysis and the results, as the fifth and closing section covers the conclusion, limitations, and future research.

KNOWLEDGE MANAGEMENT: DIAGNOSIS AND KM PRACTICES IN EDUCATION

Nonaka and Takeuchi (1997, p. 1) define KM as 'the ability of a company to create new knowledge, disseminate it throughout the organization as a whole and incorporate it into products, services, and systems'. According to Takeuchi and Nonaka (2008), there are two types of knowledge that complement each other: tacit knowledge and explicit knowledge. 'There is some explicit knowledge in every tacit knowledge and some tacit knowledge in every explicit knowledge. They are continuous, but inseparable' (Takeuchi & Nonaka, 2008, p. 22). Tacit knowledge is personal, subjective, context-specific and, consequently, difficult to manage and communicate. Explicit knowledge is transmitted in formal, systematic language; therefore, it is easier to articulate and document. The conversion between these two types is called the knowledge spiral. For a successful implementation of KM in an organization, one must consider these forms of knowledge conversion (Nonaka, 1994): socialization (tacit to tacit) externalization (tacit to explicit), combination (explicit to explicit) and internalization (explicit to tacit).

Knowledge Management and Education

Em uma era de competitividade, a GC toln the age of competitiveness, KM has become a



significant factor in the sustainable development of educational organizations (Asad, Rind, & Abdulmuhsin, 2021). Cheng (2021) argues that school management has become increasingly challenging in recent years due to the increasingly dynamic and competitive environment and, therefore, believes that KM can improve organizational performance in schools. KM can be used to improve the processes of educational institutions, determining how to help them, that is, which methods, techniques or tools KM offers that can be used alongside the improvement strategy for education management (Amorim, Rocha, & Da Matta, 2017). It is recognizable that KM helps to transform the school's micro and macro processes (Amorim, Rocha, & Da Matta, 2017).

All organizations face challenges in managing and implementing KM practices (Asad, Rind, & Abdulmuhsin, 2021). Fullan (2002, p. 409) states that 'despite educational institutions being in the learning market, schools and educational bodies are notoriously poor at sharing knowledge', reflecting the difficulty that education systems have in structuring management processes in a way that is more integrated. This diagnosis, pointed out by Fullan (2002), reinforces that the difficulty in sharing knowledge lies in the constant interactivity that teachers have with students, but in the low levels of interactivity they maintain among themselves.

According to Birasnav, Gantasala, and Gantasala (2023), implementing safety-oriented KM processes and accepting diversity in schools have varying effects on students' academic performance and academic orientation. Thus, the authors determine that, when school management engages in KM processes, they are more likely to make high-quality decisions in monitoring any issue involving lack of discipline or quality issues of student learning. Chu (2016) explores the influence of a principal's leadership at the beginning of KM implementation and reinforces that KM cannot be implemented without effective knowledge leadership from school management. In crisis situations, the potential of KM processes as facilitators is also perceived. For example, Iacuzzi, Fedele, and Garlatti (2021) investigated how schools rearranged their structure during the covid-19 pandemic and focused on their KM

strategies. Thus, leadership roles are considered powerful and critical to the KM implementation process to facilitate knowledge sharing (KS) and nurture a culture of sharing and trust.

KM in schools is understood as a strategic management issue that supports school managers and teachers to leverage and capitalize on the organization's knowledge resources and plan and conduct teaching tasks effectively (Hansen et al., 1999). It has the potential to design effective strategies to leverage Intellectual Capital in schools. According to Cheng (2016), Intellectual Capital comes from the knowledge, experience and transferable skills of employees, the school's infrastructure policy and practices that innovate and manage changes, and the relationship between school and its stakeholders.

Diagnosis of Knowledge Management in Education

The implementation of KM in organizations must respect some important steps such as conducting the diagnosis (Ahmad & An, 2008; Akhavan, Zahedi, & Hosei, 2014). In this first stage, the goals are understanding the actual situation of the organization, identifying the vision of senior management and how open the institutional culture is to the implementation of Knowledge Management. 'Preparing a detailed and adequate diagnosis is the most effective way to implement KM so that its full potential is explored (Ahmad & An, 2008, p. 148).'

For Akhavan, Zahedi and Hosei (2014), it is important that organizations' policies are open to the implementation of Knowledge Management. It is then observed what the members of the organization already know about KM and what still needs to be developed. With this diagnosis, appropriate educational strategies are proposed according to the needs to be developed. These authors also note that goals related to Knowledge Management are required in order to have appropriate criteria to evaluate the organization's performance (Akhavan, Zahedi, & Hosei, 2014). Thus, specific knowledge objectives must be aligned with corporate objectives (Daghfous & Kah, 2006).

For Gunawan, Kristian and Alianto (2019),



the assessment of existing infrastructure is an initial aspect in the KM implementation process. It consists of analyzing the existing infrastructure and aligning KM with business strategies. It is also 'required to assess the current organizational and technological infrastructure to see how far they are from the target and what processes need to be adopted along that path' (Daghfous & Kah, 2006, p. 110). The more powerful the IT infrastructure, the greater the likelihood of achieving knowledge-based goals in KM implementation (Akhavan, Zahedi, & Hosei, 2014). Technology is a constant concern, but it does not mean that KM is synonymous with technology, it becomes a communication facilitator and content storage repository.

The KM strategy must be designed in a way that it can be aligned with strategic planning and, consequently, with business strategy (Coetzee, Van Beek, & Buys, 2012). In order to have this, the authors reinforce the importance of showcasing the advantages of KM in the organization for senior management.

Organizational culture is another aspect to consider when diagnosing KM. For Akhavan, Zahedi and Hosei (2014, p. 111), 'organizational culture supports the exchange of knowledge and its transfer to different levels of the company in a way that emulates how people share their knowledge and information with their colleagues without any concern'.

The organizational structure must be considered when diagnosing KM implementation. According to Akhavan, Zahedi and Hosei (2014), open organizational structures facilitate clear knowledge flows. Cooperation will not happen if managers and employees are distant from each other, and there is a sense of disconnection between them. Daghfous and Kah (2006) emphasize that motivation is an essential component, and employees need to understand what KM is and what benefits they gain from applying it. For Oliveira, Caldeira and Romão (2012), the organizational structure also influences the implementation of KM, but it is not as influential as the organizational culture and the support from senior management.

Identifying the need for a specific KM process in each organization helps with

assertiveness. Salzano et al. (2016) suggest that organizations should seek to understand what information or knowledge employees, project teams or business units feel is lacking to perform their roles. This can be developed through interviews with management and stakeholders, surveying pain points or knowledge needs, or even a self-assessment to understand the challenges and risks of knowledge in the organization.

Knowledge Management Practices in Education

Rapid and continuous changes are traits of modern society and organizations from different industries find themselves trying to keep up with this dynamic environment. KM is known to promote improvements in the quality of services provided by public and private organizations, helping these organizations to achieve greater efficiency in managing their resources (Urpia, Sartori, & Tenório, 2018), thus it is interesting to analyze the particularities of KM that can help improve the quality of services in school organizations.

Through KM processes embedded in practices, our goal is to achieve positive results in organizations, improving academic and financial results, gaining student and teacher loyalty and, consequently, improving quality. For Machado et al. (2020), the introduction of these KM practices provides greater success rates in decision-making, even in situations of uncertainty and, consequently, better levels of efficiency in the management of school organizations.

Batista and Quandt (2015) present a diagnostic instrument to analyze the current situation of Knowledge Management practices in Brazilian public institutions. Machado et al. (2020), in turn, applied the item scale in a survey of educational managers, in which they analyzed nine KM practices, namely: internal and external benchmarking; best practices; knowledge mapping or auditing; competency management system; individual skills bank; organizational skills bank; organizational memory/lessons learned/knowledge bank; organizational/business intelligence/competitive intelligence system; and management of intellectual capital/management of intangible assets. The practices covered in



the instrument can be taken account when approaching private basic education institutions, which are the focus of this research.

RESEARCH METHOD

The qualitative strategy was used to understand how KM processes are structured in private and confessional basic education schools. To this end, a multiple case study was conducted involving principals, school counsellors and student success counsellors of private schools from different confessional education networks. Yin (2010, p. 39) defines the case study as an 'empirical investigation that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.'

The case study was conducted at four schools in traditional confessional education networks. The criteria for selecting these institutions were based on the convenience of the researcher (Yin, 2010), complying, however, with criteria that aligned with the research objective: a) performance of the educational institution in the private and confessional basic education market; b) the Institution's performance at all levels of basic education – Early Childhood Education, Elementary Education and Secondary Education; c) traditional education network institutions. The goal is to conduct an exploratory study, which covers little-known problems in order to define hypotheses or propositions for future research. The unit of analysis is the KM in the context of the researched schools. Qualitative data was collected from November 2022 to March 2023, through semi-structured interviews with managers. The protocol offers information about the researcher, the research objectives, the intended use of data, and ensures the confidentiality and safety of the information provided (Yin, 2010).

Data collection and analysis

After the cases were selected, semi-structured interviews were conducted individually, with four school principals, one school counsellor and two student success counsellors, who agreed to be interviewed. According to Dubé and Paré (2003), interviews are the most used

data collection technique in case studies. As a documentary analysis, two documents that organize the educational institution were observed: Political-Pedagogical Project and School Regulations. Both documents are publicly accessible. Afterwards, the two data sources are triangulated: interviews and document analysis. Triangulation, the adoption of two or more forms of data collection, is one of the ways employed to make the case study robust (Yin, 2010).

For the interviews, contact was first made with the interviewees, offering information about the study according to Yin (2010): objectives of the research, how the data would be used and ensuring its confidentiality and safety. Afterwards, a notice of participation in the research was sent to participants, thanking them for their time. The semi-structured interview guide was developed considering the dimensions found in the literature review. The demographic data and institutional dimensions were defined by the authors. The 'diagnosis' dimension determines whether there are KM propositions or practices in the Institution (Akhavan et al., 2014); the 'types of knowledge' dimension seeks to understand whether there is pedagogical and administrative knowledge shared in the institution (Cheng, 2015, 2017, 2019); 'senior management' dimension seeks to investigate the support of senior management in KM (Coetzee et al., 2012); the 'technology' dimension investigates the use of technology to share knowledge (Gunawan et al., 2019; Daghfous & Kah, 2006); the 'learning' dimension, which deals with how the organization learns and how it relates to the environment in which it operates (Akhavan et al., 2014; Scorsolini et al., 2011); the 'difficulties' dimension covers the difficulties and strategies used to implement KM (Daghfous & Kah, 2006; Salzano et al., 2016); finally, the 'benefits' dimension deals with identifying the benefits that the implementation of KM brings to the school institution (Akhavan et al., 2014).

After guests accepted the invitation and the interviews were scheduled, the meeting was conducted online on Microsoft Teams, recorded for later transcription. Seven people were interviewed, four principals, one school counsellor and two student success counsellors. The option for student success counsellors and school counsellors was due to the naming adopted by



different schools. In short, the responsibility of both is similar. Six interviewees were women and one man. The average length of the interviews was 45 minutes. Throughout the analysis, the interviewees are mentioned using their codes to facilitate the fluidity of the text and to protect the

identity of associated people and/or institutions. The interviews were conducted with seven managers: four principals, one school counsellor and two student success counsellors from four schools in traditional education networks. Table 1 below presents information on the interviewees in order to facilitate the analysis.

Table 1
Characterization of interviewees

Interviewee	Code	Gender	Office	Training	Time at the Institution
Interviewee 1 – School 1	E1	Female.	Principal	Master's in education	15 years
Interviewee 2 – School 2	E2	Masc.	Principal	Master's in education	1.5 years
Interviewee 3 – School 3	E3	Female.	School counsellor	Master's in education	7 years
Interviewee 4 – School 2	E4	Female.	Student Success Counsellor	Master's in education	2 years
Interviewee 5 – School 3	E5	Female.	Principal	Master's in education	28 years
Interviewee 6 – School 4	E6	Female.	Student Success Counsellor	Master's in education	33 years
Interviewee 7 – School 4	E7	Female.	Principal	MBA in People Management	46 years

Source: Own authorship (2024).

Interviews were recorded and later transcribed using Word Office 365 text editor for subsequent analysis. For data analysis, Dubé and Paré (2003) advise that the clear description of the data analysis procedures allows a better understanding of the results and the judgment that the process was systematic and strict. The method for data analysis was Bardin's Content Analysis (2002), divided into three distinct stages: pre-analysis, exploration of the material and treatment and interpretation of results. In the pre-analysis, the files with the transcriptions were organized and the interviews were read and organized according to the dimensions to be analyzed; when exploring the material, with text marking, coding was conducted; in the treatment and interpretation of results, the coding was related and compared with the literature.

Characterization of School Institutions

The Institutional dimension covers questions related to the educational institution of each interviewee. Data from FENEP, Federation of Private Schools (FENEP, 2022), shows that in 2021 there were 40.5 thousand private basic education establishments. That corresponds to a 6.5% increase compared to 2012. Data from the 2022 School Census show nine million students enrolled in the private network, an increase of 10.6% compared to 2021. The managers interviewed belong to four different schools. Of

all the schools interviewed, only one showed a decrease in the number of students, when compared to the previous year. One school has less than 1,000 students, one has more than 3,000 and two schools have approximately 1,500 students. All schools are considered large, according to the categorization of the Brazilian Institute of Geography and Statistics (IBGE) and SEBRAE, for the trade and services category, with more than one hundred employees. Regarding the year of the foundation of the institutions, three schools belong to maintainers established over one hundred years ago and one belongs to a maintainer established 95 years ago.

ANALYSIS AND DISCUSSION OF RESULTS

Para a análise, cada dimensão do questionárioFor the analysis, each dimension of the questionnaire will make up a section, except the demographics and institutional dimensions, which have been previously presented in the characterization of the interviewees.

In the first stage of categorization, based on the dimensions presented in the research instrument, codes were defined to organize the analysis. Code is, in its most basic form, an interpretive label to condense a block of data. In total, ten codes were created to arrange the content of the interviews. Each code has an explanatory note consistent with its organization and its relationship with the objective of the



study, as shown in the table below.

After arranging the data within the codes and integrated reading of the information, the re-

search was analyzed and discussed, using quotes from interviewees and how their statements compare to the literature on the topic.

Table 2
Codes used in the first categorization of the search

CODE	EXPLANATORY NOTE
1. Explicit Knowledge	It refers to considerations that deal with explicit knowledge – that which is, in some way, codified.
2. Tacit Knowledge	It refers to considerations that deal with tacit knowledge – that which is not codified.
3. Educational Knowledge	It refers to the knowledge cited by managers, regarding educational and academic issues.
4. Administrative Knowledge	It refers to the knowledge cited by managers, regarding administrative issues.
5. Cultural Knowledge	It refers to the knowledge cited by managers, regarding issues of organizational culture.
6. People	It refers to people and/or teams dedicated to working on KM in organizations.
7. Technology	It refers to the technologies used for management and KS.
8. Learning	It refers to the way organizations learn.
9. Benefits	It refers to the benefits perceived with the implementation of KM practices.
10. Difficulties	It refers to the difficulties encountered in implementing KM.

Source: Own authorship (2024).

Diagnostic Dimension

The importance of KM in school management practices is widely understood among managers, which is in line with Machado et al. (2020); however, the level of maturity regarding implementation differs between institutions. While E1, E2, E4, E5, E6 and E7 indicate that there are dispersed KM practices, E3 highlighted that ‘in 2019 a KM working group was created to design the KM implementation process at school.’

Explicit knowledge is shared through institutional guidelines that define pedagogical flows and processes to align work in order to produce better results. E2, for example, highlights that

‘some institutional documents created by and for the school network guarantee better quality in the schools’ pedagogical and administrative work.’ E4 treats Curricular Matrices as ‘those that guide the skills and competencies that must be developed with students in each grade of education.’ Tacit KS is mentioned by E5, E6 and E7 as practical knowledge that can also be taught and shared among managers and educators. The two types of knowledge are complementary, and the challenge for school institutions is to convert tacit knowledge into explicit knowledge. Table 3 below presents a summary of practices and types of explicit knowledge, making it clear that the focus is administrative knowledge.

Table 3
Summary Table of Explicit Knowledge

Knowledge Practices	Type of Knowledge	Total
Online Documents	Procedure Guidelines	5
	Skills Map	3
	Teacher, Student and Family Guides	4
	Legislation	5
	Notices for Students and Families	2
Printed Documents	Curricular Matrices	5
	Institutional Policies	2
	Pedagogical and Administrative Guidelines	7
	Feedback	4
Systems	Academic Results	5
	Sharing administrative and academic knowledge (WhatsApp, email, ClassApp, Office 365, Google Drive)	7
	Financial results (Cash Flow, Revenue, Payroll absorption)	3
	Enrollment and re-enrollment	3

Source: Own authorship (2024).

Table 4 presents a summary of the practices and types of tacit knowledge that were mentioned by school managers. It can be noted that

there is pedagogical and administrative knowledge.



Table 4
Summary Table of Tacit Knowledge

Knowledge Practices	Types of Knowledge	Total
Meetings	Sharing didactic-pedagogical experiences	7
	Teacher planning meetings	5
	Manager meetings with sharing of good practices	4
	Meetings with suppliers for products and services	3
	Pedagogical Journeys	7
	Administrative Days	7
Conversations	Exchange of experiences	7
	Cultural shares	1
	Online pedagogical sharing groups	4
Events	Educational and Administrative	7
Mentoring	Management	1
Coaching	Administrative and Educational	1
External Consulting	People Management	1

Source: Own authorship (2024).

In Tables 3 and 4, it is possible to verify the practices and types of knowledge that were mentioned by interviewees regarding the KS in school institutions, involving managers, educators, employees, students, families, and suppliers. The diagnosis presented identifies a series of KM practices that take place in schools and that there is openness to tacit and explicit KM, which, according to Nonaka and Takeuchi (1997), can generate innovation. For Cheng (2015), KM can strengthen the KS culture and build collegiality in the school organization. Although the author refers specifically to KM aimed at teachers, it is clear in the school organization that knowledge is also shared with other players that make up the educational community through practices and several types of knowledge.

When analyzing Tables 3 and 4, it can be considered that there are knowledge practices that may be common to all school institutions, while others will be part of the chosen strategy.

Types of Knowledge Dimension

Interviewees E1, E2 and E4 present the idea of KM as something essential in the school’s core, consequently, in the core of education and that it is the main drive for improving administrative and pedagogical processes. This statement from the interviewees corroborates Cheng (2016), who considers that KM can boost school results.

The knowledge mentioned by interviewees in schools can be classified from three perspectives: administrative, pedagogical, and cultural. In Table 5, it is possible to visualize the types of knowledge cited by the interviewed managers.

Table 5
Types of Knowledge

Administrative	Pedagogical	Cultural
Financial	Didactics	Relational
Legislation	Methodological	Organization Culture
Business	Teaching and Learning	Institutional Charisma
Planning	Assessment	Communication
Market Intelligence	Planning	
Investments	Technology	
	Innovation	

Source: Own authorship (2024).

To establish KM in the school institution, managers understand that one must consider the intellectual capital of each type of collaborator, teacher, or employee. Administrative knowled-

ge is presented by interviewees E1, E2, E6 and E7 from the perspective of the school as an organization that must strive for financial, social, and environmental sustainability. E7 highlights the role



of manager as the one who mobilizes the team, bringing in people who can provide support in all administrative fronts, from treasury, secretariat, enrollment, among others. She emphasizes that 'We are working on the budget for the following year, this does not mean that I will do it alone, but I will surround myself with collaborators who will advise me with the best actions.'

The need to share pedagogical knowledge was mentioned by all managers, considering that they all have pedagogical training on their CV. Pedagogical knowledge sharing (KS) takes place between managers and teachers and between teachers. E5 mentions that 'my experience in the classroom and pedagogical coordination for many years means that I know in detail the needs of teachers.'

Technology is mentioned by E3 and E5, understanding that the school's pedagogical proposal focused on innovation and technology can spearhead this movement. This statement corroborates with Cheng (2015)'s proposal, considering that the manager is responsible for creating the information technology infrastructure.

The cultural perspective is mentioned in connection to the KS specific to each school institution. This dimension includes specific issues of institutional charisma, organizational culture, and interpersonal communication. E1, E2, E3, E4 and E7 deal with institutional culture as the main aspect that distinguishes Private and Confessional Basic Education Schools, as each school or network of schools has a specific charisma, an identity with values and purposes that make them unique. E2 highlights that 'when the school hires a new teacher, they bring a series of didactic and pedagogical knowledge, but do not know the school's charisma. This knowledge must be shared.'

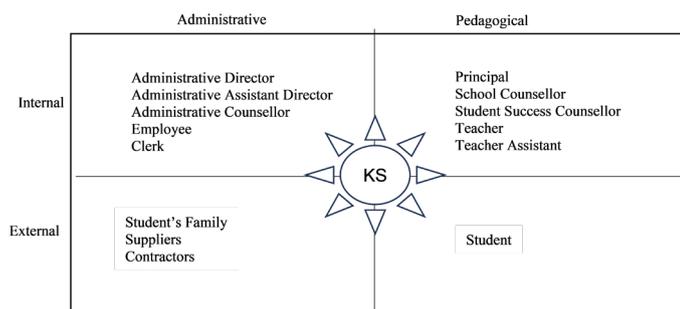
The diagnosis obtained through interviews with managers shows that a series of knowledge that materializes in KM practices already takes place in schools. However, it is clear that the schools are at different stages, with only one of them having the formal intention of adopting KM, as can be confirmed by E3's statement: 'in our school, senior management understands that KM can improve pedagogical and administrative practices, so KM is present even as a project in

strategic planning.'

Each organization's need for KM is specific, so the KM strategy must be associated with the organization's competitive strategy (Akhavan et al., 2006). In school institutions, this is also the case because, despite the core activity of all institutions being the same, the reality of each one is unique.

For those interviewed, school knowledge needs to be further shared. Here, school knowledge can be understood as that knowledge that spans the specificities of each curricular component, with its contents and didactics under the supervision of a specialist teacher trained in the given field. This seems like a paradox, because when it comes to school, a space dedicated to teaching and learning, knowledge must necessarily be shared. E1 highlights that 'school knowledge itself is little shared. For example, each teacher has their own science, but when do we talk about science? A teacher who has completed his doctorate, when will they share their research with their colleagues?' Sharing teaching methodologies and didactics, especially with new teachers, is a necessity. E7 presented this aspect, as 'new teachers come with little or no classroom experience. it is necessary for pedagogical coordination and for fellow teachers to share their experience in order to help them.'

Encouraging KS becomes a key factor as, according to Valentim (2008), knowledge built by an individual feeds the construction of collective knowledge and, on the other hand, collective knowledge feeds the construction of individual knowledge in organizational environments. In Figure 1, we can see KS takes place between different stakeholders in schools and we can note the relationship between the type of knowledge (pedagogical or administrative) and the stakeholders (internal or external to the organization).

**Figure 1.***Knowledge sharing between stakeholders*

Source: Own authorship (2024).

Senior Management Dimension

The organization's policies, proposed and supported by senior management, are important in the KM implementation process (Melati, Janissek-Muniz, & Curado, 2020). From the interviews, it was possible to verify that, in all cases, there is support from senior management in KM practices in schools, which does not mean that there is investment. The support of senior management with investments for operation, prioritization of time and people, is critical for a successful implementation of KM, and this can only be seen in the speech of E3, in which the adoption of KM is formalized.

The materialization of senior management support in KM practices and processes occurs through the implementation of some work structures. Processes that aim to improve administrative and pedagogical deliveries are mentioned, among which the following stand out: decisions based on data and analysis of results; meetings of school managers where they share best practices between different schools within the same network and inter-networks. E2 highlights that 'the meetings of directors and supervisors of educational communities in Brazil serve as a possibility for alignment, sharing of good practices and directions for all schools in the network.' Within the same network of schools, the KS happens in an effortless way, and can occur through common pedagogical plans, alignments of evaluation practices, reports, forums, meetings, guidelines, parallel conversations, among others. Inter-networks (inter-organizational) happen through common alignments with schools from

other confessional networks, for example. Safety in schools, for instance, is a common agenda for all networks that share knowledge and practices, guaranteeing common gains.

Periodic monitoring meetings and feedback proposed by leaders with their teams are concerned with monitoring indicators and results that seek to improve personal performance and, consequently, improve institutional deliveries. E2 highlights that

Senior management, in terms of the maintainer's managers, supports and monitors the initiatives of each educational community. This happens through periodic meetings held with distinct groups of managers, supervisors, and community coordinators (E2, 2023).

All managers interviewed work at schools that are part of networks, managed by maintainers. Institutional decisions and positions are guided by common decisions that are subsequently absorbed by all those maintained. Thus, institutional documents and positions on pedagogical and administrative topics gain strength and visibility. E4 addresses this issue by saying that 'another example is the institutional documents, which are prepared by several people, and organize and qualify pedagogical work and provide more security for all schools in the network.'

Awareness of the importance of top management support in KM exists, according to all interviewees. While some managers have already included this into practices, others are still at the level of understanding, and they do not use the concept and practices explicitly. It is understood, therefore, that part of the KM implementation process is organized based on the awareness on the part of senior management of the importance that the theme has for the School Institution.

Technology Dimension

The technology dimension presents an overview of the technological tools that are used in schools for KS among employees. Escrivao and Silva (2021) determine that KM needs information technology, although it is not enough.

Educational managers highlighted that,



in most schools, there is an emerging technological infrastructure, but this especially facilitates KS. Here, the repositories of pedagogical materials available for educators to access stand out, collaborative editing software and programs and application development. E7 states that 'Google Drive, for example, helps with KS. Today, educators can very well prepare various assignments and tests together and share suggestions and ideas with each other that improve the work.' The development of an application focusing on KS was also highlighted by E3, 'it is an application, a tool, in which you can place activities that you are doing as learning practice and the other teachers also have access to it and can use it.'

Technology adds value when it reduces the cost, time and effort required for people to share knowledge and information, facilitating the application and use of knowledge (Servin & Brum, 2005). However, investment in technology alone does not add value when it overloads people and does not contribute to the ultimate objective of KS.

Learning Dimension

A aprendizagem nas organizações é aqui entendida. Learning in organizations is understood here as the way in which organizations learn, how the organization relates to the environment and extracts observations from it that it incorporates, with the aim of ongoing development (Scorsolini, Inocente, & Miura, 2011). Formal moments with the goal of exchanging and sharing knowledge are organized in school institutions and there are different and varied meetings between administrative and pedagogical groups we can highlight, such as teachers' meeting, managers' meeting, management team meeting and administrative team meeting. Moments when KS formally happen, for example, in the teachers' room during breaks, are also considered. E5 highlights that 'formal exchanges are weekly, but informal exchanges happen routinely at the beginning of shifts, during breaks in the teachers' room, in moments of socializing.' For Nonaka and Takeuchi (1997), what generates knowledge is the interaction between tacit and explicit knowledge that is motivated by people who make up organizations. A practice highlighted by E3 is planning meetings

between teachers from different subjects in the same year: 'Before, we only planned by area of knowledge. Now, the eleven curricular components of the year meet and exchange information. We want all year teachers to look at each other and say what and how they are doing.'

In order to help the school institution to improve the interpersonal relationship between employees and assisting managers in decision-making, E7 has the support of an external consultant: 'We have a consultant that works on the issue of interpersonal relationships with different teams: How to improve relationships to qualify deliveries.'

A culture of encouraging personal and organizational learning must be developed that values knowledge within the organization and, therefore, its sharing. When employees share ideas about topics they consider important, this action creates a culture of learning that transforms knowledge into the organization's main asset.

Difficulties Dimension

In school institutions, interviewees mentioned that the difficulties encountered in implementing KM involve three main aspects: time, team, and financial resources. These identified barriers are classified into just one of the types presented by Horta and Barbosa (2017), which define individual, organizational, and technological barriers.

Regarding time, E1, E2, E4, E6 and E7 mentioned that it is the greatest difficulty in implementing or managing KM. This finding corroborates Burguer et al. (2018) when stating that one of the hindering elements in the category 'Insufficient Expertise in KM' is related to 'lack of time and priority by those involved.' In this sense, E1 highlights that 'the demands and responsibilities of each person and sector mean that we follow a routine that does not allow us to make time for KM, which should be a strategic element in the school.' To overcome the time barrier, E3 suggests that a team or employee have weekly hours allocated specifically for this purpose.

The team dedicated to planning KM at school is another difficulty highlighted. Here, it is described as a lack of personnel dedicated to



this task. The 'team' category was highlighted by all interviewees and, in E3's speech, the need for a coordinator is suggested, who can provide guidelines and think about KM implementation, monitoring and evaluation strategies in the institution.

Finally, interviewees E2, E4, E5 and E7 mentioned the budget as the biggest difficulty encountered. 'When we suggest to have people or a team dedicated to KM, either on a full or partial time role, we need to consider the financial resources allocated', explained E5. Sedighi et al. (2015) identify and classify the most important critical success factors for the implementation of KM and, in this sense, human and financial resources are ranked second in the established order of importance.

Benefits Dimension

The benefits dimension deals with those categorized as tangible, for example, the number of students enrolled, and intangible, for example, employee satisfaction (Ward & Daniel, 2006). Table 6 presents the tangible and intangible benefits reported by managers.

Table 6
Tangible and Intangible Benefits

Tangible Benefits	Intangible Benefits
Loyalty of educators	Quality in the job offer
Student loyalty	Employee performance
Academic results	Clear and transparent processes
Attracting new students	Improvement lever
Financial sustainability	Institutional reputation

Source: Own authorship (2024).

For the managers interviewed, the tangible benefits of KM bring a constant improvement in the school's academic and financial results. The loyalty of educators, with the reduction in turnover, means that educational projects are not discontinued. Consequently, it builds loyalty and attracts new students. E4 lists the benefits of KM in the school institution, such as 'being able to explore the best of what each teacher has to offer; retain talent in the institution; retain students; improve pedagogical practices; qualify academic results.'

Intangible benefits appear more frequently in the interviewees' speech: quality of work offered; improves people's performance; clearer and more transparent processes; and lever for improvements. E5 highlights that 'a teacher who has an in-depth study in assessment can share it with other colleagues. This is an exchange of experience and knowledge that will add to the practice of all teachers and, consequently, the school's pedagogical practice.'

The benefits of KM when it comes to or-

ganizational performance are also related to the perspectives of the Balanced Scorecard (BSC), as mentioned by Cordeiro, Oliveira and Sanchez-Segura (2022). However, no interviewee made this association.

KM Practices

When discussing KM practices, different strategies adopted by managers of school institutions emerge that seek to guarantee tacit and explicit KM between administrative and pedagogical teams. For each team there will be a practice or tool most suitable for extracting tacit knowledge and transforming it into explicit knowledge. In the matrix that follows, some KM practices used in the pedagogical and administrative context are presented from the perspective of tacit and explicit KM.



Table 7
GC Practices Matrix

	PEDAGOGICAL	ADMINISTRATIVE
TACIT	Moments of sharing didactic-pedagogical experiences; Conversation in the teachers' room; Meetings with families; Planning meetings; Speeches; Pedagogical Days; WhatsApp groups for internal communication; Education Congresses; Managers' meeting;	Conversations sharing administrative experiences; Mentoring and Coaching Practices; Meetings with suppliers; Weekly meetings with administrative team; WhatsApp groups for internal communication; External Consulting;
EXPLICIT	Online availability of School, Teacher, and Family Guides; Printed and online availability of Legislation, Curricular Matrices, Institutional Documents; Notices to students, educators, and families; Documents with feedback; Student results monitoring systems; Management of academic results; KS apps and tools.	Systematization of administrative processes; Map of job competencies; Sharing of Institutional documents; Cash flow; Revenue, Payroll absorption; Documents with feedback; Enrollment management system.

Source: Own authorship (2024).

DISCUSSION

The perception of educational managers (principals, school counsellors and student success counsellors) is that KM is an important topic to be discussed at school and can contribute to the improvement of the quality of education. Likewise, it is unanimous that KM already takes place in schools, however, in several cases, not under that name and without a structure that makes it possible to reach its full potential.

As mentioned by Santo (2005), KM is an important aspect for basic education organizations. During the interviews, we could observe the role and importance of school leadership in the KM implementation process. Here, the main school leaders, the managers, are noteworthy, but also the leadership in the classroom, that is, the teachers and the leaders in administrative sectors, who are the technicians and specialists who work in different school environments. Therefore, the effort to train leaders for KM cannot just focus on senior management, but spans across all sectors and services of the school.

Based on the analysis of the interviews, the following proposals are made:

Proposal 1 – KM must be planned in the institution. The adoption of some KM mecha-

nisms contributes to the organization's results, but does not reach the full potential of KM.

Proposal 2 – The institution's management places greater emphasis on administrative knowledge than on pedagogical knowledge. The objective of KM will depend on each institution, however, classroom knowledge when managed can bring benefits to the institution.

Proposal 3 – The knowledge to be treated in confessional private basic education institutions can be classified as administrative, pedagogical, and cultural.

Proposal 4 – Senior management needs to support the adoption of KM, with communication and investment. KM needs to be planned, which requires a team and time, as well as information technology.

Proposal 5 – Basic IT for KM is available in private and confessional basic education institutions for use in other activities.

Proposal 6 – Culture is a relevant factor for KM.

Proposal 7 – Difficulties may be specific to each institution, however, some tend to be common, for example, investment in KM, allocation of time for employees to develop KM.

Proposal 8 – The benefits of KM are tangible and intangible, and are associated with the



objectives defined for KM.

Proposal 9 – In private and confessional basic education institutions there are several KM practices, but few institutions are implementing KM.

CONCLUSION, LIMITATIONS AND FUTURE RESEARCH

This article analyzed the adoption of KM in Private and Confessional Basic Education Schools in Brazil. To achieve the proposed objective, the article presented qualitative empirical research.

In the literature review, the main authors and research in the field of KM and Education were covered. When dealing with education, there is a series of research conducted in the field of higher education related to KM, and a smaller number of research in the field of basic education, the focus of this research. The literature review resulted in a diagnosis of KM and KM practices in education that were considered through empirical research.

The empirical research took place through semi-structured interviews. The interview guide was created based on the literature, with open questions to explore the interviewees' ideas regarding the research topic. The understanding of the importance of KM in school management practices is unanimous, however the stage of maturity is varied, and, in most of the cases analyzed, is in its initial stages. Tacit knowledge is shared among educators in formal moments, such as pedagogical meetings, and in informal moments, during breaks, for example. However, there is no storage concern. Explicit knowledge is presented through institutional guidelines and documents that define schools' flows and processes. The matrix of tacit and explicit KM practices, drawn up from interview data, is presented in the pedagogical and administrative scope.

This work's theoretical contribution is to deepen the knowledge on KM in basic education in private confessional institutions. Furthermore, nine proposals were developed to be investigated quantitatively in future research. In terms of organizational contribution, it is noteworthy that managers can compare these results against their reality and identify potential future improvements. The social contribution of this research is indi-

rect, considering that, by improving the competitiveness of schools, it is possible to improve the quality of the education offered for children and young people.

Some limitations are foreseen in the work, as it is a study of an applied social nature. The field of basic education institutions in Brazil is extensive and varied and, therefore, some cuts were necessary, and this limited the research, which cannot have its results generalized. However, the focus on private and confessional schools contributed to analyzing KM practices in more detail and offering insights for the managers of these institutions to conduct their KM work.

It is suggested, as a possibility for future research, to expand the research to other school networks, in order to consider and expand the universe of basic education institutions in Brazil and abroad.

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