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# MENDIVE



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*Translated from the original in Spanish*

## Knowledge management in the Bachelor of Primary Education

### La gestión del conocimiento en el Licenciado en Educación Primaria

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#### ABSTRACT

The knowledge attained with humanity's own development has played a very important role. It is for this reason that one of the elements to which Higher Education aspires today is that university students manage their own knowledge, which can contribute greatly to strengthening the education of students and therefore their integral formation. This research is descriptive. The study was carried out in the Department of Primary Education. For the development of the research, theoretical, empirical and descriptive

statistical level methods were used, which start from assuming the dialectical-materialistic method as a general method. The results of the diagnostic study made it possible to verify the scientific problem, which justifies the need to socialize a strategy that favors the management of knowledge in the students of the Primary Education career. The methodological strategy aimed at preparing teachers in the Department of Primary Education for students to develop skills in knowledge management is relevant because it responds to a need of universities. Therefore, it should be insisted that teachers continue developing increasingly flexible and creative actions that allow students to manage their knowledge according to the new requirements of Plan E.

**Keywords:** Higher education; knowledge management; Bachelor in Primary Education.

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#### RESUMEN

El conocimiento alcanzado con el propio desarrollo de la humanidad, ha jugado un papel muy importante. Es por ello que en la actualidad uno de los elementos a los que aspira la Educación Superior es que los estudiantes universitarios gestionen su propio conocimiento, lo cual puede contribuir en gran medida a fortalecer la educación de los estudiantes y por tanto su formación integral. Esta investigación es de tipo descriptiva. El estudio se llevó a cabo en el Departamento de Educación Primaria. Para el desarrollo de la investigación se emplearon los métodos del nivel teórico, empírico y estadístico descriptivos, que parten de asumir como método general el método dialéctico-materialista. Los resultados del estudio diagnóstico permitieron constatar el problema científico, lo que justifica la necesidad de socializar una estrategia que favorezca la gestión del conocimiento en

los estudiantes de la carrera Educación Primaria. La estrategia metodológica dirigida a la preparación de los docentes del Departamento Educación Primaria, para que los estudiantes desarrollen habilidades en la gestión del conocimiento es pertinente porque responde a una necesidad de las universidades. Por lo que se debe insistir en que los docentes continúen desarrollando acciones cada vez más flexibles y creativas que le permitan al estudiante gestionar su conocimiento según las nuevas exigencias del Plan E.

**Palabras clave:** Educación Superior; gestión del conocimiento; Licenciado en Educación Primaria.

## INTRODUCTION

The world is constantly changing, and with it, knowledge, changes that are faster every day. Adapting to these changes is a sustainable advantage. That is why the role of knowledge is advantageous in the training of all professionals.

Knowledge plays a very important role for humanity's own development. Therefore, those who have mastery of knowledge in the branch in which they work, have a competitive advantage that allows them to generate actions in the face of problems that arise.

Currently, one of the indicators to which Higher Education aspires is that university students manage their own knowledge, which can greatly contribute to strengthening the education of students and therefore their integral training (Fernández, Boucourt, & Reyes, 2018).

Knowledge management is imposed in Higher Education, given the increase in the

volume of information available in technological media, so it is necessary to pay special attention to the use of information and communications technologies in solving tasks of Learning: as a means of teaching, as a work and communication tool and as a source of knowledge management (Ministry of Higher Education, 2016).

On the other hand, the continuous improvement of higher education, the continuous training of university teachers and as a result of the Methodological Work System developed in the 2017 2018 course at the Faculty of Early Childhood Education, has worked on the integrated and progressive system of teaching means through ICTs, which allows a slight increase in the management of knowledge by students (Fernández, Boucourt, & Reyes, 2018).

Knowledge management must promote three fundamental elements: knowledge, learning and communication, since the three interact depending on each other (Lara, 2016). All of the above enables the transmission of knowledge and the development of their own abilities in students (Mareque & Prada, 2018).

Knowledge management in the educational teaching process reinforces in students their training, in addition to being able to apply this knowledge in their professional and personal life; which contributes to the acquisition of knowledge, skills and attitudes (Mareque & Prada, 2018).

Knowledge management has been studied by various authors among which stand out in recent years: Artiles, S., & Pumar, M. (2013); Mayo & Lucas, (2016); Hasani & Sheikhesmaeili, (2016); Lara, (2016); Tabarsa, G. & Kadhim, M., (2016); MM & Abu Zaid, MKS,

(2016); Báez Hernández, Hernández Medina, & Carrasco Fuentes, (2018); Fernández, Boucourt, & Reyes, (2018); Ling, (2014) Mareque & Prada, (2018); (Báez, s / f) .

That is why the objective of this work is to socialize a methodological strategy that enables the development of skills in knowledge management in the degree of Primary Education, through the methodology used by researchers.

## MATERIALS AND METHODS

This research is descriptive. The study was carried out in the Department of Primary Education, where 49 students of the Bachelor's Degree in Primary Education and the 33 professors of the Primary Education Career Department worked with a population. Of this population, 100% of the population was used as a sample. The criteria for sample selection were intentional.

For the development of the tasks, the research methods were used, which start from assuming as a general method the dialectical-materialist method, while allowing: the study of the object as a process, the determination of its components and the main dialectical relations between them, as well as its contradictions and the foundation and integration of the other methods used. In this way, theoretical level methods that facilitate the understanding of the facts and phenomena associated with the object of study were used. The historical-logical method was used, for the explanation of the history of the development of the process under study and the revelation of its essence, needs and regularities in its historical evolution. The modeling method, to make the necessary

abstractions and base the strategy of the studied process. The systemic-structural method, together with that of modeling, allowed determining the components, their relationships and dynamics.

As procedures were used the analysis and synthesis, induction and deduction, abstraction and generalization, which operate throughout the process of scientific knowledge.

The empirical level methods made it possible to obtain interesting information about the characteristics of the object and to elaborate different data that facilitate a better understanding about the object.

Documentary analysis: for the study of different documents, theses, articles of scientific journals referred to the development of skills in knowledge management, to check how knowledge management works from different teachings and countries.

Interviews: to deepen the criteria and experiences of students and teachers on the development of skills in knowledge management.

Surveys: to collect information from students and teachers about the development of skills in knowledge management.

Observation: to systematically verify the behavior of the strategy and the incidents in the process of preparing teachers to develop knowledge management.

Pre-experiment: to evaluate, in pedagogical practice, the effectiveness of the proposed strategy.

Among the statistical methods, descriptive and inferential statistics were used to process the information regarding the

characterization of the current state of the process of preparation of teachers in the Primary Education career to develop skills in knowledge management, diagnosis and evaluation of the strategy.

## RESULTS

Once the results of the methods, techniques and instruments applied in the verification of the problem were analyzed, the methodological triangulation was carried out which resulted in:

- Absence of a methodology in the teachers of the Department of Primary Education to effectively guide students how to manage their knowledge.
- The programs of the subjects do not have a methodology for the development of skills in knowledge management.
- It is not observed in the works carried out by the students an adequate use of the skills in knowledge management as the theoretical foundations proposed are insufficient.

The results of the diagnostic study justify the need to design a methodological strategy that favors knowledge management in students of the Primary Education career.

### **Philosophical, psychological, sociological, and pedagogical foundations of the proposed methodological strategy**

The philosophical vision of the methodological strategy is based on the materialist dialectical conception, capable of demonstrating the process of the knowledge of man, of his existence and his

goals of life and of society, in its integrity, highlighting as fundamental elements Marxist humanism and the unity of theory and practice, fundamentally the role of knowledge theory, as it allows to deepen the essential ways to obtain a better knowledge of the world as a form of social consciousness, the need for knowledge to reach the essences, regarding whether it is true that all our knowledge begins with the experience.

In a coherent way, the sociological foundations are assumed, taking as a starting point the dialectical relationship of the educational phenomenon in its social projection, intimately linked with the essential aspects of the life of man. In the process of methodological work, relationships are established between the main entities (managers, teachers and students) that lead to the enrichment of everyone's knowledge, skills, feelings and values, which implies cognitive, socio-affective, axiological and creative personality and that will have a marked influence on the management of knowledge and use of ICTs by students, closely related to the influence of society as an objective basis of the education process of the individual; in order to achieve its integration into the social context, the influence of education as a factor in the economic and scientific-technical progress of society and a factor in the development of culture.

For the conformation of the strategy, the cultural historical approach is assumed as a psychological foundation, based on the interpretation of the dialectical and historical materialism carried out by LS Vigotsky, (1991) and the works of Leontiev, 1981. In particular, ideas related to learning as an activity of a social nature, the active role of the subject in their learning and the unity of the cognitive and affective in teaching, which allows higher levels of professional

development in teachers based on the activity and adequate communication with other teachers, managers and students.

From these psychological assumptions, the role of the experiences of the participants and their integration with the educational process, especially in the formation and development of an ethical behavior, where the values of sensitivity, responsibility, altruism friendship and companionship for group work.

As pedagogical foundations, reference can be made to the relationship between the theories of methodological work and the development of skills with the integral formation of the teacher's personality, where the instructional, the educational the developer are coherently combined, and where principles of pedagogy as the link between theory and practice, promoting a process that allows knowledge management from methodological work are present.

### **Qualities of the methodological strategy**

The methodological strategy aimed at developing skills in knowledge management in students of the Primary Education career is characterized by its:

- Objectivity: because all the strategic projection is conceived from the results of the diagnosis made to teachers in their context of pedagogical action.
- Developer character: it demonstrates that conscious change and transformation will enable the emergence of superior qualities that will exceed the previous ones, that is, a spiral development from simple to complex will occur in the teacher, which will allow him to travel through the different components internal skills, through a continuous, permanent

and evolutionary process. Its progression depends on its systematic practice.

- Systemic: because within its main components are the diagnosis, objective and actions of each stage of strategic planning and instrumentation.
- Collective work: because it has as an essential premise the collective work that starts from the unit of criteria and action, to achieve a coherent pedagogical style through knowledge management.
- Flexibility: because it can be permanently redesigned, depending on the characteristics of the context where it is applied.
- Update: the strategy takes into account the main pedagogical and didactic conceptions on the preparation of teachers at national and international level.
- Evaluative capacity: each action can be evaluated, as the methods, instruments and techniques are designed to control its effectiveness.

### **Objective of the strategy**

Based on the results of the diagnosis and the theoretical foundations that support the need for the development of skills in knowledge management, the following objective of the strategy is formulated: Improve the methodological work system for the development of skills in knowledge management in the students of the Primary Education career.

### **Planning and implementation of the methodological strategy**

To develop the skill in knowledge management in students, different ways can be used such as: undergraduate training, employment training and work

practice. The authors, when working on the subject, assume the methodological work system because, within the optimization process, it constitutes the main way for the preparation of teachers that allows them to comply with the main directions of educational work, by enabling the elevation of the political-ideological level, scientific-theoretical and pedagogical.

The methodological work system constitutes a space that allows the union of the diversity of teachers that the Department of Primary Education has and there is no atomization of work, it does not constitute something else for the teacher, since it is conceived within the system of I also work for the urgency to solve the problem.

During the implementation stage the applicator can use qualitative methodology techniques such as: inventories, positive, negative and interesting or the completion of sentences, among others to assess the willingness and motivation of teachers and make the corresponding adjustments.

### **Stages of the methodological strategy**

First stage: Creation of the preconditions for the implementation of the methodological strategy.

Action 1: Conduct methodological workshop with all teachers.

Objective: Analyze problems, causes and possible solutions that allow the development of skills in knowledge management.

Methods: Exhibition, debates, analysis of logical schemas of content and documents.

Aids: Bibliographic sources, reports of visits to the department, as well as student academic results.

Responsible: Researchers

Participants: Teachers of the Department of Primary Education.

Forms of evaluation: Systematic, promoting the exchange based on the co-evaluation and self-evaluation of their difficulties and potentialities.

Deadlines for completion: April 2019

Instrumentation: This action will allow a thorough analysis with teachers about the problems they present when working on knowledge management, their causes and introducing the fundamental elements of the methodology that is intended to be implemented for knowledge management which allows the teacher to assume their own learning and implies that they adopt a conscious attitude towards this task, select the learning strategies and know what they need to learn. The above is important because it influences attitudes and feelings, regarding the significance of their work as a teacher.

From the first exchange, activities that generate collaborative skills should be used, because the establishment of good group communication influences the activity that the group and its members will develop. It is proposed to start with the application of relaxation techniques that enable an efficient professional exchange. Examples of these are, as if to work on thematic content: keywords, the fence, the knowledge league, brainstorming and closing the PNI.

Combining the educational and instructive, aimed at the complex task, contributes to a conscious, safe and solid assumption,

based on a high degree of motivation and empathy for feelings for what he does. This unit supports the entire methodological strategy by enabling a solid connection between education and instruction, and facilitating learning, as it considers the important needs of teachers to generate high self-esteem, ensures acceptance, inclusion and recognition, as well as a supportive environment.

Action 2: Develop methodological details, which address the fundamental elements of the proposed methodology for the development of skills in knowledge management.

Objective: To elaborate the methodological details that addresses the fundamental elements of the proposed methodology for the development of skills in knowledge management.

Methods: Bibliographic review, documentary analysis, modeling.

Aids: Bibliographic sources, documentaries, logical content schemes, visit reports.

Responsible: Researchers

Participants: Teachers of the department.

Forms of evaluation: Application of various techniques such as: interviews and questionnaires to teachers, students and cadres.

Deadlines for completion: May June 2019

Instrumentation: The fundamental purpose of these clarifications is to explain to teachers how to implement the methodology for knowledge management proposed by researchers to take students from class to manage their knowledge, contributing to their preparation as future

teachers and how This influences the subsequent completion of your diploma work.

Second stage: Implementation of the methodological strategy

Action 1: Develop methodological seminar.

Objective: To assess the foundation of the methodology for knowledge management and its application in the training of Primary Education professionals, through discussion, scientific debate and methodological work that contributes to the improvement of the professional of this level.

Methods: Collective and independent work, bibliographic review, documentary analysis, exhibition, debates, workshops, analysis of logical content schemes.

Aids: Bibliographic sources, documentaries, textbooks, concept maps, logical schemes and diagnostic results of students.

Responsible: Researchers

Participants: Teachers of the Department of Primary Education.

Forms of evaluation: Systematic observation of the mode of action of teachers, application of various techniques such as: interviews and questionnaires, in addition to the evaluation of the researcher and teachers, supported by co-evaluation and self-evaluation.

Deadlines for completion: July 2019

Instrumentation: When carrying out the seminars, an open and frank climate must prevail, where exchange is encouraged in the group activity, as each member

provides knowledge, assessments and experiences from the work previously done. It is important that the applicator takes into account the group dynamics, because it allows him to assess what situations he presents in his interaction. In all seminars, the educational and the instructional must be combined.

The seminar will work on a guiding problem related to the methodology for the development of skills in knowledge management, which will start from the analyzes and reflections among the participants on the completion of the previously oriented tasks of the content of the complementary material prepared by researchers and other bibliographic sources oriented, as well as its application in the teaching-learning process. It is essential that each seminar allows reaching generalizations, based on collective exchange, as a way for the preparation and development of teachers.

The seminars enable professional exchange, as well as the acquisition of ways of acting.

Action 2: Projection in the methodological work plans of the disciplines the methodology for the development of skills in knowledge management.

Objective: To implement in the methodological work plans of the disciplines the methodology for the development of skills in knowledge management.

Methods: Debates, modeling and documentary analysis.

Aids: Logical content schemes, bibliographic sources, concept maps and diagnosis of students and teachers.

Responsible: Researchers.

Participants: Teachers of the department.

Forms of evaluation: Individual and group interviews.

Deadlines for completion: August 2019.

Instrumentation: The subject group is a narrower framework, which allows the work projections to go more to the specificities of a group of teachers, which allows a more personalized methodological work with each teacher.

It is intended, then, that teachers through self-reflection and group reflection within the subject group are able to identify if there are limitations that do not allow them to successfully develop the new procedure studied through the methodological activity in the subject and which teachers are able to assume responsibilities in the rest of the system of methodological activities that this strategy assumes.

Action 3: Organize new methodological activities with teachers in the department.

Objective: Consolidate the preparation of teachers through the methodological work plan of the disciplines in terms of the methodology for the development of skills in knowledge management.

Methods: Debate, group exchange.

Aids: The class, computers, software, encyclopedias, blackboard, videos, documentaries, pictures and selected texts.

Responsible: Researchers.

Participants: Teachers of the department.



Forms of evaluation: Evaluation through the agreed dimensions and indicators and using the evaluation of the researchers, supported by the co-evaluation and self-evaluation.

Deadlines for completion: First semester of the 2019 2020 course.

Instrumentation: The methodological work developed by teachers constitutes one of the main ways for the development of skills in knowledge management, because it promotes through its different forms the elevation of the theoretical and pedagogical scientific level of teachers. The work system proposed below through the application of the methodological teaching direction has a systemic and flexible character, that is, it allows its adaptation according to the difficulty of the contents that are taught and the progress that teachers are achieving in the implementation of the procedure studied.

In the implementation of this action, several methodological activities will be developed, which respond to the methodological work system established by the MES, which are set out below:

Instructional methodological class: An instructional methodological class will be developed, directed by the principal investigator and where the career group participates, with the objective of demonstrating to the career group, how to implement from the classes the methodology for the development of skills in the management of the knowledge, contributing to the professional training of students.

Demonstrative methodological classes: 3demonstrative methodological classes will be developed in each discipline led by the head of the discipline with the

objective of demonstrating to the teachers who teach the subjects in each discipline, how to implement the methodology proposed through the class, for the development of skills in knowledge management contributing to the professional training of students.

Open classes: An open class will be developed, in the selected subjects, taking into account the most prepared teachers in each of them with the objective of being able to demonstrate to teachers who teach the different subjects of the discipline, how to implement through the class, the proposed methodology for the development of skills in knowledge management. Once it has been concluded, a debate will be carried out (without the presence of the students) where the participating professors will exchange opinions and will arrive at methodological conclusions that will allow the improvement of the knowledge management skill itself.

Observations to classes: These sessions of observations to classes will be carried out by the heads of department, the head of the career and the researchers, with the objective of verifying in practice the application of the approach on the development of skills in the management of the knowledge. Classes will be observed as planned in the methodological work system.

Methodological scientific event: A methodological scientific event will be developed in the form of a workshop where they intervene with the objective of socializing the experiences on the development of skills in knowledge management, which contribute to the professional training of students.

Third stage: Evaluation of the effectiveness of the strategy.

This stage of the strategy adopts an evaluative character by enabling the final evaluation of the strategy that was carried out as a process, both individually and collectively throughout the application.

Action 1: Check the effectiveness of the proposed methodological strategy for knowledge management by students.

Objective: To evaluate the development achieved by students in knowledge management through the presentation of the different final, course and diploma works.

Methods: Exhibition, debate, group exchange.

Aids: Dimensions and indicators agreed.

Responsible: Researchers

Participants: Teachers and students of the Primary Education career.

Forms of evaluation: Observations of the researchers to the exposures.

Deadlines for completion: Evaluation period at the end of the first semester of the 2019 2020 course.

## DISCUSSION

The proposed strategy is based on the theoretical assumptions of the cultural historical approach, in terms of its principles (cognitive, affective and evaluative) in relation to communication and activity.

The methodological strategy is aimed at the preparation of teachers of the Department of Primary Education, to put

into practice the proposed methodology and therefore, students develop skills in knowledge management, which is relevant because it responds to a need for the new Plan E, during which students must manage their own knowledge.

In addition, the strategy proposed for the implementation of the methodology developed by the authors, for the achievement of knowledge management by students, is conducive to the acquisition of more lasting learning over time.

In short, we must insist that teachers continue working on the development of skills in knowledge management student of Bachelor in Elementary Education.

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