

Knowledge Management From Research Processes

Félix José Colina-Ysea^{1*}, Raúl Vilcarrromero-Ruiz², Juan Carlos Garcia-Benites³, Julio Juvenal Aldana-Zavala⁴ Alfredo Aljandro Martínez-Sirit⁵

Abstract

Research conducted at universities may not be merely academic, that is, it must not only comply with internal indicators related to teacher evaluation. The research focuses its purpose on generating a theorization on knowledge management in the university context from the research processes developed by teachers who are leaders of research groups. It was developed methodologically from a qualitative experiential process of the researchers with the study phenomenon. It is necessary to build a university where knowledge management is observed from research as a fundamental axis of the curriculum, in order to constitute an institution based on the generation of innovation from the contribution made by each of the people who make it up. The university from its parts must build a curriculum focused on research, permeable to social realities, inclusive, intercultural, ethical; in recognition of the other as an epistemic subject generator of knowledge and in permanent training from a subject - subject perspective, in order to transcend the content repetition model, concerned with the reproduction of professionals, but not researchers concerned with social transformation.

¹*Universidad Científica del Sur, Lima, Perú. Universidad Tecnológica del Perú, Lima, Perú. <https://orcid.org/0000-0002-6651-3509>

²Universidad Peruana de Ciencias Aplicadas, Lima, Peru
<https://orcid.org/0000-0001-9428-7599>

³Universidad San Ignacio de Loyola, Lima, Peru
<https://orcid.org/0000-0002-1350-3737>

⁴Koinonia Research Network, Venezuela.
<https://orcid.org/0000-0002-7934-9103>

⁵ Universidad Nacional Experimental Francisco de Miranda, Falcón, Venezuela.
<https://orcid.org/0000-0001-8073-8213>

*Corresponding author: Félix José Colina Ysea

*Universidad Científica del Sur, Lima, Perú. Universidad Tecnológica del Perú, Lima, Perú. <https://orcid.org/0000-0002-6651-3509>

Email: fcolina@cientifica.edu.pe / c19271@utp.edu.pe

Keywords: Knowledge management; research processes; research teachers; university.

1. Introduction

It is indisputable that the university must be, first, the engine for generating knowledge and, second, one of the main actors of scientific research in society (Stemberkova, et al. 2020); hence, it must base its action on alternatives and epistemological conceptions guiding new praxis of knowledge (Aldana-Zavala, 2019). In this sense, knowledge management is presented as a strategic option that is not only conceived as a fundamental axis and guide for breaking old paradigms in the management-academic processes related to human talent (Sayyadi, 2019), but also as one that contributes to the advancement of the university by facing in advance the challenges that the future demands, being able to project organizationally towards success (Heras-Monner-Sans & Miano, 2017).

In view of the above, it is important to manage knowledge in the university context from the point of view of research (Wang & Wang, 2020), so that the foundations of the research function and its articulation with the generation of intellectual and educational capital may be established, with the purpose of reproducing it, propagating it, using it, for transformative purposes in the scientific-social (Santoso, et al. 2019). All this has its focus on the solution of socio-technological and economic problems, among others, for which it is necessary to amplify research practices to holistic and emerging visions (Colina-Ysea, 2021).

In addition to the above, when viewing the university as an organization (Shropshire, et al. 2020), two scenarios must be differentiated: i) where students and teachers interact in order to address academic issues, i.e. a space where the teaching-learning process is generated; ii) the second scenario has to do with the way the university is managed: processes concerning the planning, implementation, evaluation of teaching, organization, research management, distribution of tangible and intangible resources of the institution (Pyykkö, et al. 2019).

In this sense, the research generated in universities may not be merely academic, that is, it must not only comply with internal indicators related to teaching evaluation (Ndenje-Sichalwe & Elia, 2021), obtaining an academic degree or a professional promotion, but it should be channeled towards research conducive to social transformation; to this end, the university should be considered an intelligent organization that continuously learns, contributing from

this perspective, to the integral growth of the people. In this regard, a society may not be fully conceived if its scientific base does not allow it to be autonomous in the self-determination of its public policies, therefore, it is necessary to understand the university from two axes: i) in the academic order, being fundamental to work on a planning focused on research (Aldana-Zavala, et al. 2021); ii) in a managerial order, for which "the institution must provide the tools and strategies that strengthen and consolidate a culture based on knowledge management" (García-Alsina & Gómez-Vargas, 2015).

In addition, it is necessary to know, from a qualitative perspective, the research and management experiences of teacher-researchers and leaders of research groups that have managed to generate a change in the way of researching from their pedagogical work, in order to promote knowledge management related to social and technological challenges (Djerasimovic & Villani, 2020). In this sense, it is highlighted that a research group leader is characterized by having academic and management roles in the management of resources, making it possible to know the worldview on knowledge management from research, specifically, from the inductive method, which has also been methodologically complemented with symbolic interactionism and grounded theory to build a theorization from the perspective of the subjects involved in the current research process. From the previous approaches, it is evident that knowledge management and its configuration from research, is intended to be established as a managerial bastion that facilitates the creation and dissemination of knowledge (Aldana-Zavala et al. 2021); therefore, the purpose of this work revolves around generating a theoretical framework that allows to unveil an innovative knowledge management in the university context from the perspective of emerging research processes that are developed by teachers leaders of research groups attached to a private university in Lima - Peru; this with the purpose of having contributing data to manage a university that improves its ranking and positioning based on research, transcending the privileged teaching work in teaching.

In accordance with the above, the research focuses its purpose on generating a theorization on knowledge management in a university context from the research processes developed by teachers who are leaders of research groups.

2. Methodology of the research

The research was developed from an experiential process of the researchers with the study phenomenon, in this sense, it was approached from the interpretative paradigm, considered in its

epistemological essence as qualitative, symbolic, phenomenological, allowing to interact to know the symbols of people through intersubjectivity as a process of exchanging views on a fact and with the purpose of dialoguing to build knowledge.

Methodologically supported in the conception of symbolic interactionism, where "meaning is a social product, a creation that emanates from and through the defining activities of individuals as they interact" (Blumer 1982, p.4). In this regard, the importance of the interactions between human beings and their informative relevance for the understanding of one's own and others' experiences, including feelings, was emphasized, thus making it possible to understand the phenomenon of study from the different human points of view involved in the research process.

For the analysis and processing of the information, grounded theory was used from the perspective proposed by (Strauss & Corbin, 2002). The authors' ideas allow us to perceive that grounded theory refers to a systematic selection of information as a product of an observed reality. Thus, we worked from open, selective and axial coding to build the sequential matrix on knowledge management and research processes, where the emerging subcategories that converge in the construction of a theorization in the light of the information provided by the key informants were captured.

The techniques of constant comparison, content analysis and theoretical saturation were systematically applied in order to reveal the meanings granted by the key informants. As information gathering techniques, the following were used: i) participant observation, ii) longitudinal open interviews (developed in several meetings between researchers and key informants, until the knowledge provided was saturated). The following resources were used as resources: i) anecdotal sheet, ii) sound and video recorder, which made it possible to store the data provided in the collection process.

Once the knowledge provided by the key informants was saturated, each interview and anecdotal information was transcribed in Word format, thus, it was introduced in the ATLAS. Ti 9 software, in order to process information due to the postulates of grounded theory, complementing the premises of the interpretative paradigm and symbolic interactionism, thus obtaining research categories that were analyzed and interpreted due to the intersubjectivity of the research team made up of researchers and key informants.

We worked with three key informants, who met the following research

inclusion criteria: (i) Being a teacher researcher as a research group leader, (ii) Having experience in research based on quantitative, qualitative, emerging paradigms, in order to have a broad and complex vision of research as an essential process for knowledge management, (iii) Having publications in indexed journals, (iv) Developing innovative research processes and from diverse epistemic visions, (v) Willing to collaborate with the research as a key informant, anonymously, respecting their criteria, time and dialogical openness. It is noted that the key informants were coded as follows: DGU1, DGU 2, DGU 3; in order to maintain confidentiality in the research, as well as to process more consistently the information in the ATLAS software. Ti 9.

3. Results

3.1. Data analysis

Due to the process focused on grounded theory, the following input categories were used: i) knowledge management, ii) research processes:

Table 1: Open coding on knowledge management and research processes

ID	Quote name	Quote content	Codes
1:13	I plan research from the different interests that the world proposes to society.	I plan my research based on the different interests that the global world proposes as an alternative for the development of society.	Research processes
1:14	I plan research that is within my budgetary reach.	I plan research that is within my budget and time. Since part of an institutional policy, it must be the financing of teaching research, a link that is either non-existent or poorly stimulated.	Research processes
1:16	Through exchanges with national and international peers	Through the exchange with national and international peers, this through the presentation and validation of research in research events.	Research processes
1:34	University research processes	University research processes at the present time urgently need to recover their actions towards the construction of knowledge from research.	Research processes
1:39	It becomes the bastion of national independence	The universities will be able to contribute in the agri-food, technological, educational and cultural fields to generate research products relevant to the promotion of a society that provides answers to its own needs. In this sense, the	Knowledge management Teacher management Knowledge

		research promotes a permanent transforming action, without considering the word transforming to the anchorage of a certain and exclusive paradigm, on the contrary, it must work from the different research approaches.	planning
--	--	--	----------

From Table 1, the key words are taken by means of the content analysis technique, with the purpose of highlighting the meanings of greater contribution to the construction of the subcategories and to compile the framework for the generation of the theorization:

3.2. Categorization process

The categorization was carried out from the premise of analysis of (Strauss & Corbin, 2002), originating a network of knowledge that converge in the categorical evidence of the study phenomenon. Thus, from the a priori categories knowledge management (category 1) and research processes (category 2), a semantic framework was formulated consisting of emerging networks (subcategories) or a posteriori categories, with the purpose of linking them logically for the construction of the theorization on the study phenomenon. The categorization process was presented in two central categories, as follows:

Knowledge management category, made up of the emerging subcategories: Teacher management; student profile; knowledge planning; professional competence; scientific power struggle.

Research processes Category, made up of the emerging subcategories: Doing research; research approach; teamwork; teaching management; student profile; professional competence; scientific power struggle; research socialization; academic peers; university.

3.3. Findings and interpretation of the knowledge management category

Knowledge management, from the vision of the key informants DGU 1, DGU 2, DGU 3; made up of the emergent (axial) subcategories: Teaching management; student profile; knowledge planning; professional competence; scientific power struggle. Described as follows: Teaching management: Essential function in the conjugation of knowledge, which must be generated in a double university way, the first one from the learning environments in social context (extension), which involves a methodical neuralgic network to plan from research processes developed by the teacher and the student. The second way is focused from the scientific-teaching research work,

in order to lead research projects in order to contribute to the integral development of society. Seen from a global context.

The teaching management must be focused from a research-oriented perspective, generating a necessary rupture of the traditional educational episteme, where the transmitter - receiver axis is transmuted into a transmitter - transmitter model, promoting an articulation of the student as the center of the learning process; thus, the teacher is positioned as an advisor who guides and mediates between the student and the knowledge, therefore, the student cooperatively builds from the interactive dialogue with teacher - society - episteme.

The teaching management is projected as a spiral and holistic action that strategically plans the projection of a pedagogical action in accordance, with the purpose of applying synergic principles in order to establish a praxeological action that day by day allows self-reflection in order to understand aspects to improve, include and maintain from an investigative didactic context. In this way, we transcend the parcelled knowledge or by contents, to work in the generation of a research community as a basis for the management of the knowledge produced in the university.

Student profile: The university requires a critical - reflective student, comprehensive of the multiple social facets for the action of a better society, where a resilient being is required in order to overcome obstacles in emotional - spiritual self-regulation, strengthening their community interaction from the ethical approach to social reality. For this, it is recurrent to atrophy the traditional paradigm cloistered in thought, which also leads to the reproduction of a predominant academic behavior by the passivity of answering favorably to a series of contents processed by the teacher. Thus, the complicated part of the case would be to promote greater student participation in relation to networking with teaching management based on research advice. For this reason, it is essential to experience a pedagogical-didactic process based on the investigative interaction in order to promote a response built, thought, reflected and analyzed from the experience with the study phenomenon, for which it is recurrent to resize the curriculum in its actions, transcending the divided vision of knowledge and understanding that the social reality is complex, dynamic and far from the university controlled spaces, where a large proportion is formed on the basis of asynchronous knowledge.

On the contrary, the research foundation of knowledge management should prioritize the synchronous as an experiential space of truly

meaningful learning for the integral growth of the student, being necessary to enhance the model focused on the student as a fundamental axis to articulate the combination of actions in favor of establishing a network of action and promote the construction of knowledge contextualized to the real social need.

Knowledge planning: Fundamental axis to establish teaching management, as well as the student's profile. The university, from its parts, must build a curriculum focused on research, permeable to social realities, inclusive, intercultural and ethical in recognition of the other as an epistemic subject generator of knowledge and with permanent training from a subject-subject perspective. Thus, a complex, holistic, reflective and comprehensive curricular functionality is established, working the educational act from active learning methods, where the student has the major responsibility to build knowledge, being the teacher a guide and advisor who seeks the student's encounter with knowledge. Based on the above, we seek to germinate essentially a neural vision of knowledge as an essential factor for organizational and social growth. Thus, the planning of knowledge is built from the teacher - students - community dialogue, including the latter as the social environment contextualized to the divergent aspiration of professional growth, which must also be articulated to strategic plans for the economic and ethical promotion of the nation, therefore, university learning must be built in terms of effectively empowering the country.

Professional competence: It is conceived as a continuous search for the truth by the teacher, in order to grow day by day through self-reflection and the search to improve his human and professional growth; based on the humility to recognize that he is immersed in an uncertain world where the established canons are broken by external, global factors; being the theory of chaos, the starting point to understand the multi-faceted of society, which projects causes - consequences of human action. Therefore, professionalization from the constant search for excellence and from the learning - learning approach becomes an organizational policy that should direct scientific action towards the achievement of knowledge due to converge in the triad of teaching management - student profile - knowledge planning.

In this sense, the aim is to consider the synergetic principle to join efforts in order to establish a research process according to the complex demands of the global world. The idea is to learn every day to research from the diversity of methodologies and techniques, which is a central need to be competent in terms of knowledge and

knowledge management. Struggle for scientific power: Scientific power struggles are faced in the university, with the purpose of maintaining daily research-learning practices, between the established and the bet to promote new models, because there are not scientific policies clearly expressed as a reason for coexistence and work. From this perspective, the status quo is indirectly reinforced to maintain the construction of knowledge from a content-based approach, which is urgent to transcend through the opening of a debate based on the knowledge of experiences focused on students, as well as on the diversity of methods and techniques of doing research.

All this is part of the professional competence, since it is required to work on the achievement of a holistic vision of the teacher for pedagogical purposes, for which planning focused on research as an emerging model of learning assimilation is a viable alternative, thus allowing cooperative teamwork to rethink the pedagogical action in order to build a knowledge management due to global challenges.

3.4. Findings and interpretation of the research processes category

Research processes, from the vision of key informants DGU 1, DGU 2, DGU 3; made up of the emerging subcategories (axial categories): Doing research; research approach; teamwork; teaching management, student profile, professional competence; scientific power struggle; socialization of research; academic peers; university.

Doing research: It is required to do research as a daily pedagogical practice from the learning environments, generating an integrated work network from the various natural scenarios of the university, such as centers, institutes and graduate programs. Thus, it is required to include an assertive work, based on the motorized synergy for the consolidation of an articulated vision in positioning to structure knowledge built on the complex social dynamics, being the strategy for this purpose, research in its various approaches and methods. To this end, it requires a competent teacher and a student in paradigmatic openness to assume a dialogical and investigative relationship on the generation of learning for the purpose of integral growth, thus overcoming a traditionalist posture of education.

Research approach: Researching on and from the epistemic-methodological diversity, privileging the dynamic, flexible, emerging and holistic during the research process, will lead to the exploration of mixed approaches, which open opportunities to link reality to research with multidisciplinary and complex perspectives that are scrutinized to give functionality to the diversity of thought with plural responses. This reality also permeates in the conjugation of taking advantage of the

resources available to the university to finance research, teaching, extension and socialization of knowledge. In this way, work is also being done to unblock the knowledge-power relationship that favors certain styles of doing research, with the aim of extending towards new research modes that correspond to knowledge management. Accordingly, the university is challenged to find new ways of promoting learning and research.

Teamwork: Fundamental basis for building a curriculum based on research, since the curriculum design is not germinated from a merely rationalistic point of view, but pragmatically, that is, from the multiple interactions between teachers - students - community, it is built on an experiential basis, therefore, it permeates from an epistemological subject - subject relationship. In this sense, the educational and social actors work cooperatively in the research-curricular germination, taking into account that the student is an active part of their learning from research as a didactic strategy that focuses on an education for life and for life, being a fundamental premise to learn how to learn.

Therefore, the teacher in this pedagogical spectrum reconciles his role of advisor and mediator, projecting a learning space where an organization that learns to be intelligent, to detect its strengths, weaknesses, threats and opportunities to work continuously in its improvement is encouraged. To this end, the teacher must design action plans that stimulate the recursive exercise of pragmatic knowledge where the possibility of promoting a micro sector of work that promotes synergy with other university environments whose interests revolve around the scope of the organizational totality is articulated.

Teaching management: It is essentially conceived as a researcher in competence who pursues to address various research approaches through the planning of various projects, where each phase of this is constituted as an opportunity to grow in learning from a minimum to maximum complexity of doing research with epistemic - methodological diversity. **Student profile:** With cognitive openness to learn from doing research, having as pedagogical essence, the humility to assume the multiple academic challenges in accordance with the social and educational dynamics, in order to assume the conformation of an education based on the continuous construction of learning, which permeates in the management of knowledge contextualized to the global reality.

Professional competence: To be trained in learning the procedural management of techniques to consolidate research in optimal

performance to cooperate, in greater proportion, to the research quality, updating knowledge and pedagogical processes from the research results and encouraging students to be trained as researchers. Struggle for scientific power: Doing research from different methodologies implies reconciling policies that encourage research from different positions, and it is essential to have policies and funding from the university that privilege diversity and not an exclusive way of doing research.

Socialization of research: Since it is necessary to promote research processes and results in the traditional means of academic dissemination such as refereed journals, research conferences and congresses, they must be complemented with radio, television, social networks and presentation to the communities where the research has been developed, since they are entities that complement the socialization of research, therefore, they propose a new perspective to promote science.

Academic peers: They play the role of validating the knowledge produced from the research processes; however, in an emerging conception of research, within the academic peer for validation purposes, various social actors that have contributed to the germination of knowledge come into play. For this purpose, academic peers could be those students who have lived the experience of socializing their results, which tends to resize the way of evaluating learning.

University: Conceived as an intelligible interactive dialogic organization, from a neuronal conception of knowledge construction, this being conceived as a fundamental axis for the conformation of a complex and interconnected society, which leads to promote an education for the sociological and technological perspective of the present time.

3.5. Theorization

The teaching management must be focused on a research-oriented perspective, generating a necessary rupture of the traditional educational episteme, where the transmitter - receiver axis is transmuted into a transmitter - transmitter model, promoting an articulation in which the student is positioned as the center of the learning process and the teacher as an advisor who guides, mediates, between the student and the knowledge. In this framework, it is projected as a spiral, holistic fact, which strategically plans the projection of a pedagogical action, seeking to apply synergic principles in order to establish a praxeological action that day by day allows self-reflection in order to understand aspects to improve, include,

maintain, from a didactic-research context.

The university requires a critical - reflective student, understanding the multiple social facets for the implementation of a better society, where a resilient being is required in order to overcome obstacles in emotional - spiritual self-regulation, thus strengthening their community interaction from the ethical approach to social reality. For this, it is recurrent to atrophy the traditional paradigm cloistered in thought, which leads to reproduce a predominant academic behavior by the passivity of responding favorably to a series of contents processed by the teacher.

The university, from its parts, must build a curriculum focused on research, permeable to social realities, inclusive, intercultural, ethical, in recognition of the other as an epistemic subject generator of knowledge, in permanent training from a subject-subject perspective. Thus, a complex, holistic, reflexive, comprehensive curricular functionality is established, worked from the educational act, from active learning methods, where the student has the greatest responsibility for building knowledge, the teacher being a guide and advisor, who seeks the student's encounter with knowledge. In this way, it will essentially germinate a neuronal vision of knowledge as an essential factor for organizational and social growth.

Knowledge is conceived as a continuous search for truth on the part of the teacher, due to grow day by day through self-reflection, in order to seek to improve in their human and professional growth. For this, humility is required as a key quality that allows it to recognize the uncertain world in which it is immersed, where the established canons are broken by external, global factors. Scientific power struggles are faced in the university, in order to maintain daily research-learning practices, to promote new models, in the absence of clearly expressed scientific policies as a reason for coexistence and work. Therefore, the status quo of maintaining the construction of knowledge from a content-based approach is indirectly reinforced, being urgent to transcend in openness the debate in terms of knowing experiences focused on students, as well as diversity of methods, techniques, to do research, which is part of the professional competence, as it is required to work on achieving a holistic vision in the teacher for pedagogical purposes. Research is required as a daily pedagogical practice, from the learning environments, generating an integrated work network from the various natural scenarios of the university, such as centers, institutes and graduate programs. Thus, it is required to include an assertive work, based on the motorized synergy for the consolidation of an articulated vision in order to structure knowledge

built on the complex social dynamics.

Research on and from the epistemic-methodological diversity, privileging what is related to the dynamic, flexible, emergent, holistic, during the research process, it will be possible to explore mixed approaches through the development of opportunities to link the reality to research with multidisciplinary and complex perspectives, scrutinizing, in this way, the diversity of thought that gives rise to plural responses. The fundamental basis is to build a curriculum based on research, since the curricular design is not germinated from a merely rationalistic point of view, but from a pragmatic one, that is, from the multiple interactions between teachers - students - community, it is built on an experiential basis, therefore, it permeates from an epistemological subject - subject relationship; therefore, the educational and social actors work cooperatively in the research - curricular germination.

For this reason, it is necessary to promote the research processes and results in the traditional means of academic dissemination such as refereed journals, research conferences and congresses, which should also be complemented with radio and television broadcasting, social networks and presentation to the communities where the research has been developed. All these entities complement research socialization in order to promote a new perspective of promoting science.

4. Conclusion

In summary, it is necessary to build a university where knowledge management is observed from research as a fundamental axis of the curriculum, in order to constitute an institution based on the generation of innovation from the contribution made by each of the people who make it up. Research comes to represent the observatory from where the changes and adaptations necessary to not be relegated in the social function of contributing to the real transformation of society are alerted, a perspective that contributes to raise awareness of the need to incorporate new study opportunities, according to the complex, dynamic, uncertain times, through which humanity is going through, without losing the critical, reflective, autonomous character of university education. Therefore, the university from its parts, must build a curriculum focused on research, permeable to social realities, inclusive, inter-cultural, ethical; in recognition of the other as an epistemic subject generator of knowledge and in permanent training from a subject - subject perspective, in order to transcend the model of repetition of content,

concerned in the reproduction of professionals, but not of researchers concerned with social transformation. In this way, a complex, holistic, reflexive, comprehensive curricular functionality must be established; with the purpose of conforming a knowledge management according to the multiple social demands, being necessary for such purpose, the intervention of all the actors that conform the university as synergy to project a knowledge that seeks to raise the quality, the productivity; providing favorable answers to the knowledge society and the digital age.

5. References

- Aldana-Zavala, J. (2019). Epistemological competence in the Venezuelan university social researcher. *Praxis*, 15(1), 103–115. <https://doi.org/10.21676/23897856.3091>
- Aldana-Zavala, J., Vallejo-Valdivieso, P., & Isea-Argüelles, J. (2021). Research and learning: Challenges in Latin America towards 2030. *ALTERIDAD. Revista de Educación*, 16(1), 78-91. <https://doi.org/10.17163/alt.v16n1.2021.06>
- Aldana-Zavala, J., Vallejo-Valdivieso, P., Isea-Argüelles, J., & Colina-Ysea, F. (2021). Smartphone dependency and addiction in university students. *Formación universitaria*, 14(5), 129-136. <https://dx.doi.org/10.4067/S0718-50062021000500129>
- Blúmer, H. (1982). *Symbolic interactionism: perspective and method*. Barcelona: Hora, S.A.
- Colina-Ysea, F. (2021). Research: One goal and various ways to achieve it. *Multidisciplinary Journal Investigative Perspectives*, 1(1), 1.
- Djerasimovic, S., & Villani, M. (2020). Constructing academic identity in the European higher education space: Experiences of early career educational researchers. *European Educational Research Journal*, 19(3), 247–268. <https://doi.org/10.1177/1474904119867186>
- García-Alsina, M., & Gómez-Vargas, M. (2015). Prácticas de gestión del conocimiento en los grupos de investigación: estudio de un caso. *Revista Interamericana De Bibliotecología*, 38(1), 13-25.
- Heras-Monner-Sans, A., & Miano, A. (2017). Education, self-organization and territory. *RMIE*, 22(73), 533-564.
- Ndenje-Sichalwe, E., & Elia, E. (2021). Research methodology practices among postgraduate Information Studies students in Tanzania. *IFLA Journal*, 47(2), 129-141. <https://doi.org/10.1177/0340035220965986>
- Pyykkö, R., Vuorio-Lehti, M., & Vuorinen, B. (2019). Government Key Projects (GKP) as a Tool for the Development of Learning and Teaching in Finnish Universities. *International Journal of Learning, Teaching and Educational Research*, 18(13), 150-170. <https://doi.org/10.26803/ijlter.18.13.8>

- Santoso, T., Yoga Oktama, M., Laili Etika Rahmawati, Y., Dodi Afianto, M., & Setiawaty, R. (2019). Pedagogical Content Knowledge (PCK) Ability of Indonesian Language Teacher Candidates. *International Journal of Learning, Teaching and Educational Research*, 18(19), 248-262.
<https://doi.org/10.26803/ijlter.18.10.16>
- Sayyadi, M. (2019). How effective leadership of knowledge management impacts organizational performance. *Business Information Review*, 36(1), 30–38.
<https://doi.org/10.1177/0266382119829643>
- Shropshire, S., Semenza, J., & Koury, R. (2020). Knowledge management in practice in academic libraries. *IFLA Journal*, 46(1), 25–33. <https://doi.org/10.1177/0340035219878865>
- Stemberkova, R., Maresova, P., David, O., & Adeoye, F. (2020). Knowledge management model for effective technology transfer at universities. *Industry and Higher Education*.
<https://doi.org/10.1177/0950422220978046>
- Strauss, A., & Corbin, J. (2002). *Bases of Qualitative Research. Techniques and Procedures to Develop Grounded Theory*. Colombia: Editorial Universidad de Antioquia.
- Wang, Z., & Wang, X. (2020). From information, to data, to knowledge – Digital Scholarship Centers: An emerging transdisciplinary digital knowledge and research methods integrator in academic and research libraries. *IFLA Journal*, 46(1), 5–14.
<https://doi.org/10.1177/0340035219885145>

Félix José Colina-Ysea

PhD in Educational Sciences. Post-doctorate in Integration and Development of Latin America and in State, Public Policies and Social Peace. Rafael Bellosó Chacín University, Venezuela. 2017. He has published articles in high impact journals and books related to research processes in university and community contexts. He is a university professor in research courses at the Universidad Científica del Sur, Universidad Tecnológica del Perú.

Raúl Vilcarromero-Ruiz

Administrator, Public Accountant, Master in Taxation. Doctor in Accounting and Finance. Professor at Universidad San Ignacio de Loyola, Universidad Peruana de Ciencias Aplicadas, Universidad Tecnológica del Perú and Universidad Nacional del Callao. Advisor and consultant of companies, specialist in Accounting and Finance. He is the author of the virtual book "La Gestión en la Producción", edited by Fundación Universitaria Adaluz "Inca Garcilaso". He has more than 27 years of experience in management positions in several companies in Peru, lecturer of the Colegio de Public Accountants of Callao,

independent advisor of Estudio Flores-Araoz.

Juan Carlos Garcia-Benites

Public Accountant, Master in Administration from Centrum Católica & Maastricht School of Management. Completed Doctorate studies in Accounting and Financial Sciences at Universidad de San Martín de Porres. Professor at Universidad San Ignacio de Loyola, Universidad Peruana de Ciencias Aplicadas, Universidad Tecnológica del Perú. Thesis advisor and jury, researcher in the areas of administration, costs, accounting and taxation.

Julio Juvenal Aldana-Zavala

Doctor in Education, head of the NODO Curriculum and Educational Innovation of the Koinonia Research Network. Postdoctorate in Integration and Development of Latin America. Rafael Beloso Chacín University. Venezuela. 2018. Postdoctoral State, Public Policy and Social Peace. Rafael Beloso Chacín University. Venezuela. 2017. He has published articles in high impact journals and books related to research processes in university and community contexts.

Alfredo Alejandro Martínez-Sirit

Bachelor's degree in education and sports technician. He has more than 12 years of experience in sports promotion, customer service and management. He also has experience in university teaching, in the formation of integral professionals in harmony with human principles, social values and polyvalent knowledge. She is a student of the master's degree in educational management and leadership at the Universidad Nacional Francisco de Miranda.

Appendix 1: Open-ended questionnaire for key informants

1. How do you understand university research processes?
2. From your daily experience as a teacher and within the research structure of the university, how do you develop the research process?
3. From your way of developing research processes, how do you consider that knowledge management is generated?
4. From your way of doing research, how do you consider that knowledge management is developed?
5. From your way of developing research processes, how do you consider that knowledge is materialized in effective actions?