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University didactics and their relationship with the development of research skills in students of the National University of San Martín

A didática universitária e sua relação com o desenvolvimento das competências de pesquisa em alunos da Universidade Nacional de San Martín

Didáctica universitaria y su relación con el desarrollo de habilidades investigativas en estudiantes de la Universidad Nacional de San Martín

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Abstract: The study was carried out with a sample of 30 teachers and 30 speakers from the VIII, IX and X cycle of the Language Studies Program of the Faculty of Education and Humanities of the National University of San Martín, Tarapoto. In this context, implementing scientifically conceived university didactics is a fundamental element of professional transformation of teachers and the improvement of the training practice they develop. One of the fundamental conditions for improving the quality of university teaching lies, in our view, in making possible a substantive change in the configuration of the professional identity of university teachers. In the light of these considerations, studies that provide theoretical modelling on investigative skills are insufficient since most theoretical and empirical results focus, specifically, on the training of a profession. The careers with the greatest presence in the subject are Medicine and Bachelor of Education. In the case of the latter, the most repeated object of study is initial investigative or postgraduate training. In the research, it was raised that the act of the situation between university didactics at the National University of San Martín–Tarapoto and the development of research skills inherent in students of the VIII, IX and X cycle of the Language Studies Program are significantly related. A correlational descriptive study was conducted; theoretical methods of induction, analysis, synthesis, as well as empirical measurement methods were used, as well as statistical methods and individual survey techniques. For statistical contrast of the hypothesis, Pearson's statistical correlation technique was used; hypothesis test, there is

statistical evidence with a significance level of 5%. The conclusions shape the validity of the hypotheses.

Keywords: Epistemology, Investigative didactics, Methodological skills, University didactics.

Resumo: O estudo foi realizado com uma amostra de 30 professores e 30 oradores do VIII, IX e X ciclo do Programa de Estudos da Linguagem da Faculdade de Educação e Letras da Universidade Nacional de San Martín, Tarapoto. Neste contexto, a implementação de uma didática universitária cientificamente concebida é um elemento fundamental para a transformação profissional dos professores e o aprimoramento da prática formativa por eles desenvolvida. Uma das condições fundamentais para a melhoria da qualidade do ensino universitário consiste, a nosso ver, em possibilitar uma mudança substantiva na configuração da identidade profissional dos professores universitários. Diante dessas considerações, estudos que fornecem modelagem teórica sobre habilidades investigativas são insuficientes, uma vez que a maioria dos resultados teóricos e empíricos enfoca, especificamente, a formação de uma profissão. As carreiras com maior presença na disciplina são Medicina e Bacharelado em Educação. Neste último caso, o objeto de estudo mais repetido é a formação inicial investigativa ou a pós-graduação. Na pesquisa, foi levantado que a atuação da situação entre a didática universitária da Universidade Nacional de San Martín – Tarapoto e o desenvolvimento das habilidades de pesquisa inerentes aos alunos dos VIII, IX e X ciclo do Programa de Estudos da Língua estão significativamente . Foi realizado um estudo descritivo correlacional; Foram utilizados métodos teóricos de indução, análise, síntese, bem como métodos de medição empírica, bem como métodos estatísticos e técnicas de levantamento individual. Para contraste estatístico da hipótese, foi utilizada a técnica de correlação estatística de Pearson; teste de hipótese, há evidência estatística com nível de significância de 5%. As conclusões moldam a validade das hipóteses.

Palavras-chave: Didática investigativa, Didática universitária, Epistemologia, Habilidades metodológicas.

Resumen: El estudio se realizó con una muestra de 30 docentes y 30 locutores del VIII, IX y X ciclo del Programa de Estudios del Lenguaje de la Facultad de Educación y Humanidades de la Universidad Nacional de San Martín, Tarapoto. En este contexto, la implementación de la didáctica universitaria concebida científicamente como aliados es un elemento fundamental de la transformación profesional de los docentes y la mejora de la práctica formativa que desarrollan. Una de las condiciones fundamentales para mejorar la calidad de la docencia universitaria radica, a nuestro juicio, en posibilitar un cambio sustantivo en la configuración de la identidad profesional del profesorado universitario. A la luz de estas consideraciones, los estudios que brindan modelos teóricos sobre las habilidades investigativas resultan insuficientes ya que la mayoría de los resultados teóricos y empíricos se centran, específicamente, en la formación de una profesión. Las carreras con mayor presencia en la asignatura son Medicina y Licenciatura en Educación. En el caso de estos últimos, el objeto de estudio más repetido es la formación inicial investigativa o de posgrado. En la investigación se planteó que el acto de la situación entre la didáctica universitaria de la Universidad Nacional de San Martín – Tarapoto y el desarrollo de las habilidades investigativas inherentes a los estudiantes del VIII, IX y X ciclo del Programa de Estudios del Lenguaje están significativamente relacionados. Se realizó un estudio descriptivo correlacional; Se utilizaron métodos teóricos de inducción, análisis, síntesis, así como métodos de medición empíricos, así como métodos estadísticos y técnicas de encuestas individuales. Para el contraste estadístico de la hipótesis se utilizó la técnica de correlación estadística de Pearson; prueba de hipótesis, existe evidencia estadística con un nivel de significancia del 5%. Las conclusiones dan forma a la validez de las hipótesis.

Palabras clave: Didáctica de la investigación, Didáctica universitaria, Epistemología, Habilidades metodológicas.

INTRODUCTION

Universities form the backbone of the scientific-technological subsystem; therefore, it is up to them to stimulate the creative spirit and scientific research that represents the starting point of any scientific-technological improvement effort. They must assume their fundamental role as a knowledge producer. Research is one of the missions in universities as it is a crucial component in the process of vocational training, in the generation of new knowledge and in the connection with society through its transfer. The realization of the Research Mission of the University is done through the development of both research training and training research, as well as scientific research in the strict sense, in accordance with a strategy that entails coherent, responsible, sustained and planned growth through efficient and innovative practices, as well as both relevant and structured efforts (Forest, 2015).

The university teacher should promote comprehensive training to develop cognitive, emotional, attitudinal, social, pedagogical and research skills that allow to change the current didactic exercise to a pleasant, flexible, challenging and innovative activity. The purpose of research is to configure new theoretical guidelines for a new transformational university didactic approach, based on diversity of thought, socio-cultural and methodological diversity (Gonzales, 2016).

Within this context, the positive attitude in the researcher is important. The way teaching is done is decisive in the formation of the research spirit. Critical teaching produces restless and dissatisfied minds.

University didactics are also considered to be a special didactic that is limited to teaching processes at the higher level of education; but serves, where necessary, general didactics and specific didactics to understand their subject matter of study. As a theory, he studies the problems related to higher education with a view to enabling student learning; as a practice, it is a translation created by the university professor to communicate knowledge that is expressions in a strange language in order to enable the understanding and understanding of them (Lopez, Pérez and Lamama, 2017).

In the context of university teaching, teachers should ensure that students learn to know new concepts, not so much to memorize them. The role of the university professor is to be a facilitator of learning. The student assumes responsibility for achieving meaningful learning through the various teaching activities promoted by the teacher. The university professor, as facilitator of learning, should focus on generating different strategies or teaching activities for students to achieve meaningful and transformative learning (Casasola, 2020).

University didactics

It is necessary to emphasize that the didactic day is reflected in the art of teaching or instructing; it is the practical and normative pedagogical discipline that aims specifically at the technique of teaching; that is,

the technique of effectively incentivized and guiding students in their learning. In addition, it is recognized as a set of techniques aimed at guiding teaching through principles and procedures appropriate to all disciplines so that learning of them is carried out more efficiently. The theoretical aspect of didactics is related to the knowledge it develops about teaching–learning processes. While its practical aspect consists in the application of that knowledge, in the effective intervention in the real processes of teaching– learning (Díaz, 2016).

Didactics, in the university context, is a pedagogical discipline applied primarily in the training of the professional by assuming as a central object the study of the teaching process-learning in its breadth. It is necessary to identify the teaching, its concept and theoretical proposals, as well as the object it deals with and the purposes it pursues as theoretical and applied knowledge; and equally, know some teaching models that may be references for the practice of teaching (Lopez, Cacheiro, Camilli and Fuentes, 2016).

In this sense, the universitarian didactics, as a discipline, are configured to lead to the recognition of specific teaching routes with their own characteristics that, when cut in the making and systematic analysis of the action, are identified as a disciplinary field under construction. It follows that the teaching planning allows to identify many difficulties in the learning processes and, also, has managed to reorient the learning processes more effectively. However, there must be some willingness in teachers to overcome this obstacle. The teacher has to adapt to the social changes derived from information and communication technologies, then adapt them in a novel way to their daily activity. To this end, didactic planning necessarily has to be oriented towards research, therefore, one of its central objectives is the innovation of teaching and the improvement of students' learning skills (Escobar, 2017).

Investigative skills

In the university field, the development of research skills is a necessity because research is one of the substantive university processes; it also represents a function of the professional profile, of the graduate of the profession; in this way, generate knowledges and solve problems (Rojas, Castro, Siccha and Ortega, 2019).

It is clear from this that the training of investigative skills is a necessity because research is not only one of the substantive process's university; but represents a specific function of professional work, it is also linked to a way of thinking and acting that prepares the graduate to successfully meet the current demands of scientific-technical development.

Likewise, we have no research skills to create new knowledge; these skills, especially of an instrumental and social nature, will lead to a comprehensive development in the university student; consequently, develop proposals of disciplinary and multidisciplinary projects that contribute to the training of future researchers. These skills have to do with language mastery, cognitive operations, know-how and know-how

to guess and question; so language implies reading, message broadcasts are in text and interpreted; the management of cognitive operations is characterized by inferential mastery, induction, developing and building hypothetical processes- deductive, synthesis and interpretations, observing and questioning, examining r carefully and questioning about what is observed.

At the same time, the social skills that can be considered within the investigative skills process are teamwork, the construction of knowledge, understanding and dialogue for contribution in academic forums dissocialized this sense, for the student, this process of socialization is indispensable for his scientific proceed; this is how the skills of participation, coulomb ration, expression, listening and logo are necessary in the student to collaborate with the forging of new knowledge. This form of learning leads to a peer dialogue that motivates and stimulates group participation and the socialization of previous knowledge; therefore, the construction of new knowledge to develop relevant research projects.

The mastery of basic research skills for the deployment of research is associated with the daily work of the exercise of university teaching, which influences the training of future professionals (Saltos y Bao, 2016). In this way, in the development of research skills, you prepare it for university education, where you will encounter aspects that will be very helpful in this context. But learning by researching is more than that, it involves going through a new defeat in the search for knowledge.

Research competencies

Academic dynamics, during university vocational training, require the development of a number of competences; above all, research competencies given the commitment and functions of the university. According to Núñez (2019), it is the mobilization of knowledge (knowledge, skills, values and attitudes) for the solution of problems of the context by applying the scientific research process with qualitative, quantitative or multimethod approach, tools and means with interdisciplinary expertise.

In addition to this, Campo (2018) states that, if students were able to acquire these competencies, they would develop, more easily, scientific work and could disseminate results from their research, participate in congresses and publish in scientific journals; activities that will not only contribute to their good academic performance, but also to generate and update knowledge in their area of study, as well as consolidate the institution in the university.

In this regard, Zetina (2017) considers that promoting these competences involves strengthening activities related to the selection, ordering and analysis of information leading to the generation and dissemination of knowledge. Strengthening these types of skills in the training of students impacts their professional and social development,

as well as the economic development of each country, inclusive or a geographical region.

METHODOLOGY

The research is based on the hypothetical method -deductive, a quantitative approach that aims to establish the degree of statistical correlation between two variables. Functionally, it allows to observe the degree of association between two variables (Sánchez, Reyes and Mejía, 2018). The study seeks to determine the relationship between university didactics in its planning, implementation and evaluation dimensions with the development of research skills in students of the National University of San Martín, Tarapoto. The design was correlational, referring to the design of descriptive or non-experimental research that takes into account one or more samples at a given time.

In the research process, theoretical methods were used: induction, deduction, comparison, analysis and synthesis. As well as empirical level methods such as measurement. For statistical contrast, Pearson's correlation was used; the same one that enabled the hypothesis test.

RESULTS

Hypothesis	Calculated Pearson correlation coefficient	Significance level	Degrees of freedom (n-2)	Test statistician calculated t and tabulated.	Significance of the coefficient γ_α	Decision
$H_0: \rho = 0$ $H_1: \rho > 0$	$\gamma_c = 0,399$	$\alpha = 0,05$	88	$t_c = 4,08$ $t_t = 1,658$	$\gamma_\alpha 0.205$	Accept H_1 and reject H_0

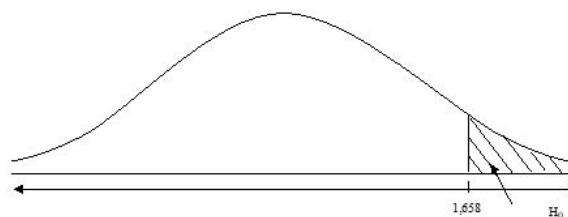


Table 1

Statistical contrast to determine the relationship between university didactics and research skills in students of the Language Studies Program of the National University of San Martín-Tarapoto.

It is shown in table 1 that the significance of Pearson's correlation coefficient is less than the calculated value (and $\alpha \times 0.399$); Also, this result is evident in the Gaussian curve shown, where the calculated t-Student test statistic ($t_c \times 4.08$) is greater than the critical value ($t_t \times 1.658$), deciding to reject the null hypothesis ($H_0: \rho \leq 0$) and accept the alternating hypothesis ($H_1: \rho > 0$). That is, the relationship between the university didactics of teachers is partially direct and insufficient (and $c \times 0.399$) with

respect to the research skillsof students of the VII I, IX and X program cycle.

Hypothesis	Calculated Pearson correlation coefficient	Significance level	Degrees of freedom (n-2)	Test statistician calculated t and tabulated _t	Significance of the coefficient γ_{α}	Decision
$H_0 : \rho = 0$ $H_1 : \rho > 0$	$\gamma_c = 0,368$	$\alpha = 0,05$	88	$t_c = 3,71$ $t_t = 1,658$	$\gamma_{\alpha} 0.205$	Accept H_1 and reject H_0

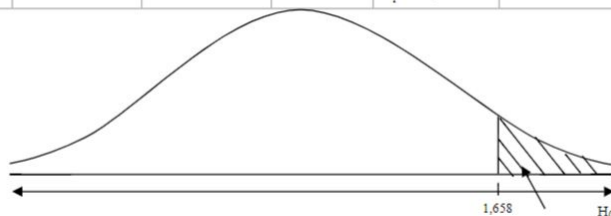


Table 2

Statistical contrast to determine the relationship between the planning dimension of university didactics and research skills in their epistemological, cognitive and methodological dimensions in students of the Language Studies Program of the National University of San Martín-Tarapoto.

It is shown in table 2 that the significance of Pearson's correlation coefficient is less than the calculated value (and_α x 0.368); Also, this result is evident in the Gaussian curve shown, where the calculated t-Student test statistic (t_c s 3,71) is greater than the critical value (t_t x 1,658), deciding to reject the null hypothesis (H_0 : $p \leq 0$) and accept the alternating hypothesis (H_1 : $p > 0$). In other words, the relationship between the planning dimension of the university didactics of teachers is partially direct and insufficient (and_c x 0.368) with respect to the dimensional skills: epistemological, cognitive and methodological of students of the VIII, IX and X cycle of the Program of Language Studies U nationalniversity of St. Martin-Tarapoto.

Hypothesis	Calculated Pearson correlation coefficient	Significance level	Degrees of freedom (n-2)	Test statistician calculated t and tabulated _t	Significance of the coefficient γ_{α}	Decision
$H_0 : \rho = 0$ $H_1 : \rho > 0$	$\gamma_c = 0,184$	$\alpha = 0,05$	88	$t_c = 1,75$ $t_t = 1,658$	$\gamma_{\alpha} 0.205$	Accept H_1 and reject H_0

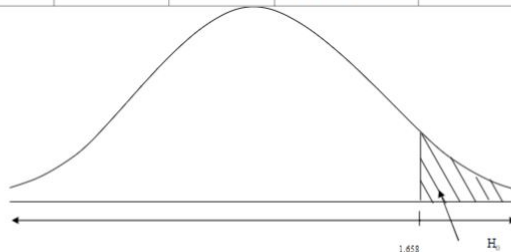


Table 3

Statistical contrast to determine the relationship between the execution dimension of university didactics and research skills in their epistemological, cognitive and methodological dimensions in students of the Language Studies Program of the National University of San Martín-Tarapoto.

It is noted in table 3, that the significance of Pearson's correlation coefficient (-0.205) is less than the calculated value (and_α x 0,184); This

result is also evident in the Gaussian curve shown, where the calculated t-Student test statistic (t_c s 1,75) is greater than the critical value (t_c 1,658), deciding to reject the null hypothesis ($H_0: p \leq 0$) and accept the alternating hypothesis ($H_1: p > 0$). That is, that the relationship between the execution dimension of the university didactics of teachers is partially direct and insufficient ($\text{and}_c \times 0,184$) with respect to the dimensional skills: epistemological, cognitive and methodological of students of the VIII, IX and X cycle of the Program of Language Studies U NationalNiversity of St. Martin-Tarapoto.

Hypothesis	Calculated Pearson correlation coefficient	Significance level	Degrees of freedom (n-2)	Test statistician calculated t and tabulated _t	Significance of the coefficient γ_α	Decision
$H_0 : \rho = 0$ $H_1 : \rho > 0$	$\gamma_c = 0,195$	$\alpha = 0,05$	88	$t_c = 1,86$ $t_t = 1,658$	$\gamma_\alpha 0.205$	Accept H_1 and reject H_0

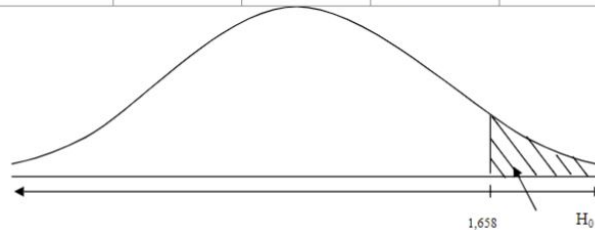


Table 4

Statistical contrast to determine the relationship between the dimensionevaluation of university didactics and research skills in their epistemological, cognitive and methodological dimensions in students of the Language Studies Program of the National University of San Martín-Tarapoto.

It is noted in table 4, that the significance of Pearson's correlation coefficient is less than the calculated value ($\text{and}_\alpha \times 0.195$); this result is evident in the Gaussian curve shown, where the calculated t-Student test statistic (t_c s 1.86) is greater than the critical value ($t_t \times 1,658$), deciding to reject the null hypothesis ($H_0: p \times 0$) and accept the alternating hypothesis ($H_1: p$). that the relationship between the educational dimension of the university didactics of teachers is partially direct and insufficient ($\text{and} > 0_c \times 0.195$) with respect to the dimensional skills: epistemological, cognitive and methodological studiesof the viii, IX and X program cycle

University didactic variable

Table 5

Results of university didactics at the National University of San Martín-Tarapoto.

Dimensional	Average	Proportion	Percentage	Current situation
Planning	4.50	0.45	45	He carries out the planning of his classes to develop research skills, lacking clarity regarding the teaching processes, having difficulty in planning appropriate strategies, additionally, they do not have a pedagogical folder where the planning documents are located.
Execution	2.50	0.25	25	There is the conception, but it is not expressed or clear due to the lack of knowledge of the teaching processes and the environment for reflection, priority to scientific problems, getting motivated by the interest of students, as well as, developing and securing research projects.
Evaluation	3.0	0.30	30	Medium level of relevance, completeness and coherence, because they show difficulty in the use of instruments, promote the prevention of students, as well as evaluate the progress of learnings for feedback.

Variable investigative skills

Table 6
Study of research skills in students of the VIII, IX and X cycle of the Language Studies Program of the National University of San Martín-Tarapoto.

Dimensions	Average	Proportion	Percentage	Current situation
Epistemological	4.50	0.45	45	Develop information search skills in academic, electronic and database books and journals; however, they exhibit deficits in the critical assessment of the different theoretical positions.
Cognitive	3.50	0.35	35	They present the list of sources consulted, conclusions derived from the results; however, they have deficits drafting the research report in order and with an adequate sequence of ideas and clarity in the drafting. Consequently, they have difficulty performing scientific reflection and writing.
Methodological	2.00	0.20	20	They have difficulty defining the question and research objectives, type of study, making an adequate delimitation of the study population and, above all, using an appropriate technique or strategy to collect information, as well as selecting an appropriate instrument in terms of the validity and reliability required by the research.

DISCUSSION

The university didactics, used by the teachers of the National University of San Martín-Tarapoto, is generating incorrect and unsatisfactory entries, processes and results. This is evident in tables 5 and 6 ratified in charts No. 01 and No. 02, where the dimensions of the university didactics of the teachers and the investigative skills of the students of the VII, IX and X cycle of the Language Studies Program present low scores according to the opinion of students and teachers of the National University of San Martín-Tarapoto.

In this way, Lopez, et al. (2020) considers that the University is undergoing an important process of change that forces teachers to review their orientation and teaching strategy, trying to know the different teaching methodologies in order to encourage the participation and commitment of students in their learning process.

If this situation continues, the educational service provided by the National University of San Martín-Tarapoto risks not generating expectations or predisposition favorable to its experiences of teaching and learning research skills; consequently, the affectation of quality in the elaboration of research work carried out by undergraduate students. For Solar and Rojas (2019), undergraduate teaching is one of the most important academic activities that the University must fulfill both for its responsibility to offer alternatives of higher education to the graduates of middle education that given with quality and competence and for the resources that it collects; in addition, the University to provide the country and the region with professionals and graduates (first level) that are required.

The university didactics of teachers, in their relationship with the development of research skills, in the real, reflection characteristics typical of antipedagogy that translates into routine actions, comfort and imposes traditional school that forms potential humans devoid of solid foundations in terms of the epistemological, cognitive and methodological dimensions of research.

H₁. 1. The existing relationship of the planning dimension of university didactics used by teachers is partially right and insufficient with respect to the research skills in their epistemological, cognitive and methodological

dimensions of the students of the VII, IX and X cycle of the Program of Language Studies of the National University of San Martín-Tarapoto.

It is noted, in table 2, that the significance of Pearson's correlation coefficient is less than the calculated value ($\text{and}_\alpha \times 0.368$); Also, this result is evident in the Gaussian curve shown, where the calculated t-Student test statistic ($t_c \text{ s } 3,71$) is greater than the critical value ($t_t \times 1,658$), deciding to reject the null hypothesis ($H_0: p \text{ s } 0$) and accept the alternating hypothesis ($H_1: p > 0$). In other words, the relationship between the planning dimension of the university didactics of teachers is partially direct and insufficient ($\text{and}_c \times 0.368$) with respect to the dimensions: epistemological, cognitive and methodological studies of the students of the VIII, IX and X program cycle.

It is results consistent with that found by Ascencio (2016), who considers that the class plan is always the ideal instrument for the planning of a course, which integrates the activities that must be carried out before the session, at the beginning, during the development and in the closure of the same. This document should be prepared for each session of the subject; However, it is complicated, because in one semester you can re-enter more than 50 class plans if, for example, a subject is taught 3 times a week over 16 or 18 academic weeks.

H₁-2. The existing relationship of the execution dimension of university didactics used by teachers is partially directa and insufficient with respect to the research skills in their epistemological, cognitive and methodological dimensions of students of the VII, IX and X cycle of the Program of Language Studies of the National University of San Martín-Tarapoto.

It is noted in table 3, that the significance of Pearson's correlation coefficient (-0.205) is less than the calculated value ($\text{and}_\alpha \times 0,184$); Also, this result is evident in the Gaussian curve shown, where the calculated t-Student test statistic ($t_c \text{ s } 1,75$) is greater than the critical value ($t_t \times 1,658$), deciding to reject the null hypothesis ($H_0: p \text{ s } 0$) and accept the alternating hypothesis ($H_1: p > 0$). That is, that the relationship between the execution dimension of the university didactics of teachers is partially direct and insufficient ($\text{and}_c \times 0.184$) with respect to the epistemological, cognitive and methodological dimensions of the students of the VIII, IX and X cycle of the program. According to Zúñiga (2017), teacher and student interaction depends on a complex and changing pedagogical process, since this process contemplates different systems that we have to face information both from our automaton being and from the conscious effort we make to learn. During the exercise of university teaching, one of the most important objectives is to know if students actually learn and obtain necessary knowledge in order that they can be used and applied in a practical way in the situations they will face as professionals.

H₁. 3. The existing relationship of the educational evaluation dimension of the university didactics used by teachers is partially direct and insufficient with respect to the research skills in its epistemological, cognitive and methodological dimensions of the students of the VII,

IX and X cycle of the Program of Language Studies of the National University of San Martín-Tarapoto.

It is observed, in table 4, that the significance of Pearson's correlation coefficient is less than the calculated value ($\text{and}_\alpha \times 0,195$); Also, this result is evident in the Gaussian curve shown, where the calculated t-Student test statistic ($t_c \leq 1,86$) is greater than the critical value ($t_t \times 1,658$), deciding to reject the null hypothesis ($H_0: p \leq 0$) and accept the alternating hypothesis ($H_1: p > 0$). In other words, the relationship between the educational evaluation dimension of teachers is partially direct and insufficient ($\text{and}_c \times 0.195$) with respect to the epistemological, cognitive and methodological dimensions of students of the VIII, IX and X program cycle. These results are consistent with those of Navarro, et al. (2017), who is established that the evaluation allows to improve the level of performance with which the teacher performs said process, success or failure in the training of the student, the fulfillment of educational objectives. The educator should have the appropriate procedures and tools to judge the extent to which changes in the training and development of students occur; not just at the end, but during the process.

CONCLUSION

The relationship between the university didactics of teachers is partially direct and insufficient ($\text{and}_c \times 0.399$) with respect to the research skills of students of the VIII, IX and X cycle of the National University Language Studies Program of San Martín-Tarapoto, evidenced in the opinion of teachers and students. To reverse this situation towards better levels, the management of teachers' didactics in terms of planning, execution and evaluation should be strengthened; and the development of research skills of students by implementing the scientific attitude to develop research skills.

The planning dimension of university didactics is partially directly and insufficiently related to the research skills of students of the VIII, IX and X cycle of the National University Language Studies Program of San Martín-Tarapoto. Because university didactics have a medium level of relevance, completeness and coherence because university teachers do not train their classes, this is reflected in the lack in the development of research skills in their epistemological, cognitive and methodological dimensions.

The execution dimension of university didactics is partially directly and insufficiently related to the research skills of students of the VIII, IX and X cycle of the National University Language Studies Program of San Martín-Tarapoto. Because university didactics presents medium level of relevance, completeness and coherence due to the lack of knowledge of the teaching processes and their execution, as well as presents deficiencies in the development of research skills in their epistemological, cognitive and methodological dimensions.

The educational evaluation dimension of university didactics is partially directly and insufficiently related to the research skills of students of the VIII, IX and X cycle of the National University Language Studies Program of San Martín-Tarapoto. Because university didactics have a medium level of relevance, completeness and coherence as a result of not having relevant evaluation tools and techniques, as well as presents gaps in the development of investigative skills in their epistemological, cognitive and methodological dimensions.

REFERENCES

- Ascencio, C. (2016). Adecuación de la planeación didáctica como herramienta docente en un modelo universitario orientado al aprendizaje. REICE. Revista Iberoamericana sobre Calidad, Eficacia y Cambio en Educación, 109-130.
- Bosque. (2015). Política de formación para la Investigación, creación, desarrollo e innovación. Universidad El Bosque.
- Brito, R. S., Prado, J. R., & Nunes, C. P. (2017). As condições de trabalho docente e o pós-estado de bem-estar social. *Revista Tempos e Espaços em Educação*, 10(23), 165-174. <https://doi.org/10.20952/revtee.v10i23.6676>
- Campos, H. y Ramírez, M. (2018). Las TIC en los procesos educativos de un centro público de investigación. *Apertura*, 10(1), pp. 56-70.
- Casasola, W. (2020). El papel de la didáctica en los procesos de enseñanza y aprendizaje universitarios. *Revista Comunicación*, 29(1).
- Díaz, V. (2016). Didáctica y prácticas en posgrado: una aproximación teórica. *Revista UNIMAR*, 34 (1), 71-85.
- Escobar, D. (2017). Didáctica universitaria y configuraciones didácticas, bases para la formación en la educación superior. 60-70.
- Gonzales, A. (2016). Reorientación teórica de la didáctica universitaria. *Revista Educación Superior y Sociedad Nueva etapa Colección 25 aniversario*, 17.
- López, E., Cacheiro, M., Camilli, C. y Fuentes, J. (2016). Didáctica general y formación del professorado.
- López, I., Padilla, M., Liza, P. y Juárez, M. (2020). Pedagogía universitaria basada en competencias.
- López, J., Pérez, I. y Lamama, J. (2017). Didáctica universitaria: una didáctica específica comprometida con el aprendizaje en el aula universitaria. *Dom. Cien.*, 3(3), 1290-1308.
- Navarro, N., Falconí, A. y Espinoza, J. (2017). El mejoramiento del proceso de evaluación de los estudiantes de la Educación Básica. *Universidad y Sociedad*, 9(4), 58-69.
- Núñez, N. (2019). Enseñanza de la competencia investigativa: Percepciones y evidencias de los estudiantes universitarios. *Revista Espacios*, 40.
- Rojas, A., Castro, L., Siccha, A. y Ortega, Y. (2019). Desarrollo de habilidades investigativas en estudiantes de enfermería: Nuevos retos en el contexto formativo. *Investigación Valdizana*. [https://Doi.Org/10.33554/Riv.13.2.236](https://doi.org/10.33554/Riv.13.2.236)

- Salto, A. y Bao, L. (2016). El desarrollo de habilidades investigativas en el docente de periodismo. *Revista Electrónica Formación y Calidad Educativa*.
- Sánchez, H., Reyes, C. y Mejía, K. (2018). Manual de términos en investigación científica, tecnológica y humanística.
- Silva, L. R., Santos, A. R., & Santos, I. T. R. (2020). Public policies for education of/in the field and the school environment in a settlement of the MST: the intimate relationship with the pedagogical policy. *Journal of Research and Knowledge Spreading*, 1(1), e11737. <http://dx.doi.org/10.20952/jrks1111737>
- Solar, M. y Rojas, R. (2019). Calidad de la educación superior el caso de la universidad de concepción. *Colección Gestión Universitaria*.
- Zetina, C. (2017). Enseñanza de las competencias de investigación: un reto en la gestión educativa. *Atenas*, 1(37), 1-14.
- Zúñiga, M. (2017). La estrategia didáctica: Una combinación de técnicas didácticas para desarrollar un plan de gestión de riesgos en la clase. *Revista Educación* 41(1), 1-18. <http://dx.doi.org/10.15517/revedu.v41i1.17786>

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