UNIVERSITY TEACHERS: RESEARCH AND SCIENTIFIC PRODUCTION

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ABSTRACT

Purpose: This research was made with the intention to determine the relationship between research policies and scientific production of public university teachers.

Method: The study developed the non-experimental design. The population included 120 teachers and the sample 100 of them, because of an intentional non-probabilistic procedure. The instruments were validated with Cronbach’s Alpha.

Results and conclusion: The results were of 0.973 and 0.965. The conclusion was that exist a significant relationship between the variables, with Rho of .587 and p<0.05. So, if teachers have based research policies, they can work on scientific production with more effectiveness.

Research implications: To achieve the main goal, it is important to invest on the projects, train the teachers and try to improve the research collaboration policies.

Originality/value: Research production is linked to the commitment of distributing information and going on education area.

Keywords: Research Policies, Scientific Production, Training Process.

PROFESSORES UNIVERSITÁRIOS: PESQUISA E PRODUÇÃO CIENTÍFICA

RESUMO

Objetivo: Esta pesquisa foi realizada com a intenção de determinar a relação entre as políticas de pesquisa e a produção científica de professores de universidades públicas.

Método: O estudo desenvolveu um desenho não-experimental. A população incluiu 120 professores e a amostra foi de 100 deles, por meio de um procedimento não probabilístico intencional. Os instrumentos foram validados com o Alfa de Cronbach.

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**Resultados e conclusões:** Os resultados foram de 0,973 e 0,965. A conclusão foi que existe uma relação significativa entre as variáveis, com Rho de 0,587 e p<0,05. Portanto, se os professores tiverem políticas de pesquisa baseadas, eles poderão trabalhar na produção científica com mais eficácia.

**Implicações da pesquisa:** Para atingir o objetivo principal, é importante investir nos projetos, treinar os professores e tentar melhorar as políticas de colaboração em pesquisa.

**Originalidade/valor:** A produção de pesquisas está vinculada ao compromisso de distribuir informações e ir para a área educacional.

**Palavras-chave:** Políticas de pesquisa, produção científica, processo de treinamento.

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### 1 INTRODUCTION

Peruvian universities faced a big process to get licenses and one of the requirements was to promote scientific production on teachers. However, it was not enough to improve the quality of research results. To achieve the main goal, it is important to invest on the projects, train the teachers and try to improve the research collaboration policies (Millones et al., 2021). Especially, universities are the centers where teachers can develop research and motivate students to be part of the final product. In addition, journals and their head managers are focused on distributing articles with same basic information.

The evolution of the society needs constant innovation in centers like universities. So, students and teachers can participate in the production of academic texts. The result of that is to have more members of research community, giving benefits to the universities and their accreditation processes. Considering that, it means a total challenge to train people to be part of a scientific research production (Barros-Bastidas, Turpo et. al., 2018).

According to the opinion on (Valles-Coral, M. et. al., 2019), it is important to work on the following elements: institutionality, research management and administrative management. It is also important to clarify that the Peruvian State must generate and distribute monetary resources to be distributed into public institutions. Doing that kind of actions, it is possible to promote scientific investigation in students. To complete the contribution, the State must organize scientific events to exchange knowledge in the national and international context.

Making research policies is a process that its final result is to get research policies instruments. According to the area, it is mandatory to consider aspects like the budget, objectives of the state mediation and a public plan of investment (Lepori, B. et. al., 2011). Nowadays scientists need clear rules to work on their research and access to the information they require to publish.

Also, information that a diary or distributer doesn't anticipate sharing openly may incorporate individual or delicate information, for example, quantitative or subjective information that could recognize an individual, information that members didn't agree to share, areas of jeopardized species, end, and information subject to other genuine limitations on open accessibility. Other sensitive data types should characterize if material to journal/distributer content. Elective choices for public sharing ought to be given and their accessibility described such as controlled access repositories, data anonymization and deidentification, sharing only metadata, and working with information access advisory groups and carrying out information use arrangements.
An important advance is that journals have detailed rules or instructions, and that situation can be understood as motivation to scientists. Distribution of information about many disciplines allows analysts to get data easily. An important goal to achieve is to make changes to the 2030, especially in the research area. So, institutions must promote new policies to get a better scenario.

There are dimensions to consider about research policies. One of them is the dimension called strengthening of the organization, planning, research, innovation, and technological development is directed to establish normative and technical framework. The dimension training and sustainability of human resources to develop research looks for innovation and participation of scientists. According to dimension strengthening the production, it promotes the diffusion of results (Sánchez, G. et. al., 2021).

According to the scientific production of teachers, they usually organize information, create models, and be part of tests (Cooper, M. et. al. 2013). To promote research by teachers and scientists, they must be involved in constantly participation and give them the opportunity to acquire new skills.

Research production is linked to the commitment of distributing information and going on the education area. It is important to have teachers interested in producing knowledge as part of the processes of each university (Palacios, Martín et. al., 2016). In addition, students and teachers that want to apply to a specific university to study or work, consider the number or statistic of investigations (Runyan et al., 2013).

To guarantee teacher’s scientific production, it is important to consider the following recommendations: promote teacher’s participation in activities based on investigation, with the intention to involve them in a training process; help teachers which want to be research educators; give support to teachers highlighting the advantages of working with scientific activities in the pedagogical process (Jimenez et. al., 2019).

The dimension called training process considers researchers need help to be part of projects and publish scientific articles. In addition, the dimension developing skills covers what they work when being part of research projects, promoting their productions (Rodriguez & Rivas et. al., 2018).

2 LITERATURE REVIEW

The above work becomes more important because it requires the formulation of study projects and the publication of their findings. Therefore, the author’s perspective is at least indirectly important in promoting findings among students. The level called the training process assumes that researchers need help to be part of projects and publish scientific articles. In addition, the development of dimensions stimulates the production of what they do when they are part of a skills research project (Rodriguez & Rivas, 2018). It should be noted that by publishing this type of research, journals do a fundamental job of perpetuating the concept of science as a social activity by hosting scientific debates. In this context, interactions between researchers who integrate scientific production, teaching, and research play an important role as points in the qualitative triangle of higher education described above. (Olga Gloria Barbone-Perez, et al., 2018).

Scientific production is one of the most important indicators of scientific and technological development. It is closely related to the economic and social development of a country or region, because it helps researchers spread knowledge through the publication of scientific articles in indexed journals. The countries at the top of the scientific output rankings are the United States, China, and Great Britain: At the top of the list are Latin America, Brazil, Mexico and Argentina. In Peru, efforts to achieve scientific and technological development
through investments in education and research projects are minimal. Thus, the country ranks 73rd in world scientific output and 8th in Latin America. (Oriana Rivera-Lozada et al.)

Researchers need to invest a lot of time, energy, and money in innovations characterized by technology and knowledge. Once new are achieved, they will greatly improve society, country, and economy. Innovative achievements are inherent in public products and have positive external benefits. However, it is easy for competitors to replicate and surpass the achievements of innovation, which requires appropriate protection and support from relevant departments (governments, universities) to promote sustainable development of innovation. Research has shown that the average time required to introduce new products to competitors offering the same or similar products has decreased from more than 30 years at the beginning of the 20th century to more than 3 years at the end of the 20th century. (Yan Zheng et al., 2023).

Academic and commercial research management refers to the identification of research lines that indicate the funding and technical efforts of groups dedicated to research, development, and innovation (R+D+I) activities. In the decision-making process that guides this management, researchers' responses to personal experiences and interests take precedence over purposeful consultation with a variety of sources that can provide information to optimize the process. Furthermore, research lines are strategic organizational sub-systems that research teams use to guide their activities; These subsystems allow the formation of teams of researchers who have the same concerns, interests, and needs in the same field. Research lines are also considered as guiding axes of research activity. Research teams have theoretical support that allows for the integration of knowledge and the continuity of work of individuals and organizations committed to the development of knowledge in a particular field. (Milan-Gomez PA.et.al, 2021).

For this reason, it is necessary to know the current state of the techniques applied to knowledge management in private universities in Lima, Peru, for which this article is proposed to answer the question: How are research studies related to production and labor supply? Management and scientific output in private universities during the period 2016-2021? In the case of higher education institutions in Peru, it is necessary to share research experience with the aim of replicating the research model in order to achieve a continuous increase in the level of scientific production under the national supervision of higher education. (Roxana Hedy Oliver Rock, et al., 2022)

The first branches are driven by knowledge management in both public and private organizations, which arose as a response to organizations' need for knowledge and innovation in information and communication technologies (ICT), which allow automation in some processes. Also, promote the development of knowledge derived from scientific research to meet the changing needs of organizations, globalization (Jena and Arvelo); In education, the advancement of ICT presents an opportunity for development in the field of scientific research, since there is a need to constantly update academic training to provide quality education to students, which must be practical. Current context in various fields of knowledge. Train under the most innovative principles relevant to research, representing knowledge management in challenging research. Other publications document the replication of research models aimed at achieving sustainable development at a shared level of these models in the case of Peruvian higher education institutions (Rodriguez, Rodríguez, Martínez & Lozada, 2009). The pace of higher education in universities in that country is relatively slow (Lozano, Lozano, Lozano, 2020).

3 MATERIALS AND METHODS

This study was based on the non-experimental design since there was no manipulation of the variables. The method was hypothetical deductive because it had the possibility of
proposing a hypothesis. The population included 120 teachers and the sample included only 100 teachers from a public university. The instruments to measure both variables were validated and verified in reliability through Cronbach’s Alpha, with indicators of 0.973 and 0.965, respectively.

4 RESULTS

The table shown below shows that, according to Spearman's Rho test, there is a moderate relationship between research policies and scientific production, with an indicator of .568 and a p value <0.05. In this sense, it is understood that the higher the level of research policies, the higher levels of scientific production will be.

**Table 1. Relationship between research policies and scientific production**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Research policies</th>
<th>Scientific production</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman’s Rho</td>
<td>Correlation coefficient 1.000 587**</td>
<td></td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>100 100</td>
<td></td>
</tr>
<tr>
<td>Scientific production</td>
<td>Correlation coefficient 587** 1.000</td>
<td></td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>000</td>
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<tr>
<td>N</td>
<td>100 100</td>
<td></td>
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</tbody>
</table>

**. The correlation is significant at the 0.01 level (bilateral).

**Source:** Prepared by Author (2023)

In the second table, there was shown that the relationship between research policies and training processes is moderate. Therefore, it is interpreted that the better the level of the first variable, the better the results will be on the dimension mentioned in second place.

**Table 2. Relationship of research policies and the processes of formation of scientific production**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Research policies</th>
<th>Training process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman’s Rho</td>
<td>Correlation coefficient 1.000 514**</td>
<td></td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>000</td>
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<tr>
<td>N</td>
<td>100 100</td>
<td></td>
</tr>
<tr>
<td>Training process</td>
<td>Correlation coefficient 514** 1.000</td>
<td></td>
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<tr>
<td>Sig. (bilateral)</td>
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<tr>
<td>N</td>
<td>100 100</td>
<td></td>
</tr>
</tbody>
</table>

**. The correlation is significant at the 0.01 level (bilateral).

**Source:** Prepared by Author (2023)

The third table shows that there is a moderate relationship between research policies and the development of scientific production. This is deduced from the Spearman’s Rho indicator of .056 and the value p<0.05. So, it is understood that at a better level of research policies, there will be better results in the development of skills in scientific production.

**Tabla 3. Relación de las políticas de investigación y el desarrollo de habilidades de la producción científica**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Research policies</th>
<th>Skills development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spearman’s Rho</td>
<td>Correlation coefficient 1.000 596**</td>
<td></td>
</tr>
<tr>
<td>Sig. (bilateral)</td>
<td>000</td>
<td></td>
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<tr>
<td>N</td>
<td>100 100</td>
<td></td>
</tr>
<tr>
<td>Skills development</td>
<td>Correlation coefficient 596** 1.000</td>
<td></td>
</tr>
</tbody>
</table>

**. The correlation is significant at the 0.01 level (bilateral).

**Source**: Prepared by Author (2023)

5 DISCUSSION

According to the results demonstrated, a significant relationship was found between the main study variables. This coincides with what was stated by (Barros-Bastidas, Turpo, et.al., 2018), who affirm that scientific production improves the level of development of researchers in the area. In addition, they mention that it is not enough to prepare articles, but that the dissemination of such material is required.

Likewise, it is important that journals that publish scientific material continue to strengthen their publication standards so that researchers are more rigorous in their work. This will allow for an exchange of data at national and international level.

On the other hand, this study allowed to establish a significant relationship between research policies and the processes of formation of scientific production. Spearman's Rho indicator turned out to be .054. This production goes hand in hand with the commitment to generate great changes in university education. Faculty involved in graduate work prepare to be part of a faculty that promotes research. This highlights that it is increasingly necessary to invest in the training of research teachers, with the aim of improving the standards of a university.

Regarding research policies and the development of scientific production, a significant relationship was found with a Spearman's Rho indicator of .596. This allows us to interpret that teachers need to be part of training processes that allow them to build knowledge, but that do not neglect participation in other areas. These professionals should know that the development of their skills is linked to the promising future as teachers. This is consolidated with the assessment of instruction and the values it implies (Yeigh et al., 2016).

REFERENCES


