

Motivational Factors in the Research Competencies of Nursing Students

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This research aimed to determine the relationship between motivational factors and investigative skills in nursing interns from a university degree program. It was a study of the hypothetical-deductive method, with a quantitative approach, of a basic type, of a non-experimental, descriptive, correlational design; there was a universe population of 236 nursing interns from a private university. The survey technique was applied for both variables, in addition there were 2 Likert-type questionnaires that were validated by 5 expert judges and with an Aiken V of a value of 1 being valid, and with a Cronbach's alpha of 0.928 for motivational factors and 0.988 for investigative skills. Therefore, they are reliable. The results indicated that the majority presented a high level of motivational factors with 59.2% (71) and with a high level of investigative skills with 87.5% (105); with a correlation of variables by Spearman's Rho of Rho value = .944 and $P = 0.003$ between the variable's motivational factors and investigative skills. It was concluded that there is a high significant positive correlation.

Keywords: motivational factors, research competencies, motivation

INTRODUCTION

It is a necessity of the higher educational field to develop investigative skills in its students because, nowadays, information and communication technologies expand global interconnection, and this energizes scientific knowledge. Therefore, a need in university competencies consists of being able to address the axes of skill, behavioral, aptitude formation and capacities for social, methodological, and reflective performance of the cognitive scope of developing investigative competence in the modern university (Guamán et al., 2020).

Motivational factors were identified in higher level students when they consolidate their support in the strategies that facilitate the study, so they also develop skills to carry them out effectively, efficiently, and

pertinently, thus focusing the difficulties of the study (Chalela et al., 2018). Now, there is a need for great changes in higher education and its educational process within the technological, academic evolution and the development of teaching-learning due to the continuity of university students, whose, even at the end of their academic processes, report a great transition of changes, movements and demands for your competent professional profile.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) affirmed that in accordance with the evaluation of adult competencies and abilities, worldwide literacy begins with adults over 15 years of age who are in increase (23 million), being 86% the world rate of those who have educational commitment, considering the key competence for life. So, skills that support social inclusion, with 13% of countries having data on literacy and basic arithmetic competence, which attributes when the person knows, does with what they know and the extent to which they support themselves same (Ordorika, 2020).

On competencies in the feedback academic context, in Europe and the Middle East, the competency-based approach to higher education is well known to educators and scientists around the world. The priority is that the student focuses his fundamental knowledge on the qualitative content and the formation of skills in competitive practice (Kulik et al., 2020).

In Peru, higher education, according to the resolution of the Ministry of Education regarding the professional profile, it is essential in any educational system to develop skills appropriately, where the training of skills for opportunities focused on lifelong learning stands out. It is said that 50% of students prefer face-to-face study; while the other 50% is currently carried out via the web, deepening the training components in practice, such as training in the investigative component. To contribute to the formation of research skills in university students, it is necessary to formulate socio-formative didactic strategies, this means obtaining and processing the necessary skills for research. In this way, possess the necessary level to acquire investigative skills through TIC tools (Núñez Rojas, 2019).

Conceptualization of Motivational Factors

Motivational factors are those that influence the profile of the person who performs with motivation and can perceive their state of mind, perception towards achievement, expectation, and promotion from external and internal conditions (Oliveros et al., 2016). The purpose of strengthening and mitigating the weaknesses of students in their learning goal is to promote skills that favor and strengthen student motivation, so that they advance in their autonomous information search facet by generating new knowledge, and so on self-confidence, flexibility, teamwork, initiative, creativity, and great responsibility to motivate their purposes and academic goals (Chalela et al., 2018).

Theories of Motivational Factors

Motivations are the key to the learning process since it is associated with enthusiasm to develop an activity. If the person wants it, chooses to do it and is committed to it, then he achieves it; these traits are learned by the student, these levels of motivation that stimulate behaviors to learn more active and solid (Rosales et al., 2020).

MacClelland's theory of needs, specific to the focus of the types of human motivation that excel in the pursuit of success and the drive to always be first, is achieved through achievement, power and affiliation that are promoted by the individual motivated that accepts feedback and responsibilities that progressively become a status and prestige, this being influential in reward and personal gratification (Rybnicek et al., 2019).

The theory of Stacy Adams for the model of motivational equity that in circumstances of the phenomenon of justice is stimulated at an economic, social, and psychological level that reinforce the need for motivation in the person and he is rewarded for his performance (Veytia y Contreras, 2019).

Dimensions of Motivational Factors in University Students

Personal Development Factors

They are the factors that influence “the behavior of the university student to prioritize their motivation towards growth, achievement, benefits, economic compensation, the desire to satisfy themselves as a person, trust in themselves, achieve goals, and improve their language skills towards the status they want for themselves, and this builds the desire and intensity of motivation in academics” (p. 27) (Teowkul et al., 2009).

Career Improvement Factors

It consists of professional aspiration on the academic side, characterized by being competitive, by challenging oneself to generate interest, stabilizing the benefit rather than an economic process, it is absorbing unexpected impacts, such as research, because it is continuous, changing, strengthening knowledge, which combined promote the ease of being able to specify the job opportunity (Teowkul et al., 2009).

Factors of Change in the Career

It is the desire to be able to change under the opportunity of professional growth, finding barriers in motivation that achieve changes that are usually applied (financial and time) and an improvement in personal development (Teowkul et al., 2009).

Environmental Factors

The university student seeks more education and consolidates research, because it prioritizes needs in belonging mode, and in its effect stimulates affection, social needs, the importance of family values, harmony, cooperation, and balance of everything that surrounds the structure of academic strength (Teowkul et al., 2009).

Conceptualization of Research Competencies in University Students

The need to investigate through a process that is carried out in an optimal and efficient way to maintain the level of competitiveness because within academic training it is imperative to apply knowledge to face, substantiate and solve situations of constant unpredictable problems in the educational environment, where the researcher’s position is methodological to be critical and generic to be flexible in the procedural part of carrying out and concluding an investigation (Hernández Navarro et al., 2019).

Higher education is an entity of academic level where university students form their competitiveness based on the knowledge linked to a profession that, in the future, will turn them into professionals. It is when they prioritize demand not only at the national level, but also at the international level that the objectives of the student body are achieved (Cardoso y Cerecedo, 2018).

Research in university higher education is a field of study, where, in recent times, the need to develop research processes has been evidenced, challenges that students assume when they conclude their professional career, but which takes great relevance when these university students use and apply their skills for axiology in research, so students always keep their education or comprehensive training on par through courses and instructions to carry out research and be guided by tutoring with formative research (Fernández Monge et al., 2022).

Theory and Theoretical Model of Research Competencies

Vygotsky and Piaget’s theory of constructivism, and phenomenology with Husserl and Lambert offer the panorama to understand the essential competencies of the human being from the study to the phenomena and objects of study, which when understanding them recreates the subjective experience, and in constructivism, the human being is the protagonist of his personality in his continuous activity under evolutionary knowledge and the importance of individual development leads us to reinforce learning tools (Delgado Suaña et al., 2020).

For research competencies, the holistic and complexity theory is the foundation of university investigative competencies. Mainly, it consists in directing human formation to the integral and significant in learning, also structuring the research competence that guides the formation and strengthens the development of individual professional growth for the solution of social context problems that deepen university education (Reiban Barrera, 2018; Moreira et al., 2021).

Dimensions of Research Skills in University Students

Generic research competencies: it is the competence of fundamental perspective of knowledge; skills, attitudes and values are indispensably described, which display great training and continuously mobilize knowledge, this points to the mastery of autonomy in the field to learn in a social, group or individual way (Ortega Rocha y Jaik Dipp, 2010).

Methodological research competencies: it is the competence to make necessary the elements of obtaining continuous knowledge; it is a process that has sequential steps to follow, and they are by methods, techniques and ways of concretizing doing something methodologically that couples the use of the scientific method (Ortega Rocha y Jaik Dipp, 2010).

METHODOLOGY

In this study, the hypothetical-deductive method was used; the quantitative approach consists of a set of sequential processes to be proven because their order is rigorous, thus delimiting that, from the theoretical context or perspective of the framework, hypotheses are established and variables determined, analyzed under statistical methods (Hernández Sampieri y Mendoza Torres, 2018).

The type of research was substantive because it responds to substantial problems aimed at describing, explaining, predicting, or reversing reality in the search for principles and general laws that allow organizing a theory. The design of the present investigation was non-experimental since the object of investigation was not altered since the researcher does not intervene in the events of the variables or their context of study. The study was cross-sectional because the data collection was carried out directly to the sample, given in a single moment (Hernández Sampieri y Mendoza Torres, 2018; Sánchez Carlessi et al., 2018).

The sample consisted of 236 nursing interns who are in the 9th and 10th cycle of a private university who signed the informed consent. The instrument used for motivational factors was the questionnaire by the author Teowkul et al. (2009) consisting of 16 items with four dimensions on a Lickert scale (Teowkul et al., 2009).

To collect the information, the Ortega and Jaik (2010) instrument called the Research Competence Assessment Scale was used, which is divided into two parts: methodological competencies with 47 items and generic competencies with 14 items, giving a total of 61 items, all of them with a Likert-type scaling response format of five numerical values from 0 to 4, where zero is none and four is very high. The psychometric properties of the instrument were: a) validity: through consultation with experts; b) reliability: through Cronbach's Alpha coefficient, registering a reliability level of .98 (Ortega Rocha y Jaik Dipp, 2010).

RESULTS

The inferential results demonstrated the significant correlation between motivational factors and investigative skills according to the normality test Kolmogórov-Smirnov test, the data behaved in a non-normal distribution in non-parametric statistics with Rho Spearman.

The general hypothesis test was carried out using Spearman's Rho, which is why it was found with a value of 0.848**, establishing a high correlation of the motivational factors' variables and research competencies in students of the nursing school.

TABLE 1
CORRELATION OF MOTIVATIONAL FACTORS AND INVESTIGATIVE COMPETENCIES

			Motivational Factors of Nursing interns	Research competencies of Nursing interns
Spearman Rho	Motivational Factors of Nursing interns	Correlation coefficient	1,000	,848**
		Sig. (bilateral)	.	,000
		N	236	236
	Research competencies of Nursing interns	Correlation coefficient	,848**	1,000
		Sig. (bilateral)	,000	.
		N	236	236

TABLE 2
CORRELATION OF MOTIVATIONAL FACTORS AND GENERIC INVESTIGATIVE COMPETENCIES

			Motivational Factors of Nursing interns	Generic research competencies
Spearman Rho	Motivational Factors of Nursing interns	Correlation coefficient	1,000	,756**
		Sig. (bilateral)	.	,000
		N	236	236
	Dimension 2: Generic research competencias	Correlation coefficient	,756**	1,000
		Sig. (bilateral)	,000	.
		N	236	236

In table 2, the correlation coefficient was made using Spearman's Rho, which is why it was found with a value of 0.756**, establishing a high correlation of the variable's motivational factors and methodological research competencies in students of the nursing school.

TABLE 3
CORRELATION OF MOTIVATIONAL FACTORS AND METHODOLOGICAL RESEARCH COMPETENCIES

			Motivational Factors of Nursing interns	Methodological research competencies
Spearman Rho	Motivational Factors of Nursing interns	Correlation coefficient	1,000	,926**
		Sig. (bilateral)	.	,000
		N	236	236
	Dimension 1: Methodological research competencias	Correlation coefficient	,926**	1,000
		Sig. (bilateral)	,000	.
		N	236	236

In table 3, the correlation coefficient was made using Spearman's Rho, which is why it was found with a value of 0.926**, establishing a high correlation of the motivational factor's variables and methodological research competencies in students of the nursing school.

DISCUSSION OF RESULTS

The results showed that there is a significant relationship between motivational factors and investigative skills; therefore, there is a relationship between the motivational factors in the influence on the development of professional skills (Nuphanudin et al., 2022). Promote that the motivational factors are individualized under the intracurricular strategies of the university students who focus their investigative skills in the direction of methodological aids, the family and the teacher or advisor that strengthen them to self-motivate and manage the academic research design-development at the higher level.

The students revealed the internal factors that cause low academic research performance when there is a lack of motivation derived from two important directions: the family and the teacher (Mauliya et al., 2020). Nursing and Physiotherapy students were more motivated than Physical Education students (Días de Araujo y Peruzzi, 2020). In none of the courses, to investigate, there were differences in motivation between men and women (79%), so the analysis between students who did research and those who did not do research was not significant ($r = .956$; $p = .000$). It is concluded that there is a direct influence of the motivation to learn to investigate in supervised training.

Regarding the motivational factors on the part of the students, such as the investigative academic requirement and the face-to-face modalities of the academic offer to continue with their advanced training process, it is concluded that they must consider the social context in which the research is framed, as well as its foundational purposes to adequately respond to the academic needs for advanced training that is required in their motivational environments (Chalela Naffah et al., 2018).

On the level of initial motivational development of the research skills of postgraduate students, valuable information was obtained about the levels of mastery in three factors: design, development and management for motivation, the domains in the research skills are valued based on the average for the design, instrumental and management components for motivation (Cardoso y Cerecedo, 2018).

The results coincide with a study that used the Jaik instrument (2017), resulting that 33% have investigative skills and the strictly quantitative position, which motivates the use of the scientific method, this influences the investigative skills, with a probability of error. (3.2%) with a p-value of 0.032 (3.2%) below the level of significance (5%). It is concluded that motivational didactic postures are factors that effectively influence the development of research competencies in university students (Zacarias et al., 2021).

The application of cooperative learning (CA) in the motivational development of research competencies of the entrants to the professional career of Education: Communication, Linguistics and Literature of Santiago Antunez de Mayolo National University to a population of 60 university students who used questionnaires obtained as a result that 25% was in process than expected; while 31% did achieve what was expected in the application. It is concluded that the application of cooperative learning significantly influences the motivational development of research skills in university members (Morales Cerna et al., 2021).

Finally, the last reviewed study obtained as results that 57.88% presented high and medium levels of competent research competencies, between its planning (68.42%), execution (65.42%) and its dissemination (59.39%) stages; 73.68% carried out scientific research, so there is an association between the level of competent research competencies with motivation (Alfaro et al., 2018).

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