●SUMMARY●

Editorial

This new issue of MLSER begins with a work dedicated at reviewing the perceptions that millennial workers' have about the role of the tutor in Peru. It analyzes what the figure of a leader should be, someone who should take on the role of a tutor and counselor in the workplace. One of the most significant elements of the study is the validation of a survey and its application to 149 millennial workers from different occupational fields. The results show that millennial workers with higher education are predisposed to favoring a leader as a tutor in the workplace.

New approaches in the field of high capacities opt for a wide range of qualities and dimensions to be taken into account when being sought out. This subject is addressed in the second article which deals with the self-concept in the Primary Education stage and its impact on the most capable students. The research is qualitative and is carried out on a sample of 118 Primary Education subjects from grades 4th, 5th and 6th, including schoolchildren diagnosed with high capacities. The results show a positive correlation between general and academic self-concept and academic performance, with no relationship found between self-concept and gender, high capacity, age and grade.

The next article analyzes the preference in the use of *in situ* library and virtual databases that the University of Puerto Rico Mayagüez Campus (UPRRUM, *Universidad de Puerto Rico Recinto Universitario de Mayagüez*) has before the use of the Internet and what dubious information stems from it. The study was carried out with third- and fourth-year students with the purpose of helping them use the most appropriate means of obtaining reliable information for their university work and assignments. It concluded that, although students are aware of the virtual library amenities, navigating through its data base proved very difficult to do, since it was not a commonly used tool by students to carry out their university assignments.

People management has become a very important tool when guaranteeing the survival of organizations, and higher education institutions are not foreign to this reality.

In the fourth article, research is carried out to improve university management at the José Eduardo dos Santos University (UJES) in Angola, through the participation of students in the teacher performance evaluation process. It mainly concluded that this participation plays a very important role that can contribute to improving the teaching and learning quality, and thus institutional management overall.

The last two articles relate to nursing careers in two different countries: The Dominican Republic and Puerto Rico. The first one builds upon a research with the objective of analyzing the scale of values in nursing professionals between May 2017 to July 2018. Its conclusion is that vocational schools must work to maintain balance and reinforce barely present values through the inclusion of ethical principles in the curriculum, with outreach toward their graduates. The second study analyses the

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relationship between the level of knowledge in a sample of undergraduate nursing students from several universities in the southern region of Puerto Rico, on the theory of Emotional Intelligence and if the knowledge existed, how to integrate the theoretical concepts in the classroom. The most significant conclusion is that, regardless of knowledge in EQ, there is no relationship between EQ and the evaluation process and its integration into students' academic performance.

Antonio Pantoja Vallejo
Editor in Chief

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CHARACTERISTICS OF THE TUTORS FOR THE WORKER OF THE PERUVIAN "Y" GENERATION: IMAGE BASED ON A FIELD STUDY

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Abstract. This article aims to contribute in the fields of knowledge's pedagogy and people management by investigating the perception that Peruvian millennial workers have of what should be the figure of a leader who takes the role of Mentor and Counselor in an environment labor. For this research, a review of the literature on the subject has been carried out and, in addition, a field study using a data collection tool designed ad hoc. This tool has been validated by a group of experts whose results were analyzed by means of two analyzes, one of means of value of each question and then by a statistician to verify the internal concordance of the questions, W of Kendall. In general, the tool had a Kendall index (W) of 0.572 and a level of significance (Sig) of 0.032, which concludes that it is a tool of high level of agreement among the experts. After this validation we applied the survey to a group of 149 Peruvian millennial workers from different labor fields. The results were subjected to nonparametric analysis of mean differences of both the T-Student and ANOVA types, with the main conclusion that millennial workers with higher education have a favorable predisposition to the figure of the mentor at work. Also this figure presents certain characteristics that we can analyze more in detail in the discussion of results. It is important to emphasize that these results are in line with other similar investigations carried out.
Keywords: Millennials, innovation, mentoring and couseling.

CARACTERÍSTICAS DE LOS TUTORES PARA EL TRABAJADOR DE LA GENERACIÓN "Y" PERUANO: IMAGEN EN BASE A UN ESTUDIO DE CAMPO

Resumen. El presente artículo es parte de una investigación doctoral la cual pretende aportar en los campos del conocimiento de la pedagogía y la gestión de personas, investigando la percepción que tienen los trabajadores peruanos de la generación "Y" de lo que debe ser la figura de un líder que tome el papel de Tutor y Orientador en un ambiente laboral. Para esta investigación se ha realizado una revisión de la literatura sobre el tema y adicionalmente un estudio de campo utilizando una herramienta de recolección de datos diseñada ad hoc. Esta herramienta ha sido validada por un grupo de expertos cuyos resultados

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fueron analizados mediante el estadístico W de Kendall para verificar la concordancia interna de las preguntas. En general la herramienta tuvo un índice de Kendall (W) de 0.572 y un nivel de significancia (Sig) de 0.032, lo cual se concluye que es una herramienta de un adecuado nivel de concordancia entre los expertos, así como que la concordancia entre ellos no se debe al azar. Luego de la validación, hemos aplicado la encuesta a un grupo de 149 trabajadores de la generación "Y" peruanos de distintos campos laborales. Los resultados fueron sometidos a análisis no paramétricos de diferencias de medias del tipo T-Student y ANOVA, concluyendo que los trabajadores de la generación "Y" con educación superior tienen una predisposición favorable a la figura del tutor en el trabajo. Así mismo, esta figura presenta determinadas características que podremos analizar más al detalle en la discusión de resultados. Es importante recalcar que estos resultados están en línea con otras investigaciones similares realizadas.
Palabras clave: generación "Y", innovación, orientación y tutoría

Introduction

Millennial workers are those who were born between 1982 and 2002 (Epstein and Hershatter, 2006; Howe and Strauss, 2000) and who were born into prosperous times, have great expectations and search for meaning in the work that they carry out (Howe and Strauss, 2000). Boschma and Groen (2008) likewise added that such workers are recognized as those from the society of information, always connected, anywhere and at any time. Peruvian researchers Castro and Yamada (2010) concur with what was said about millennial workers, since the Peruvian context in which these types of workers grew in was characterized by a period of economic growth, by which their basic needs were covered with a carefree attitude before reality.

The Deliotte consulting firm (2015) defines some of the characteristics of the Peruvian millennial workers as hyperconnected, with a high job turnover trend, informal in their behavior, participatory, seeking balance in their lives, enjoying continuous learning, seeking their self-development and likely to receive mentoring. The consulting firm also points out that they seek the marked important type of leadership that they desire, and so ask for a leader who is: a source of inspiration, has interpersonal skills, vision, passion and enthusiasm, takes decisions, strategic in thinking, conveys comfort, flexibility, knows how to provide feedback and is people-oriented. In other words, they want a mentor. (Deloitte, 2015 and Pricewaterhouse, 2014). Within this same line of thought, the consultant EP|Roland (2014) indicates that: "Bosses should act as guides beyond just the professional life and create ongoing challenges" (ER|Roland, 2014 p.11) reinforcing the image of a mentor or tutor that these types of workers are looking for.

Tapscott (2009, cited by Gonzáles, 2011) defines some of the guidelines that any millennial worker wants to find in an ideal working environment:

a) Freedom to work when and where they want, or time flexibility.
b) Customization, demanding not to be treated as a mass but as individuals.
c) Fluid and open information between peers and leaders.
d) Integrity, as these workers hope to collaborate with a company that is transparent, honest and considerate in their environment.
e) Collaboration, working with others to achieve the objectives.
f) Enjoy the work they do, by which the work environments must be entertaining and enjoyable.

Gonzales (2011) also reinforces the topic of mentoring, explaining that these workers are looking for someone to guide and advise them, be a reference, a person of integrity and one who they feel confident developing themselves with.

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Rounding out the presented ideas, Begazo and Fernández (2015) identify that this group will accentuate their desire for immediate access to the organization's contribution, constant and more detailed feedback from their superiors, better balance between personal and work life and spaces to give back to the community through philanthropic work.

In conclusion, we appreciate that the major features that stand out in this generation of workers are: being hyperconnected, participatory, searching for work-life balance, continuous learning, self-development and searching for guidance. It is a generation that, therefore, expects their development to be fostered through feedback and a boss or leaders who can lead.

The other point that drives this research is mentoring and guidance, a point where we clarify that the research takes on the approach of mentoring and guidance within the work environment, even though this concept stems from the field of pedagogy.

To begin with, we need to specify what kind of education is provided in companies themselves. For Vasquez (1998, cited by Carrasco, 2014), this is a non-formal education, since it is focused on developing one or several functions at work.

This education has a learning component that for Agrys and Schon (1960, cited by Carrasco, 2014) is a double cycle where existing knowledge is exploited and new knowledge is generated, allowing us to think in other ways. In the words of Carrasco (2014) education and learning in the company provide us with the ability to: "to be able, as an organization, to sustain useful and known knowledge, as well as break patterns and find new and better ways to do the job" (Carrasco, 2014 p.32). As we have seen, education in the occupational field is aimed at on-the-job training from a starting level, but also toward the generation of new knowledge. This implies the existence of occupational competencies that produces said action and for this process to become enhanced through the mentoring figure guiding this process.

Mentoring and guidance, in the business world, is within the functions of the human resources department, specifically within two of their processes; introducing new workers into the company, and performance evaluation, where feedback and follow-up actions are created for worker improvement (Cannice, Koontz and Weihrich, 2012). Although the authors place this process within the functions mentioned above, in reality, mentoring and guidance is provided in two daily occupational practices: coaching and mentoring. Coaching is a process where the worker and the coach or counselor have individual sessions and address topics that involve profound changes in the worker's professional life. On the other hand, mentoring is a learning methodology where the mentor and student have conversations that are clearly aimed at having a result upon the occupational role's function. It is passing knowledge from experience (Espinosa, 2011, Serrat, 2010).

Both techniques aim to provide the worker with strategic or significant learning, relating the activity, the subject and the context. A key element within the acquisition of this type of learning is the job mentor, who for Schalk (2005) is:

> Makes the worker feel part of a new universe and highly motivates them, integrating and incorporating them. For this, the following is necessary: knowing the worker, providing suggestions regarding their goals and the needs of enrolling them in a given activity. (Schalk, 2005 p.82)

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Reinforcing the previous proposal, Coll, Mauri and Onrubia (2008) speak of the Zone of Proximal Development (ZPD) as an area where the trainer where the trainer, as an expert, favors the apprentice's inter-psychological operation which is fundamental to building knowledge. In this way, the mentor's role is indispensable for the apprentice to internalize knowledge.

The research of Brcic and Mihelic (2015) point to the fact that millennials have the willingness to receive more mentoring, by which organizations are recommended to place greater emphasis on fostering intergenerational mentoring relationships in a systematic manner. In line with what is observed by these researchers, the Great Place to Work survey (2013) indicates that millennial workers ask for communication and feedback from their superiors for purposes of their professional development, molding a type of relationship in which the leaders or superiors are likewise: "mentors or coaches" (Great Place to Work, 2013 p. 6).

Of all the literature reviewed, we can conclude that there is a point of convergence, in theory, between the concepts of millennial workers and mentoring and guidance. This point of convergence points to the fact that millennials have a tendency of favorably receiving mentoring and guidance through the figure of the Mentor. But is there any type of study that focused on the perceptions of Peruvian millennial workers on the figure that the mentor must exude in work environments?

One of the first studies, after reviewing the literature on the issue, is that of Dávila and Mitta (2015) which sought to identify retention policies and practices for millennial workers within different Peruvian organizations for which the study was divided in two parts; the work requirements and expectations of millennials in the first study, and the policies and practices identified in the second study on the current retention of human resources departments in those organizations that participated in the study. To this end, an ad hoc survey was created aimed at final year university students based on the profile of young millennial Americans. An ad hoc interview was then carried out on those in charge of human resources so as to know their opinions on millennials. The results of this study demonstrate a gap between what businesses expect from millennials in the employment world, compared to who they really are. This is not a negative gap, however, but rather a gap on expectations. This is to say, both parties expect a pivot for developing said potential. It is of special interest that companies see that millennials have the capacity for innovation, for creating new ideas and providing a different perspective on the world, and for them to be seen as flexible with the rules, but not yet as innovative as they would like. So it is important to note that they always ask for constant feedback on what they do, denoting a need for guidance and mentoring to justly take advantage of said innovative potential, as well as other competences.

In another study on the use of mentoring or coaching for the retention of millennial workers and developing their potential was made by Newell (2015), who studied a proposal for training millennial workers through social learning for which he conducted the study with workers for a telecommunications company in Peru. To this end, several focus group were carried out on how to generate the content required for these new learning platforms. The main conclusion reached was that learning addressed toward millennial workers will have the greatest impact when built with internal resources. This is the same as taking advantage of the knowledge of expert partners on specific issues, making them mentors of this learning format.

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Another case study on mentoring, although outside the scope of Peru, was the development of the worker program in Spaniard occupational settings as carried out by Grande and Núñez-Cacho (2012). The research established the figure of mentoring as assigning an apprentice, who is an employee with the possibility of promotion and improvement within the company, to a mentor who is another more experienced employee with deep knowledge of the organization. This part is defined as critical since the success of this process will very much depend on the affinity, trust and positive environment in the relationship between apprentice and mentor. The research was conducted in two parts, first an ad hoc survey where information on the company's productivity and growth based on mentoring programs was collected. This took place in companies from different sectors in Spain, where the average workers were around 35 years old. In the second part, the results were then subjected to a structural equation model which dependent variable was the company's growth. The conclusion from these authors is:

> When the organization employs a mentor for the employee's personal and professional development, the processes are programed by the organization (formal mentoring), including the program objectives, employing an outside mentor whose profile has carefully studied the process. It is also a long-term development with participants that are satisfied with their careers within the organization and who are committed to the mentoring relationship. This, then, improves the performance of human capital. (Grande and Nuñez-Cacho, 2012 p.78)

Lastly, the study from Guillaume, Jones and Wood (2015) tries to find a method to scientifically measure the effectiveness of coaching in the workplace. To do this, they suggest measuring the effect of coaching in three dimensions of occupational activity: learning, training and development. In each of these aspects, the researchers measured the results in four dimensions inherent in the coaching process: feedback, coaching teaching format, internal coaching versus external coaching, and the duration of coaching. The study showed that effective coaching is based on providing effective feedback, with a coach who knows the company culture, more so if they come from the same area where coaching is needed.

After reviewing the existing literature, we can arrive at the following conclusions: research has not yet been carried out that seeks to find the true perception of Peruvian millennial workers on the figure of the mentor within in work environments. What we did find were outside studies and others at the national levels that indirectly concluded that a good perception toward the figure of the mentor at work would exist. Lastly, the reviewed literature shows us that the characteristics of millennial workers are favorable, a priori, for the introduction of the mentoring and guidance programs in work environments. This is evident in the need for constant feedback, which supports itself on the figure of a mentor who will guide them and teach them in their respective careers.

From the perspective of the theory reviewed and according to our research needs, the following general objective is presented on the study's objective: discover the image of Peruvian millennial workers with respect to the figure of the mentor in work environments.

In order to achieve this main objective for the research, the following secondary objectives are:

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a) To demonstrate if there is a significant difference, and of what type, in the perspective of millennial workers with respects to the figure of the mentor depending on their gender.

b) To demonstrate if there is any significant difference, and of what type, in the perspective of millennial workers with respect to the figure of the mentor depending on the environment they work in.

c) To demonstrate if there is any significant difference, and of what type, in the perspective of millennial workers with respect to the figure of the mentor depending on whether they are employed in the career they previously studied or not.

d) To demonstrate if there is any significant difference, and of what type, in the perspective of millennial workers with respect to the figure of the mentor depending on the industry sector where they work.

e) To demonstrate if there is any significant difference, and of what type, in the perspective of millennial workers with respect to the figure of the mentor depending on the education of the workers.

f) To demonstrate if there is any significant difference, and of what type, in the perspective of millennial workers with respect to the figure of the mentor depending on the amount of years working in a company.

Methodology

According to the research, this will be descriptive since it will seek to describe the most important characteristics of the study's objective (Gómez-Peremistré and Reidl, 2010), which in our case will be the characteristics that the mentors must have for Peruvian millennial workers. At the same time, the design will be a non-experimental one when observing the phenomenon and collecting data, since there will be no intervention upon the phenomenon, with the observations taking place in the same environment where it occurs (Gómez-Peremistré and Reidl, 2010). This is to say, within the Peruvian millennial workforce. With regard to the analysis of the data collected, the focus will be preferably a quantitative one.

To carry out the above, we need to have a data collection tool, for which an ad hoc survey was designed that will not only serve the purposes of this article but those of the doctoral research that will be carried out later on.

The mentoring and guidance topic within the labor world has a broad spectrum for application. In order to refine the doctoral research, it was decided to introduce a delimitation factor to the questions, which is innovation. The introduction of this factor is to see whether the effect of mentoring is based on the work reviewed in the literature that followed a similar methodology to those of Grande and Núñez-Cacho (2012), and Guillaume, Jones and Wood (2015) to measure the effectiveness of coaching and/or mentoring. However, for the purposes of this article, we will not analyze this dimension of the survey.

To build the data collection tool, we have resorted to other surveys from previous research that point to the employment characteristics of millennial workers, mentoring at work and innovation in the occupational field:

a) Gallup Poll 12 and EFR from Boston for retaining talent (Frías, 2014)
b) Inventory Survey System for Transfer of Learning (Baron and Morin, 2009), where we will take the topics that enable us to see how we may influence the

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transfer of knowledge in occupational settings applied to millennial workers for them to develop innovation.

c) Achievement Orientation Scale (Kunda, Jordan and Lockwood, 2002) which appears in the study by Chang et. Al (2007), where the questions will guide us to see how millennial workers may achieve their objectives in innovation.

d) Oriented LMX Scale for the Coach and Apprentice Relationship (Graen and Scandura, 1984) which appears in the study by Chang et. Al (2007) with focused questions to describe the relationship between the coach and trainee within occupational settings

e) Job Satisfaction Scale (Cook, Wall and Warr, 1979) that appears in the study by Huamán and Vasquez (2012), with the purpose of having an overview on how millennial workers feel with regard to their relationship with the mentors.

f) Questionnaire on the Functions of Mentoring (Scandura, 2004)

g) Organizational Commitment Questionnaire (Allen and Meyer, 1990) that appears in the work by Frías (2014), for measuring the level of commitment to a mentoring program for millennial workers, and whether it focuses on developing innovation

h) Construct for measuring shared knowledge behaviors (Brcic and Mihelic, 2015)

i) TMX Survey for detecting relationship qualities among workers in the same team (Seers, 1989)

j) Survey model for finding an index of innovation (Camio et. Al, 2010)

k) List of capacities for innovation (Bin Ali, and Edison, 2010) that appears in the research by Camio et. Al (2010).

From this set of listed tools, several questions were taken and adapted for the design of the different items or questions in our ad hoc survey, measuring the dimensions of innovation, mentoring and guidance and the characteristics of Millennials. The survey covers these three dimensions, as it has not only been designed for this article's research but for the future doctoral research as well, where these three dimensions will be explored. As previously mentioned, we will only analyze the mentoring and guidance dimension at the end of this article. The items or questions arising from this adaptation are shown in Annex 1.

The resulting survey was subjected to an expert opinion with the purpose of knowing if said instrument truly measured the variables that we intend to measure through an analysis of content validity. To do this, we have resorted to the methodology of expert judgments. For this, we asked for the collaboration of 8 judges who came from the field of human resources management in the company, apart from being managers or the superiors in these areas.

The criteria that the judges would measure in each question or item of the tool are:

a) Clarity: The item is easily understood, that is to say, its syntax and semantics are appropriate.

b) Coherence: The item has a logical relationship with the dimension or indicator that is being measuring.

c) Relevance: The item is essential or important, i.e. It must be included.

These criteria are generally in common use in various content validity tests with regard to the item evaluations (Badia, 2012).

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A Likert scale of 1 to 4 was used for evaluating these criteria, where 1 was deficient, 2 was acceptable, 3 good and 4 was excellent.

The judgments by the experts was carried out between the months of January and February 2018 and had a 75% level of response. The results obtained from the judges for each criterion from each question were subjected to the Kendall statistical W which helped us to find the concordance index of the judges to evaluate each of the questionnaire blocks. According to the theory, a W of Kendall (W) equal to 1 indicates a total concordance among the judges who evaluate the tool, with 0 being the opposite.

Another issue to evaluate is determining if the concordances between the judges are associated either from the effects of chance, probabilities, or by an agreement arising out of the judgment process from the experts. To do this we will use the significance level (Sig.) that enables us to contrast the following Null Hypothesis: The concordances between the judges is due to probabilities or chance. In terms of values, if Sig. is greater than 0.05 then the Null Hypothesis is valid; if the opposite, the null hypothesis will be discarded. This structure and value of the significance level is suggested by the majority of researchers for the validation of measurement tools, whether they exist or were created ad hoc, where the risk of concluding that the classifications are associated, when they are not, is 5% (Badia, 2012).

The following is a summary table showing the values obtained on the consistency of the judges with respect to the ratings of each question block, and from the survey in general:

Table 1

Concordance Index between judges based on Kendall (W) and Degree of Significance (Sig)

Valuation	Innovation		Mentoring and Guidance		Characteristics of Millennial Workers	
	W	Sig.	W	Sig.	W	Sig.
By question blocks	0.798	0.008	0.121	0.483	0.12	0.486
	W	Sig.				
General	0.572	0.032				

Note: Author's own creation where Kendall's W is the index and Sig. is the Significance Level.

With this data, we find that the survey has a significance level among the judges (sig) of 0.032 and Kendall's W of 0.572 for the concordance. As such, we can conclude that the survey creates a level of concordance between judges, where said concordance is not due to the effect of chances or probabilities but is rather associated with each other through the same process. With these results, we can say that the survey is validated in its internal structure, measuring three factors: Innovation, Mentoring, and Career Guidance and the Characteristics of millennial workers. Each of these factors will have a group of questions composed of 14 items for innovation, 14 items for

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mentoring and career guidance and 18 items for the characteristics of millennial workers. Each item will also be evaluated according to a Likert scale from 1 to 5, where:

-1: Completely Disagree

-2: Disagree

-3: Neither Agree nor Disagree

-4: Agree

-5: Completely Agree

The detail for each item and its codification are presented in Annex 2.

Turning to the survey's implementation phase, this was carried out with a total of 149 participants from different items of Peruvian business between the months of June to October 2018. The sample size determination has been based on a non-probabilistic sampling for convenience as "it enables us to select those accessible cases that accept being included. This is based on the convenient accessibility and proximity of the subjects for the researcher" (Manterola and Otzen, 2017 p. 230)

It is also important to note that the number of respondents was limited both by the research's material resources and amount of available time.

Among the main socio-demographic data of participants in the survey we have:

Table 2

Main sociodemographic data of participating Peruvian millennial workers

Variables	*Categories*	*Quantity*	*Percentage*
Gender	Woman	70	51%
	Man	66	49%
Service Area		89	65%
	Business	36	26%
	Manufacturing	11	8%
Elementary Education		0	0%
	Secondary Education	6	4%
	Technical Education	69	51%
	University Education	52	38%
	Post-graduate	9	7%
	Doctorate	0	0%
Rural Environment		12	9%
	Urban Environment	124	91%
Performance	Yes	56	41%
	No	80	59%

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Time in the Company	Less than 3 months	37	27%
	Between 6 months and 1 year	26	19%
	Between 1 and 3 years	40	29%
	More than 3 years	33	24%

Note: Author's own creation. Variable Performance should be interpreted as "As working in the occupation that they originally studied". It contains data from 136 participants since 13 people did not complete the survey in the correct way.

The next step will be to submit the participants' responses to the respective statistical analysis in order to obtain the answers for our research objectives. For Gomez-Peresmitré and Reidl (2010) and Sánchez (2015) there are a group of tests for this type of study which assumes the existence of two or more independent sample. These are the parametric tests, which are based on two assumptions: that the sample size is greater than 30 individuals and that the data distribution is a normal type. In this group, there are two types of statistical analysis that will be used in accordance with the following research needs:

a) Student's T-test, which will enable us to relate those dichotomous independent variables with the dependent variables of our survey. In the group of dichotomous variables we have: Sex, Environment and Performance, which relate to the objectives of the research), a), b) and c) respectively. It assumes a null hypothesis where significant differences exist between the dependent variables and sex, performance and environment respectively.

b) ANOVA. This will enable us to relate those independent variables with more than two options with the dependent variables of our survey. In this group we have the variables: Area, Level of Education and Time in the Company, which relate to the research objectives d), e) and f) respectively. It supposes a null hypothesis where significant differences exist between the dependent variables and the rubric, level of education and time in the company respectively.

A confidence level of 95% with a significance of 0.05 were decided upon for both average comparison analyses, since these are the values used in the research type carried out (Gomez-Peresmitré and Reidl, 2010).

The survey was conducted with a total of 149 millennial workers from different business areas. Of this total, 13 surveys were discarded for the following reasons:

- Outside the objective age range
- Did not complete some of the socio-demographic data
- Did not complete one or more survey questions
   Therefore, there were a total of 136 valid surveys, with a level of response of 91.3%.

Results

As we saw earlier, we have a total of six secondary targets of research that have to do with the figure of the mentor, which will be measured using the Mentoring and Guidance dimension of the survey. Of these six goals, the first three relate to finding

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significant differences between the millennial workers' vision with respect to the figure of the mentor depending on the variables of Sex, Environment and Performance. In order to meet these goals, we have undertaken a Student's T-test for dichotomous type variables, as those that we have analyzed, obtaining the following results:

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Table 3

Main statistics for the Student's T-test for the analysis of the variables on Sex, Environment and Performance.

Items	Dimensions	Dimension Category	Means	Significance Level	Dimensions	Dimension Category	Means	Significance Level	Dimensions	Dimension Category	Means	Significance Level
OYT1	SEX	Woman	3.67	.829	ENVIRONMENT	Rural	3.67	.922	PERFORMANCE	Yes	3.77	.483
		Man	3.71			Urban Environment	3.70			No	3.63	
OYT2	SEX	Woman	3.61	.689	ENVIRONMENT	Rural	3.58	.801	PERFORMANCE	Yes	3.57	.469
		Man	3.68			Urban Environment	3.66			No	3.70	
OYT3	SEX	Woman	3.67	.267	ENVIRONMENT	Rural	3.25	.065	PERFORMANCE	Yes	3.88	.279
		Man	3.86			Urban Environment	3.81			No	3.68	
OYT4	SEX	Woman	3.84	.534	ENVIRONMENT	Rural	3.83	.824	PERFORMANCE	Yes	3.95	.481
		Man	3.94			Urban Environment	3.89			No	3.84	
OYT5	SEX	Woman	3.70	.876	ENVIRONMENT	Rural	3.33	.177	PERFORMANCE	Yes	3.80	.374
		Man	3.73			Urban Environment	3.75			No	3.65	
OYT6	SEX	Woman	3.93	.945	ENVIRONMENT	Rural	4.08	.554	PERFORMANCE	Yes	4.05	.171
		Man	3.94			Urban Environment	3.92			No	3.84	
OYT7	SEX	Woman	3.91	.874	ENVIRONMENT	Rural	3.92	.994	PERFORMANCE	Yes	3.98	.498
		Man	3.94			Urban Environment	3.92			No	3.87	
OYT8	SEX	Woman	3.74	.798	ENVIRONMENT	Rural	3.67	.714	PERFORMANCE	Yes	3.66	.330
		Man	3.79			Urban Environment	3.78			No	3.84	
OYT9	SEX	Woman	3.63	.550	ENVIRONMENT	Rural	3.50	.513	PERFORMANCE	Yes	3.77	.341
		Man	3.73			Urban Environment	3.69			No	3.61	
OYT10	SEX	Woman	3.69	.244	ENVIRONMENT	Rural	3.75	.917	PERFORMANCE	Yes	3.88	.327
		Man	3.88			Urban	3.78			No	3.71	

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						Environment						
OYT11	SEX	Woman	3.83	.815	ENVIRONMENT	Rural	3.83	.963	PERFORMANCE	Yes	3.93	.347
		Man	3.86			Urban Environment	3.85			No	3.78	
OYT12	SEX	Woman	3.79	.869	ENVIRONMENT	Rural	3.25	.057	PERFORMANCE	Yes	3.91	.190
		Man	3.76			Urban Environment	3.82			No	3.68	
OYT13	SEX	Woman	3.86	.338	ENVIRONMENT	Rural	3.67	.281	PERFORMANCE	Yes	4.07	.102
		Man	4.00			Urban Environment	3.95			No	3.82	
OYT14	SEX	Woman	3.74	.865	ENVIRONMENT	Rural	3.83	.784	PERFORMANCE	Yes	3.79	.720
		Man	3.77			Urban Environment	3.75			No	3.72	

Note: Author's own creation.

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From the Table, may deduce that no value of significance for the Mentoring and Guidance dimension with respect to the variables of Sex, Environment and Performance is less than 0.05, which leads us to reject the null hypothesis taking for granted the existence of significant differences. We can thus conclude that there is no evidence of differences with respect to the vision of the figure of the mentor by millennial workers according to the variables Sex, Environment nor Performance.

Continuing with the answers to our research objectives, the next group analyzed are those that relate to finding significant differences between the vision of millennial workers with respect to the figure of the mentor depending on the variables of Education and Time in the Company. In order to meet these goals, we have undertaken an ANOVA analysis for variables that have more than two possible answers, such as those we have analyzed, obtaining the following results:

Table 4

Main statistics from the ANOVA test for the analysis of the Education, Time in the Company variable and Company Area

Item/Dependent Variable	Independent Variable Category		Mean Differences (I-J)	Dev. Error	Sig.
OYT1	University Education	Secondary School	.962[*]	0.464	0.040
		Technical Education	.425[*]	0.197	0.033
OYT2	University Education	Technical Education	.392[*]	0.178	0.029
OYT6	University Education	Technical Education	.535[*]	0.163	0.001
OYT8	University Education	Technical Education	.454[*]	0.185	0.015
OYT9	University Education	Technical Education	.348[*]	0.175	0.049
OYT10	University Education	Technical Education	.425[*]	0.175	0.016
OYT11	University Education	Technical Education	.415[*]	0.157	0.009
OYT12	University Education	Secondary School	.840[*]	0.407	0.041
		Technical Education	.666[*]	0.173	0.000
OYT13	University Education	Technical Education	.588[*]	0.152	0.000
OYT14	University Education	Technical Education	.478[*]	0.184	0.011
OYT4	Less than 3 months	Between 6 months and 1 year	.454[*]	0.229	0.050
OYT7	Less than 3 months	Between 1 and 3 years	.418[*]	0.206	0.045
		More than 3 years	.455[*]	0.217	0.038

Note: Author's own creation. * Differences in means is significant at the 0.05 level. Extract from the complete table presented in Annex 3 with those variables that present significant differences.

The evidence shown in the above table may be summarized in two large categories: evidence with respect to the independent education variable and evidence

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with respect to the independent time in the company variable. After this first division, we will proceed to present evidence specific to each group.

In evidences related to the independent education variable, we can see differences between those workers who have a university education with respect to those who have a technical education in the items that have to do with mentoring and guidance:

-OYT1: I receive feedback from my superior

-OYT2: My superior is receptive of any feedback that may provide

-OYT6: My relationship with my superior is positive

-OYT8: My superior understands the problems and difficulties of the area and carries out actions to resolve them

-OYT9: My superior has been an important factor for my proper integration or performance within my work

-OYT10: My superior creates confidence

-OYT11: Feedback sessions with my superior or mentor enable me to reflect and project future objectives at work

-OYT12: My mentor or superior supports my actions and/or decisions

-OYT13: My boss supports me when I need to resolve a problem at work

-OYT14: I recognize my superior as someone who motivates me

In most cases, a more favorable trend is evidenced of all these practices among workers with a university education. Special cases we may find in the items: I receive feedback on my work from my superior (OYT1) and my mentor or superior supports my actions and/or decisions (OYT12); where the evidence of significant differences extend to the group of workers with secondary schooling.

The next group refers to the independent variable of time in the company which evidences significant differences for the guidance and mentoring dimension. The items my superior is honest with me (OYT4) and my superior has the necessary knowledge to guide me on my activities (OYT7) evidences the significant differences in favor of those workers who have less than 6 months with respect to those who have more time.

In the last group, with regard to the variable Company Area, there is no evidence of any data that demonstrates that there is a significant difference, by which the results are not displayed in table 4 in this regard.

Discussions and Conclusions

The first thing this research shows us is that between the independent variables of Sex, Environment, Performance and Company Area and the Guidance and Mentoring dimension, there are no significant differences, by which these variables do not affect the Peruvian millennial workers' view on the figure of the mentor within work environments.

On the other hand, the analysis of the variables Education and Time in the Company with the Guidance and Mentoring dimension provided much more information that explained the figure of the millennial worker with respect to the figure of the mentor in the employment world. In particular, we can see that the worker's Education variable has significant relationships with the figure of the mentor's take within the company and more specific, with those millennial workers who have a college education and who favor having a mentor for their daily work.

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With the proposed results we can conclude that Peruvian millennial workers have an image in them with respect to the figure of the mentor within work environments whose characteristics are the following:

a) Is a person who gives feedback on the work done
b) Is receptive to feedback that the worker may provide
c) May have a positive relationship with them
d) Knows the area, its problems and difficulties, but also performs actions to resolve them
e) Is an important person in the integration and subsequent development in the area of their workers
f) Creates a climate of confidence.
g) The feedbacks provided are substantial and enable reflecting on and, likewise, projecting future goals about our daily work.
h) Supports the decisions and actions of their workers
i) Is a person who supports the worker during the need for solving problems
j) Motivates us to do the things

We can see from these points that there is a coincidence with other studies that were reviewed from literature such as Grande and Núñez-Cacho (2012) and Davila and Mita (2015) where they point out that millennial workers see the figure of a mentor/tutor/superior in a positive light, whether as a professional development tool and/or as retention of talent, having the characteristics of providing feedback, motivating doing things and supporting the worker's job development.

Apart from the model of the mentor, a less relevant fact is that of the coincidence with the studies from Newell (2015) and Dávila and Mita (2015) in which the main findings were in those working populations with higher studies, mainly a university education, where more findings have been made.

To this we can add that, according to the literature reviewed, the characteristics of those millennial workers most compatible with the characteristics of the mentor figure we've found are:

a) Feeling that the work has meaning for them
b) Feeling the superior as a person that guides and teaches
c) Perceiving the reception of constructive criticism about their job performance

With regard to the limitations of this study, the most important is the number of people who participated. This limitation is due to the factor of time, since the surveys were conducted when the majority of companies were also conducting their annual job performance surveys, by which many refused to saturate their workers with additional surveys.

Some of the issues that would be left to study are verifying if the results on the mentor figure within the work environments without higher education match or differ with regard to those workers with higher education. At the same time, the entire Innovation dimension of the survey is still to be researched with regard to the figure of the mentor, a topic which will be considered later during the doctoral research.

Lastly, with the number of millennial workers surveyed, no significant differences were observed in the variables for sex, environment, performance and area with respect to the way the mentor figure is perceived. This must be verified whether it stays the same when increasing the amount of workers surveyed.

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Annexes

Annex 1
Survey items before validation from the judges

Item codification	Writing the items
INN1	New services and/or products and ways of working were witnessed during your time working in the company
INN2	The company approaches its employees for innovative ideas
INN3	I may extract the new knowledge I acquire during my daily activity
INN4	The company tolerates mistakes
INN5	The company awards the creation of new ideas
INN6	The company is open to changes
INN7	I feel motivated to learn something new
INN8	I am commonly up against new and unusual situations during my daily work
INN9	I prefer unique and original approaches to each project that is handed to me
INN10	I tend to act by anticipating future problems, needs and changes in my work
INN11	I am in favor of experimentation and original approximations when solving work-related problems
INN12	I feel that I can share information with my peers
INN13	I feel that the company has more innovative processes and/or products than the competition
INN14	I am curious to research and know more about the company
INN15	I can change my way of working if the surrounding work conditions are changed
INN16	I question, in a constructive manner, the way of doing things
INN17	I use digital tools to carry out my daily work in a more flexible and efficient manner
INN18	I search for the opportunities to contribute new ideas in my daily work
INN19	I am receptive to new ideas from my peers at work
INN20	I create more than one alternative solutions for the problems in my work environment
INN21	I produce a big number of ideas in search of solutions for complex problems
OYT1	I receive feedback from my superior
OYT2	My superior is receptive of any feedback that may provide
OYT3	I receive help to learn and/or grow professionally
OYT4	My superior is honest with me
OYT5	I feel that I am advised on important issues in my daily work

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OYT6	My relationship with my superior is positive
OYT7	My superior has the necessary knowledge to guide me through the activities
OYT8	My superior understands the problems and difficulties of the area and carries out actions to resolve them
OYT9	My superior has been an important factor for my proper integration or performance within my work
OYT10	My superior creates confidence
OYT11	Feedback sessions with my superior or mentor enable me to reflect and project future objectives at work
OYT12	My mentor or superior supports my actions and/or decisions
OYT13	My boss supports me when I need to resolve a problem at work
OYT14	I recognize my superior as someone who motivates me
OYT15	My superior procures that I have all of the necessary tools for me to carry out my work
ACT1	I am clear of what the organization expects of me
ACT2	I receive recognition for my work
ACT3	They look out for my well-being, as a person, in my work
ACT4	I feel that I may develop my full potential
ACT5	My opinions are taken into account in my work
ACT6	I feel committed with the company's mission
ACT7	I feel that my work has meaning for me
ACT8	Teamwork is promoted where I work
ACT9	I receive constructive criticism about my job performance
ACT10	I feel my superior is a person that guides and teaches
ACT11	I feel that I have the freedom to select my own method of work
ACT12	I feel proud of where I work
ACT13	I feel that I can stay with this company for a long time
ACT14	I feel that there exists an air of confidence between my peers
ACT15	I frequently offer my help to carry out the work in my area or in the team
ACT16	In my work environment, I feel that I am free to use digital tools for my daily work
ACT17	In my work, the type of communication with my peers and superior is immediate
ACT18	The work environment encourages the use of technology

Annex 2
Survey items after validation from the judges

Item codification	Writing the items
INN1	The company approaches its employees for innovative ideas
INN2	I may extract the new knowledge I acquire during my daily activity
INN3	The company tolerates mistakes
INN4	The company awards the creation of new ideas
INN5	The company is open to changes
INN6	I feel motivated to learn something new
INN7	I prefer unique and original approaches to each project that is handed to me
INN8	I tend to act by anticipating future problems, needs and changes in my work
INN9	I feel that I can share information with my peers
INN10	I feel that the company has more innovative processes and/or products than the competition
INN11	I am curious to research and know more about the company
INN12	I question, in a constructive manner, the way of doing things
INN13	I search for the opportunities to contribute new ideas in my daily work
INN14	I create more than one alternative solutions for the problems in my work environment
OYT1	I receive feedback from my superior
OYT2	My superior is receptive of any feedback that may provide
OYT3	I receive help to learn and/or grow professionally
OYT4	My superior is honest with me
OYT5	I feel that I am advised on important issues in my daily work
OYT6	My relationship with my superior is positive
OYT7	My superior has the necessary knowledge to guide me through the activities
OYT8	My superior understands the problems and difficulties of the area and carries out actions to resolve them
OYT9	My superior has been an important factor for my proper integration or performance within my work
OYT10	My superior creates confidence
OYT11	Feedback sessions with my superior or mentor enable me to reflect and project future objectives at work
OYT12	My mentor or superior supports my actions and/or decisions
OYT13	My boss supports me when I need to resolve a problem at work
OYT14	I recognize my superior as someone who motivates me

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ACT1	I am clear of what the organization expects of me
ACT2	I receive recognition for my work
ACT3	They look out for my well-being, as a person, in my work
ACT4	I feel that I may develop my full potential
ACT5	My opinions are taken into account in my work
ACT6	I feel committed with the company's mission
ACT7	I feel that my work has meaning for me
ACT8	Teamwork is promoted where I work
ACT9	I receive constructive criticism about my job performance
ACT10	I feel my superior is a person that guides and teaches
ACT11	I feel that I have the freedom to select my own method of work
ACT12	I feel proud of where I work
ACT13	I feel that I can stay with this company for a long time
ACT14	I feel that there exists an air of confidence between my peers
ACT15	I frequently offer my help to carry out the work in my area or in the team
ACT16	In my work environment, I feel that I am free to use digital tools for my daily work
ACT17	In my work, the type of communication with my peers and superior is immediate
ACT18	The work environment encourages the use of technology

Annex 3

Statistics of the ANOVA test for the analysis of the Company Area variable with respects to Guidance and Mentoring

Item	Time in Company Dimension		Mean Differences (I-J)	Dev. Error	Sig.
	Category				
OYT1	SERVICE	COMMERCIAL	-0.204	0.217	0.348
		MANUFACTURING	-0.098	0.350	0.780
	COMMERCIAL	SERVICE	0.204	0.217	0.348
		MANUFACTURING	0.106	0.378	0.779
	MANUFACTURING	SERVICE	0.098	0.350	0.780
		COMMERCIAL	-0.106	0.378	0.779
OYT2	SERVICE	COMMERCIAL	-0.154	0.194	0.427
		MANUFACTURING	-0.132	0.314	0.675
	COMMERCIAL	SERVICE	0.154	0.194	0.427
		MANUFACTURING	0.023	0.338	0.947
	MANUFACTURING	SERVICE	0.132	0.314	0.675
		COMMERCIAL	-0.023	0.338	0.947
OYT3	SERVICE	COMMERCIAL	-0.053	0.200	0.792
		MANUFACTURING	0.026	0.324	0.937
	COMMERCIAL	SERVICE	0.053	0.200	0.792
		MANUFACTURING	0.078	0.349	0.823
	MANUFACTURING	SERVICE	-0.026	0.324	0.937
		COMMERCIAL	-0.078	0.349	0.823
OYT4	SERVICE	COMMERCIAL	-0.085	0.178	0.636
		MANUFACTURING	0.251	0.289	0.385
	COMMERCIAL	SERVICE	0.085	0.178	0.636
		MANUFACTURING	0.336	0.311	0.282
	MANUFACTURING	SERVICE	-0.251	0.289	0.385
		COMMERCIAL	-0.336	0.311	0.282

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OYT5	SERVICE	COMMERCIAL	-0.008	0.200	0.966
		MANUFACTURING	0.378	0.324	0.245
	COMMERCIAL	SERVICE	0.008	0.200	0.966
		MANUFACTURING	0.386	0.349	0.270
	MANUFACTURING	SERVICE	-0.378	0.324	0.245
		COMMERCIAL	-0.386	0.349	0.270
OYT6	SERVICE	COMMERCIAL	0.089	0.181	0.625
		MANUFACTURING	0.250	0.293	0.394
	COMMERCIAL	SERVICE	-0.089	0.181	0.625
		MANUFACTURING	0.162	0.316	0.610
	MANUFACTURING	SERVICE	-0.250	0.293	0.394
		COMMERCIAL	-0.162	0.316	0.610
OYT7	SERVICE	COMMERCIAL	0.105	0.182	0.564
		MANUFACTURING	0.148	0.294	0.616
	COMMERCIAL	SERVICE	-0.105	0.182	0.564
		MANUFACTURING	0.043	0.317	0.893
	MANUFACTURING	SERVICE	-0.148	0.294	0.616
		COMMERCIAL	-0.043	0.317	0.893
OYT8	SERVICE	COMMERCIAL	0.204	0.202	0.314
		MANUFACTURING	0.297	0.327	0.364
	COMMERCIAL	SERVICE	-0.204	0.202	0.314
		MANUFACTURING	0.093	0.352	0.791
	MANUFACTURING	SERVICE	-0.297	0.327	0.364
		COMMERCIAL	-0.093	0.352	0.791
OYT9	SERVICE	COMMERCIAL	0.114	0.188	0.546
		MANUFACTURING	0.571	0.304	0.063
	COMMERCIAL	SERVICE	-0.114	0.188	0.546
		MANUFACTURING	0.457	0.328	0.166
	MANUFACTURING	SERVICE	-0.571	0.304	0.063
		COMMERCIAL	-0.457	0.328	0.166
OYT10	SERVICE	COMMERCIAL	-0.069	0.192	0.718
		MANUFACTURING	0.037	0.310	0.906

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	COMMERCIAL	SERVICE	0.069	0.192	0.718
		MANUFACTURING	0.106	0.334	0.752
	MANUFACTURING	SERVICE	-0.037	0.310	0.906
		COMMERCIAL	-0.106	0.334	0.752
OYT11	SERVICE	COMMERCIAL	0.071	0.173	0.682
		MANUFACTURING	0.149	0.279	0.594
	COMMERCIAL	SERVICE	-0.071	0.173	0.682
		MANUFACTURING	0.078	0.301	0.795
	MANUFACTURING	SERVICE	-0.149	0.279	0.594
		COMMERCIAL	-0.078	0.301	0.795
OYT12	SERVICE	COMMERCIAL	0.003	0.196	0.989
		MANUFACTURING	-0.247	0.318	0.438
	COMMERCIAL	SERVICE	-0.003	0.196	0.989
		MANUFACTURING	-0.250	0.342	0.466
	MANUFACTURING	SERVICE	0.247	0.318	0.438
		COMMERCIAL	0.250	0.342	0.466
OYT13	SERVICE	COMMERCIAL	-0.124	0.172	0.473
		MANUFACTURING	-0.215	0.278	0.442
	COMMERCIAL	SERVICE	0.124	0.172	0.473
		MANUFACTURING	-0.091	0.300	0.762
	MANUFACTURING	SERVICE	0.215	0.278	0.442
		COMMERCIAL	0.091	0.300	0.762
OYT14	SERVICE	COMMERCIAL	0.087	0.202	0.669
		MANUFACTURING	0.354	0.328	0.281
	COMMERCIAL	SERVICE	-0.087	0.202	0.669
		MANUFACTURING	0.268	0.353	0.450
	MANUFACTURING	SERVICE	-0.354	0.328	0.281
		COMMERCIAL	-0.268	0.353	0.450

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THE SELF-CONCEPT IN THE PRIMARY EDUCATION STAGE: INCIDENTS IN THE MOST CAPABLE STUDENTS

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Abstract. The new approaches in the field of high capacities, compared to the topic of considering only intelligence as a fundamental element in their identification, opt for a wide range of qualities and dimensions to be taken into account in detection. Among them, self-concept appears as the mental self-image of the subject. This construct and its relationship with other variables, such as the academic performance or the sex of schoolchildren, could be influential factors in the strikingly low figures for the diagnosis of students with high abilities and negative results in international performance evaluations. To verify the relationship between these variables, we conducted a quantitative research to evaluate the general and academic self-concept in a sample of 118 subjects of 4th, 5th and 6th grade of Primary Education, including school children with high diagnostic abilities. The Piers Harris Self-concept Scale has been used. The results show a positive correlation between general and academic self-concept and academic performance, not finding a relationship between self-concept and gender, high ability, age and course. In this way, specific actions should be favored, from the teaching and learning processes themselves, in favor of improving the students' self-concept, keeping in mind their academic performance. The welfare of schoolchildren should be a fundamental premise of the teaching practice.

Keywords: Self-concept, high capacities, gender, academic performance, school.

EL AUTOCONCEPTO EN LA ETAPA DE EDUCACIÓN PRIMARIA: INCIDENCIA EN LOS ALUMNOS MÁS CAPACES

Resumen. Los nuevos planteamientos en el campo de las altas capacidades, frente al tópico de considerar únicamente la inteligencia como elemento fundamental en su identificación, optan por un amplio abanico de cualidades y dimensiones a tener en cuenta en la detección. Entre ellas, aparece el autoconcepto

entendido como la autoimagen mental del sujeto. Este constructo y su relación con otras variables, caso del rendimiento académico o el sexo de los escolares, podrían ser factores influyentes en las cifras llamativamente bajas de diagnóstico de alumnado con altas capacidades y en los resultados negativos en evaluaciones internacionales de rendimiento. Para comprobar la relación entre estas variables, hemos realizado una investigación cuantitativa para evaluar el autoconcepto general y académico en una muestra de 118 sujetos de 4º, 5º y 6º de Educación Primaria, incluidos escolares con altas capacidades diagnosticadas . Se ha utilizado la Escala de Autoconcepto de Piers Harris. Los resultados arrojan una correlación positiva entre el autoconcepto general y académico y el rendimiento académico, no encontrándose relación entre autoconcepto y género, alta capacidad, edad y curso. De esta forma, se deberán favorecer, desde los propios procesos de enseñanza y aprendizaje, actuaciones específicas en pro de la mejora del autoconcepto del alumnado teniendo presente su rendimiento académico. El bienestar de los escolares deberá de ser una premisa fundamental de la praxis docente.

Palabras clave: Autoconcepto, altas capacidades, género, rendimiento académico, escuela.

Introduction

The scores obtained by students from Spain in various international evaluations that seek to measure their educational performance are low compared with the average for countries of the Organization for Economic Co-operation and Development (OECD). As a reference, we use the reports from PISA (Program for International Student Assessment) developed by the OECD, given the importance and impact of their findings in educational policies and the high rate of participation from different countries (García, 2014). The six editions created to date (2000, 2003, 2006, 2009, 2012 and 2015) have all evaluated reading proficiency, math, and science. Spain has scored below the OECD average in all editions and in all competences, although the gap has been narrowing along successive reports (OECD, 2005a, 2005b, 2007, 2010, 2014, 2016). Another noteworthy finding is the fact that there are hardly any strong performing and top performing students in Spain, that is to say, students with excellent performance in PISA (García, Silva, and Viseu, 2017).

On the other hand, figures for high capacity diagnostics are significantly lower in Spain. According to Jiménez and García (2013), more capable students between 5 and 10% of the school population should at least be considered. However, recent data published by the Ministry of Education, Culture and Sport for the 2016/2017 academic year -the last for which non-university education data are available- indicate that the number of students from Spain diagnosed with high intellectual capacity account for only 0.33% of the total number of students as can be seen in Table 1.

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Table 1

Prevalence of high capacity cases in Spain for the 2016/2017 academic year

CC. AA. 2016/2017 Academic Year	Total num. of high capacity students	%
Andalucía	11,582	0.72
Aragón	182	0.08
Principality of Asturias	804	0.59
Illes Balears	831	0.46
Canary	2,122	0.61
Cantabria	128	0.14
Castile and León	638	0.18
Castile-La Mancha	411	0.11
Catalonia	417	0.03
Comunitat Valenciana	1,063	0.12
Extremadura	266	0.15
Galicia	1,590	0.40
Madrid Community	2,190	0.19
Murcia Region	3,698	1.27
Foral de Navarra Community	399	0.36
Basque Country	536	0.14
Rioja	274	0.50
Ceuta	2	0.01
Melilla	0	0.00
Spain	27,133	0.33

Note: Author's own creation based on data from the Ministry of Ministry of Education, Culture and Sport -MECD- (2018)

At this point, it's important to mention the new trends in the field of the high capacities that, before the topic of simply considering intelligence as a key element for its identification, they opt to take into account a wide range of qualities and dimensions (Pfeiffer, 2015; Stoeger, Balestrini, and Ziegler, 2018). In this way, such variables as personal expectations, personal aspirations or self-concept, among others, acquire relevance, as should the differences between the sexes.

The term self-concept is complex and difficult to recognize and isolated from other mental perceptions of the human being, with self-esteem being such a case. But it is important to distinguish one from the other since, although they are sometimes used interchangeably, there are differences that must be taken into account. Self-concept corresponds to the cognitive dimension of our own mental picture, being the information that we create about ourselves but which leaves out any valuable judgment and lacks, therefore, a moral component (Zeidner, and Shani-Zinovich, 2015). Though self-esteem is also linked to self-concept, the former is weighted with a strong

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emotional component and a subjective assessment. That is, self-concept is a series of mental frameworks about ourselves to which we give a positive assessment (positive self-esteem) or negative (negative self-esteem). Likewise, in the conceptual deepening developed by several researchers (Harter and Byrne, cited in Ancillo et al., 2001), self-concept can become broken into different components, such as behavioral, academic, social, physical self-concepts, among others.

As mentioned earlier, self-concept, along with personal expectations and without losing sight of gender, may help explain low academic performance and rates of high capacity diagnosis in Spain. In this sense, many authors are of the opinion that adolescence is a crucial stage (Jiménez, 2014; Kerr, 1999; Trillo, 2012). Highly capable girls during childhood show similar expectations to their male counterparts, seeking academic success and are competitive to the same extent as them. However, a series of changes occur during this stage motivated by acculturation, mainly, that they lessen their level of ambition and achievement of success during adolescence and adulthood (Kerr, 1999). Confidence in themselves and their abilities begins to decrease during their youth, with increasing levels of insecurity. This is because higher capacity girls have a different perception of their ability and their academic success with respect to boys (Al-Srour Al-Oweidi, 2016), with a tendency of relating them to luck (Jiménez, 2014).

This self-concept of the more high capacity female students inevitably impacts their academic performance. The OECD report certifies it as: *What lies at the heart of gender inequality in education?*, which indicates that "on average in OECD countries, the difference in test scores in mathematics among boys and girls of better performance is 19 points. However, if we compare girls and boys who said they have a similar level of confidence in themselves with respect to mathematics, the gender gap disappears" (OECD, 2015, p. 2).

This is because, according to this report, girls in general have less self-confidence in solving mathematical problems. But when they show confidence, the results are equal to those of boys, in addition to displaying higher expectations. As such, they continue to claim that "this gender difference could be related with the confidence that students have in themselves. By having more confidence, they give themselves more freedom to make mistakes, to practice trial-and-error processes that are fundamental in acquiring greater knowledge and understanding of mathematics or the sciences" (OECD, 2015, p. 3).

The results and conclusions of different research point in the same direction which conclude that the self is one of the variables of greater incidence in the Academic Performance Index (Naranjo, 2007; Navarro, Tomás and Oliver, 2006; Rodriguez, 1982). In addition, it has been shown that it is necessary to consider gender as an important variable in studies researching this construct (Ancillo et al., 2001), since the differences in this regard are endorsed by several researches (Amezcua, and Pichardo, 2000; Padilla, Garcia and Suarez, 2010; Pastor, Balaguer and García-Merita, 2003).

In short, according to the literature provided, academic performance, high capacity diagnostic rates and existing gender inequalities should occur in large measure due to the self-concept and the perspectives and perception of one's own capacities. This is why this research seeks to clarify the incidence of self-concept based on different variables in research.

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Methodology

Our research is based on the considerations mentioned in the previous paragraph, such as the OECD results which are below the international assessment performance average, including the limited number of strong and top performing students or the low of diagnosis high capacity intellectual rates within the school population. Because of this, we raise the question of the extent to which the self-concept affects the student body. In this way, according to the reviewed literature, we begin from the assumption that the self-concept is a variable that correlates positively with academic performance and that low levels of this construct may have an impact on detecting and intervening on the education of high capacity students.

To prove or discard the hypothesis, a quantitative research was carried out that analyzed descriptive and differential results, depending on different variables in research. The most important conclusions were then extracted based on the implications that might arise for educational policies and the teaching practice, always looking for the improvement of the student's self-concept.

To this end, the objective for this research has been to assess the general and academic self-concept in a sample of students from 4th, 5th and 6th Primary Education grades by comparing the results according to different variables, for example, the existence of diagnosed high intellectual capacities.

Sample

The research involved 118 students from different schools in Early Childhood and Primary Education selected through a probabilistic sampling of random types. The levels used during the Primary Education stage have been 40 students from 4th grade, 5th grade with 30 students and 6th grade with 48 students. Between this student body, 21 high intellectual capacity students were identified by the educational guidance services that serve their schools.

Variables

The main variable of the research has been that of self-concept, in general and academic terms. The first of them is understood as the set of powers, ideas and beliefs that each person has about them self. The second is a sub-dimension of the previous and is defined as the student's perception about their own capacity to carry out certain academic and intellectual tasks.

Other variables have been used, such as:

- *Detected high intellectual capacity*, as noted above, we have identified 21 school children as such. Along with self-concept, other fundamental variables of the research.

- *Sex*, distinguishing between a Male or Female. In this study, 67 have been male and 51 are female.

- *Academic performance*, defined on June 2018 through the average rating in all curricular areas and quantified as High performance (mean scores of Outstanding, 40 students), Average performance (mean scores of Notable and Good, 50 school students) and Low performance (mean scores of Sufficient and Insufficient, 28 students).

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- *Age*, using the chronological age of the student body at the time of the research, which ranges from 9 to 12 years (25, 36, 34 and 23 school children respectively).

- *Grades*, the sample being divided between 4th, 5th and 6th level grades of Primary Education (40, 30 and 48 students, respectively).

Instrument

The main instrument administered for the evaluation of self-concept has been the Piers Harris Self-Concept Scale. The version used is the English translation used in the study *La evaluación de la adaptación socioemocional a través del autoinforme. El autoconcepto y la empatía* (Evaluating Socio-Emotional Adaptation through the Self-Evaluation Report. The Self-Concept and Empathy) (Díaz-Aguado, and Martínez-Arias, 1995).

This scale is designed for children aged between 7 and 12 years approximately and consists of 80 statements with the dichotomous response "Yes or No". Of these, 36 items are positive and 44 negatives. Positive affirmations answer "Yes" with a score of 1 and 0 for the answer "No"; the negative items proceed with the contrary. The sum of the scores enables calculating both the general self-concept (from 0 to 80 points) from each of the six following areas: intellectual status, academic self-concept (from 0 to 17 points, used in this research), behavior, anxiety, popularity, physical appearance and physical qualities, happiness and satisfaction.

According to a study by Díaz-Aguado and Martínez-Arias (1995), Cronbach's Alpha index of reliability for general self-concept is .90, with .79 for the academic self-concept, where the latter reaches .90 in other research (the case of Guillen and Ramírez, 2011). In addition, more authors guarantee the reliability of the scale at the global level, with the Cronbach Alpha coefficients ranging from .83 and .98 (Epstein, 1985; Puigcerver, 2003).

Procedure

The first step was getting into contact with the principals and directors of several educational centers to request their participation in this research. Subsequently, a written authorization was required of the families of the school groups whose centers and teachers showed a willingness to take part in this study. Selection of the centers was done by seeking schools that showed having students with high intellectual capacities.

After selecting the sample, the instrument mentioned above was administered in group form. In a parallel way, the teachers were required to indicate the average academic performance in all curricular areas their students had as of June 2018. Lastly, the 22.0 version of the IBM SPSS Statistics program was used for managing the data. The tests used and the relations established between the variables are shown in the following section.

Results

The development of this section consists of the following sub-sections:

- Results achieved for the self-concept variable: general and academic.

- Results as a function of the detected high capacities.

- Results as a function of the rest of the variables included in the research.

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Results achieved for the self-concept variable: general and academic.

For each type of self-concept and with a view to the development of subsequent analyzes, the scores have been coalesced into three levels (level 1 Low, level 2 Average and level 3 High) for both the general and academic self-concept. Their frequencies and percentages are identified in Table 2.

Table 2
Frequencies and percentiles for each level for the general and academic self-concepts

Levels	General Self-Concept			Academic Self-Concept		
	Interval	f	%	Interval	f	%
Low	30-45	13	11.0	4-8	17	14.4
Average	46-61	38	32.2	9-12	41	34.7
High	62-77	67	56.8	13-17	60	50.9

According to the results reflected in these two tables, the participants' levels of general and academic self-concepts have been mainly located in the high level, 56.8% and 50.8%, respectively, compared to 11.0% of one and 14.4% for the other within the low level. The average of the results for the three levels has been 2.46 for the general self-concept, with a standard deviation of .69 and 2.36 for the academic self-concept, with a standard deviation of .72.

Results based on the detected high capacities

The study of the results for each of the self-concept types based on the existence or non-existence of the detected high capacities is the basis for the development of this research. Its importance has been manifested in the theoretical foundation of this article.

First, we have analyzed the results from the general self-concept depending on the high capacity seen, with Table 3 showing the frequencies and percentages. In it, students with high capacities show a high frequency in level 1 and 2, while those students not detected as such appear mostly in level 3 or high. The average number of students that were diagnosed has been 2.05, with a standard deviation of .74, and 2.55 for those that were not, with a standard deviation of .65. Despite the discrepancy of the sample between both groups for this variable, with 21 students Yes and 97 students No, the differences in averages make it imperative to continue with the statistical analysis. Thus, in the Chi-square test, value of 9.26 significance of .01, statistically significant differences have been observed in the relationship among the variables of the detected high capacity and self-concept. The Pearson correlation between both variables has been -.28, with a significance of .00. It demonstrates that there is significance between the variables, i.e. there is a relationship between low general self-concept and the existence of high intellectual capacities. On the other hand, after relating general self-concept, detected high capacity and sex, a Pearson correlation index of -.13 appears, with no significance existing by being the value of the same .17.

Table 3
Frequencies and percentiles for the detected high capacity variable based on each defined level for the general self-concept variable

Levels	Yes		No	
	f	%	f	%
Low	5	4.24	8	6.78
Average	10	8.47	28	23.73
High	6	5.08	61	51.70

We then proceed to analyze the academic self-concept with the detected high capacity variable, noting the frequencies and percentages in Table 4. These students with high capacities show, based on the proportion of the sample of one and another group, similar results for each of the defined levels. The largest number of students is located in 3 or High in both groups. The average number of students that were diagnosed has been 2.38, with a standard deviation of .67, and 2.36 for those that were not, with a standard deviation of .74. As can be seen, the averages of both groups are very similar. This trend is observed in the Chi-square tests, with a value of .96 significance .62, and a value of .01 and a significance of .91 in the Pearson correlation index calculation, in which non-significant indexes are obtained between variables. There is significance if we include the gender variable in this relationship. As such, we can conclude that there is no significance between academic self-concept and detected high capacity.

Table 4
Frequencies and percentiles for the detected high capacity variable based on each defined level for the academic self-concept

Levels	Yes		No	
	f	%	f	%
Low	2	1.70	15	12.71
Average	9	7.63	32	27.12
High	10	8.47	50	42.37

Results based on the rest of the variables included in the research

In this section, the results are displayed for the following variables: gender, academic performance, age and school year.

In terms of sex, Table 5 shows the results for each level of general self-concept, with level 3 or the high level where the majority of students are found for both sexes. 8 male students appear at level 1 or the low level, 6.78% of the total sample, and school 5 female, 4.24% of the total sample. The average for school males is 2.52 with a standard deviation of .70, while for female students the average has been 2.37, with a standard deviation of .66. There are no statistically significant differences, on the other hand, according to the Chi-square value of 35.82 with a significance of .43, and a Pearson

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index value of -.10 with a significance of .31. In addition, as has been previously noted, there is no relationship between general self-concept, sex and detected high capacity.

Table 5
Frequencies and percentiles for the sex variable based on each defined level for the general self-concept variable

Levels	Males		Females	
	f	%	f	%
Low	8	6.78	5	4.24
Average	16	13.56	22	18.64
High	43	36.44	24	20.34

In the relationship between academic self-concept and sex, Table 6 reveals a balance in terms of the results achieved for both sexes, stressing equality in level 2 despite the difference in sample with 20 male students at 16.95% and 21 female students at 17.79%. The average for school males is 2.34 with a standard deviation of .77, while for female students the average has been 2.39, with a standard deviation of .67. There are no statistically significant differences, on the other hand, according to the Chi-square value of 14.71 with a significance of .40, and a Pearson index value of -.06 with a significance of .55.

Table 6
Frequencies and percentiles based on the sex variable based on each defined level for the academic self-concept variable

Levels	Males		Females	
	f	%	f	%
Low	12	10.17	5	4.24
Average	20	16.95	21	17.79
High	35	29.66	25	21.19

The next analysis variable is the academic performance. Table 7 shows the results based on the levels set for the general self-concept, observing an overall balance in the percentages with the exception of the low performance level and the high self-concept level. The average of low performance schoolchildren has been 2.18 with a standard deviation of .72, an average yield 2.56, a standard deviation of .64, and a high performance of 2.53, with a standard deviation of .68. The Chi-square test, with a value of 93.43 and a significance of .03, and a Pearson index correlation value of -.33 with a significance of .00, statistically reflect significant differences in the relationship between general self-concept and academic performance.

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Table 7
Frequencies and percentiles for the performance variable based on each level defined for the general self-concept variable

Levels	Low		Average		High	
	f	%	f	%	f	%
Low	5	4.24	4	3.39	4	3.39
Average	13	11.02	14	11.86	11	9.32
High	10	8.47	32	27.12	25	21.19

On the other hand, the relationship between academic performance and academic self-concept in Table 8 reveals special eye-catching results with 11 low performance students located in the low academic self-concept, by which the frequencies and percentages reflect a close relationship between low academic performance and low academic self-concept. On the contrary, the results for all the other levels have some similarity. The average in low performance students is 1.79, with a standard deviation of .74, 2.60 for average performance, with a standard deviation of .61, and 2.48 for high performance, with a standard deviation of .64. Thus, in the Chi-square test with a value of 25.47 and a significance of .00, there has been no statistically significant differences. The Pearson correlation between both variables has been -.32, with a significance of .00. Significance between variables was revealed where there is a relationship between academic achievement and academic self-concept, and as has been pointed out, these differences happen in association between both variables for the lowest levels.

Table 8
Frequencies y percentiles for the performance variable based on the defined level for the academic self-concept

Levels	Low		Average		High	
	f	%	f	%	f	%
Low	11	9.32	3	2.54	3	2.54
Average	12	10.17	14	11.86	15	12.71
High	5	4.24	33	27.97	22	18.65

In the relationships between the age of schoolchildren and the general self-concept (Chi-square test with a value of 106.53, a significance of .44, a Pearson correlation index value of -.02, and a meaningfulness of .81) and between age and academic self-concept (Chi-square test with a value of 39.96, a significance of .56, a Pearson correlation index value of -.04, and a significance of .69), there are no statistically significant differences.

Lastly, the results are specified according to the grades of the students and participants for the general self-concept variables (Chi-square test with a value of 66.84, a significance of .58, a Pearson correlation index value of -.13, and a significance of

.78) and academic self-concept (Chi-square test with a value of 31.00, a significance of .32, a Pearson correlation index value of -.24, and a significance of .81). There is a lack of statistically significant differences.

Discussion and conclusions

After analyzing the results, the participants were generally found as having high levels of general and academics self-concepts. It was also confirmed that there is a positive correlation between general and academic self-concepts and academic performance, being the lowest-performing students that scored lowest in self-concept, especially within its academic dimension. This confirms both the starting hypothesis and the results from previous researches already cited in the sense that the self-concept is an influential variable on academic performance. Thus, this construct could be one of the causes for the poor performance of students in the PISA reports and could also be hindering the detection and diagnosis of high intellectual capacities.

With regard to the question of those with higher capacities, there is a relationship between low self-concept and the existence of high intellectual capacities. However, there is no significance between academic self-concept and detected high capacity. On the other hand, neither is there significance if we relate both types of self-concept with the detected high capacity and sex simultaneously.

With regard to the issue of gender, there are more boys than girls at the highest levels of general self-concept and academic self-concept, while the statistical analysis of the data has concluded that these results are not statistically significant. In spite of this, it is important not to lose sight of the gender perspective as it is an influential variable in self-concept according to different authors (Amezcua and Pichardo, 2000; Padilla, García and Suárez 2010; Pastor, Balaguer and García-Merita, 2003). Statistically significant differences did not appear in the rest of the research variables, such as the participants' age and grade.

With all of this, it is clear that there is a need to work on the students' self-concept in the classroom, since it has been proven that specific intervention improves this construct (Cerrillo, 2002), which, as has been demonstrated, will end up positively influencing other variables, such as academic performance. And so that the proposals for intervention in these areas do not simply stagnate as theories, initiatives or volunteer work on the part of the teaching staff, it would be interesting to include not only curricular proposals for the students' development in cognitive processes but for affective and emotional processes as well, all carried out within the legal frameworks of the education field. It has been shown that the cognitive and the emotional planes should not be separated, since they are complex processes that occur interconnected (Blanco, De Caso and Navas, 2013). In addition, because of this complexity, it is necessary to demand new research on the topic to enable the foundation and lay its educational foundation. Emotional education, which sometimes is relegated to obscurity, should also play a more important role in the curricula and academic content. In this way we will be moving one more step closer toward the achievement of a comprehensive education.

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ANALYSIS OF PREFERENCES IN THE SEARCH FOR INFORMATION; USE OF INTERNET AND / OR PHYSICAL LIBRARY. CASE STUDY AT THE UNIVERSITY OF PUERTO RICO

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Abstract. The preference is analyzed in the use of the Face-to-Face Library and its virtual databases with reliable information, which the University has over the use of the Internet with its reliable data and also with doubtful information. I executed this with third- and fourth-year students of the University of Puerto Rico University Campus of Mayagüez (UPRRUM). The purpose is to help the student to use the most correct resource to obtain reliable information in their works and university tasks. Not only will the accessibility of one or the other be evaluated, but also the ways to reach students directly and that they develop skills to use the different navigation instruments assigned to the search for information. The research focuses on the quantitative method. According to the analysis of the objectives of the research, it is concluded that when quantifying how often students access the physical library for the search of information, it was observed that although the students know the services offered in the library, they do not sponsor the use of it to search for information and perform their assigned work. Within the line of conclusive analysis, it is observed that although the students know the facilities of the virtual library, it showed great difficulty in the students to navigate the database of the same, not being the ones that they frequently use to perform their university tasks.

Keywords: Students, Internet, physical library, virtual library.

ANÁLISIS DE PREFERENCIAS EN LA BÚSQUEDA DE INFORMACIÓN; UTILIZACIÓN DE INTERNET Y/O BIBLIOTECA FÍSICA. CASO DE ESTUDIO EN LA UNIVERSIDAD DE PUERTO RICO

Resumen. Se analizó la preferencia en el uso de la Biblioteca presencial y sus bases de datos virtuales con información fidedigna, que la Universidad posee frente al uso del Internet con sus datos fiables y también con información dudosa. Esto se llevó a cabo por los estudiantes de tercer y cuarto año de la Universidad de Puerto Rico Recinto Universitario de Mayagüez (UPRRUM). El propósito es ayudar al estudiante a utilizar el medio más correcto de conseguir información fidedigna en sus trabajos y tareas universitarias. No sólo se evaluará lo

accesible que sea uno u otro, sino también se buscarán las maneras de llegar directamente a los estudiantes y que éstos desarrollen destrezas para usar los diferentes instrumentos de navegación asignados a la búsqueda de información. La investigación se centra en el método cuantitativo. De acuerdo al análisis de los objetivos de la investigación se concluye que al cuantificar con qué frecuencia los estudiantes acceden a la biblioteca física para la búsqueda de información se observó que aunque los estudiantes conocen los servicios que se ofrecen en ella no patrocinan el uso de ésta, para buscar información y realizar sus trabajos asignados. Dentro del renglón de análisis concluyente se observa que aunque los estudiantes conocen las facilidades de la biblioteca virtual, ésta demostró gran dificultad en los estudiantes para navegar por la base de datos de la misma, no siendo las que frecuentemente utilicen para realizar sus tareas universitarias.

Palabras clave: Estudiantes, Internet, biblioteca física, biblioteca virtual.

Introduction

This study analyzed the preferential use of the physical Library space and its trustworthy virtual databases owned by the University, compared to the use of the Internet, which contains reliable but dubious information. Third and fourth-year students from the University of Puerto Rico, Mayaguez Campus (UPRM) carried out this research.

The aim of this research was to help students use the best way of obtaining reliable information for their university tasks and assignments. Access to this information was assessed, and students were also helped in developing their search and browsing skills. It is vital that all students equally benefit from the high-quality and reliable control of information. According to the findings, some recommendations for the effective search of information were made within the systems used by students.

The project will help users with amenities and the library staff to make decisions to solve the issue with the use of the system, providing good use of the institution amenities and systems. There are previous theories, studies and articles about the subject that help understand the reason for this problem and gives us the answer.

The work carried out helped test the hypothesis raised in the methodology. Apart from that, the population and the studied sample were presented, and a research calendar was made and used to complete the work. During the research, questionnaires were distributed to all participants, which were later accounted to conclude whether the hypothesis were true or null.

All this research work carried out using information and communications technology (ICT), led researchers to surprises and results that helped improve the already chosen system. However, this system is supposed to be more efficient and competitive, and given that it is obsolete, it should be changed. An alternative would be the library and its amenities. The library offers different kinds of support to students for them to carry out their daily tasks. Apart from encouraging reading books about a wide variety of subjects and topics, it also has an area where everyone has access to technological devices, from projectors to desktop computers with Wi-Fi. The library has an old way of working by letting students use computers on their own. A staff member is present in the front desk in case someone needs any help, information, or look for a book. If students are alone, they are more likely to look for information in a quicker and easier manner so that they can finish their tasks.

Within the technologies accessible to students we can find different browsers such as Google, Yahoo!, Wikipedia or Bing. Nowadays, technology is constantly changing, so we need to look for available alternatives to use advanced structures and encourage significant changes to the benefit of the students. Sometimes, these alternatives are not used because their existence or their proper use are ignored. Nowadays, students have many different alternatives to their previous print books; computers are a good example. Another alternative worth

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mentioning are devices that, when wearing a pair of glasses, enable us to experience life in a real-size virtual world, which is actually the place projected by the device. Using the computer helps students obtain information in an easy and unimaginable way. When using information search programs such as Google, Bing, Altavista, etc., they can obtain any kind of information in an effortless way. That's where some of them stop to think about what the type of information they need is. If what we seek is general information for personal use while having some fun along the way, it's not bad. You'll find all types of information, but if we are looking for reliable information for university tasks and assignments, we should choose non-contaminated nor altered information, given that any university work must stem from factual and reliable information. Besides, said work could be helpful for other people to obtain data. As such, we must be careful with the information we choose to use, for it to become beneficial for someone else.

We can also find databases in libraries. According to Masadelante.com (2019), the definition of database is "Electronic filing system". A database would be a data collection system in which a computer program could immediately choose the pages that the user needs. Typical databases are organized in fields (unique pieces of information), records (entire field systems) and files (series of reports). According to this definition, data is organized in a similar way as gondolas in supermarkets or shelves in libraries, so that it is easier for us to obtain the required information when we want to and how we want to. Students also have this alternative for doing their university tasks. In some databases, the information is encrypted, so that no one can contaminate or alter the existing information due to user manipulation.

We live in a time of constant change for Information and Communication Technologies (ICT). They are so developed that we already have intelligent programs and computers with unbelievable features, such as video quality, sound quality and the quality of calculations that, despite being unperceivable and unnoticed, are still there. Having that on mind, libraries need to be up to date on this technological movement happening day by day, because the best computer technology tool could become obsolete from one day to another. The system installed on the library could be negatively impacted, too. This system aims to provide the best service possible to users, so that they can carry out their research works in a proper and easy manner.

Due to all this, there are diverse coexisting interests from the students' part, though for their sake, they should settle on the proper way of using the library amenities.

Third and fourth-year students from different universities are exposed to huge numbers of assignments, projects and exams. They need to develop their skills on obtaining reliable information and complete their assignments in a fast and efficient way, with the professional quality needed for their presentations. During an informal interview with Professor López from the RUM library, students from the UPRRUM are not aware of the existence of online databases containing reliable information that could help them with their assignments.

A course is being implemented for newly admitted students in order to teach them the importance of online databases and train them in the system. They were asked to come up with ideas to improve their environment and make it easier for them to study, such as each department having its own special library, a study space and a computer classroom. However, the professor says that this may work in U.S. universities, but not in Puerto Rico. Although they tried to make it that way, things did not work out due to Puerto Rico's culture, which is not the same as in the United States. Students could not adapt to said study environment (G. Lopez, Comunicación Personal (Personal Communication), March 3, 2017).

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The ASEGRABCI, the Association of Graduates of the Graduate School of Library and Information Sciences, of the University of Puerto Rico in Rio Piedras (2013) encourages its graduates to attend its annual conference, which this year is called Acceso y Uso de la Internet en Puerto Rico: herramienta de desarrollo social (Access and Use of the Internet in Puerto Rico: a tool for social development). The study to be carried out is based on the premise that it is a prime requirement to have sufficient, reliable, updated information, whenever necessary and at the lowest possible cost, for any responsible decision making and action, particularly in the field of health and related areas. Keeping this in mind, a series of meetings were held to help its members use reliable sources of information so that they could carry out their research work using the best sources of information offered by digital libraries. Researching on third- and fourth-year students' preference concerning how they retrieve reliable information is becoming a pressing need, as it will allow guiding and even leading first- and second- year students in the right path, with the goal of finding quality information. It is not necessary to wait until they have finished their university studies and have started a postgraduate degree to give them that important tool known as reliable information.

According to Kioskera (2014), the search for reliable information is becoming increasingly difficult due to the excess of information in search engines. Besides, according to Kioskera (2014), there are a number of online libraries offering free access to millions of reliable documents and renown sources, but they are more frequently used and known by the already professional class. Kioskera (2014) explains that it is necessary to thoroughly research the students' position in terms of what they know about the proper way to search for reliable information. In this way, we can determine how much help they need in order to master the reliable information-retrieving process for their academic projects in order to meet their professors' demands.

According to Baldaguéz and Carrasquillo (2012), in the study conducted by the University of Puerto Rico in the Humacao Campus on Factores de Riesgo de la Deserción Universitaria: una Mirada desde la Óptica Masculina (Risk Factors of Undergraduate Drop Out: An Overview from a Male Perspective) (see Appendix), the factors that favor male undergraduates dropping out in that educational institution.

One of the most relevant pieces of data is the need that students have about the management and search of electronic databases. Based on the previous information, some research should be carried out to determine if this problem solely affects male students or the entire student body, whether male or female students. This research is praiseworthy, since it reveals within the survey that several students struggle to find reliable information. Further research is needed to verify whether other areas of the population may be vulnerable to this apparent struggle.

Literature Review

According to Cervantes (2009), we have needed to communicate with each other since the very emergence of the human species, using different forms of communication such as paintings, gestures or writing. Over time, communication has been progressively perfected to achieve better relationships among all. These advances are reflected in information and communications technologies (ICT) such as radio, TV and the Internet. Today, young people are exposed to a vast amount of information for each topic in particular, but it is necessary to

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know if students know how to choose reliable information from all that maelstrom of data that runs through their hands.

White (2012) says that libraries help stimulate and create ideas in people's minds. With their help, people can quickly find ways to build things that can help economically, socially, and culturally. That is why most of society prefers libraries continue to function. There are so many creations and documents, that people cannot buy all copies, magazine or TV articles for their personal use. That is why they resort to borrowing books or technological material from different libraries.

According to Hernández (1997), in the journal Analítica, the article Breve Teoría de Internet (Brief Internet Theory) presents as-yet-scarce technological innovations as strategic. This article explains what is currently being used as the best technology to retrieve information, since it could become obsolete tomorrow. To explain this, the article mentions that Rothschild (1815) hired a steamship, which took him to witness the Battle of Waterloo. After the battle was over, he would have been the first to arrive in London and tell what had happened. This happened because he had the most advanced technology and was able to communicate what he knew faster than the other methods of that time.

Students have high technology at their service to perform their tasks, as well as methods and databases and the Internet. Despite this, each student needs certain skills to achieve quality information, that is, to retrieve reliable information. However, how do we know if students have that choice? One can demonstrate the methods of the Internet and the methods for using databases offered by physical and/or virtual libraries.

In computer science, several theories explain the procedures for students to prepare assignments. According to Kuhlthau (1991), the Information Search Process model, known as ISP, is one of the most cited papers in Library Science and Documentation. It is defined as a description of the experiences that people go through when having to search for information.

The paper by Kuhlthau's (1991) divides the Information Search Process into six steps: a) Initiation - when a person first becomes aware of a lack of knowledge and feelings of uncertainty are common; b) Selection - when a problem is identified and initial uncertainty gives way to optimism; c) Exploration - when inconsistent, incompatible information is encountered and uncertainty, confusion, and doubt increase; d) Formulation - when a focused perspective is formed and uncertainty diminishes; e) Collection - when information pertinent to the focused perspective is gathered; f) Presentation - when the search is completed with a new understanding enabling the person to explain his or her learning to others.

According to Guevara (2010), Bourdieu explains that everything in life leads to a disposition to do certain things, what he calls Habitus. This refers to the collection of experiences from childhood to adulthood. Experiences change, but the essence of what was first acquired remains. Someone's habits will affect their choice between what is recommended and their personal preferences.

In this case, it will be affected by the technology they found during their life. For example, among someone's first technologies, we could mention the pencil, chalk and the abacus in contrast to the one who found pens, markers and a computer. Young people have access to different ways of obtaining information and it will depend on their habit of seeking information for it to become a habit and be the first choice for that field. If when someone was little, they did not have said guidance and training, they will find it more difficult after growing up and will choose to obtain the first information without verifying if it is true or not. It is important to study the frequency of the habit through research because it can shed light

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on how to help the student body in this matter. This research determines whether the frequency of the habit of looking for information is optimal to achieve the objective.

A study by Yoon (2016) explains that the findings proved that undergraduates need mobile device software applications (apps) for library use. Students want to use library apps due to the visual, interactive and intuitive features of these software. Having these tools improves the functioning of libraries. If universities want to attract the interest of their students to use library apps, they will have to convince them of their advantages in academic libraries. The study concluded that mobile applications must be useful and easy to use.

The information technology was researched on print, as it is one of the tools used by the university being researched, since it is another one of the library's tools available to students for their assignments, just as electronic technology. Another reason why print information is included in this research is the fact that not all the information available to them is found in digital form when teachers send educational assignments to their students. Wanting to research this approach led to a better understanding of the problem libraries are going through. In addition, the library of the university campus of Mayagüez, in Puerto Rico, is recognized by its support for the use of paper books. It even has a room specially prepared for the care and use of books more than 100 years old.

According to Tírziman (2014), in another example of why they are digitalizing information, the purpose of the Manuscriptorium digital library is that people can have access to old documents from the Naţionale a Românieique culture, dating back to 1800. Manuscriptorium is the cooperative outcome between several companies dedicated to digital programming. Naţionale a României is asking other libraries to meet the technical requirements and become partners. According to Nelson and Huffman (2015), university professors are concerned, since much of the literature is being published and manipulated by "predator" editors. These are editors who publish questionable magazines in order to advertise themselves. This would cause those magazines published by predator editors and leaked into library databases to contain unreliable research. The study revealed that the editors doing this are few but are affecting some areas of study. According to Alonso-Arévalo and Cordón (2012), the number of people interested in buying and acquiring tablets and electronic books is increasing.

They also claim that people's interest in electronic devices will grow in the coming decades, in order to download books in digital format. They also explain that there is an available virtual app called EbookFling, which allows people to borrow books. The software is free and allows people to have the book stored in their device for fourteen days and is then automatically deleted and returned to the system, to the person who lent it.

According to Cordón (2010), when Google Ebooks came into the scene, it represented a change in the rules of the system; it was not known by then if Apple iBooks would be the weapon to read books on computers. This would reduce the number of people reading print books. Indeed, in subsequent years, the e-book has infiltrated the publishing market with strength in a short period of time. It is expected that it will go beyond previous technologies. There is already a device which was created exclusively for the e-book system and is different from the static system that was in use. The debate is between what prevails in the interest of people, the print book or the e-book.

On the other hand, Jiménez (2015) states that something unexpected is happening in book sales. What was believed to be the victory of digital books over print ones has not yet materialized. Some bookstore companies and large shopping malls will close their fiscal year with an increase in print book sales. The preference for print books is 8 out of 10 books sold. The interest in the market and among users for digital books is decreasing. The data

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associated with this statement would be the extent to which printed books are academic texts used in the curricula of educational institutions, since nothing is mentioned about the regulations that each region's ministry of education determines regarding libraries and the bibliographic collection associated with the curriculum being taught.

Toteng, Hoskins and Bell (2013) state that 75% of surveyed law students said to have used the university's database during their studies. The students learned about the use of these resources thanks to other friends and librarians, who informed them and taught them how to use them.

According to Otón's idea (2016), an option for the graphical interface (a computer program that uses images to represent information) for the users is the so-called virtual reality interface, which enables achieving an effect known as immersion. Here, users can work on an artificial system. When building a virtual library, the desired size and floors can be designed, just as in a real library. This way, users will interact with the environment of the real library and they will be able to find the book they seek, since they will already know where it is.

According to Jaeger, Bertot, Shuler and McGilvray (2012), the increase of information and communication in our environment raises many questions, such as how it provides access and management. The government demands less use of paper and more electronic technology in libraries. They also created a page called e-Government (e-Gobierno in Spanish), where they concentrated a number of electronic and public libraries for students to work with the electronic government using the e-Government page.

A study conducted by King, Cataldi-Roberts and Wentz (2017), concluded that library and computer technicians from computer centers exhibit very good workplace communication, which is very important since their services are homogeneous. A good understanding between the two systems, that is, administrating the library and the electronic information system, work with much order and responsibility from one to the other. Creating projects and being able to provide help on time is what is sought to be successful in what you are doing.

According to (Craven, Jefferies, Kendrick, Nicholls, Boynton, and Frankish, 2014), they conducted a study where they proved that not all interfaces work with the same data translation speed.

Note: In Definición.DE (2014), an Interface is the "connection that occurs physically and at the utility level between devices or systems." It is a connection between different machines connected by a support, where one communicates with the other for the exchange of information. The interface can cause problems in the university community.

Library users may have other alternatives to solving problems regarding their studies, as it would be impossible otherwise. For some people, having to go to certain places where that specific information is found, is difficult because they do not have access to it. An example of this information, tells us (Berquist, Gledhill, Peterson, Doan, Baxter, Yopak and Frank, 2012), that a museum holds a large number of databases concerning animal anatomies. In order to avoid this difficulty, it is proposed that they be digitized into a program using 3D technology so that their anatomy and morphology can be studied in combination with rapid online information system and exchange of information. An example of this system is the Digital Fish Library (DFL, http://www.digitalfishlibrary.org), in which magnetic resonance imaging (MRI) is used within online information to obtain the best image.

In the Badilla, Cortada and Riera (2012) document, they studied the behavior of primary and secondary school students using Information and Communication Technologies (ICT). They wanted to know if students were working well in terms of searching and having

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access to the right information. The purpose is to see if students who use ICT are well trained in using the tools properly, and if they are able to search for the best information that the Internet can provide. The result was that the students do, in fact, know how to use ICT, but they do not know how to search for the most reliable information for their assignments. They were unable to assess, summarize and analyze the information during the Internet search.

According to Mutula (2016), libraries can offer the public information that cannot be stored in traditional systems. There is something known as Big Data, which is a large amount of heterogeneous information, too large to be stored in normal information management systems.

Big Data cannot be used in the same way as using a file with a Megabyte or Gigabyte capacity, which would be the case of a user looking for a book. In libraries, we are speaking of a need for large amounts of information at one point, as a large user population is served. Therefore, the amount of information handled is equal to a Terabyte, Petabyte or Exabyte, as we have access to all written information. For example, having access to all the books in the world.

Another reason is that the user will depend on the library to be able to access the information found in the Big Data. From a normal computer, with normal programs, these devices will not serve or be able to manage the information that is desired from that place. People are not using Big Data, which is why only 5% of the information available in the world is being used. This is because there are limitations in the use of computers, with limitations in the ability to store information and programs that help gain access to that data as well.

In the informal professional interview with Gerinaldo Camacho, Doctorate in Library Science, and Librarian at the Pontifical Catholic University of Puerto Rico in the Mayagüez Campus, states that students do not know what they prefer when in the library in order to carry out their assignment. This is to say, whether to use books, the Internet or the virtual library. He also states that there is no study that can shed light on these results, adding that they have the proper facilities, but it is the student who in the end decides what tool to use (G. Camacho, Comunicación Profesional, October 1, 2013).

In the informal professional interview with Professor López, university students at the University of Puerto Rico in the Mayagüez Campus are not aware of the existence of online databases with reliable information in order to be able to carry out their assignments. It also mentions that students and professors do not know how to use the University's online databases correctly.

According to Christine (2014), information technologies (IT) are turning the cloud into an innovative storage system. This helps people gain access to information wherever they are with a mobile device; whether it's a tablet, cell phone, or any other device. One of the features is that the information can be stored almost infinitely, and the data can be stored on multiple servers.

Note: The topic regarding the museum has to do with the fact that innovative technology is used to send data from one place to another using the Internet. The student can also use this technology to carry out their assignments, since it serves to see whether they are more interested in the use of the library, as it establishes communication concerning reliable data between library and museum and vice versa.

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Methodology

Design

The research focuses on the quantitative method. The survey was conducted among third- and fourth-year bachelor's degree students at the University of Puerto Rico, Mayagüez Campus. Two measurement scales were used; one of them is the Likert scale, which specifies the level of agreement or disagreement with a statement, and the other, the Semantic Differential Scale, which presents values from 1 to 10 where the individual must mark one according to what they think about the object presented.

The instrument was created to carry out research and collect data and information, which consisted of interviewing third- and fourth-year bachelor's degree students through a survey. The most important part of the survey was knowledge on the library's databases, as well as of other areas of information seeking, and also the knowledge of the students themselves and their preferences.

The survey respondents were students from the University of Puerto Rico, Mayagüez Campus, and belonged to different departments such as Business Administration, Information Systems, Biology and Education. The different parts of the research consisted of contacting the Institution and explaining the purpose of the interviews in order to obtain their approval. It was also communicated to the departments in order to proceed with a random selection of the sample and to be able to carry out the survey. With the data obtained, we assessed descriptive statistics: average frequency, percentage and mode, etc., library and the Internet, their preferences, how skilled users are, the proper use according to its purpose and the proper use of both areas.

Participants

The sample consisted of 150 students from the University of Puerto Rico, Mayagüez Campus. The study was conducted with third- and fourth-year bachelor's degree students. There are four university groups in the student population that were sampled.

Instrument

The instrument used to carry out the research is a questionnaire with multiple choice questions, aimed at information seeking that consists of three parts developed by the researcher. The first part focuses on the student's personal and general information. The second part addressed the use and preference of the respondent's search for library information. In the third part, there was an analysis of the use and preference of the student's information seeking on the Internet. In the first questions the students answered questions regarding their gender, age and grade. Then they revealed whether or not the library is helpful for them and how often they used it. These questions also provided information on whether they knew how to use the virtual library properly and whether it was easy for them. In the last questions the researcher obtained information about the use of the Internet in information seeking. They included the tools they use to find information such as Yahoo, Google, Wikipedia, Bing, etc. They also showed the frequency and ease of use, as well as their preferences. The information obtained is strictly confidential and used specifically for this research. The instrument was validated by experts of the University Institution and the Thesis Director of the Graduate Program of the UNINI University, Dr. Sulynet Torres.

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Results

Figure 1 shows how many participants use the physical library. According to Figure 5, the results show that 7% very frequent, 14% frequent, 27% sometimes, 37% rarely and 14% never.
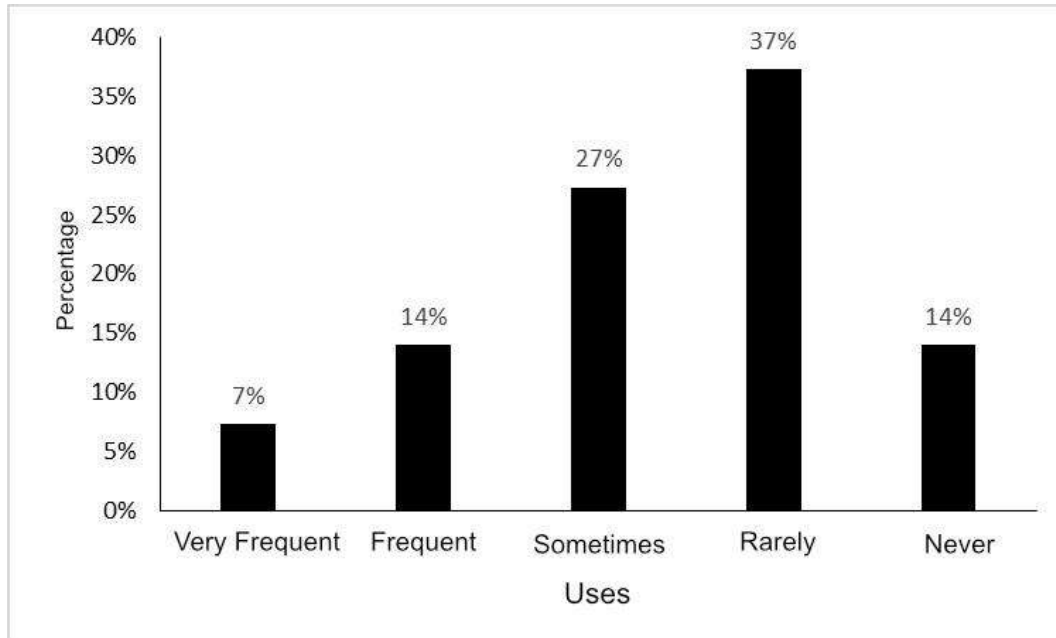
Figure 1. How often do you use the physical library to search for information

Figure 2 shows how many of the participants use or do not use the virtual library facilities. Figure 6 shows that 13% very frequent, 21% frequent, 29% sometimes, 27% rarely and 9% never.
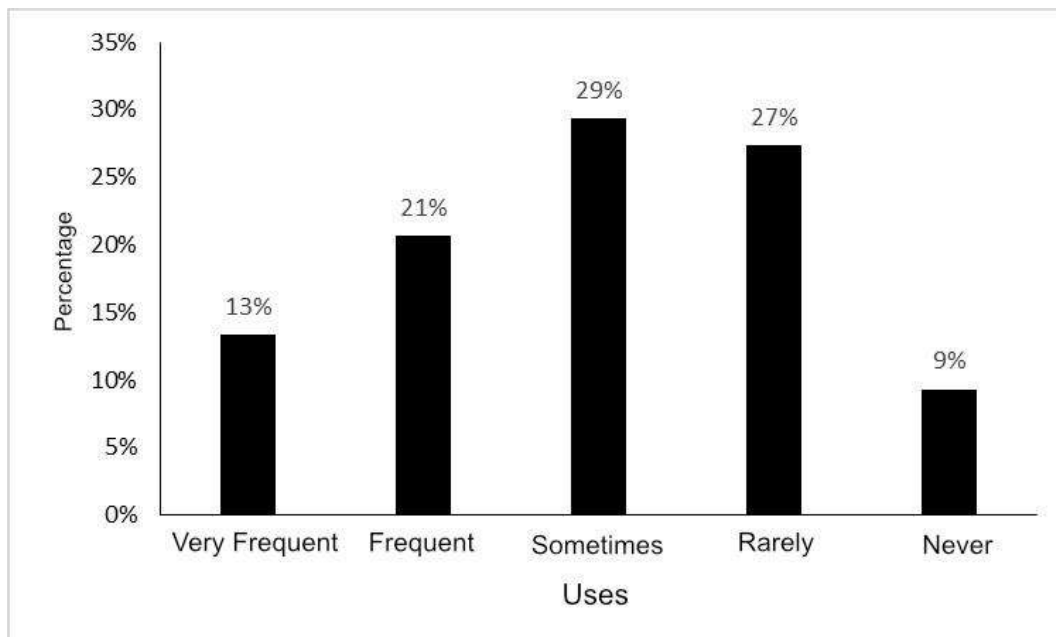
Figure 2. Frequency use of the virtual library and library databases

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Figure 3 shows the frequency use of the Internet to search for information. According to Figure 17, the findings show that 88% very frequent, 11% frequent, 1% sometimes, 0% rarely, 0% never.
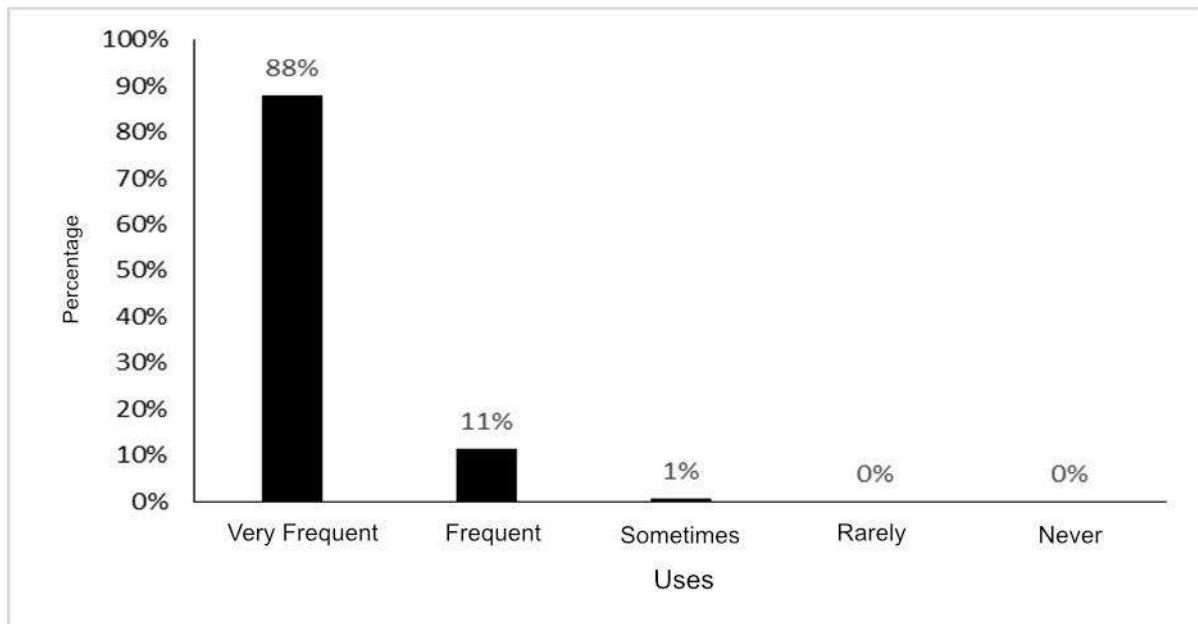
Figure 3. Frequency use of the Internet to search for information

Figure 4 shows us the first tool used at the moment to seek information. The findings show that 91% Internet, 0% physical library and 9% virtual or online library.
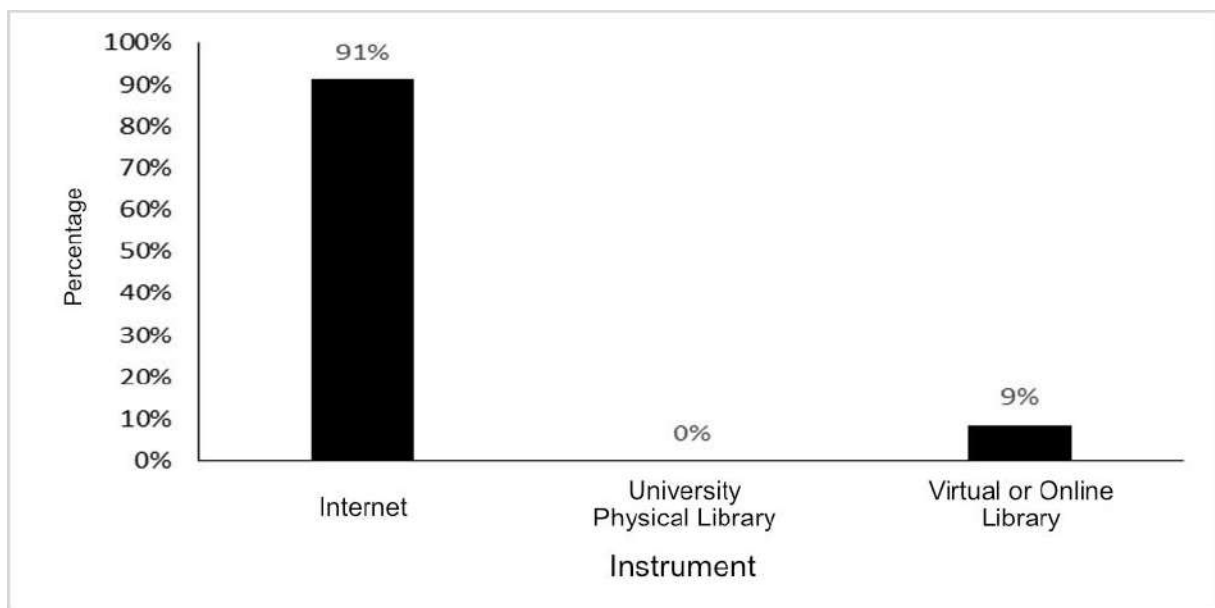
Figure 4. First tool used at the moment to seek information

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Data Analysis

How often do students use the library to seek information?

information.

Ho2: third- and fourth-year bachelor's degree students do not often use the library to seek information.

Data shows that out of 150 respondents, 118 do not often use the library to search for information. This means that 78% do not visit the library very often or not at all versus 22% who do.

Data shows that out of 150 respondents, 136 would use the library more often if they had innovative technology. This means that 90% would use the library more often if they had innovative technology versus 10% that would not use it at all even with technological advances to search for information.

In addition, data shows that out of 150 respondents, 137 prefer the Internet when seeking information for an assignment. This means that 90% versus 10% use the physical, virtual or online library when seeking information for an assignment.

If 78% of the respondents do not use the library and 90% use the Internet as their first option to do an assignment, this shows that students do not often use the library to search for information and, therefore, Ho2 is accepted.

If 28% of the respondents use the library, 90% would visit the library more often with innovative technology and 10% use the physical or virtual library as their first option to do an assignment, this shows that students do not often use the library to search for information and, therefore, the Ha2 hypothesis is rejected.

How often do students use the virtual library (database) to search for information?

Ha3: third- and fourth-year bachelor's degree students often use the virtual library to seek information.

Ho3: third- and fourth-year bachelor's degree students do not often use the virtual library to seek information.

Data shows that out of 150 respondents, 99 do not often use the virtual library to search for information. This means that 65% of the respondents do not visit the virtual library very often and 35% do.

Data shows that out of 150 respondents, 137 prefer the Internet when seeking information for an assignment. It is relevant that 91% prefer using the Internet to 10% who use the physical, virtual or online library to search for information.

If 65% of the respondents do not use the virtual library and 91% use the Internet as their first option to do an assignment, this shows that students do not often use the virtual library to search for information and, therefore, the Ho3 is accepted.

If 35% of the respondents use the virtual library and 10% use the physical and virtual library to do an assignment, this shows that students do not often use the virtual library to search for information and, therefore, the Ha3 is rejected.

How often do students use the Internet to search for information?

Ha4: third- and fourth-year bachelor's degree students often use the Internet to seek information.

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Ho4: third- and fourth-year bachelor's degree students do not often use the Internet to seek information.

Data shows that out of 150 respondents, 144 claim that the use of the Internet helps in the information seeking process. This means that 96% do use the Internet very often versus 4% who say it does not help them in the information seeking process.

The results in Table 19 show that out of 150 respondents, 145 state that the Internet is easy to use in order to search for information, representing 97% versus 3% who think it is difficult.

Data results show that out of 150 respondents, 149 often use the Internet. So, 99% of them use the Internet regularly versus 1% who do not use it at all.

If 96% do use the Internet frequently, 97% think it is easy to use and 99% use it very often, this means that users often use the Internet to seek information and the Ha4 hypothesis is accepted.

In contrast, only 4% state that it does not help to search for information, 3% think that it is difficult to use, and the results show that there was 1% of respondents claiming that they do not frequently use the Internet to seek information, so the hypothesis Ho4 is rejected.

What is the first tool students use when searching for information for an assignment?

Ha5: third- and fourth-year bachelor's degree students use the library as the first tool to search for information for their assignments.

Ho5: third- and fourth-year bachelor's degree students do not use the library as the first tool to search for information for their assignments.

The data shows that out of 150 respondents, 125 believe that libraries help when searching for information. This means that 83% agree that it does help when searching for information versus 17% who think it does not.

Results show that out of 150 respondents, 118 do not visit the library, which translates in 78% versus 22% who do.

They also show that out of 150 respondents, 137 use the Internet as the first tool for their assignments. It is clear that 91% use the Internet as the first tool for their assignments, versus 0% who use the physical library, and 9% who use the virtual library.

Even though the vast majority, 83%, agree that the library helps when searching for information, the truth is that 78% do not use it and 91% use the Internet as the first information seeking tool over the library and its services, such as the library database or virtual library. This shows that students do not find the university library useful and therefore the Ho5 is accepted.

Although 83% agree that libraries help in the information seeking process, the same group of respondents are those who do not use the library (78%) and do not use it as the first tool when doing an assignment (91%), which is why the Ha5 hypothesis is rejected.

Conclusions

Relying on research analysis, the following findings are presented:

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Analyzing the data obtained, it has been shown that the vast majority of students are acquainted with the services offered in libraries; yet, there is a minority who do not know the applications and services it offers for university research. The percentage of students who find it easy to use the virtual or online library was somewhat the same. This means there is clear awareness about the library's digital amenities. In terms of the use of library amenities, according to research, the percentage of students that find the university library easy to use for seeking information is decreasing, while students who find it difficult is increasing. The percentage of students that frequent the library is quite limited or poor, although they claim that the majority would visit the physical library more often if innovative technology were available.

Research findings reveal the following information: more than a half of students do not visit frequently the library or databases despite knowing the service offered for their university research. Navigating library databases is, as we can deduce, complicated for students and they are not willing to do their work this way when there are alternative means to do it faster. Based on the results, as a conclusion, students prefer, or are more willing, to use easier and faster information search systems. Such systems should have user-friendly and simple interfaces. The study shows that the Internet is not a problem for the library, but a complement. The University must refocus the library area with a greater emphasis on computer changes, knowledge acquisition of their databases and prevent the student from not having professional help.

Almost one hundred percent of students use the Internet as their first option for information research, while a minimum percentage access the physical library. This means that they do not find the physical or virtual library useful and prefer the ease of Internet access to obtaining a great deal of information. The use of technological advances, such as Augmented reality, favors interest of university students in the use of libraries to search for information.

By quantifying the frequency of the students accessing the physical library to search for information, it was concluded from the objectives obtained that, although students know of the services the library offers, they do not search for information or carry out assigned work. In the same part of the analysis it is observed that, although students know the amenities of the virtual library, they find it difficult to navigate the virtual library database and to use it frequently. The Internet is determined to be the most widely used for them to carry out their university research because of its ease for navigating and find information.

The researcher concludes, from the results obtained, that the following should be allowed:

1. That hardware and software, and consequently database systems, be modified to improve their agility, with a simpler interface.

2. A more user-friendly database should be built so that students feel attracted to the tool.

3. Research into other innovative technological measures such as the EBSCO digital databases, which can help in searching for information and are of interest to students, or the ICT.

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4. To implement a course for the first academic year on the library and its database use, so that students can search for reliable information from the very beginning.

5. Create a site through technological advances and experiences so that a librarian can be consulted through the Internet, and for student to know where to resort when needing information. This student-library interface could make young people want to use the library's resources again, allowing them to choose the most reliable, fast and recommended ones.

6. That librarians conduct periodic satisfaction questionnaires for students using library tools to discover how physical and virtual library functions can be improved.

7. That the library has a search interface similar to those of the Internet, such as Google or Yahoo, to make the search easier and faster. Yet, search engines should be associated with formal sites to find arbitrated articles, books, and so on.

8. That libraries evolve to Web 2.0 as the Internet did so that they can be open to the general public.

9. That they are willing to adopt technological changes of the future and that they have sophisticated and modern hardware and software for students to use the libraries.

10. Libraries should update their technology according to the needs and profile of the student of this era. Programs should be more user-friendly and easier to use by students.

11. That Google search performs a service integrated to that of libraries with which the user can access both from the same website.

That the use of programs with Artificial Intelligence be implanted so that students can have a support with which they can obtain reliable information, in addition to other resources with which to improve academic work.

It is only up to the researcher to analyze the facts corresponding to the research questions and to provide recommendations according to results. it is not appropriate to create possible scenarios or a strategic plan because this is inherent to each institution that benefits from the findings and not to the researcher.

Constraints

In this study, only the third- and fourth-year students of the University of Puerto Rico from the Mayagüez Campus were surveyed. The study could only be done in the western area. Students under the age of 21 could not be surveyed since they are minors.

Continuity proposal

A study is recommended in which the best tools and suggestions that can be suggested for implementation in the procedure that a library should have are known. In this way, students will be helped in improving their search for information as there are many technological changes at the moment, and children live with them from birth.

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UNIVERSITY MANAGEMENT. THE STUDENT'S CONTRIBUTION TO THE TEACHER PERFORMANCE EVALUATION AT THE UNIVERSIDADE JOSÉ EDUARDO DOS SANTOS, HUAMBO-ANGOLA

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Abstract. People management has become a very important instrument for guaranteeing the survival of organizations and institutions of higher education are not unaware of this reality. Thus, university management is characterized by the involvement of the most diverse elements (students, teachers, managers, and society), due to its extension of productivity. The main objective of this research is to contribute to the improvement of university management at the University José Eduardo dos Santos (UJES) through the participation of students in the teacher performance evaluation process, thus proposing an evaluation procedure that integrates students' participation in the same process. A bibliographic review was carried out for this on the different contributions of several authors from the point of view of the general management for Human Resources management and from this point to the evaluation of teaching performance. A case study was also carried out at UJES, located in the fifth academic region, in Angola. Thus, in order to achieve the objectives of this research, a survey was carried out for students that allowed the conclusion that the participation of students in the evaluation process of teaching performance plays a very important role, since they live directly with the teacher in the classroom and that the adoption of an evaluation model that allows the participation of the latter can contribute to the improvement of the quality of teaching and learning and with this in the improvement of institutional management

Key words: University Management, Human Resources, Performance Evaluation, Student, University Teacher.

GESTÃO UNIVERSITÁRIA. CONTRIBUIÇÃO DO ESTUDANTE PARA O PROCESSO DE AVALIAÇÃO DE DESEMPENHO DOCENTE, APLICAÇÃO NA UNIVERSIDADE JOSÉ EDUARDO DOS SANTOS, HUAMBO-ANGOLA

Resumo. A gestão de pessoas se tem convertido num importantíssimo instrumento para o garante da sobrevivência das organizações e as instituições de ensino superior não estão alheias a esta realidade. Assim, a gestão universitária, se caracteriza pelo envolvimento dos mais variados elementos integrantes da mesma (estudantes, docentes, gestores, sociedade), isto devido a sua extensão de produtividade. A presente pesquisa tem como principal objectivo contribuir para melhorar a gestão universitária na Universidade José Eduardo dos Santos (UJES) mediante a participação dos estudantes no processo de avaliação do desempenho dos docentes, propondo desse jeito um procedimento de avaliação que integra a participação dos estudantes no mesmo processo. Para tal foi feita uma revisão bibliográfica sobre os diferentes contributos de diversos autores desde o ponto de vista da gestão geral para a gestão de Recursos Humanos e deste para a avaliação de desempenho docente. Constituiu-se ainda para o trabalho um estudo de caso aplicado na UJES, localizada na V região académica, em Angola. Desta forma, para o alcance dos objectivos desta investigação foi elaborado um inquérito destinado aos estudantes que permitiu concluir que a participação dos estudantes no processo de avaliação de desempenho docente, joga um papel importantíssimo, visto que eles convivem directamente com o docente na sala de aulas e que a adoção de um modelo de avaliação que permita a participação destes pode contribuir para a melhoria da qualidade de ensino e aprendizagem e com isto no melhoramento da gestão institucional

Palavras-chave: Gestão Universitária, Recursos Humanos, Avaliação de Desempenho, Estudante, Docente Universitário.

GESTIÓN UNIVERSITARIA. CONTRIBUCIÓN DEL ESTUDIANTE PARA EL PROCESO DE EVALUACIÓN DE DESEMPEÑO DOCENTE, APLICACIÓN EN LA UNIVERSIDAD JOSÉ EDUARDO DOS SANTOS, HUAMBO-ANGOLA

Resumen. La gestión de personas se ha convertido en un importantísimo instrumento para la garantía de la supervivencia de las organizaciones y, las instituciones de enseñanza superior no están ajenas a esta realidad. Así, la gestión universitaria, se caracteriza por la implicación de los más variados elementos integrantes de la misma (estudiantes, docentes, gestores, sociedad), debido a su extensión de productividad. La presente investigación tiene como principal objetivo contribuir a mejorar la gestión universitaria en la Universidad José Eduardo dos Santos (UJES) mediante la participación de los estudiantes en el proceso de evaluación del desempeño de los docentes, proponiendo de ese modo un procedimiento de evaluación que integra la participación de los estudiantes en el programa. Para ello se realizó una revisión bibliográfica sobre las diferentes contribuciones de diversos autores, desde el punto de vista de la gestión general para la gestión de Recursos Humanos y de éste para la evaluación del desempeño docente. Se constituyó para el trabajo un estudio de caso aplicado en la UJES, ubicada en la V región académica, en Angola. De esta forma, para el logro de los objetivos de esta investigación se elaboró una encuesta destinada a los estudiantes que permitió concluir que la participación de los estudiantes en el proceso de evaluación de desempeño docente juega un papel importantísimo, ya que ellos conviven directamente con el docente en el aula y, que la adopción de un modelo de evaluación que permita la participación de éstos puede contribuir a la mejora de la calidad de la enseñanza y el aprendizaje, y con ello la mejora de la gestión institucional.

Palabras clave: Gestión Universitaria, Recursos Humanos, Evaluación de Desempeño, Estudiante, Docente Universitario.

Introduction

Changes in professionals' performance at the work-related level are verified worldwide every day. These changes require new paradigms in the collaborators' performance and in the engagement of the different agents involved in evaluating these professionals' performance. Thus, each individual, being of sound and disposing mind, adopts behaviors to better face the challenges of their action area. And these are related to the educational institutions, whose aim is to strengthen the processes of human and professional training so that they have the skills to successfully face the challenges of today and tomorrow in an increasingly competitive world.

Thus, teacher evaluation has become a handy tool in educational institutions, since it allows them to make the most different decisions in terms of improving the quality of both teachers and the teaching-learning process, and thus the quality of students.

In previous studies, it was concluded that teacher performance evaluation at the Universidade José Eduardo dos Santos (UJES) is generically based on Decree No. 25/94 of July 1, whose procedure is the same for all government employees (Fernandes, 2014). According to this author, the procedure does not adjust to the reality of Angolan higher education professionals and, in fact, this has been a concern of the higher education authorities in that country. In this way, this performance evaluation tool enables highlighting some very general qualities, which are used to evaluate the performance of any government employee and do not adjust to the educational reality.

The implementation framework of this paper is the UJES, the Angolan public institution of higher education created in 2009 by Decree 7/09 of May 12. The rules in force are the same as those in force at the Universidade Agostinho Neto, at that time the only one in the country. With regard to the approach, the procedure used to measure the teaching performance at the UJES does not take into consideration a 360-degree evaluation perspective, that is, all the parties involved in teaching, emphasizing the main element which are the students, who are related to them in their daily lives.

Thus, the problem with this research was related to the contradiction between the need to evaluate teacher performance at the Universidade José Eduardo dos Santos periodically, and the need to have student engagement involved in the same process as a way of detecting the main weaknesses and improving work-related skills, which allow for superior individual and organizational performance. The following scientific question arose from this perspective: How could the performance of UJES teachers be improved through student engagement in the teacher performance evaluation process to contribute to the university's management? Given the scientific question, the following hypothesis was posed:

If students are guaranteed participation in the teacher performance evaluation process, they could contribute by improving the performance of the Universidade José Eduardo dos Santos.

In this way, given the previous hypothesis, the following objectives are presented:

General Objective

To contribute by improving UJES's university management through student participation in the teacher performance evaluation process.

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Specific Objectives

i) Theoretically support management from the point of view of university management and the performance evaluation process of Human Resource teaching; ii) To diagnose the current status of the UJES teacher performance evaluation, and student participation in this process; And iii) to propose a procedure and a respective model that allows students to engage in the UJES teacher performance evaluation process.

Research Purpose, Scope and Time Frame.

Taking into account the previously presented approach , it becomes apparent that the study is developed from general management to the university management and, as a research scope, from the Human Resources management to the performance evaluation within the university, as shown in Figure 1:
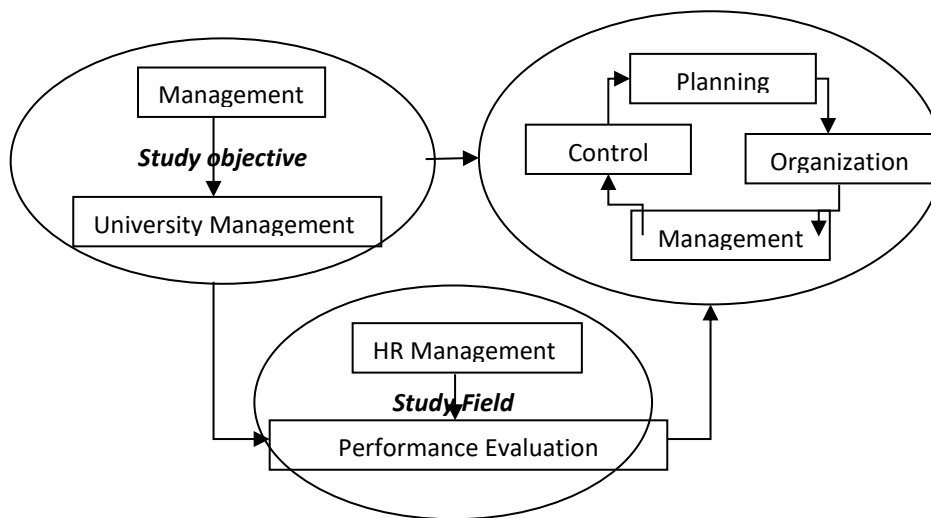
Figure 1. Research Purpose and Scope

Note: Source: Author's own creation

Basis of University Management

People are the engine that drive any activity. They are the heart and soul of organizations. They become the center of all organizations, whether profitable or not, such as schools, hospitals, rehabilitation centers, non-governmental organizations (NGOs), churches, universities, cooperatives and others, as they are the only living resource of any organization (Chiavenato, 2009).

Today's society is becoming increasingly demanding in the way education is provided, but also in the way universities are run. Such a situation goes far beyond mere fallacies and reality. University management tends to be more demanding due to the fact that it is in the universities where the different managers of any organization are trained.

An entire organization needs the existence of resources and people, since people are the main element of organizations in the current era as they have the organization's greatest resource, which is human capital. The existence of people and resources in the organization allows themselves to be managed so that the desired objectives can be achieved.

In an increasingly global universe, we can find different organizations, so much so that people spend most of their time in them. Organizations are where individuals can achieve

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goals, things that they could never achieve in isolation or individually. Organizations are significantly relevant since their role goes beyond the pretensions of their managers.

Daft (2010) considers an organization to be a goal-oriented and deliberately structured social entity. To him, an organization is deliberately structured because it is subdivided into parts and different departments.

Each organization, regardless of its purpose, needs to manage its resources to achieve its objectives.

Thus, there would be no management if the organization were not to exist, according to Drucker (2010). But without management, there would only be a mass of people, not an organization. The organization itself is a body of society and exists only to cooperate with society, the economy, and people, by providing the necessary result.

Management can be defined as the process of achieving results (goods or services) with the efforts of others (Teixeira, 2013). On the other hand, Tamo (2006) mentions that management is the process aimed at obtaining results by using all or part of the organization's resources.

For organizations to achieve results, a skilled person might be needed to manage them: this individual is called a manager, whose purpose is to contribute to the organization's performance, planning, organizing and controlling all its activity.

University Management within the General Scope of Management. University Managers

According to Tosta et al. (2011), a university is an institution that uses knowledge as raw material, which exists to leverage society and contribute to its development in order to train qualified professionals.

Gomes et al. (2012) considers that university-level institutions should lead their managers to be concerned about the evaluation processes in order to consolidate their excellence as an institution in terms of teaching, research and extent. This is done in order to be acknowledged by the national and international scientific community and society, [...] where such processes place the institution in a visible position, showing the specific rankings by school year and many other ways of measuring quality.

University management must be based on supposedly efficient and effective management, which must be capable of providing credibility as to what it is focused on and must be prepared for the challenges of the millennium.

Human Resource Management within University Management. Performance Evaluation Role of University Teachers

Every organization survives thanks to people. In universities, where the most significant capital is human capital, the value of people is undisputed.

According to Camara et al. (2010), recognizing that having the most advanced technology, a solid financial base or a dominant position in the market is not enough to guarantee success, where a work-motivated force does not support these aspects in the context of a set of forward-looking, high-yield skills, means that there is a notable change going on in many managers' mentality.

Management must keep in mind assumptions that ensure and recognize the value of human strength as a critical factor in the organization's success within the scope of the

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organization. However, the value of human strength must be based on a vision of the future, on the conception of methods that include participatory management in their actions, so that employees feel that they genuinely take part in achieving the organization's success, bearing in mind that they also have their individual goals.

HR management must be based on tools that fit a workflow that guarantees efficient management, as shown in Figure 2 below:

Figure 2. Workflow tool for efficient performance management

Note: By the Author, adapted from Silverstein (2011)

The performance evaluation of this situation plays a distinguishing and crucial role in order to deliver results by comparing them with the recommended ones.

Traditionally, performance evaluation means the same as an employer assessment or "the critique of their performance", according to Silverstein (2011). Nowadays, however, many organizations go beyond just measuring employee performance, adopting a more holistic performance management process.

Currently, performance evaluation focuses more on the employee, identifying their strengths and weaknesses through results, and leading them towards continuation, development or improvement. The main objective of performance evaluation is specifically employee development, whereby an organization's objectives can be achieved.

Teacher's Performance Evaluation Objectives

Pereira (2009) affirms that evaluation processes enable workers to know what is expected of them, what the performance evaluation criteria are, comments about their work's execution and their possibility of improving their job.

Authors such as Cassettari (2014), Fernandes (2008) and Rocha (2004) group together the teacher's evaluation objectives into two categories:

• The one that favors the evaluation's formative function and professional development of teachers through evaluation with weak repercussions.

• The one that favors the summative evaluation and teacher's responsibility, through evaluations with serious repercussions.

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Table 1
Formative nature evaluation Vs summative nature evaluation

Visa of formative nature evaluation	Visa of summative nature evaluation
Provide feedback on the information and identify individual strengths/weaknesses	Document personal decisions
Recognize individual performance and help identify objects	Define applicants for promotions, transfers, and assignments.
Evaluate objective achievement and identify individual and organizational training necessities.	Identify poor performance and decide if to maintain or terminate contracts.
Reinforce authority structure	Decide dismissal and validate selection criteria
Improve communication	Comply with legal requirements
Suggest a forum in order to help leaders	Evaluate training programs and their progress
Allow employees to discuss their concerns	Staff planning and policy-making about rewards/remuneration

Note: Adapted from Bohlander & Snell (2009)

Modern Performance Evaluation Methods

Modern performance evaluation methods according to Carvalho et al. (2012), point to a self-evaluation trend of employees' participation involved in the planning of their professional development, highlighting the future in constant improvement of the performance function.

The latest methods seek to address organization requirements, such as: methods of participation by objective, evaluation by competences and 360-degree evaluation.

Santo & Santos (2010) state that between the various typologies used to evaluate people's performance, 360-degree evaluation has a huge importance in an organization's environment due to his ability to listen to stakeholders, since it expect to develop skills through fellow's feedback and the person being evaluated. According to these authors, a 360-degree performance evaluation is based on observed behaviors, in other words, in the perceptions that people have about certain behaviors of the employee being evaluated. Modern performance evaluation methods provide more conventional information that reflect the employee performance within a particular organization.

The main beneficiaries of the teacher's performance evaluation system through the 360-degree method, according to Pinto & Oliveira (2005) are.

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Los principales beneficiarios del sistema de evaluación de desempeño de los docentes a través del método de 360 grados según Pinto & Oliveira (2005) son:

- The higher education institution. Through the establishment of mechanisms that guarantee quality education and promote improvement;

- The teacher. The performance evaluation methods guarantee quality in evaluation and the inclusion of some factors that go beyond teaching and are not normally taken into account.

- The students. Although directly and as a consequence of preceding points, students become the main beneficiaries (better education, quality enhancement and more motivated teachers).

The student participation in the teacher evaluation process is relevant, since they cope with the teacher directly, both in class and in research papers. The student is ready to provide their opinion about the teacher's performance in some aspects, such as student-teacher interaction, how current the given topics are, type of content and the ability to respond to students' questions.

However, according to Fernandes, Martinez and Sanchez (2015), the teacher must use all of their teaching, didactic, scientific and interpersonal skills in their performance, developing actions adjusted to the cognitive aspects of the students.

In this way, Cassettari (2014) affirms that students experience daily the teacher's job and, therefore, can make contributions to their evaluation, especially in higher education where it can be very useful.

According to Fernandes (2014), teacher performance evaluation progress in Angolan public higher education institutions should be based on performance indicators based on competencies related to teaching activity.

Methodology

In order to describe the performance evaluation process, this work aimed to elaborate a case study at the Universidade José Eduardo dos Santos, located in the V Região Acadêmica, created by Decree No. 5/09 of 7 April of the Conselho de Ministros, bringing together the provinces of Huambo, Bié and Moxico.

The general objective of the UJES is the qualified technical personnel training in the areas of knowledge that differ the most and to which they are dedicated, endowed with scientific and technical knowledge. The UJES currently offers 29 undergraduate courses and five master's courses, the latter in collaboration with the Universities of Lisbon, Autonomous University of Barcelona and Technical University of Lisbon. The institution has teachers and administrative staff collaboration, whose number is found in the table below:

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Table 2.
UJES Staff in 2014

	Troops	Partners	Total
Teachers	196	385	581
Administrative staff	291	106	397
Total	**487**	**491**	**978**

Note: Report taken from the José Eduardo dos Santos University (2015)

Theoretical Research Methods

Theoretical methods fulfill a function that enables the conceptual interpretation of empirical methods (Sá-Silva et al., cited by Vilelas, 2009). From this theoretical point of view, elements of the dialectical method and its categories are used, such as: analysis and synthesis, logical-historical and induction-deduction. Thus, integrating the hypothetical-deductive method as part of the scientific method used in this research.

Empirical Research Methods

Document analysis: different laws were reviewed under which teaching activity in Angola is supported, namely:

- Law 13/01, of 31 December, Basic Law of the Educational System;
- Decree 25/94, of July 1, 1994, procedure for the performance evaluation of public officials;
- Guidelines for higher education subsystem management improvement;
- Other guideline documents about the current performance evaluation progress in UJES, as available literature in articles and research papers in different knowledge areas.

Surveys: a set of questions formulated to obtain information that is based on the answers that certain people can provide, enabling a diagnosis to be made of the current state of the teacher performance evaluation.

Descriptive statistics: to characterize the behavior of the indicators defined in the student sample.

A questionnaire was sent to the students of the UJES with a Likert scale of 6 points being used: 1 - strongly disagree, 2 - highly disagree, 3 - slightly disagree, 4 - agree, 5 – very much agree, 6 - completely agree.

The study population or universe, which is the set of all elements, individuals or objects that have some common characteristic (Tamo, 2012), consisted of 10,947 students enrolled in all U.O's of the UJES in 2014, according to the following table 3:

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Table 3
UJES students, enrolled in 2014

Organic Unit UJES	Number of students
Faculty of Agricultural Sciences	665
Faculty of Law	1,152
Faculty of Economics	1,750
Faculty of Medicine	457
Faculty of veterinary medicine	364
Huambo Higher Polytechnic Institute	3,285
Polytechnic School of Bié	1,288
Polytechnic School of Moxico	1,986
TOTAL	10,947

Note: Source: Report taken from the José Eduardo dos Santos University (2015).

Using the normal sample calculation procedure and considering that the population is finite, the data resulted in a sample of 372 students representing part of the population, with a 95% confidence level and a 5% margin of error. Of the questionnaires distributed, 342 students answered them, representing 91.94% of the sample, a number that was considered enough to apply the study under analysis.

The data was collected through the distribution of questionnaires and the proposal of the participatory application methodology to students after explaining its purpose and how to complete it. All questions about the questionnaire were explained in the place where they were handed out.

After approximately four weeks, it enabled the respondents to better understand the questions raised in the survey and the student proposal for the participation in the teacher evaluation. The questionnaires were returned for analysis.

Questionnaires were distributed randomly to all the students from the UJES' organizational units, as Table 4 shows.

Table 4

Number of Questionnaires Answered by Students by Institution

Organic unity	Number of students			
	Number of distributed students	Porcentaje	Number of distributed students	Porcentaje acumulado
Polytechnic School of Bié	58	Polytechnic School of Bié	58	Polytechnic School of Bié
Polytechnic School of Moxico	46	Polytechnic School of Moxico	46	Polytechnic School of Moxico
Faculty of Agricultural Sciences	26	Faculty of Agricultural Sciences	26	Faculty of Agricultural Sciences
Faculty of Law	46	Faculty of Law	46	Faculty of Law
Faculty of Economics	55	Faculty of Economics	55	Faculty of Economics
Faculty of Medicine	42	Faculty of Medicine	42	Faculty of Medicine
Faculty of veterinary medicine	32	Faculty of veterinary medicine	32	Faculty of Veterinary Medicine
Higher Polytechnic Institute	37	Higher Polytechnic Institute	37	Higher Polytechnic Institute
Total	342	Total	342	Total

Scale Reliability

Taking into account the scale of the questionnaire and according to Cronbach's Alpha coefficient, used as a reliability criteria, Almeida, Santos and Costa (2010) point out that since there is a value greater than or equal to 0.7, as presented in table 4, the scale is reliable. This result was obtained through calculations carried out in the SPSS Statistic.

Table 5

Measurement scale reliability statistics

Alpha de Cronbach	N.º of Items
0.832	19

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Profile Characterization of Students Interviewed

A total of 342 students were surveyed, 184 of them male, representing 53.8%, and 158 females, representing 46.2%.

Results

Taking into account the questionnaire applied and the proposal presented in the teacher performance evaluation model, which was developed and presented together with the questionnaire, we tried to identify the students' opinion about its validity and about their engagement in the performance evaluation process. This allowed us to draw up the proposed procedure for evaluating performance at the UJES.

Proposed Procedure for Evaluating Teaching Performance at the Universidade José Eduardo dos Santos

The performance evaluation system designed and proposed to the Universidade José Eduardo dos Santos involves student engagement and combines the competence performance evaluation method and the 360-degree performance evaluation method. Combining these two methods makes it a mixed-method, which enables the teacher to be evaluated from four-dimensional perspectives, that is, the skills they use in their daily activities during the teaching-learning process: pedagogical-teaching skills, research skills, academic management skills and university-community engagement skills. With regard to the 360-degree method, this enables the teacher to be evaluated from all the perspectives with which they interact, i.e. colleagues, the immediate supervisor, paying special attention to the students. All these are elements that play a transcendental role in terms of specific importance in the proposed model.

The system is composed of three phases and eight stages. The first phase integrates the three stages: 1 - Definition of Human Resource strategies and policies; 2 - Objectives of the performance evaluation system; 3 - Requirements of the performance evaluation system.

This first step aims at revealing the main existing problems and identifying possible alternatives for their solution, involving:

a) Organization of the team - which is responsible for applying the performance evaluation instrument. It should be carried out by people with solid knowledge about human resources (policies and strategies). Seniors should integrate here, as these students are the best for having updated knowledge and behavior for the process;

b) Current status of the performance evaluation process in each institution – the methods and techniques for collecting information from the institution are designated here, including documentation analysis, direct observation, surveys and questionnaires. The sample to be questioned (students) is also determined.

c) Analysis of the results obtained from diagnosing the current state of the performance evaluation process and proposals for improvement.

d) Continuation - depending on the aspects detected, alternative solutions are sought.

The second stage (definition of the objectives of the performance evaluation system) is composed of:

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General Objective

1. The aim is to improve and enhance the role of pedagogical, academic, research and university-community engagement performance at the Universidade José Eduardo dos Santos through student engagement in the process to identify weaknesses in the staff-teaching performance as well as their potential for improvement;

2. Feedback to other Human Resource processes related to performance evaluation (selection, promotion, training, reward and others), and contribute improving the quality of the teaching-learning process in a sustainable way.

Specific Objective

- Know the strengths and weaknesses of teachers in order to improve their performance;

- Contribute to the teaching staff being up to date;

- Provide teachers with the different stakeholders' opinion, with special emphasis on students;

- Determine which teachers deserve awards and incentives;

- Detect the need for training by contributing to teacher-training plans;

- Provide a performance evaluation culture in an inclusive environment among those individuals who teach responsibly.

The third stage refers to the system requirements. It is designed to meet 4 elements from the point of view of its requirements;

1. Objectivity - the performance evaluation process should be associated with the improvement of the teaching quality and the professional development of teachers.

2. Fairness - the performance evaluation process must take into account the criteria of fairness in order to be reliable, respectable and acceptable to the evaluators.

3. Communication - the performance evaluation process must be fluid, have communicative features, and communication must exist for the process to flow dialectically.

4. Evaluators – the performance evaluation process should be developed by credible people respected by the evaluators. Evaluators need to be able to exercise their responsibilities in a clearly supportive environment, which must also acknowledge their competencies. And the people under evaluation need to fully trust the evaluators.

Phase II - Designing the Performance Evaluation System

Objective: Explore in a detailed and sequential manner how the design of the performance evaluation system is structured, including the definition of methods, performance indicators and the performance evaluation interview.

Step 4: Determining the Performance Evaluation Methods. The proposed method mentioned above is a mixed-method that results from combining the competence performance evaluation method and the 360-degree performance evaluation method. Evaluating competence performance allows both the evaluators and superiors to identify which competencies the teacher has and which should be improved, expanded or developed in a way that coincides with the competencies expected by the educational institution. At the same time, a 360-degree performance evaluation makes it possible to know the evaluation of the different actors related to teachers, with special emphasis on the students.

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Fifth Stage - the Teacher Evaluation Model. As previously noted, combining the competence-based performance evaluation method and the 360-degree performance evaluation method for UJES aims to achieve four competence dimensions: pedagogical-teaching, research, academic management, and university-community engagement competences. Taking into account students' perceptions of evaluation skills, in addition to the validation of the model in Appendix 1 for evaluating student performance, the instrument consists of 26 questions, as shown in Appendix 1.

Sixth Stage - Development of the Performance Evaluation Interview. Once the performance evaluation has been carried out, the teacher will be informed of his or her evaluation according to the students, aiming to improve their future updating. This step requires the following steps:

a) Preparing the performance evaluation survey;

b) Initial contact with teachers and creating a formal environment for evaluating performance;

c) Conducting the performance evaluation interview;

d) Report on performance evaluation;

e) Closing the performance evaluation interview.

Phase III - Monitoring the Performance Evaluation System

This phase is comprised of two stages that include stages 7 and 8. This phase is intended to monitor the performance appraisal system, ensuring that objectives, requirements, methods, established indicators and project improvement actions related to teachers are respected.

Seventh Stage – Periodic Controls. This stage intends to highlight failures and problems, as well as suggestions and existing solutions in the performance evaluation process carried out by students.

Eighth stage – Monitoring. It intends to monitor the control results of the performance evaluation system. It consists of establishing periodic controls to detect possible strategic changes of the UJES regarding performance evaluation.

Discussions and Conclusions

This research aimed mostly to study university management from the point of view of teacher performance evaluation, focusing on the student's engagement during the evaluation process. It is a way of contributing to the teacher's performance improvement and the teaching quality at the Universidade José Eduardo dos Santos, in addition to proposing a teacher performance evaluation procedure that combines their engagement in the same process.

Since students are the main source for evaluating teacher performance, considering that they interact with them frequently, they are thought to have a greater privilege to express their opinions on teacher performance. Several authors agree and warn of the risk of having students involved in the performance evaluation process. Therefore, in this study, teacher performance evaluation was treated as one of the human resource strategies for improving performance and establishing policies, understanding the need that the same process brings to the improvement of teaching quality, projection and teachers' professional development.

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Regarding the research carried out and based on the surveys answered by the students from the different UJES departments, having students involved in the performance evaluation process is seen as necessary. Taking into account the objectives of the University, and based on its action, the model proposed here takes into account the four dimensions that would fit into the daily life of each department. Although some departments conduct teacher performance evaluations based on Decree No. 25/94, some weaknesses can be detected with regard to the process:

- The process is not used by all the departments that make up the UJES;

- The process does not take into account student engagement as the main element of teaching;

- The process does not take into account the evaluation of each teacher's specific competencies, as teachers are not seen as potential innovative people. The teaching-research-engagement trio is not considered either;

- The evaluation process does not enable the evaluation of teaching qualities, taking into account the formative appraisal that guarantees the teacher's professional development. In fact, it is more focused on the summative evaluation used when making decisions for promotion.

Thus, this research sought to frame students using the proposed procedure and the teacher performance evaluation model, as their engagement in the process can contribute to a change in teacher performance, thus generating an improvement in teaching quality and in the university's ability to manage itself. The model seeks to evaluate pedagogical-teaching competencies, taking into account performance, the teaching-learning process as well as research competencies. The criticality of researching in teaching professionals and academic management skills is also taken into account, as well as teacher engagement in managing the institution and university-community engagement skills, as a result of the teacher's social practice. All these skills, which are used to evaluate teachers, are intertwined, and, according to current research, students have a high perception towards them and think that these skills should be evaluated.

Since the issue of evaluating higher education teachers' performance is recent in the Angolan context, it is recommended that other authors, together with this research, continue with it. This goes beyond its paramount importance, because, if applied, it can catapult higher education institutions with high-quality teaching and learning, allowing them to settle in the African regional context and thus enabling them to rank up internationally.

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Annexes

Annex 1
Proposed Model for the Teacher Performance Evaluation by the Student

	UNIVERSIDADE JOSÉ EDUARDO DOS SANTOS **Questionário para Avaliação de Desempenho Docente pelo Estudante** **Nome da Unidade**					
Orgânica:_____						
O questionário é composto por 26 perguntas distribuídas em 4 dimensões, marque com um "X" em cada parâmetro para avaliação.						
(Índice de Classificação) - 1 Insatisfatório **2** Regular **3** Boa **4** Muito Boa **5** Excelente						
COMPETÊNCIAS PEDAGÓGICO-DIDÁCTICA						
1	Domina o conteúdo					
2	Estrutura logicamente a apresentação das suas ideias					
3	Assiste as aulas					
4	Participa no desenho curricular da disciplina, curso…					
5	Elabora textos e outros materiais					
6	Ministra com qualidade seminários, workshops e outros atos					
7	Avalia sistematicamente e informa os resultados dos estudantes					
8	Supervisiona as práticas…					
9	Tutoria trabalhos de investigação e/ou pós-graduação					
COMPETÊNCIAS DE INVESTIGAÇÃO						
10	Formula e executa projectos de investigação					
11	Promove investigação e envolve os estudantes em projectos de investigação					
12	Publica em revistas especializadas trabalhos e bases de dados profissionais					
13	Publica livros académicos-cientifico e monografias					
14	Participa em congressos e eventos e motiva a participação de estudantes					
15	Apresenta candidatura para bolsas de estudos de doutoramento e pós-doutoramento					
16	Aplica candidatura para estágios em instituições educativas					
COMPETÊNCIAS DE GESTÃO ACADÉMICA						
17	Participa na Gestão da instituição					
18	Participa na gestão dos órgãos intermédios da instituição					
19	Participa na comissão de trabalho em outro órgão governamental					
20	Participa na gestão de um projecto institucional					
21	Integra um grupo técnico especializado da instituição					
COMPETÊNCIAS DE EXTENSÃO UNIVERSITÁRIA						
22	Mantém relação de respeito e colaboração com os estudantes					
22	Incentiva a participação em eventos de extensão universitária					
22	Motiva a participação em debates de valores					
22	Envolve os estudantes em actividades de extensão universitária					

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22	Informa aos estudantes sobre todas as actividades de extensão universitária e projeção social					
OBSERVAÇÃO						

Nota: O Autor, adptado de Fernandes (2014)

Anexo 2

Cuestionario

Estimado estudante, depois de analisar o questionário e o modelo de avaliação de desempenho do docente universitário proposto, queira por favor responder o instrumento abaixo que poderá contribuir para a validação do mesmo.

I, Marque com um X os dados referentes ao seu perfil.
Instituição:_____
Nome da Turma:_____**N.º de estudantes da turma** ☐ _____
Sexo: Masculino; ☐ Feminino.
Idade: ☐ de 17 a 19 anos; ☐ de 20 a 25 anos; ☐ de 26 a 35 anos; ☐ de 36 a 45 anos; ☐ Mais de 45 anos.
Ano de escolaridade: ☐ Primeiro; ☐ Segundo; ☐ Terceiro; ☐ Quarto; ☐ Quinto; ☐ Sexto.

II Participastes da avaliação de desempenho docente no ano passado? ☐; ☐.

Instrumento para validação dos Questionários de Avaliação de Desempenho Docente.
III Instruções.

Analise cada uma das afirmações presentes na tabela que se segue, coloque um círculo ao número que corresponde ao seu grau de **concordância** ou de **discordância.**

	AFIRMAÇÕES / OPÇÕES DE RESPOSTAS	Discordo Totalmente (1)	Discordo altamente (2)	Discordo Medianamente (3)	Concordo (4)	Concordo altamente (5)	Concordo Totalmente (6)
1	Os questionários dão resposta aos objectivos	1	2	3	4	5	6
2	As questões apresentadas são suficientes para o propósito da investigação	1	2	3	4	5	6
3	Os questionários podem melhorar de forma integral a política de recursos humanos da Universidade	1	2	3	4	5	6
4	Os questionários são factíveis de aplicação em objectos de estudos práticos	1	2	3	4	5	6
5	As perguntas constantes nos questionários são fluidas	1	2	3	4	5	6

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6	Os questionários são de extensão razoável	1	2	3	4	5	6
7	Os questionários apresentam consistência lógica a partir da estrutura, sequencia, inter-relação de aspectos e coerência metodológica interna	1	2	3	4	5	6
8	Existem perguntas no questionário que devem ser eliminadas	1	2	3	4	5	6
9	Existem perguntas em falta nos questionários que devem ser acrescidas	1	2	3	4	5	6
10	A ordem das perguntas deve ser alterada para agilizar o fluxo das respostas	1	2	3	4	5	6
11	A redação das questões deve ser melhorada	1	2	3	4	5	6
12	Os questionários e o modelo são extensíveis para outras universidades pela sua capacidade de adaptabilidade, transparência, consistência e possibilidade de generalização	1	2	3	4	5	6
13	Os questionários permitem diagnosticar e avaliar periódica e racionalmente o desempenho docente	1	2	3	4	5	6
14	Os questionários permitem detetar as principais debilidades dos docentes	1	2	3	4	5	6
15	Os questionários permitem que os diferentes atores que convivem com os docentes possam oferecer as suas opiniões sobre o desempenho docente	1	2	3	4	5	6
16	Os questionários permitem melhorar as políticas e práticas de gestão de recursos humanos e o melhoramento do desempenho laboral dos docentes	1	2	3	4	5	6
17	Os questionários possibilitam a percepção da situação estratégica dos recursos humanos docentes na universidade	1	2	3	4	5	6
18	Com sua adoção e aplicação, consegue-se contribuir para o melhoramento integral dos recursos humanos docentes	1	2	3	4	5	6
19	As competências laborais e os indicadores previstos nos questionários são satisfatórios.	1	2	3	4	5	6

Marque em baixo o número correspondente aos questionários que sugere que seja retirada

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19

Caso queira que alguma pergunta seja acrescentada aos questionários, escrevê-la no quadro que se segue

Com base nas respostas referentes as 4 categorias de competências mencionadas na escala (competências pedagógica-didática, competência investigativa, competência de gestão académica e competência de extensão), mencione como percebe o impacto de cada uma delas no desempenho docente: coloque um círculo sobre os números 1, 2, 3, 4 ou 5, que melhor represente a sua percepção.

I Competências Pedagógica-didática	Muito Baixo	Baixo	Médio	Alto	Muito Alto
	1	2	3	4	5
II Competências Investigativa	Muito Baixo	Baixo	Médio	Alto	Muito Alto
	1	2	3	4	5
III Competências de Gestão Académica	Muito Baixo	Baixo	Médio	Alto	Muito Alto
	1	2	3	4	5
IV Competências	Muito Baixo	Baixo	Médio	Alto	Muito Alto

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de Extensão Universitária	1	2	3	4	5

Anexo 3

Modelo de Evaluación de la Función Pública Angoleña

República de Angola

a) _____

b) _____

NOTAÇÃO ANUAL DO PESSOAL TÉCNICO SUPERIOR, DO PESSOAL TÉCNICO E TÉCNICO MÉDIO

NOME:
CATEGORIA:.
DATA DA NOTAÇÃO   CLASSIFICAÇÃO DE SERVIÇO

Período a que respeita a notação:
De _____ à _____

RESUMO:

1. Competência Profissional..
2. Dinamismo e Iniciativa...
3. Cumprimento das Tarefas...
4. Relações Humanas no Trabalho...
5. Adaptação Profissional..
6. Assiduidade..
7. Pontualidade...
8. Disciplina..
9. Racionalização do uso e Manutenção dos Meios.......................
10. Apresentação e Compostura..

Pontuação Obtida..

Despacho:
....
....
                    Em ..../..../....
O (a) ....
(a) Cargo as entidades competente para homologar

O NOTADO

Tomei conhecimento após homologação
                    Em ..../..../....
....

PRÉ EQUAÇÃO

$$C = g + \frac{Sn - In}{Nxn}$$

Pontuação Final obtida ....

C – Pontuação Final após pré equação
g – Pontuação obtida pelo notado

S – Somatório das pontuações obtidas por todos os funcionários e agentes dos serviços ou organismos que têm a mesma categoria do notado.
I – Somatório das pontuações obtidas pelos funcionários e agentes de idêntica categoria, atribuídas pelos notadores que avaliaram o notado.
N – Número total de funcionários e agentes pertencentes à categoria do notado.
n – Número de funcionários e agentes da mesma categoria apurados pelos notadores que avaliaram o notado.

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O NOTADO

Tomei conhecimento:

.... Em ....../....../......

OS NOTADORES

.... Em ....../....../......

.... Em ....../....../......

(a) Ministério ou Secretaria de Estado
(b) Órgão a que pertence o notado.

FUNÇÕES EXERCIDAS DURANTE O PERÍODO EM APRECIAÇÃO

ENTIDADE	FUNÇÕES EXERCIDAS	PERÍODO

ANTIGUIDADE

De Serviço ....
Na Carreira ....
Na Categoria ....

ACTIVIDADES RELEVANTES DURANTE O PERÍODO EM APRECIAÇÃO

FORMAÇÃO	TRABALHOS	MISSÕES ESPECÍFICAS

APRECIAÇÃO GERAL

(A PREENCHER PELOS NOTADORES)

1. Apreciação geral salientando se há ou não adaptação à função, quais os pontos fortes e fracos e quais os meios de aperfeiçoamento adequados:

2. Opinião sobre a aptidão do notado para o eventual exercício de funções de categoria superior e de função de chefia:

SCALE OF VALUES IN ACTIVE NURSING PROFESSIONALS FROM THE DOMINICAN REPUBLIC

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Abstract. Given the curricular revision processes that takes place in the country, within the framework of the reforms in healthcare services, a research was carried out with the objective of analyzing the scale of values of nursing professionals from the Dominican Republic, during the period of May 2017-July 2018. The study is transversal and quantitative. The Valuation Reaction Test was applied to 203 Dominican professional nurses who work in public and private healthcare centers in seven cities, selected for their availabilities and respecting the ethics of social research. The data was analyzed with Excel and SPSS. The scale of values was organized according to the frequency of maximum scores obtained by the subjects in the categories and showed this order: 1) individual, 2) affective, 3) intellectual, 4) moral, 5) social, 6) aesthetic and 7) religious. While they answered the test, the subjects showed different types of verbal and psychic reactions that enabled them to understand the statistical results. The first three categories show that these professionals have an interest in overcoming and pushing themselves to provide selfless and friendly service. The last three categories reveal rejection towards values related to politics, associations, fine arts and religious dogmas contrary to their accepted faith. A conclusion was arrived where vocational schools must work to maintain balance and reinforce those values weak of presence through the inclusion of ethical principles in the curriculum with projection towards their graduates.

Key words: Values, principles, curriculum, nursing, ethics.

Introduction

The research report carried out in seven cities of the Dominican Republic from May 2017 to July 2018 aims to analyze which of the predominant values in nursing professionals may be conditioning their performance in the work environment. The aim

is to provide guidance to nursing schools so that they may achieve an integration of pertinent and relevant values in the curricular revision process.

Ethics is a fundamental element for the professional exercise of nursing care (García, 2015) and its evolution is the object of attention as a distinctive factor for this science (Kérouac, 1996; Martínez and Chamorro). The International Code of Nursing Ethics (ICN, 2012) outlines the professional as an individual capable of:

- Showing ethics when caring for the health of others, with kindness, empathy and respect for human rights (the nurse and the person).

- Adhering to scientific principles in their work, self-care and environmental protection (nurse and practice).

- Demonstrating commitment to their class by joining the union with contributions to the generation of knowledge, a dignified image, the establishment of quality standards and work for the quality of life of nurses (the nurse and the profession).

- Contributing to the success of the healthcare team by promoting harmony without risking the patient's integrity (nurse and co-workers).

To achieve these principles, nursing professionals require an ethical profile based on their approach to everyday life and guides them to make appropriate decisions and actions in the face of pressures arising from interpersonal relationships and unfavorable working conditions (Carnevale, 2013; Chaparro, 2011; Pauly, Varcoe and Storch, 2012; Peguero, 2016). The nurse must create deep moral ethical conditions "of infinite and cosmic love" and make sure that their care fulfills its mission of being a "moral ideal" to sustaining humanity "through time and space" (Watson, 2015, p.323).

Several research studies in Latin American have found that in nursing:

- Ethical training is observed as being heterogeneous between one country and another and within the same nation's interior, according to the conclusions of a study carried out by Luengo and Sanhueza (2016), which reviewed the nursing training plans of 62 university institutions from approximately 20 Latin American countries. Their recommendation is that a consensus should be sought to strengthen the scientific status of nursing.

- The psycho-affective dimension is valued in the discussion but the practice focuses only on the technical, according to a qualitative study carried out in 4 public universities in Brazil that highlights the need to continue reforming the curriculum for humanization (Araujo, Santana and Oliveira, 2011).

- Ethical understanding is related to personal experiences, culture, legislation and codes currently in force, which is data reported by another Brazilian study that researched the knowledge of professionals about the nursing code (Barbosa, Rodrigues, Celino and Costa, 2017).

- In Colombia, when quantitatively researching the characteristics of 98 nurses, Barbero (2013) observed low scores in the affection, self-care, self-improvement and confidence in the skills of others. He concluded that warm treatment and self-care should be encouraged. And Parra, Rey, Amaya, Cárdenas, Arboleda, Corredor, et al. (2016) after studying 251 nurses, found that the code of ethics is partially applied. These results were corroborated by Jiménez, Roales, Vallejo, García, Lorente and Granados (2015) when contrasting the values of 150 students

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with those of 219 nursing professionals. They recommend strengthening the values of ethical codes with effective theoretical and practical activities.

- In Puerto Rico, Cora, Rodríguez and Álvarez (2017) compared the opinions of students, teachers and employers on the value of generic and professional skills. They found that ethics was considered of lesser value when treated as a general competence and was significantly valued integrated with specific skills for providing care.

- In Cuba, Amaro Cano (2014) carried out a qualitative historical analysis, based on research-action, on the evolution of the ethical training of nursing professionals since 1995-2002. He noted that for these professionals, there is a need to have a scientific and ethical explanation of the decisions they must make in their daily lives. In identifying the denial of values in the actions of general society and healthcare professionals, he recommends that the integration of values in training should be re-established because it was lost in previous curricular processes.

- In Venezuela, Córdoba and Modest (2009) found discrepancies between the positive self-perception of nursing professionals about their competencies and job responsibility, and significant levels of dissatisfaction reported by patients with the service they received. They also identified significant difficulties in keeping up to date in their profession and in research.

Carnevale (2013) explains that gaps in ethical compliance arise when there are inconsistencies between what the staff are asked to do, and the principles they have internalized. These are perceived as evidence of the moral distress that the nurse suffers as having a moral conscience. These situations are associated with interpersonal relationships, the physical conditions of the work environment, the provision of resources to accomplish said tasks, excess demand from work, concern for the patient's well-being, among other factors (Carnevale, 2013; Peguero, 2016).

Lima, Lerch, Lerch, Devos and Silva (2014) obtained results that support these conclusions. They report a significant positive relationship between moral suffering and burnout, although they found it to be low. Specifically, they observed two main factors as the cause of moral suffering. The first was therapeutic obstinacy, understood as the obligation to collaborate with the medical team in situations that they understand no longer benefit the patient, but prolong the suffering of the person and/or their family. The second factor identified was professional performance, noting that its relationship with moral suffering was negative.

The Case of the Dominican Republic

As with other Latin American countries, the Dominican Republic is reviewing the process of its nursing curriculum which encompasses the training and professional exercise, as part of its strategies for achieving its millennial goals. From the perspective of training, the Ministry of Higher Education, Science and Technology (MESCYT, *Ministerio de Educación Superior, Ciencia y Tecnología*) leads the curricular revision since 2010 to adapt the plans and its implementation to the current demands of quality in healthcare. With these new plans, it is expected that:

- Graduates of these programs will have ethical values and principles.

- IES will have pedagogical models focused on skills development with integration of principles in the training process.

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- The teaching staff will obtain training to apply these models and display them in their performance.

- The knowledge and values practiced will be included and applied in all programs and teaching, research and outreach activities.

The curricular review involves those nursing university schools, associations and government agencies related to this degree. It started from the general diagnosis of the situation in each college and continues with the search for consensus in the solution of needs. The process is open, participatory and transparent, with defined goals and schedules. One of its achievements is the publication of official documents for guiding this work, among which are the *Regulations for the Establishment of Schools and Bachelor's Degrees in Nursing in the Dominican Republic* (MESCYT, 2012), the approach between colleges and the thrust towards the approval of the licensing law.

As a result, nursing schools are improving their quality level in terms of laboratory conditions, the training of their teachers and administrative staff, and the requirements for acceptance and graduation. In addition, research is emerging as a dynamic activity in international scientific weeks, congresses and symposia. The most delayed processes have been those on reviewing the plans and in training the teachers due to the implications inherent to their nature.

It is important to review prior research when establishing these plans that serve as a reference point to guide the integration of ethics, and then evaluate the results of their application. In the diagnosis performed, ethics in the current curriculum turned out to be generalized or to have fragmented contents, the articulation of which is at the mercy of the teacher's good will, since the syllabi lack their integration (Suero, 2018). Studies on the results of said integration in graduates are very scarce in the country. The few studies on service satisfaction show that users experience technical quality but not treatment quality (Bavis, De la Rosa, De Los Santos, Valcin, Sanon and Sánchez, 2018; Peguero, 2016), although some receive patient and nurse satisfaction with the human quality provided therein (Pérez, Sánchez, Ramírez, Hernández, Moquete, Zabala and Cols., 2013). These studies relate stress problems and treatment in the workplace environment, observing greater harm to staff where conditions are not adequate.

Value Categories

Vargas (2015) has defined a Moral Ethical System whose structure specifies ethics and facilitates its integration into the curriculum. The structure is divided into five universal principles: Goodness, justice, freedom, unity and truth. Each of these principles has an attitude and a rejection. The attitude towards the principle leads to its values, indicators and results, whose products are observable in behavior.

Alvarez (2007) adopts Garcia's approaches (1976) to propose 9 value categories which can be placed within the 5 universal principles. Although some of the classified elements by these authors differ with those of Vargas's (2015) definition of what a value is, his categorization is useful for examining a person's primary interests in human interaction, in this specific case, the nurse-patient relationship:

- Corporal values: They are values related to the goodness principle based on the anatomophysiological endowment of the being human. They are classified into primary needs for living (sustenance, shelter, health, hygiene) or secondary (improve appearance). They are opposed by hunger, drunkenness, sickness, etc.

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- Intellectual values: They are values that belong to the principle of justice with the capacity to think, reason or understand which are very important in the construction of a person (to read, learn, teach), so that they may understand how to subsist (satisfaction of basic needs for food or clothes) and to live with other people (creativity, reflection, criticism, etc.)

- Affective values: They are values that allude to the mood of pleasure and include emotion, feeling, passion, tenderness, sensitivity, since these are values of the goodness principle (Vargas, 2015) that help to maintain mental health. Likewise, they are qualities that tend to be opposed by feelings such as hate, displeasure, melancholy, sadness and fear.

- Aesthetic values: They are considered values of goodness related to the beauty perceived by the senses in nature, people or fine arts. They are opposed to the ugly, the unpleasant and the unsightly.

- Individual values: Create awareness of oneself and the need to deal with circumstances. They include autonomy, personality, individuality, originality, dependence, self-improvement and self-criticism. They belong to the principle of freedom since they encourage progress and justice for oneself and for others (Vargas, 2015). They are opposed by alienation and egocentrism (Álvarez, 2007).

- Moral Values: They are values of the principle of truth necessary for applying judgment and metacognitive regulation to make decisions for committing goodness. They relate to the principles of goodness, justice and freedom. They include purity, generosity, honesty, solidarity, fidelity, dignity, among others. They are opposed by lies, theft, fraud, violence, corruption.

- Social Values: They are values of the principle of unity; they affect interpersonal and institutional relationships in form and content. They encompass cooperation in the family/community/institution, in search of the common good; tolerance and empathy in politics, democracy, pacifism, cultural diversity, political pluralism, multiculturalism. Their opposites are enmity, war, discord and individualism.

- Environmental Values: Relative to the environment, received by the principle of goodness. They include appreciation of natural resources, their wise use and protection through habits and customs. They are opposed by pollution, deforestation, toxic waste, etc...

- Instrumental Values: the product of the principle of freedom in civilizations, facilitating a comfortable life, such as technologies, means of transportation, money, clothing. They are opposed by consumerism, misery, etc...

- Religious Values: Values of the principle of truth that refer to the set of personal beliefs relative to divinity, related to what is intimate and personal to oneself, to the ultimate meaning of life, to a Higher Being (God) or actions related to religion.

Nursing schools are committed to training professionals where these values are combined to create human sensitivity to the needs of the person and others (Chaparro, 2011). The interest and efforts for achieving this must extend beyond the end of the course, accompanying graduates in their continuous growth towards achieving service as a nurse with quality and warmth.

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Method

The quantitative descriptive method was used. The García Valuative Reaction Test, modified by Álvarez (2007), was applied to a sample of 203 nursing professionals working in public and private centers in the Dominican cities of Azua, Baní, Barahona, Bonao, La Vega, San Pedro de Macorís, Santiago and Santo Domingo.

The subjects were given the informed consent form, and, when they returned it signed, the procedure was confirmed and the test was given to them, indicating that it was valid only if completed, but that they could withdraw at any time if they wished. Of the 225 professionals who agreed to participate, 22 did not complete the test.

The Valuable Reaction Test has 250 reagents with corporal, intellectual, affective, aesthetic, individual, moral, social, environmental , instrumental and religious values. As it is long, the corporal, environmental and instrumental values were suppressed, to reduce to 175 reagents, plus the general data. The test is constructed by organizing the values into groups of 25 using this scale: Very pleasant (2), pleasant (1), indifferent (0), unpleasant (-1) and very unpleasant (-2). To grade the test, the values of each answer in a category are added together and interpreted as the strength of the presence of that category in the person.

The results were analyzed with Excel and SSPS 15® by descriptive statistics and Pearson correlation. Data distribution was normal with low homocedasticity in the Levene and Brown Wells tests.

Results

The socio-demographic characteristics of the sample describe a greater presence of female professionals (n=188; 93%), between 21 and 40 years of age (n=115; 57%) and of Catholic religion (n=124; 61%).
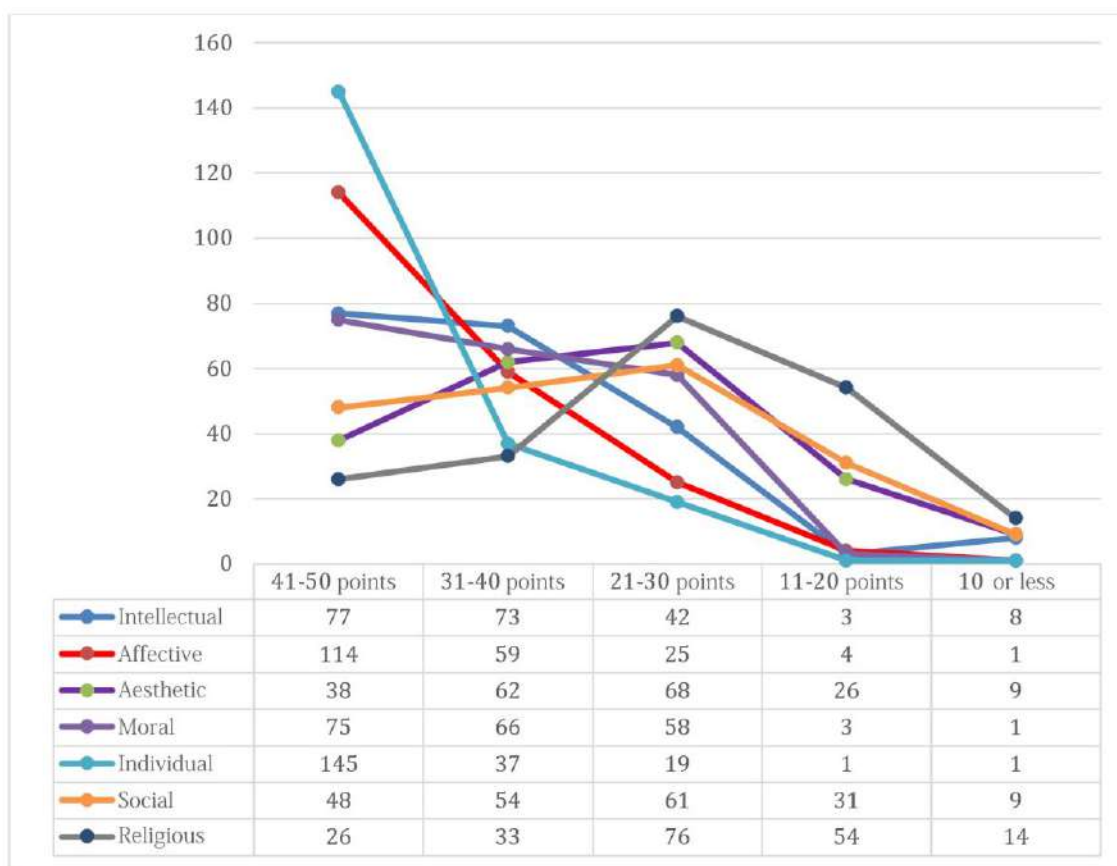
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	41-50 points	31-40 points	21-30 points	11-20 points	10 or less
Intellectual	77	73	42	3	8
Affective	114	59	25	4	1
Aesthetic	38	62	68	26	9
Moral	75	66	58	3	1
Individual	145	37	19	1	1
Social	48	54	61	31	9
Religious	26	33	76	54	14

Figure 1. Frequency distribution of scores obtained by nursing professionals in the Appreciative Reaction Test

Note: Source: Author's own creation, 2017-2018

Figure 1 shows the behavior of the scores obtained in the seven value categories. The Pearson correlation between the scores obtained from the nurses in the test was significant at the 0.01 bilateral level. The most common value scale observed in the subjects behaved as such:

- First level: Individual values with 145 (71%) professionals in the maximum score (41-50 points).

- Second level: Affective values with 114 (56%) professionals in the maximum score.

- Third level: Affective values with 77 (38%) professionals in the maximum score.

- Fourth level: Affective values with 75 (37%) professionals in the maximum score.

- Fifth level: Affective values with 48 (24%) professionals in the maximum score.

- Sixth level: Affective values with 38 (19%) professionals in the maximum score.

- Seventh level: Affective values with 26 (13%) professionals in the maximum score.

These locations do not change when the scores for each category are added together in the second scoring range (31-40). What the analysis is saying is that the

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differences observed in the scores between the categories are not due to chance, since they were highly significant, with p<0.01, but there are specific causes causing them.

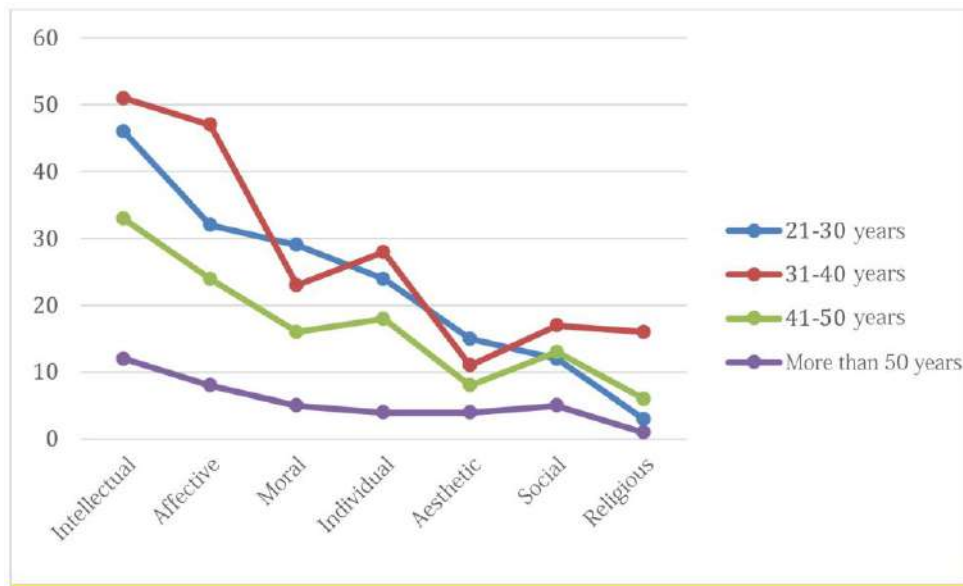*Figure 2.* Behavior of the maximum scores obtained by professionals, according to their age group.

The behavior of the scores of the value categories observed in Graph 2 shows that age is not a factor that alters its initial position in the scale, except for small differences between the lowest scoring categories that were not statistically significant to the analysis of variances. Similar results were observed when analyzing the institution variables of graduation and religion.

Discussion and Conclusions

In the professionals group, the primary values are the individual values, the values from the principle of freedom, which boosts improvement. This data differs from reports in other Latin American countries (Barbero, 2013; Córdova and Modest, 2009) where the motivation for academic growth is reported to be low. When filling out this section of the survey, subjects expressed intense interest in knowing alternatives to postgraduate studies and specializations, showing that they are aware of their need to advance. These values also make it possible to act in justice for oneself and others, so that the nurse recognizes her personal worth and her limits within the healthcare team and before the patient.

Affective values are the second scale level in those nurses who were observed. They are values that belong to the principle of kindness and are manifested in affective attitudes that protect mental health. The reaction of the observed professionals when filling in this category were generally very positive and were appreciated in the disinterested and kind treatment they provided to patients, even when their working conditions were not always the best. Interpreted as part of the Araujo and Cols study (2011) and Barbosa and Cols. (2017), means that the training process fosters these values in practice, although observing them in the second position and before the

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findings of Bavis and Cols. (2018) and Peguero (2016), it is also inferred that they need to be reinforced so that they manifest equally in the conduct of all service professionals.

The third scale level was for intellectual values, relative to thinking skills. Professionals were comfortable with academic activities and the terms related to collaborative living with others.

The fourth position saw the moral values, referring to the integrity of being. Professionals filled in this section of the survey with little or no comment, affirming Álvarez´s (2007) conception that they belong to the intimacy of being. They are related to justice, in order to act with charity and not malice when addressing healthcare needs. Cora and Cols. (2017) express that students agree with employers in not valuing general ethics and significantly appreciating the ethics applied to nursing. So, it is possible that a specific scale for nursing care reflects better scores in this category.

The fifth position was for social values that affect interpersonal and institutional relationships in form and content. The nurses showed honest expressions of displeasure in this category, and in the next two, towards the aspects they rejected. In social values, the harshest expressions were for political terms, political pluralism, constitution, state, association and law, connecting them with the country's current situation regarding widespread corruption. But their rejection was also manifested towards the collective guidance within its institutions.

The underlying meta-cognitive factor, both for the high scores in the category of individual values and the low scores in the category of social values, may be related to their way of dealing with the pressures generated by the enactment of the General Health Law 42-01 and the recently approved Dominican College of Nursing. Law 42-01 has imposed the requirement for a degree (Art.92) and mandatory continuous personal and professional development to award new contracts (Art.95) with salary benefits according to scale (Art.96), by which they opted to finish their degrees and study specialties with little support. Nurses who cover teaching duties at universities and earned an extra salary, receive additional pressure from the 2012 Regulation that regulates the training of care professionals and requires a master's degree for everyone who teaches.

The nursing staff in the country is made up of citizens who work for the social good but receive low salaries, except in the hospitals of the new generation. And since they often come from the deprived social strata, their basic needs are barely under control and they resort to moonlighting to improve their life quality.

Amaro (2014), Carnevale (2013) and Lima and Cols. (2014) explain that moral dilemmas, moral suffering and uncertainty in nursing staff are generated by factors that, among other aspects, are related to social values. They have to face the ethical dilemmas posed by considering the patient's wishes, confronting what they learned in the training institution against what is witnessed and required in the institution they currently work in, and working under conditions often unfavorable to them, such as the workplace environment, the nurse/patient ratio, the provision of materials and equipment, interpersonal relationships and the personal security situation.

That is why their compassionate attitude and human warmth when approaching patients is admirable and related to the high scores in the category of affective factors. This ratifies that nurses have a moral conscience of commitment to the practice of nursing care, and we must pay attention to stressful factors so that they do not reach levels that cause an imbalance.

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The sixth category of affective values is defined as the appreciation of beauty and includes values related to the fine arts. Ugliness, bad aesthetics and unpleasantness are opposed to it. The nurses' expressions revealed that they do not usually enjoy literature, painting, poetry or theater. They consider that going to museums or concerts is not for them. They were more receptive to parties. A connection was found between this opposition and their workplace environment. Due to the excessive demand of this service, with the exception of the New Generation Health Centers, nurses move around hot spaces, without decorations that need to be washed or painted.

The category of religious values achieved the last position on the scale. Surprisingly, nurses scored low even if the Dominican Republic is predominantly religious. Circumstances can be easily understood if we relate the professional's religion to the appreciated or refused religious values and observe the nurses' expressions when filling in this section. The reasons were the appreciated strong individual values of the accepted beliefs and the low tolerance towards other people's beliefs. The analysis indicates that people from protestant religions defined the terms related to Catholic faith as indifferent or disagreeable, and vice versa. All of them rejected the allusions to oriental religions, which are not well-known or appreciated. Nurses displayed a low level of culture, ignorant as to the meaning of some characteristic terms of oriental cultures.

Leininger and Mcfarland (2002), as well as Mixer (2011), found that taking culture into account is a better way of obtaining high quality care and being able to predict the nursing care phenomena, a mandatory job for science. This discovery should lead to the development of studies in areas with different cultures, considered inferior by Dominicans. The purpose would be to observe how scientific and humanizing the nursing care exercise is in those conditions, what should be included in the study program, and what is required in the admission to overcome what is lacking.

It's also possible that this respect for foreign cultures is associated to conflicts noticed among the nurses when observing their social values. Apart from being at a religious level, the possibilities of cultures being different are found in the political conceptions and in the attitudes towards their class management in the health service institutions and the professional associations.

The statistical analysis did not find any significant relation between the score obtained by professionals in the work category and the age factors, the institutions they graduated from, or their religion. However, the differences in the scores between categories were significant at a level of 0.01. This data indicates that the scale of values is not related to the educational program of the college the nurses graduated from. According to the socio-legal processes described, it seems that there is a coincidence between Barbosa and Cols' findings. (2017) about the personal experiences, culture, legislations and current codes defining values in the nurses.

As a result, nursing professionals have a scale of values that reflects their partial application of the nursing code. This is because some of its values are highly positioned and others are lower, as in some situations in Colombia (Jiménez and Cols., 2015; Parra and Cols., 2016). Facing the curriculum review process made by Dominican nursing universities, the finding should be food for thought. They should also consider searching for different strategies that would make the integration of principles and values more significant for future profession in nursing care.

As proposed by Luengo and Sanhueza (2016), Dominican nursing universities should reach a consensus on the goals and objectives of ethical professional training.

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Within them, every institution must design a strategy in order to achieve this and then contribute the outstanding ones to the set. It's necessary to structure an integration model of the set of principles and values in order to promote all of them with equal intensity.

Lastly, the contributed data made it possible to achieve the research objective: to analyze what the predominant values were that could be conditioning nursing professionals' behaviors in the workplace environment. Many conclusions were made from the analysis of the results:

- The main interests of nursing professionals are individual values, which make them prioritize their personal needs, master their behaviors towards their environment and take legal action if necessary. Educational and labor institutions have to keep track of them, organizing activities to promote a balanced application of the values and prevent alienation and egocentrism.

- Affective values are the second level on the nursing scale. They are values about the principle of goodness connected to the first element of the ICN about the nurse and the individual. They encourage selfless services and kind treatment, regardless of workplace circumstances. Schools must organize activities for the participation of those graduated from them, preserving the levels observed.

- Intellectual values got the third position on the scale. They are important for metacognition, the creation of the individual and survival, and for creating the need for harmony with other human beings. They are related to liberty and the search for excellence expressed in the third element of the ICN: nurses and their careers. Schools have to encourage them in order to solve and prevent any interpersonal conflict. Intellectual values and individuals are a good base for introducing the practice based on evidences such as the workplace culture.

- Moral values got the fourth position. They are essential for the rest of the categories because they belong to the principle of truth. Promoting them effectively is a challenge for schools, since they are surrounded by inappropriate models presented by society.

- Aesthetic values got the fifth position, they scored low because fine arts were rejected. Schools and healthcare centers must open up to activities promoting creativity and the appreciation of beauty.

- Social values got the sixth position. They refer to unity and the fourth element of the ICN about nurses and their relationship with their colleagues. In these values, people showed strong rejections against some terms relating to politics and professional associations. Training institutions should encourage the development of healthy relationships between peers and guide social growth with clear positive models, fully and actively committed to improving society.

- Religious values got the seventh and last position. They belong to the truth and underlie all the elements of the ICN. The service professionals seemed to appreciate the dogmas of their religions and reject those belonging to other religions. That led to a low score for them. Nursing schools must incorporate spirituality through the approaches of tolerance, understanding and respect.

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RELATIONSHIP BETWEEN THE LEVEL OF KNOWLEDGE IN A SAMPLE OF FACULTY OF NURSING UNDERGRADUATE PROGRAMS AT VARIOUS UNIVERSITIES OF THE SOUTHERN REGION OF PUERTO RICO ABOUT THE THEORY OF EMOTIONAL INTELLIGENCE AND ITS APPLICATION IN THE CLASSROOM

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Abstract. The main objective of the research was to determine the relationship between the levels of knowledge in a sample of faculty of undergraduate nursing programs of several universities in the Southern Region of Puerto Rico about the theory of emotional intelligence and if there is knowledge, how they integrate the concepts of the theory in the classroom. Theoretical contributions on emotional intelligence by Howard Gardner (1993), Reuven Bar-On (1997), Salovey and Mayer (1990) and Daniel Goleman (1995) were used in this research. It was non-experimental, descriptive, of a positivist nature and at the same time quantitative, exploratory, and correlational in nature. The sample consisted of 98 university professors, who taught at the undergraduate level of the nursing area in several institutions of the Southern Region of Puerto Rico. An Ad hoc instrument was used to measure the level of knowledge of nursing faculty about the theory of EI and its implementation in the classroom. The instrument consisted of two parts: the profile of the participant and the scale to measure the level of knowledge about Emotional Intelligence. Among the most significant conclusions are that more knowledge of EI, the less integration of the same in the classroom by the participants and no significant relationship between the level of knowledge of the Theory of EI and the assessment process and the integration of the same in the academic performance of the students.

Keywords: Knowledge, emotional intelligence (EI), faculty, nursing undergraduate program.

RELACIÓN ENTRE EL NIVEL DE CONOCIMIENTO EN UNA MUESTRA DE FACULTATIVOS DE PROGRAMAS SUB-GRADUADOS DE ENFERMERÍA DE VARIAS UNIVERSIDADES DE LA REGIÓN SUR DE PUERTO RICO ACERCA DE LA TEORÍA DE INTELIGENCIA EMOCIONAL Y SU APLICACIÓN EN LA SALA DE CLASES

Resumen. La investigación tuvo como objetivo determinar la relación entre el nivel de conocimiento en una muestra de facultativos de programas sub-graduados de enfermería de varias universidades de la región sur de Puerto Rico acerca de la teoría de la inteligencia emocional (IE) y si existiese el conocimiento, cómo integran los conceptos de la teoría en la sala de clase. Se utilizaron los aportes teóricos sobre IE de Howard Gardner (1993), Reuven Bar-On (1997), Salovey y Mayer (1990) y Daniel Goleman (1995). El estudio fue cuantitativo, no experimental, descriptivo, de naturaleza positivista, exploratorio y correlacional. La muestra consistió en 98 profesores universitarios de nivel sub-graduado del área de enfermería en varias instituciones de la Región Sur de Puerto Rico. Se utilizó un instrumento Ad hoc para medir el nivel de conocimiento de estos facultativos acerca de la teoría de IE y su implementación en la sala de clase. El instrumento consistió de dos partes, el perfil del participante y la escala para medir el nivel de conocimiento acerca de la IE. Se encontró que, mientras más conocimiento de IE, menos integración de la misma en la sala de clase de parte de los participantes; por tanto, no existe relación significativa entre el nivel de conocimiento de la Teoría de IE y el proceso de avalúo (assessment) y la integración del mismo en el desempeño académico de los estudiantes en el salón de clases.

Palabras clave: Conocimiento, inteligencia emocional, facultativos, programa sub-graduado de enfermería.

Introduction

Current education allowed a change in the paradigm related to the acquisition of knowledge through cognitive development, making the way to the need that pedagogical practice reinforces the emotional and moral aspects of individuals that intervene in the teaching-learning process. The development of Emotional Intelligence (EI) will transform into a tool that prevents or improves human conflicts (intrapersonal or interpersonal.) Interactions on education will be humanized, allowing the students to be liberated from every aspect that won't allow them to be fully a person. Professionals must be properly prepared to be able to face the challenges that form innovative teaching in the social, historical and paradigmatic context. A transformation on the way of thinking must be made, and teaching must happen trough the development in EI in both the teachers and students, specifically in the nursing field. This profession requires a development of EI when attending patients, teachers, students and the community. People who are emotionally educated feel happier about what they do, and they show these feelings to others.

EI is considered a concept that belongs to the field of psychology and it has been defined by Gardner (1993), Bar-On (1997), Salovey and Mayer (1990) and Goleman (1995). Sánchez (2013) argued that the contributions made by Gardner (1993) stem from the real interest in non-cognitive aspects of intelligence. Personal intelligences (intrapersonal and interpersonal) are the ones strongly linked to EI. According to Gardner (1993), interpersonal intelligence is the ability to understand other people, and intrapersonal intelligence is the access to your own sentimental life of

affection and emotions. Gardner focused his attention on intelligence, creativity, leadership and work, making theoretical contributions of great impact and applications in different fields.

Other EI model was created by Bar-On (1997), who coined the term "emotional quotient" (EQ) as an analog of intelligence quotient (IQ). This model focuses on five social and emotional skills: intrapersonal skills, interpersonal skills, adaptability, stress management, and state of mind. These have an impact in the capacity of a person to face the requirements of the environment. Also, he conceptualized EI as emotional/social intelligence. This model is divided in two emotional capacities: basic and facilitators. To measure emotional/social intelligence, Bar-On (1997) proposed the Emotional Quotient Inventory (EQ-i).

The third one is the ability model by Salovey and Mayer (1990). This is characterized in four phases of EI and conceives intelligence as the processing of emotional information. These phases are: the regulation of emotions, their understanding and analysis, the facilitating emotion of thought and perception, the evaluation and expression of emotions. The set of skills described below in each of these branches constitutes the definition of EI as an ability to reason with emotions.

The las EI model was made by Goleman (1995), who exposed that people have two minds: one that thinks and other that feels. Both interact to build the mental life of human beings. The mind that thinks is rational, with a mode of understanding, is thoughtful, awake, able to ponder and reflect. Meanwhile, the mind that feels is emotional, impulsive, powerful and illogical. Therefore, the perspective of the EI model by Goleman (1995) was considered mixed and includes cognitive and non-cognitive processes. In addition, this model is composed of dimensions such as self-awareness, self-control, motivation, empathy and social skills.

Literature Review

In their research, Villanueva and Valenciano (2012) indicated that boosting the skills of the student body for an EI is an indispensable task in schools, because today's society faces problems of violence, stress, depression, crime, suicide and drug addiction, among others. For these authors, it is important to incorporate emotional education into the educational curriculum in order to achieve personality development.

In 2012, Merchán and González analyzed the influence of emotional competence on the social climate of a classroom and on the academic performance of students in their study. They wanted to know the degree of emotional competence that teachers possessed and how it could be increased through an intervention. They determined that the emotional and social competence of the experimental group obtained an increase when compared to the control group.

Samayoa (2012) developed an awareness-raising training program to promote and train the emotional competencies of teachers in two public and private secondary schools based on the results of a characterization of the emotional quotient of teachers obtained through self-reports. The sample included 681 secondary education teachers. In this sample, teachers exhibited proper scores in emotional perception and comprehension, but needed to improve their emotional regulation in all dimensions of EI. It was found that teachers were not perceived with a high emotional capacity,

regardless of their gender, age or professional experience. Women had better emotional perception and understanding and higher levels of attention to emotions.

García (2012) assessed the social and pedagogical relevance of an EI program for teachers in Venezuela. The purpose was to recognize the importance of managing emotions in the integral formation of the student, which includes the dominance of skills such as knowledge of your own emotions, emotional self-control, self-motivation, empathy and interpersonal relationships. The results revealed that most of them did not know about EI programs, had very little knowledge of didactic strategies for the development of emotional competencies and not enough time to carry out these activities with students and to train in EI. Also, the need to integrate emotional education into the curriculum and the diversity of EI content and strategies that constitute a tool that can be used in the classroom and provide follow-up of the activities of the EI program made in that classroom was found.

Rodríguez, Caja, Gracia, Velasco and Terrón (2013) conducted a study with 22 teachers from different nursing areas. As a result, teachers showed a high level on satisfaction and initiative and appeared compromised with education.

Aradilla (2013) stated that nurses show a lack of EI skills and do not receive sufficient training. This author investigated 1,544 nursing students and 209 nurses. In this study, students had more attention to their emotions and more difficulty coping with the idea of death, exhibiting high levels of anxiety and fear. The nurses showed higher levels of understanding and emotional management, less anxiety about death and higher levels of self-esteem.

Herrero, Sábado and Gómez (2013), evaluated the psychometric properties of the Trait Meta Mood Scale to examine Perceived Emotional Intelligence (PEI) in the nursing field. The sample contained 1.417 individuals, 1.208 nursing students and 209 nurses. It was confirmed that emotional attention is positively linked with anxiety when thinking about death and the dimension of alexitimia or Difficulty to Identify Feelings (DIF). Meanwhile, the self-esteem dimension was negative.

Chiappe and Cuesta (2013) made a research about the EI strengthening of teachers in primary and middle school. These were based on the diagnosis of self-motivation skills, self-knowledge, self-control, empathy and skills. They participated in a virtual learning environment to develop EI and interactions. Among the five categories of analysis were EI self-awareness, self-control, self-motivation, empathy and social skills. The results showed that educators were able to understand and control their emotions and feelings in situations of strong emotional burden, as well as to redirect and prioritize their own thinking, based on their own feelings and emotions and those of others. The research showed that interaction in these collaborative virtual environments contributes to the strengthening of emotional skills related to the ability to perceive, understand and regulate their own emotions and the emotions of others.

Pérez-Escoda, Guiu and Fondevila (2013) evaluated an emotional education program in 92 primary school teachers in three schools in Spain. The program affected the development of the five dimensions: emotional competence, conscience, regulation, autonomy, social competence, life competencies and well-being. The authors concluded that the program produces significant improvements in the development of emotional competence and an increase in regulatory strategies, a better perception of the institutional climate and a significant decrease in teachers' stress.

In Puerto Rico, Flores (2013) realized a case research to know how prepared five directors regarding leadership and the competencies were that EI promotes when dealing with situations present in the school environment. Participants pointed out three competences: motivation, empathy and social abilities. EI competencies were present as a strategy to handle different situations. The author concluded that most participants didn't have a solid base regarding skills and leadership competencies.

Baixeras (2013) described the knowledge, attitudes and practices of the EI in teachers. He concluded that they focused on the students' feeling and not their own.

Enrique (2014), who highlighted the relevance of a good foundational and permanent EI education on teaching staff to improve the educational process of students in a sample of 70 students. The results proved that there were no significant differences regarding specialization field, teacher's typology, gender or students' age, showing an adequate level of EI on different dimensions.

In her research about the education and knowledge of EI among teachers with primary student and strategies used in the classroom, Malagón-Tirado (2014) reveals that half of the participants defined the EI concept as relevant among students and that influences positively the EI on social interactions. Also, the importance of its education regarding EI content was valued.

Millán, García-Álvarez and D'Aubeterre (2014) carried out a study on a sample of 199 university professors, with the aim of confirming the value of EI and the willingness to flow at work as factors of personal protection against different sources of work stress and as promoters of psychological well-being. Among the results, a high level of psychological well-being and the willingness to flow at work were highlighted, obtaining a causal effect on psychological well-being and health promotion.

Valverde (2014) conducted a systematic review of 62 nursing articles and research from January 2002 to December 2012 at the University of Almeria. It concluded that EI helps to initiate the inner knowledge that implies "being a nurse". This leads to professional and personal growth in the nursing staff who provide conflict management tools that help to significantly reduce hostility between nurses.

Hakkak, Nazarpoori, Najmeddin, Mousavi and Ghodsi (2015) investigated the EI effects in socio-mental factors of human resources, with 248 Mellat Bank employees in the Tehran province. It was found that every EI aspects have positive and significant effect about socio-mental factors in the performance of human strength and educational entities.

Casullo and García (2015) analyzed the socio-emotional competencies possessed by 200 teachers in the making in a High School in Argentina, when facing specific vital stressful factors in the teaching profession. Highly valued socio-emotional competencies were motivation, empathy, perception, comprehension, expression and emotional regulation. The authors concluded that the development of socio-emotional competencies represents a needed task in educational context that promote these abilities, that contribute positively to the subjects' personal and social well-being.

Lavega, Costes and Prat (2015) made a research with 99 future PE teachers, an educational experience in emotional conscience trough active games. The findings confirmed that self-evaluation of emotions was predominant, and 8.81% of the total of 296 comments alluded to factors related to their peers that influenced emotional experience.

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Cazalla-Luna, Ortega-Álvarez and Molero (2015) analyzed the existence of significant differences between socio-demographical data stablished in each of the PEI and self-concept. 104 students participated. The findings demonstrated the importance for teachers to be aware of the EI's self-concept and to encourage the development of an appropriate self-concept in their classrooms in order to prevent future problems.

Cejudo and López-Delgado (2016) explored the opinion of 196 teachers in Spain about the importance of some of the dimensions that comprise EI's master domain to be a highly competent teacher. Education teachers manifested a higher level of value when asked about the importance of EI. They also showed that EI gained greater recognition of the importance of the dimensions that make up EI's master domain to be a highly competent teacher than their colleagues with low EI levels.

Burrola-Herrera, Burrola-Márquez and Viramontes-Anaya (2016) analyzed the benefit of implementing EI as a tool to favor group integration in a group of third graders of Primary Education in Mexico. The research showed that working with EI in the classroom significantly improved group relationships, promoted respect, and reinforced values such as empathy, tolerance or trust among peers and with the teacher. The existing affective relationship between students and the teacher was improved; the group's own and collective emotions worked directly, fostering empathy and self-control, creating a more harmonious environment.

Body, Ramos, Recondo and Pelegrina (2016) carried out a study with 180 teachers to check if the mindfulness attitude could be transferred to the educational environment, specifically to the teachers, with the intention of increasing the PEI. This was carried out through the Emotional Intelligence Program on Emotional Regulation, also known as PINEP in Spanish. There were significant differences in the PEI when comparing the results before and after the experimental test. PINEP training had an impact on the way teachers relate to their emotions.

Isaza-Zapata and Calle-Piedrahíta (2016) conducted a study with the aim of analyzing IE's profile in a sample of 110 primary school teachers from ten educational institutions in the city of Colombia. It was demonstrated that EI incorporated skills, qualities and competencies that established human behavior in the face of diverse interactions. Teachers reflected competencies that allow them to establish ways of relating to peers, students and the educational community. They manifested the effectiveness of the teaching method used in relation to IE.

Ilaja and Reyes (2016) explored the burnout levels and the EI abilities of 60 professors in the University of Ecuador. A positive relationship between gender and emotional burnout was found, being higher among women.

Barrientos (2016) had the goal of knowing if there was any link between socio-emotional competencies of Early Childhood Education teachers and their ability to deal with the social and emotional environment of the classroom. It was found that most had no training regarding EI. Teachers use different methodologies to work on their classrooms. The author concluded that there's a link between the capacities of a teacher to support their students socially and emotionally and to organize pedagogical activities.

Martín-Piñol, Portela-Fontán, Gustems-Carnicer and Calderón-Garrido (2017) analyzed the emotional education on the training of 17 future art teachers in a Spanish university. It was found that most had a higher knowledge on self-emotions. This contributed to the reflection of needing training in the emotional education field, which

improved the reflection on the role that emotions play on art, highlighting the importance of conscience in Emotional Education and the need to work on it and link it with other curricular areas.

Method

This research was quantitative, exploratory, descriptive and correlational. A descriptive questionnaire was used to document and describe the current conditions or attitudes.

Participants

The sample contained 100 university teachers, who taught a nursing undergraduate degree on the southern region of Puerto Rico. The snowball sampling technique was used to collect this sample.

Tool

An Ad hoc instrument to measure the level of knowledge of nursing students about the EI theory and its implementation in the classroom. It had two parts: participant profile and scale to measure the knowledge level about Emotional intelligence. The participant's profile had personal aspects such as gender, age, academic preparation, professional experience in the health area, professional experience as professor, their license and seminars or classes about EI that they've attended. In the second part of the instrument, the TMMS-24 in Spanish was used (Fernández, Alcaide, Domínguez, Fernández-McNally, Ramos, Ravira, 1998), based on the Trait-Meta Mood Scale (TMMS) of the research group Salovey, Mayer, Goldman, Turvey and Palfai (1995).

Procedimiento y análisis de los datos

For data collection a descriptive survey was used, which documents and describes current conditions or attitudes. The following variables were taken into account: Level of knowledge of Emotional Intelligence Theory (independent) and Integration in the classroom (dependent). The statistical analysis used was descriptive and had central trend statistics, percentage, frequency and arithmetic mean. Socio-demographic data were analyzed using descriptive statistics of frequency and percentage. In order to answer the research question, the frequency, the percentage and for the hypotheses inferential statistics were used through the Statistical Program for Social Sciences (SPSS), version 24.0.

Results

The findings of this research were analyzed with 98 questionnaires filled by professors of numerous universities of the southern region of Puerto Rico. They were carried out with the goal of answering the research's question and inference results.

Among the participant's demographical data, the presence of females was higher, being 80% of 42 years or age or older. Academic training in Magistry reached an 84%, specialist license had a 92%, professional experience between 16 and 22 years, a 92%. 68% has continuous education on IE, 87% is familiar with the concept of EI and 76% uses the theory inside the classroom.

The second part of the instrument was based on measuring the knowledge level on IE. 84% pf teachers used the dimension of reflection. 90% established a continuous dialog with the students, and 77% created groups to reflect and argue about personal and relational aspects of the teaching staff. The frequency and percentage of EI intervention between teacher and student showed that 100% of them valued self-esteem, empathy and the capacity to solve conflicts. The frequency and percentage about the relationship teacher-student when implementing EI showed that 100% of them applies this relationship with their own teacher.

The analysis of frequency and percentage on the intrinsic aspects related to the performance of teacher-student reflected that respect to the students and capacity to maintain the decisions taken was present 100% of the time. The analysis of frequency and percentage regarding the participant's EI showed that 30% fully agree on having clear feelings and a lot of energy when they feel happy.

The dimensions of emotional perception, understanding of feelings and emotional regulation of the EI TMMS-24 instrument, obtained a 27% average for each dimension overall.

To test hypothesis #1; there is no significant relationship between the level of knowledge of EI Theory and its integration into the classroom, Pearson's correlational test r was performed. According to the test results (N = 98) = -.212, p = .036, with a $p < 0.05$ significance, there's a significant relationship between the knowledge level of the EI Theory and its integration in the classroom. However, Pearson's test r showed that the direction of relationship between EI and its integration in the school room was negative (-.212 coefficient.) Establishing that, when analyzing the participants, the higher the IE, the lower the EI integration in the classroom.

To test hypothesis #2; according to the results (N = 98), the only significant correlation was the specialist license that they have as professionals (p =0.000) $p < 0.05$), therefore, there's a significant link between the EI that teachers have and their professional license. This showed that participants with less professional licenses showed a higher EI.

To test hypothesis #3; results showed significance (N = 98) = -.187, p = .065, $p > 0.05$, claiming that there's a significant relationship between EI Theory knowledge levels and valuation process, and its integration in the academic performance of students.

To verify differences, the U Mann-Whitney #1 test was used: results were not significant: U de Mann-Whitney (N= 98) = 777.000, 739.500, 712.000; p= .979, .720 y .548., $p > 0.05$. Therefore, there are no significant differences in the perception, understanding and regulation of EI between males and females. However, when analyzing the instrument scores ranges of perception, understanding and regulation of EI, it is observed that females had the highest average range.

The Mann-Whitney #2 test was conducted to test any significant differences in perception, understanding and regulation of EI between generalists and specialists. Test results were significant: U de Mann-Whitney #2, (N= 98) = 156.500, 131.500, 95.500; p= .008, .003 y .001, $p < 0.05$. Therefore, two main significant differences are existent in perception, understanding and regulation of EI among generalists and specialists. It was found that generalists had a higher average range when analyzing the score range.

The Kruskal Wallis test #1 was used to establish significant differences in perception, understanding and regulation of EI among the different age ranges of the participants. Test results were significant in comprehension and regulation: χ^2 (N= 98) = 9.324, 9.314, p= .009, .009, p < 0.05). Therefore, significant differences are present regarding the participant's age in comprehension and EI regulation. Nevertheless, when analyzing the score range, it's proven that the participants between 26 and 34 years of age had a higher average range.

The Kruskal Wallis test #2 was used to test significant differences in perception, understanding and regulation of EI among the different academic training of the participants. Results were not significant: χ^2 (N= 98) = 3.000, 2.270, 3.543, p= .223, .321, .170 (p > 0.05). Therefore, there are no significant differences in perception, understanding and regulation of EI regarding the participant's academic training. Nevertheless, when analyzing the score range of the instruments of perception, understanding and regulation of EI, it's found that other academic training had a higher average range.

Discussion

The research was based on the following question: What's the relationship between the knowledge level about the Theory of Emotional Intelligence that the teachers of the nursing undergraduate program of numerous universities from the southern region of Puerto Rico possess, and its application in the classroom? Through the analysis of these findings it was proven that teachers of the nursing undergraduate program of numerous universities from the southern region of Puerto Rico possess some knowledge about the Theory of Emotional Intelligence, since most underwent continuous education or training on EI on their professional application. The teachers who participated specified trough the instrument that they're familiar with the EI concept and that EI is used as a strategy in the classroom. Also, the teachers of the nursing undergraduate program of numerous universities from the southern region of Puerto Rico use the methodology based on participation and reflection. Also, they establish a continuous dialog with students and debate about personal and relational aspects of the teaching staff. The results of both this research and previous studies highlight the importance and need of implementing EI in the classrooms, since, according to Sánchez (2017) these are the ideal social environments so students can develop their emotional abilities, due to the fact that they socialize with other peers and spend most of their time there. As a positive aspect, they have professionals that may guide them and instill needed values to develop EI in them.

These findings regarding the EI knowledge research are in line with Gardner's (1995) theory of MI in that it facilitates the application of new, motivating, integrative and creative strategies by educators for students. In this way, they may construct broad knowledge schemes, enabling them to acquire a vision of reality that transcends the boundaries of everyday knowledge and brings them closer to wisdom and creative potential. This would speed up the cognitive capacity to solve problems, make decisions, improve forms of behavior, increase self-esteem, develop skills and abilities and have a greater interrelation with the people around you and with yourself. In addition, it is emphasized that the need for instruction regarding the development of formal and informal personal intelligences is the responsibility of society and educators, being them the ones who have the greatest responsibility.

Another study that show similar results to the research is the one by Bar-On (1997), who concluded that teaching and emotion management allow students to use their emotions serving the though process and helps them to rationalize in a smarter way when making decisions. Salovey y Mayer (1990) affirmed as well that the knowledge of EI abilities can be applied to the professional career. He also presented innovative strategies with the goal of increasing each EI ability using different activities. Equally, Goleman (1995) agreed that society and the education system have the needed EI knowledge to educate about the importance of including emotional education on the education process of individuals. Also, he exposed that the role of teachers is key so they can promote cognitive abilities and emotional capacities trough learning. The study made by Villanueva y Valenciano (2012) confirmed that a needed aspect to promote the development of EI in students was that the teacher creates their own EI. In this way, the teacher can also understand their own essential emotions about EI knowledge. Another research with the same point of view is the one made by Valenciano (2012), which concludes that teaching staff is an agent promoter of the knowledge and management of their own students' emotions. The role of the teacher in this process is fundamental, so it is necessary to train them and promote their work on their own EI, as it is a model for the student body. It teaches them to control and manage their emotions through their own pedagogical practice. Also, in Puerto Rico, Flores (2013) endorsed this research, concluding that the participants stated that EI's knowledge is a key piece in solving difficult situations. It helps not to take things on a personal level and to extend that not everyone captures things at the same time and helps to reflect on the importance of using EI in daily life, especially in decision making. This research also agrees with the study made by Millán García – Álvarez y D'Aubeterre (2014), who concluded that, the higher disposition that a university professor has to flow when working, the higher his or her EI. This improves the resilient capacity when facing the lack of discipline of the students and the excessive decision in the teaching activity. Barrientos (2016) agreed that teachers showed capacity and interest in creating discussions and activities in the classroom, in order to promote knowledge and skills of analytical thinking, creativity, problem solving, instructive and reflective conversations with their students, and dialogs, using social and emotional skills.

However, this research is parallel to the study of García (2012) since it concludes that most of the participating teachers were not familiar with EI programs, had very little knowledge of didactic strategies for the development of emotional competencies, and claimed lack of time to carry out these types of activities with students, as well as to participate in continuing education courses at EI.

On the same line, the Malagón-Tirado study (2014) found that participants had no knowledge of EI, contrary to this research. Regardless of this data, they were aware of the importance of EI for them and their students. Nonetheless, even though they had no knowledge, participants applied EI in the classroom, using transversal and playful strategies and vicar learning.

Another study that contrasts with this research is the one made by Martín-Piñol, et al. (2017); they showed a general lack of knowledge regarding EI, both recognizing their own emotions and using educational resources to boost it in future working contexts.

Conclusions

The conclusions extracted from this research can't be generalized to another sample group, since it was limited to a specific region in the south of Puerto Rico and the sample size was valid for the selected region. Also, the collection period was deeply extensive due to the bureaucratic process of the Institutional Review Board (IRB).

This research has practical implications because it describes the knowledge that the teachers of the nursing undergraduate program of numerous universities from the southern region of Puerto Rico possess about the EI Theory and its implications in the classroom. It implies the existence of an inclusive and realistic educational curricula that satisfies the current needs involving teaching staff, parents and students, so they can raise awareness about the fact that real education involves covering the emotional, affective and social potential.

Recommendations

Based on the results of this research, the researcher recommends the following:

- Disseminate the results of this research with the aim of encouraging other educational institutions to integrate EI into their classes, based on activities that promote EI.
- Promote the use of innovative EI activities in universities and students to address diversity and foster mastery of the emotional competencies of the current and future generations.
- Organize professional training workshops so that teachers can acquire and update their knowledge so that they can effectively integrate EI into their classes.
- To develop a teacher profile on the basic skills needed for the labor market that are caused by the impact of EI's integration into the teaching-learning process.
- Incorporate active and meaningful practice-oriented learning activities that promote the interaction of collaborative groups for the development of EI in their classes.
- Assess their own competencies and skills, as well as those of the students, regarding the use and management of EI in their classes.
- Promote the development of competencies, skills, abilities and values about EI in students, proposed by the theoretical models used in this research. Make an emphasis to students about the ability to reflect and scaffold their peers in and out of class.
- Promote other types of research to auscultate the variables used: level of knowledge of EI and integration of EI in the classroom.
- Foster the necessary skills and competences required by students and teachers about EI.
- Develop research lines on innovative strategies that integrate universities and teacher preparation programs.
- Train and update the knowledge of university professors for the effective integration of strategies involving EI.
- Have the necessary tools updated in order to provide an effective educational process.
- Strengthen the emotional competencies of future teachers by designing effective courses based on innovative strategies and the needs of new generations.

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