

Teacher Professional Training and Student Academic Performance at an University from Lima, 2016

[Formación Profesional Docente y Rendimiento Académico en Estudiantes de una Universidad de Lima, 2016]

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Resumen

Este trabajo enfatiza la labor docente en el progreso del sistema educativo. El objetivo fue determinar la relación entre la Formación Profesional Docente y el Rendimiento Académico de los estudiantes de Medicina Veterinaria y Zootecnia de una Universidad de Lima, Perú. La metodología del estudio fue correlacional, la muestra fue 6 docentes y 72 estudiantes. Los docentes fueron encuestados y los estudiantes fueron evaluados mediante el acta de notas. Se obtuvo una correlación media y directa de 44,05% entre las variables estudiadas.

Palabras clave: Formación profesional docente, Rendimiento académico, Docencia Universitaria

Abstract

This work emphasizes the teaching work in the progress of the educational system. The objective was to determine the relationship between the Teacher Professional Training and the Academic Performance of the students of Veterinary Medicine and Zootechnics of an University of Lima, Perú. The study methodology was correlational, the sample was 6 teachers and 72 students. The teachers were surveyed and the students were evaluated through the minutes. A mean and direct correlation of 44.05% was obtained between the variables studied.

Keywords: Teacher professional training, Academic performance, University teaching.

1. Introduction

Teacher professional training is a process of personal and professional development (Ferry, 1991; 1997), comprehensive, personalized, which occurs in interaction with others (Rojas, 2004; Parra, 2008; Paz, 2005), from a social dynamic that it promotes the personal to contribute to the integral development of the teacher's personality (Addine, 2004; Paz, 2005; Rojas, 2004). Continuous training means any training activity that is taught or accessed, after obtaining a university degree. In general, it is conceived as advanced level training whose central purpose is the preparation for teaching (Cruz, 2005). Teacher professional training is a process, necessary to ensure the proper preparation of professionals in universities. This demand at the present time

is conditioned by a growing enrollment boom, the change in training strategies in the face of new knowledge systematization needs, which is increasingly renewed with greater speed and complexity. The changes in the social and university context have connoted the need to use alternatives to cover teaching with professionals not trained for this purpose, and in addition new roles and tasks are required of the teacher due to the complexity of the training process (De la Cruz, 2000; Imbernon, 2006; Addine, 2004).

Academic performance refers to the evaluation of the knowledge acquired in the school, tertiary or university environment. A student with good academic performance is one who obtains positive grades in the exams that must be taken during a course. According to Tourón (1984), academic performance is a result of learning, aroused by the educational activity of the teacher and produced in the student, although it is clear that not all learning is the product of teaching action; It is expressed in a quantitative and qualitative qualification, a note, which if it is consistent and valid will be the reflection of a particular learning or the achievement of pre-established objectives. In this sense, although there are multiple variables from which the improvement of academic performance can be approached from a theoretical perspective, it has not been an obstacle for the operational level to identify the dimensions of the Professional Vocational Training, which is presented as a complex and diverse phenomenon that takes into account the personal dimension in terms of training will, the social dimension in terms of learning with peers and from peers and finally the organizational dimension that demands teaching contexts that favor the search for improvement goals within the organization (Bell and Gilbert, 1994).

The present investigation seeks to contribute to delimit the responsibility of teacher training on the academic performance of students. This provides useful information for decision-making in the planning of the teacher selection process, which will allow to raise the level of adaptation of the student and consequently their permanence in the institution, contributing in some way to decrease student dropout.

2. Material and Methods

The research is correlational and mixed approach (Hernandez et al. 2014). The design of non-experimental research. Data on the research variables were collected. The data collection for the Teacher Professional Training variable was carried out using the Survey technique and as a measuring instrument a Structured Attitudes Scale for teachers, while for the Academic Performance variable it was carried out through the file or record of notes to the students.

For the Attitude Scale, the Likert scaling method or additive scale was chosen, which consisted of 30 predetermined items in the form of affirmations, before which four precoded categories of the scale were presented (1 = never; 2 = occasionally; 3 = frequently; 4 = always), with the results obtained, the data matrix of the Vocational Teacher Training variable and its dimensions was constructed, then, with the total scores of the respondents, they worked with intervals and proceeded to recategorize them (0 = Poor; 1 = Low; 2 = Medium; 3 = High; 4 = Outstanding). With the Minutes of the students, an interval level was measured using the Likert scaling and categorized (0 = Poor; 1 = Low; 2 = Medium; 3 = High; 4 = Outstanding), with the results The data matrix of the Academic Performance variable was constructed. Having two Likert scales to be correlated, the Spearman coefficient was used for this purpose, thus obtaining the relationship between Teacher Training and Academic Performance.

The population is made up of the Teachers of the Department of Basic Science Courses and first cycle students of the Veterinary Medicine and Zootechnics degree at an University located in Lima-Peru, enrolled in Mathematics and Chemistry, corresponding to the academic semester 2016 - II.

The sample was 6 teachers of Basic Science Courses in charge of subjects of the first cycle of the career of Veterinary Medicine and Zootechnics and 72 students enrolled in these subjects (Mathematics and Chemistry). Sampling was not probabilistic for convenience.

3. Results

With the matrix of data obtained from the application of the scale of attitudes to teachers to measure their Professional Vocational Training and with the minutes of students' notes to measure their Academic Performance, the results were obtained using descriptive statistics, being processed through the Excel and SPSS (Statistical Package for the Social Sciences) programs applying Spearman's correlation with which the degree of dependence between the variables under study was measured and then able to perform the analysis.

Correlations between Academic Performance and Teacher Training.

When carrying out the analysis, it was established that there is a relationship between Teacher Training and Academic Performance (Table 1). With the Mathematics course the correlation was considerable and direct (+ 55.3%), while with the Chemistry course the correlation was medium and direct (+ 32.8%), all this at 99% confidence.

Table 1. Spearman's Rho between Teacher Professional Training and Academic Performance

Variable 1		Teacher Professional Training
Variable 2		
Academic performance	Mathematics	55,3
	Chemistry	32,8
Average		44,05

Correlations between Academic Performance and the dimensions of Teacher Professional Training.

When carrying out the analysis, it was established that there is a relationship between the dimensions of the Teacher Professional Training and Academic Performance (Table 2). Between the Teaching Personal Development and the Academic Performance in the Mathematics course the correlation was considerable and direct (+ 55.3%), while in the Chemistry course it was medium and direct (+ 41.3%), all this at 99% confidence.

Between the Teaching Social Development and the Academic Performance in the Mathematics course the correlation was medium and direct (+ 40.7%) at 99% confidence, while in the Chemistry course it was not possible to establish if there was a relationship due to that the values of the dimension were constant.

Between the Teaching Organizational Development and the Academic Performance in the Mathematics course the correlation was considerable and direct (+ 55.3%), while in the Chemistry course it was medium and direct (+ 41.3%), all this at 99% confidence.

Table 2. Spearman's Rho between the dimensions of Teacher Professional Training and Academic Performance

Variable 1		Teacher Professional Training		
		Teaching Personal Development	Teaching Social Development	Teaching Organizational Development
Academic performance	Mathematics	55,3	40,7	55,3
	Chemistry	41,3		41,3
	Average	48,3	40,7	48,3

For the analysis of the correlation between the Teaching Professional Formation and the Academic Performance of the students of the first cycle of the Veterinary Medicine and Zootechnics career, a distinction was made between the Academic Performance obtained in Basic Science Courses in the Mathematics and Chemistry subjects (Table 1) observing a considerable and average ratio being 55.3% and 32.8% respectively, of a direct type. These results confirm the type of relationship obtained in other investigations of similar size, such as that carried out by Pilar Cutimbo Estrada, who concluded, there was a real and direct correlation of influence of the Level of Teacher Training in the Academic Performance of the students, but the intensity is disagreed since she obtained 74.1%, perhaps this difference lies in the fact that our work was applied in students of university level where the student usually feeds for himself and is not so biased the dependence on the teacher.

For the analysis of the correlation between the three dimensions of the Professional Vocational Training and Academic Performance of the students of the first cycle of the Veterinary Medicine and Zootechnics career, a distinction was made between the Academic Performance obtained in Basic Science Courses in the subjects of Mathematics and Chemistry (table 2), observing medium and considerable relationships, of a direct type. These results somehow corroborate the theoretical support of the works cited by Artunduaga (2008) and Rodríguez (2009). Although it is true there are no previous studies that show us percentage data to be able to compare, but, all these contributions allowed us to step on insurance and adjust to the objectives set.

In the teaching experience with students of the first cycle of the Veterinary Medicine and Zootechnics career of an University, some of them found themselves with low academic performance; Although it is known that this depends not only on the student's own abilities but also on the evaluation applied by the teacher to achieve academic achievement. However, there are factors that intervene in the good learning of young people cited by Artunduaga (2008), Ocaña (2011) and Rodríguez (2009). In addition, there are reports from the Ministry of Education, UNESCO, PISA, in which the problem regarding academic performance is disclosed.

4. Conclusions

- There is an average and direct correlation of 44.05% (on average) between the Professional Vocational Training and the Academic Performance of the students of the first cycle of the Veterinary Medicine and Zootechnics career of an University from Lima-Peru, in the analysis we would say that, The greater the professional training, the greater the academic performance of the students and vice versa, consequently, the general hypothesis raised in this research is confirmed and the general objective is reached.
- A correlation between the Teaching Personal Development and the Academic Performance of 48.3% on average was obtained, establishing that, the relationship between the dimension and the variable is medium and direct, consequently, there is a relationship confirming the first specific hypothesis and reaching the First specific objective.
- A medium and direct correlation between the Teaching Social Development and the Academic Performance of the students was obtained, determining this in 40.7% on average, consequently, there is a relationship, the second specific hypothesis is confirmed and the second specific objective is reached.
- Finally, when calculating the correlation between the Teaching Organizational Development and the Academic Performance of the students, 48.3% was obtained, examining this result we would say that there is a medium and direct relationship between the dimension and the variable, consequently, there is a relationship, the third specific hypothesis is confirmed and the third specific objective is achieved

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ANNEXES

Annex 1.

Scale to measure the variable Teacher Professional Training

Instructions: Below are a series of statements related to their development in the classroom or laboratory. You must answer each statement according to the frequency of execution of the action, marking with an X the chosen alternative. There are no right or wrong answers, remember to be honest when answering.

According to the self-knowledge that you have of yourself, value with 1 (never), 2 (occasionally), 3 (frequently) and 4 (always).

N°	ÍTEMS	ASSESSMENT
01	He/She has motivation for teaching; shows interest in the teaching profession and lifelong learning.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
02	He/She has deep knowledge of the subject, dominates the contents of the subject he/she teaches.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
03	He/She has extensive scientific and technical training and keeps the information of the subject updated through continuous training.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
04	He/She constantly evaluate your own teaching performance.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
05	It is easy to be understood by students	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
06	He/She motivates and worries its students for the knowledge and makes them all acquire the competences proposed in the study programs	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
07	He/She promotes the work by competences, not only the scientific competences but contemplates and works the development of transversal competences.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
08	Use teaching resources and show the applicability of the content to be taught.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
09	He/She has the capacity to motivate the student, excite him to learn, arouses the interest of the students in the subject and makes the discipline he imparts attractive.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
10	You teach your students to select and discriminate bibliographic information.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4
11	He/She uses ICTs and TAC's as tools in its teaching performance to improve academic performance.	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4

12	He/She is competent to carry out both educational research and the subject itself, so that it results in the improvement of teaching.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
13	He/She usually asks his students to propose how to check some scientific phenomenon.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
14	He/She Establishes friendly relationship with the class, and is skilled in organizing group participation and allowing mutual interaction.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
15	He/She uses methods that require the student to learn actively and cooperatively	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
16	He/She reflects responsibility and patience as the most outstanding personal qualities.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
17	He/She helps, guides, supports and respects to students, is accessible and achieves empathy with them.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
18	When a student shows curiosity, you encourage him to seek information or investigate for himself	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
19	He/She has capacity for planning and organization of material, space and time.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
20	He/She has domain of the exhibition technique, ease of expression, knows how to transmit, has communication skills.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
21	He/She has the ability to command and persuasion in the interaction with others.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
22	He/She has the ability to get his students to learn significantly.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
23	He/She teaches his students how to interpret graphs, tables and / or data	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
24	He/She used to perform challenging questions that promote critical or creative responses in students.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
25	He/She has the capacity to effectively perform the teaching functions of planning, information, guidance, evaluation and motivation.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
26	He/She shows motivation for quality, has initiative and entrepreneurial spirit, knowledge of foreign language, problem solving, etc	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
27	He/She maintains the effort to achieve something, is methodical and persevering, finishes doing things, does not leave them halfway.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

28	He/She is equitable in the educational service it provides to students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4
29	He/She inculcates professional and social values and attitudes according to current times.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4
30	Your work topics that promote environmental responsibility and / or personal care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
		1	2	3	4