



# TEACHER-STUDENT PERSPECTIVE ON TEACHING STRATEGIES AND CONSTRUCTIVIST PEDAGOGICAL SKILLS IN MASTER'S PROGRAMS OF A PERUVIAN PUBLIC UNIVERSITY

PERSPECTIVA DOCENTE-ESTUDIANTE SOBRE ESTRATEGIAS DE ENSEÑANZA Y HABILIDADES PEDAGÓGICAS CONSTRUCTIVISTAS EN PROGRAMAS DE MAESTRÍAS DE UNA UNIVERSIDAD PÚBLICA PERUANA

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## ABSTRACT

**Introduction:** This research studies the evaluation of teaching performance level methodological using the student-centered paradigm. **Objectives:** To determine the teaching strategies and pedagogical skills with a constructivist conception from the teacher-student perspective in health master's programs in 2017. **Methods:** Quantitative, descriptive, and cross-sectional study. An instrument was developed from the Evaluation Questionnaire of the Teaching and Evaluation Methodology of University Professors (CEMEDEPU). It was validated by expert judgment with the reliability of Cronbach's alpha of 0.961, which was applied to teachers and students. The sample obtained was 42 teachers and 130 students from eight master's degrees. The descriptive analysis was carried out by categorizing the results in each group and the inferential analysis using the T-student test. **Results:** Teachers over 56 years of age (55%) predominated, with a master's degree (61.9%); students under 40 years of age (79.2%), who referred to the research subject when answering the questionnaire. (52.2%). According to the teacher, constructivist teaching strategies were of regular use (42.9%) and little use according to the student (52.6%). In comparison, the constructivist pedagogical skills were acceptable (66.7%) according to the teacher compared to the students who were not acceptable (42.3%). **Conclusions:** A significant difference in teaching strategies and pedagogical skills was found with a constructivist approach between teachers and students.

**Key words:** Association learning; Educational measurement; Teacher training (source: MeSH NLM).

## RESUMEN

**Introducción:** La presente investigación aborda la evaluación del desempeño docente a nivel metodológico mediante el paradigma centrado en el estudiante. **Objetivos:** Determinar las estrategias de enseñanza y habilidades pedagógicas con una concepción constructivista desde la perspectiva docente-estudiante en programas de maestrías en salud en el año 2017. **Métodos:** Estudio cuantitativo, descriptivo y transversal. A partir del Cuestionario de Evaluación de la Metodología Docente y Evaluativa de los Profesores Universitarios (CEMEDEPU), se elaboró un instrumento, el cual fue validado por juicio de expertos con una confiabilidad de alfa de Cronbach de 0,961, que se aplicó a docentes y estudiantes. La muestra obtenida fue de 42 docentes y 130 estudiantes de ocho maestrías. El análisis descriptivo se realizó categorizando los resultados en cada grupo y el análisis inferencial utilizando la prueba T-student. **Resultados:** Predominó docentes mayores de 56 años (55%), con el grado de magíster (61,9%); estudiantes menores de 40 años (79,2%), que se refirieron a la asignatura de investigación al responder el cuestionario. (52,2%). Las estrategias de enseñanza constructivistas, según el docente fue de uso regular (42,9%) y de uso escasa según el estudiante (52,6%) mientras que las habilidades pedagógicas constructivistas fueron aceptables (66,7%) de acuerdo al docente en contraste con los estudiantes que fueron no aceptables (42,3%). **Conclusión:** Se encontró diferencia significativa en las estrategias de enseñanza y habilidades pedagógicas de enfoque constructivista entre docentes y estudiantes.

**Palabras clave:** Aprendizaje activo; Evaluación educacional; Formación del profesorado (fuente: DeCS BIREME).

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**Cite as:** Janet Campos-Gutierrez, Maritza Placencia-Medina, Javier Silva-Valencia, María Elena Muñoz-Zambrano. Teacher-student perspective on teaching strategies and constructivist pedagogical skills in master's programs of a Peruvian public university.. Rev. Fac. Med. Hum. July 2021; 21(3):517-527. DOI 10.25176/RFMH.v21i3.3775

## INTRODUCTION

According to the constructivist model, teaching promotes learning by understanding, favoring the construction of knowledge in the student so that they acquire information and process it<sup>(1)</sup>. To acquire, retrieve and use the information, the teacher must use teaching strategies, which according to Montenegro et al.<sup>(2)</sup> promote memorization, analysis, interpretation with synthesis, based on argumentation, reflective thinking, and the capacity for deduction and induction.

Simultaneously with teaching strategies, the teacher must develop pedagogical skills during the teaching-learning process (TL); since the teacher must plan, interact with the student and evaluate learning<sup>(3)</sup>. In this way, a teacher incorporates pedagogical skills of constructivist content when, he carries out the fundamental tasks for the design and curricular development of his subject at the level of planning, interaction/relationship and evaluation<sup>(4)</sup>.

In this regard, postgraduate studies show a relationship between teachers who apply constructivist concepts of TL and students who focus on the meaning and understanding of their subjects, and on the other hand teachers with a concentration on content that favors reproductive learning styles<sup>(5,6,7)</sup>; which means that there is a direct relationship between the EE conception of the teacher and the way the student learns.

In official documents of a public institution of basic education in Puerto Rico, methodological approaches of the constructivist approach are student-centered. However, in the classroom is evidenced by the continuation of traditional teachings, focused on the content<sup>(8)</sup> these contradictions have their origin in the absence of an education constructivist teacher education<sup>(9)</sup> and in theories of personal nature implied that they are actions of which you have no conscience, therefore, is not subject to review, but it does influence what is done<sup>(10)</sup>.

In the study carried out in Chile by Villarroel<sup>(3)</sup> we conclude that university teachers in the practice is located in the traditional teaching and strategies for active and student centered are scarce; thus, for example, the learning objectives are not stated, nor is there feedback at the end of the class, nor make use of ICT.

In Peru, a study was found on the influence

of teaching methodology in the construction of meaningful learning in teachers of a public university. It is concluded that active strategies allow students' participation and involve them in the TL process favoring interaction between teacher and students<sup>(11)</sup>.

So we wonder, if the impact of the methodologies used by the teacher on student learning is so much, what TL strategies and pedagogical skills are being applied in graduate classrooms? Will it be enough for the official documents of educational institutions to change the conception of TL? And in the classrooms, are the methodologies changed?

In this sense, it will be a challenge in teaching performance to find congruence between teaching practice and what is structured as an academic offer in the curricular documents of the educational institution regarding student-centered teaching strategies, as stated by the authors regarding the problem and exercise solving, problem-based learning (PBL), case studies (CS), project-oriented learning (POL) and cooperative learning<sup>(12,13)</sup>. Complementing with the pedagogical skills applied by the teacher in planning, interaction/relationship, and evaluation<sup>(4)</sup>. Considering that this training must differ from undergraduate because in postgraduate the purpose of the teacher is for the student to develop their ability to identify and pose problems with methodological rigor and to present updated debates related to the content of the subject, among others<sup>(14)</sup> and that in no way should methodological didactics in postgraduate studies be an extension of undergraduate studies, as is often the case<sup>(15)</sup>.

Due to the above, this study reflects an evaluation of the postgraduate teaching exercise through the teacher's self-perception and the opinion of the students, which will help the teacher re-elaborate their conception of teaching, methodological and evaluative tools. Starting from the assumption that you learn by reflecting on those intentional and transformative actions that occur in the classroom<sup>(7)</sup>, and will allow you to act to benefit a better teaching quality by exercising continuous training on constructivist didactics<sup>(16)</sup>.

Inn this context, the objective of this research was to determine the teaching strategies and pedagogical skills with a constructivist approach from the perspective of the teacher and student in the health master's programs at a Peruvian public university.



## METHODS

### Design and study area

Quantitative, descriptive and cross-sectional research where the perspective of the teacher and the student was compared about the teaching strategies and pedagogical skills of the teacher with a constructivist approach in health master's programs of a public university.

### Population and Sample

The population was made up of 58 teachers and 177 students from eight master's programs of the Faculty of Medicine: Master's Degree in Occupational Health and Environment, Public Health, Nursing, Health Policies and Planning, Health Services Management, Neuroscience, Clinical Nutrition, and Health Teaching, and Research. The inclusion criteria were: teachers without distinction to the type of hiring, job level, sex or age, and teachers who teach in one or more master's subjects at the Faculty of Medicine. Master's degree students enrolled in the 2017-II period from the same faculty. Teachers as guests ( $n = 6$ ), students with enrollment reservation for the period 2017-II ( $n = 2$ ) and teachers ( $n = 10$ ) and students ( $n = 18$ ) who participated in the pilot study were excluded. The sample consisted of 42 teachers and 130 students from the master's degrees mentioned above.

### Variables and instrument

The variable "Teaching strategy with a constructivist pedagogical approach" (constructivist teaching strategies) measured the procedures used by the teacher to promote meaningful learning, achieved by understanding, where the construction of knowledge in the student is favored, through the "continuous use", "regular use" and "little use" and had two dimensions: "Student-centered teaching strategies" and "Process-centered teaching strategies". Likewise, the variable "Teacher pedagogical skills with a constructivist pedagogical approach" (constructivist pedagogical skills) measured the teacher's ability to apply the curriculum design and development of a subject, classifying it as "Acceptable," "Moderately acceptable," and "Not acceptable" and had three dimensions: "Pedagogical

skills in planning," "Pedagogical skills in interaction/relationship" and "Pedagogical skills in evaluation."

In the elaboration of the instrument, 8 items of scale 2 and 3 of the Evaluation Questionnaire of the Teaching and Evaluation Methodology of University Professors (CEMEDEPU) were adopted, presented by Gargallo et al. (2011). The instrument developed to measure both variables, and their dimensions were validated by expert judgment and binomial test, with reliability of Cronbach's alpha ( $\alpha = 0.961$ ). The internal validity analysis found a significant concordance with a Pearson  $r > 0.20$  for all items, except for 2 that were withdrawn. Likewise, a pilot test was carried out with 10 teachers and 18 students of the Master's Degree in Nursing to perform a Cronbach's alpha reliability analysis ( $\alpha = 0.886$ ). The final questionnaire that was applied to teachers and students consisted of 33 items on a Likert-type scale with response options: Always (4), frequently (3), sometimes (2), and never (1).

### Procedures

The enrollment of the participants was carried out in person between October and December 2017, with prior authorization from the Head of the Postgraduate Unit of the Faculty of Medicine and Coordinating Teachers of each master's degree. The questionnaire was self-administered to teachers and students who voluntarily agreed to participate. The approximate duration of each questionnaire was 15 minutes.

### Statistical analysis

The data were tabulated and then processed using the statistical program STATA v16. The descriptive analysis of the main variables was carried out globally and by dimensions, categorizing the results as indicated in Table 1. Likewise, an exploratory analysis was carried out to compare the responses obtained from the group of teachers with those of students. This was done with the numerical values obtained from the Likert scale and the T-student statistical test was used after estimating their assumptions to evaluate the statistical differences. The confidence level for the hypothesis test was 95% with a significance level  $\alpha = 0.05$ . ( $p < 0.05$ ).

**Table 1.** Variables and dimensions of the questionnaire.

| Variables                                | Final value           | Score range in Likert scale |
|--|-----------------------|-----------------------------|
| Constructivist teaching strategies (EE). | Scarcely use          | < 33                        |
|  | Regular use           | 34-41                       |
|  | Continuous use        | 42-52                       |
| constructivist pedagogical skills.       | Unacceptable          | < 50                        |
|  | Moderately acceptable | 51-63                       |
|  | Acceptable            | 64-80                       |

| Dimensions                      | Final value           | Score range Likert scale |
|---------------------------------|-----------------------|--------------------------|
| EE student centered             | Scarcely use          | < 19                     |
|                                 | Regular use           | 20-25                    |
|                                 | Continuous use        | 26-32                    |
| EE focusing on the process      | Scarcely use          | < 11                     |
|                                 | Use Regular           | 12-15                    |
|                                 | Continuous use        | 16-20                    |
| Pedagogical skills: Planning    | Not acceptable        | < 16                     |
|                                 | Medium acceptable     | 17-21                    |
|                                 | Acceptable            | 22-28                    |
| Pedagogical skills: Interaction | Not acceptable        | < 9                      |
|                                 | Medium acceptable     | 10-12                    |
|                                 | Acceptable            | 13-16                    |
| Pedagogical skills: Evaluation  | Not acceptable        | < 21                     |
|                                 | Moderately acceptable | 22-27                    |
|                                 | Acceptable            | 28-36                    |

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### Ethical aspects

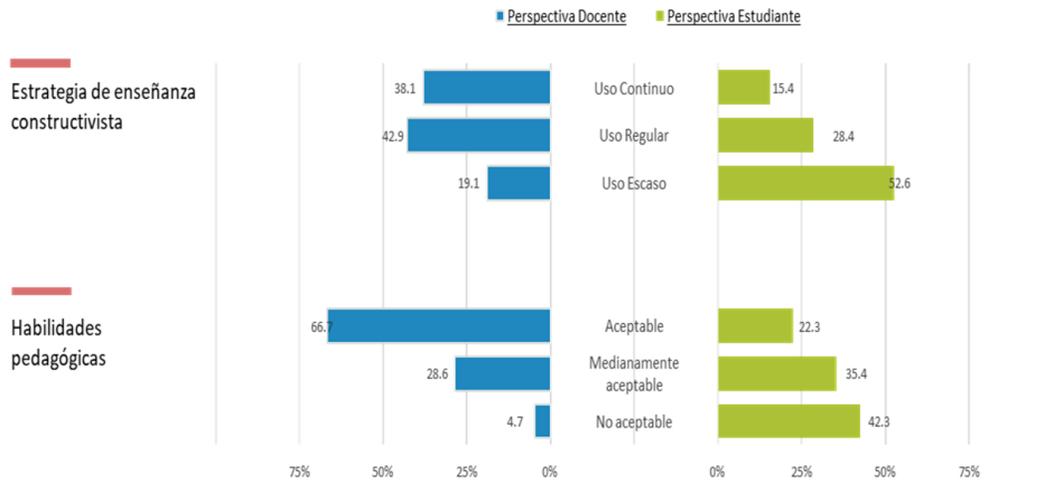
This research was approved by the Ethics Committee of the educational institution, where the study was carried out, through act No. 0337. Informed consent was given to each one of the participants, emphasizing the voluntary and anonymous nature of their participation. No personal identifiers were collected, and all data was used for the exclusive purposes of this research.

### RESULTS

The characteristics of the population can be observed in Table 2, where the highest percentage were teachers over 56 years of age who taught from two to more subjects in the same semester with a part-time master's degree. As for the master's students, the majority were under 40 years of age, by profession Doctors and their dedication to the master's program in a higher percentage was a non-contact time of less than 10 hours per week and the subject to which they referred when answering the questionnaire it was research in a higher percentage.

**Table 2.** Teacher-student characteristics in health master's programs at a National University of Peru.

| Teaching characteristics (n = 42)                |            | N (%) | Student characteristics (n = 130)         |            | N (%) |
|--|------------|-------|---|------------|-------|
| <b>Age</b>                                       |            |       | <b>Age</b>                                |            |       |
| Less than 35                                     | 1 (2.4%)   |       | Less than 30                              | 42 (32.3%) |       |
| 36-45  | 6 (14.3%)  |       | 31-40                                     | 61 (46.9%) |       |
| 46-55  | 12 (28.6%) |       | 41-50                                     | 19 (14.6%) |       |
| 56-65  | 14 (33.3%) |       | 51-60                                     | 8 (6.2%)   |       |
| 66 or more                                       | 9 (21.4%)  |       |   |            |       |
| <b>Master's degrees where they teach classes</b> |            |       | <b>Master's degrees</b>                   |            |       |
| In Health Services Management                    | 10 (23.8%) |       | Health Teaching and ResearchHealth        | 31 (23.8%) |       |
| Education and Research                           | 9 (21.4%)  |       | Health Services Management                | 23 (17.7%) |       |
| Public Health                                    | 8 (19.0%)  |       | Occupational and Environmental Health     | 20 (15.4%) |       |
| Nutrition  | 4 (9.5%)   |       | Public Health                             | 14 (10.8%) |       |
| Nursing  | 3 (7.1%)   |       | Neurosciences                             | 14 (10.8%) |       |
| Medicine   | 3 (7.1%)   |       | Nursing                                   | 12 (9.2%)  |       |
| Neurosciences                                    | 3 (7.1%)   |       | Nutrition                                 | 11 (8.5%)  |       |
| Occupational and Environmental Health            | 3 (7.1%)   |       | Health Policies and Planning              | 5 (3.8%)   |       |
| Biochemistry                                     | 2 (4.7%)   |       |   |            |       |
| Policies and Planning in S.                      | 2 (4.7%)   |       |   |            |       |
| Others: Epidemiology, Bioethics                  | 2 (4.7%)   |       |   |            |       |
| <b>N ° of subjects taught</b>                    |            |       | <b>Current Occupation</b>                 |            |       |
| One subject                                      | 16 (38,1%) |       | Medical                                   | 43 (33.1%) |       |
| Two subjects                                     | 10 (23,8%) |       | Nurse                                     | 42 (32.3%) |       |
| Three subjects                                   | 10 (23,8%) |       | Medical technologist                      | 12 (9.2%)  |       |
| Four subjects                                    | 6 (14,3%)  |       | Nutritionist                              | 8 (6.2%)   |       |
|  |            |       | Obstetrician                              | 8 (6.2%)   |       |
|  |            |       | Pharmaceutical chemist                    | 4 (3.0%)   |       |
|  |            |       | Other professionals                       | 13 (10%)   |       |
| <b>Years of teaching experience</b>              |            |       | <b>Dedication to the master's program</b> |            |       |
| 1-5  | 3 (7.2%)   |       | Non-contact time <a 10 hours              | 78 (60.0%) |       |
| 6-10   | 6 (14.3%)  |       | Non-contact time > 10 hours               | 52 (40.0%) |       |
| 11-15  | 5 (11.9%)  |       |   |            |       |
| 16-20  | 4 (9.5%)   |       | <b>Asignatura a la que se refiere</b>     |            |       |
| 21-25  | 6 (14.3%)  |       | Research                                  | 44 (33.8%) |       |
| 26-30  | 9 (21.4%)  |       | Thesis preparation                        | 24 (18.5%) |       |
| 31 or more                                       | 9 (21.4%)  |       | Education workshop                        | 5 (3.8%)   |       |
|  |            |       | Supervision, monitoring and evaluation    | 5 (3.8%)   |       |
|  |            |       | Other subjects                            | 20 (15.4%) |       |
| <b>Maximum academic degree achieved</b>          |            |       | They did not answer the question          | 32 (24.7%) |       |
| Doctor   | 16 (38.1%) |       |   |            |       |
| Magister   | 26 (61.9%) |       |   |            |       |
| <b>Teaching class</b>                            |            |       |   |            |       |
| Exclusive Dedication                             | 5 (11.9%)  |       |   |            |       |
| Full time (40 h / week)                          | 14 (33.3%) |       |   |            |       |
| Part time (<40 h / week.)                        | 21 (50%)   |       |   |            |       |
| No answered                                      | 2 (4.8%)   |       |   |            |       |

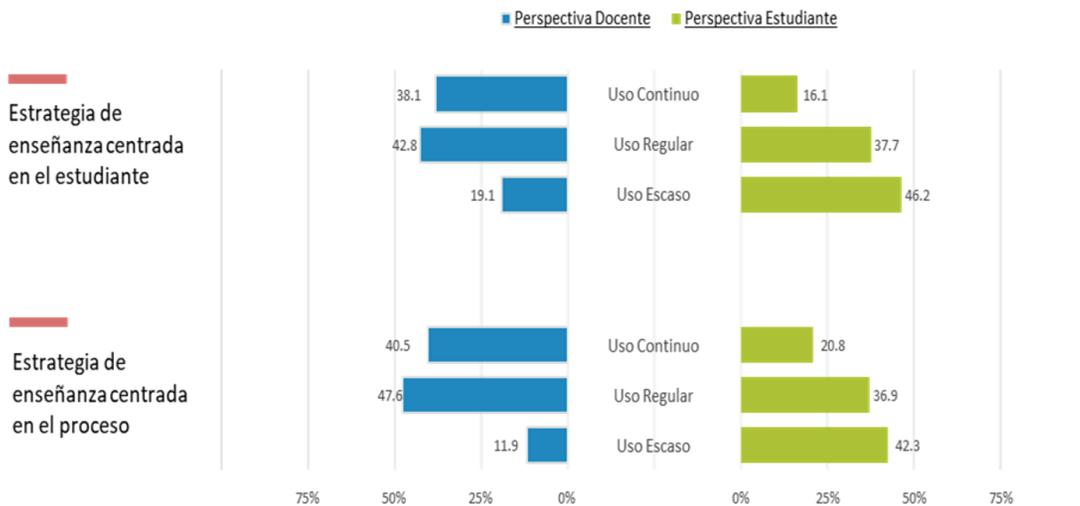


**Graphic 1.** Teaching strategies and constructivist pedagogical skills in teacher and student at a National University of Peru.

In graph 1 it was found that the constructivist teaching strategies in a higher percentage from the teacher's perspective were used regularly (18), while from the student it was of little use (73). Regarding

constructivist pedagogical skills, it was found that, in a higher percentage from the teacher's perspective, it was acceptable (28), while, from the student, it was not acceptable (55).

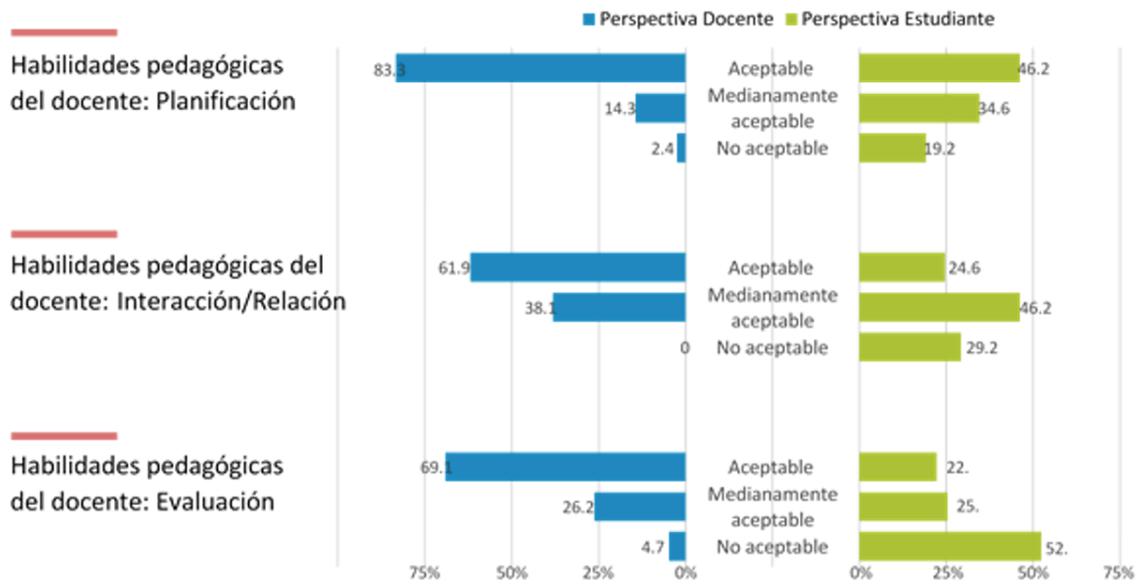
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**Graphic 2.** Constructivist teaching strategies focused on the student and process, according to teacher and student in a National University of Peru.

In figure 2 it was obtained that the teaching strategies focused on the process and on the student from the teacher perspective, was for regular use (20) in a

higher percentage, while from the student it was of little use (66).

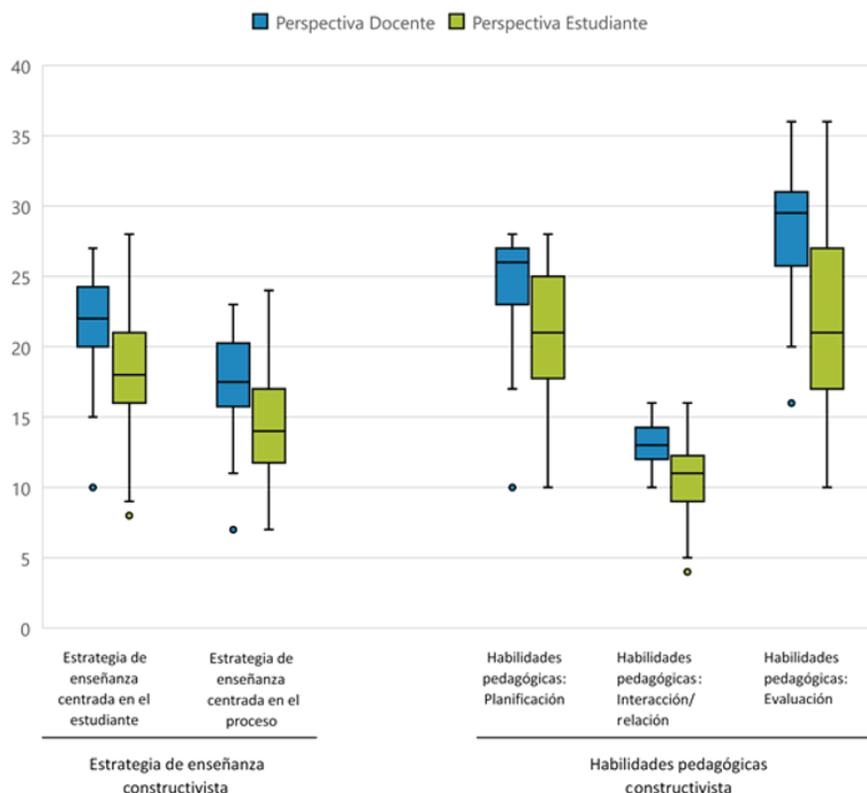


**Graphic 3.** Constructivist pedagogical skills in planning, interaction/relationship and evaluation, according to teacher and student at a National University of Peru.

In graph 3 it was found that in skills planning, both teachers and students indicated that they were acceptable (35). However, when rating skills interaction, the majority of teachers referred to them as acceptable (26), while the students

indicated it in a greater proportion as moderately acceptable (60) and the skills were evaluation rated as teachers acceptable by (29) and by students as unacceptable (68).

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**Graphic 4.** Comparison of the qualification of constructivist teaching strategies and pedagogical skills, according to a teacher and student from a National University of Peru.

Graph 4 shows the distribution of the numerical values obtained in each dimension of the variables studied. Significant differences were found in all means when comparing the answers given by teachers and students ( $p < 0.001$ ,  $p < 0.001$ ,  $p < 0.001$ ,  $p < 0.001$ ). Scores achieved in teaching strategies and constructivist pedagogical skills in health master's programs are significantly low from the student's perspective, while teachers evaluate it with higher scores.

## DISCUSSION

According to the current context, the great challenge of higher education is to achieve more flexible curricular structures and a new approach to teaching. For Díaz<sup>(17)</sup>, the new university model focuses on a constructivist conception of learning, where the methodologies are participatory and dynamic because the student is the creative protagonist and the teacher mediator between knowledge and the student.

From the results of the study by Dávila et al.<sup>(18)</sup> it is clear that the teacher in the methodological point of view favors constructivist teaching strategies, encouraging the student to learn from a planned pedagogical structure actively. The opposite was found in the results of the present study where constructivist teaching strategies from the teacher's perception are of regular use, and for the student, they are of little use, which allows us to reflect on this process.

There are theories that try to explain the fact that a teacher uses constructivist strategies or not; one of them is the implicit beliefs about teaching, which often prevail in practice. Thus, Pozo<sup>(10)</sup> affirms that there are pedagogical theories in the teacher based on cultural knowledge and personal experiences that enrich the educational process. However, this implicit teaching produces a dissociation of what is said and what is done. This is due to the fact that teachers often find it difficult to modify the patterns learned in their experience as a student<sup>(19)</sup>. For this reason, although participatory learning methodologies such as ABP, CE, AOP, and cooperative learning are proposed in the curricular plans of the master's degrees studied to guide the conception of the EE process, in the classroom, the student perceives them as methodologies of little use.

Another theory that would clarify this matter is the application of a certain pedagogical approach by the teacher, which would define their methodology

in the classroom<sup>(4)</sup>; Thus we have the constructivist approach centered on learning and the behavioral approach centered on traditional teaching; although many teachers are located in an intermediate zone between the two great approaches<sup>(8,9,20)</sup>; Hence, the result of this study is justified, on the regular use of teaching strategies with a constructivist approach.

In the results of the study on constructivist teaching strategies, centered on the student and in the process, it was found that from the teacher's perspective, it is of regular use and from the student's view is of little use, this difference in qualification on the development of the critical thinking in students, the planned and systematized use of tutorials, the use of ICTs to enhance participation among students and focus their procedures on dialogue and discussion. It would have its origin in teachers who continue to be inclined to traditional teaching models as a result of a lack of didactic innovation and teacher training<sup>(3,9)</sup>. This is confirmed by what was found in Villarroel's results, where student-centered teaching strategies are scarce, as is the incorporation and mastery of teaching technologies.

Also, from the results, it can be deduced that both the teacher and the student recognize that the use of constructivist teaching strategies is not continuous. This means that there must be a paradigm shift from a teacher who transmits knowledge to a knowledge facilitator with a tendency towards active and personalized student participation, especially in graduate school knowledge<sup>(15)</sup> to a student who inquires, questions and appropriates the contained in a creative process for the construction of their own knowledge in order to reformulate the learning processes<sup>(3)</sup>.

Regarding pedagogical skills constructivist, it was found that the teacher has a acceptable self-perception about the design and curricular development of the subject, focused on the student. In contrast, the student perceives it as not acceptable. That is, the teacher deduces that the pedagogical skills applied in the classroom are in accordance with a student-centered model and therefore have a constructivist approach. The student is saying that these skills are focused on teaching and then have a traditional approach. Regarding the teaching skills related to the educational approach, in the results of the study by Carbonero et al.<sup>(21)</sup>, a high self-perception of teachers about teaching skills and the use of a model focused on learning was found. In contrast, a low self-perception about this competence when it



is related to a model focused on teaching.

Regarding constructivist pedagogical skills in planning, we find that the teacher and student agree that it is acceptable, the teacher states that he dedicates the necessary time to planning, prepares the syllabus before the start of the subject, transmits clarity in the objectives, select the contents of the subject, use various didactic means and consider the review and synthesis of the educational session and the student recognizes that these indicators are mostly met in the classroom.

In this regard, in the conclusions of the study carried out by Inda<sup>(5)</sup>, it is stated that graduate teachers consider that planning is essential to teach a subject, ensuring that they dedicate almost twice as much time to prepare as to the duration of the class.

Regarding the constructivist pedagogical ability of interaction /relationship, It was found that the teacher is rated as acceptable While the student evaluates it as moderately acceptable, this means that the frequency of promoting the student's interest in the subject, seeking a favorable interpersonal relationship climate in the classroom and the teacher's interest in the student's personal needs, They are being met, while for the student they do not meet their expectations or it is not what they expected.

This result is corroborated by what was found by Pertuz et al.<sup>(22)</sup> where they state that teachers have difficulty in developing the ability to adequately identify the needs of students due to a lack of motivation to promote interaction with the student<sup>(23)</sup>.

In relation to the constructivist pedagogical ability in evaluation, it was found that the teacher states that it is acceptable; however, the student pointed out that it is not acceptable, that is, the student mostly does not recognize that the teacher evaluates according to objectives planned nor does it inform you about the evaluation methods. The student also does not frequently recognize, conducting initial assessment and continuous assessment, while the teacher states that all these indicators are met.

This student's appreciation is confirmed by the study carried out by Muñoz et al.<sup>(24)</sup> where they conclude that the majority of teachers follow traditional evaluative practices and that the student is qualified when verifying the achievement of the product rather than during the feedback of the learning process.

"Constructivist evaluation is not so interested in correct or incorrect answers, but in the stages after the response is issued. This type of authentic assessment guides teaching decisions, but it is difficult because it forces teachers to design activities that stimulate student feedback and to modify teaching if necessary"<sup>(25)</sup>.

We could then infer from the results of this study that there is a lack of articulation between the pedagogical foundation established in the Institution's Educational Model<sup>(26)</sup>, the conception of the EE process of the curricular plans, and what the student refers to be happening in the classrooms in the aforementioned master's programs.

But we must also highlight in the light of the results that the contradictions found between teachers and students about the teaching strategies and constructivist pedagogical skills could be related to the characteristics of the population under study.

For example, it was found that more than half of the percentage of teachers belong to the part-time category, that is, they are not only postgraduate university professors, but "on many occasions they are professionals from other areas who teach from time to time in universities"<sup>(23)</sup>. Therefore, most lack pedagogical training, their knowledge was acquired through practice or self-taught<sup>(9,20,27)</sup>.

It was also found that the teaching population, in a higher percentage, is 56 years old or older. Moreover, which could be, judging by Estévez<sup>(9)</sup>, one of the reasons why they have difficulty in renewing their teaching approaches; since it implies more time and effort to implement it.

Regarding the academic degree, it was found that there are more master teachers than doctors who teach in the master's program which could influence the student's satisfaction about the EA process; however, students do not find it important that they have this level and teach the master's degree, because they highlight the skills and methodology of the educator<sup>(28)</sup>.

In the results on the characteristics of the students, it was found that in a greater proportion, the subject to which they refer when responding to the instrument is research, dedicating a non-face-to-face time of less than 10 hours per week to study the master's program; which means, according to Vásquez and Gabalán<sup>(6)</sup>, that the student will invest more time in studying according to the interest aroused by a subject. Likewise, some students

recognize that not every teacher who has a great career in research has an accurate methodology<sup>(15)</sup>. The way they argue concepts or ideas to construct meanings also influences<sup>(7)</sup>. All these reasons could explain the unfavorable qualification of the subject of research, where the elaboration of the research work is immersed.

In summary, it can be said that the teaching practice of a constructivist approach, in the aforementioned master's degrees, is irregular, probably because it is in a process of transition from traditional conceptions, centered on teaching to paradigms of constructivist learning centered on the student. Finally, the contribution of this study was limited; due to the fact that a view involving only two of the

actors of the EA process in the postgraduate course was shown, and because it is also necessary to investigate through a qualitative design to obtain a comprehensive evaluation of teaching performance; both considerations are absent in this article.

## CONCLUSION

Constructivist teaching strategies are of regular use, according to the teacher and of scarce use for the student; while constructivist pedagogical skills are acceptable according to the teaching perspective and not acceptable according to the student; significant statistical differences are found between the teacher and student response.

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**Authorship contributions:** The authors participated in the genesis of the idea, project design, data collection and interpretation, analysis of results and preparation of the manuscript of this research work.

**Financing:** Self-financed

**Interest conflict:** The authors declare no conflict of interest.

**Received:** April 12, 2021

**Approved:** May 20, 2021

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