

The meaning of teaching and learning for professors

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Objective. This work sought to comprehend the meaning professors from the Faculty of Nursing at Universidad de Antioquia (Colombia) assign to teaching and learning processes. **Methodology.** This was an educational qualitative, evaluative investigation, with ethnographic focus, conducted from 2011 to 2013. The information collection techniques were: semi-structured interview, discussion groups, y el documentary analysis. A total of 70 professors from the undergraduate Nursing program at Universidad de Antioquia participated in the study. **Results.** Teaching for professors means complexity, transmission of information and knowledge, cooperation with students, interaction, and transformation of reality. This does not merely depend on the vocation or on the will to carry it out; on the contrary, professors must have professional, disciplinary, and pedagogical formation. Learning for the professors means that students understood, comprehended, and were able to put the theory into practice. Also, students must commit to their own learning. **Conclusion.** The conceptions professors have of teaching and learning processes guide the meaning they assign to said processes and stem from their own experience, culture, professional and disciplinary formation. Assigning new meaning to teaching in nursing opens the possibility of reorienting the teaching practice.

Key words: teaching; higher education institutions; faculty, nursing; students, nursing.

El significado de enseñar y aprender para los docentes

Objetivo. Comprender el significado que los docentes de la Facultad de Enfermería de la Universidad de Antioquia (Colombia) le asignan a los procesos de enseñanza y aprendizaje. **Metodología.** Investigación cualitativa educativa, evaluativa con enfoque etnográfico, realizada durante los años 2011 a 2013. Las técnicas de recolección de la información fueron la entrevista semiestructurada, los grupos de discusión, y el análisis documental. Participaron 70 docentes del programa de pregrado de Enfermería de la Universidad de Antioquia. **Resultados.** La

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enseñanza para los docentes significa complejidad, transmisión de información y conocimientos, cooperación con los estudiantes, interacción y transformación de la realidad. Esto no depende solo de la vocación o del deseo de hacerlo, por el contrario, el docente debe tener formación profesional, disciplinar y pedagógica. El aprendizaje para los docentes significa que el estudiante entendió, comprendió y pudo poner en práctica la teoría. Por otra parte, el estudiante debe comprometerse con su propio aprendizaje. **Conclusión.** Las concepciones que los docentes tienen sobre los procesos de enseñanza y aprendizaje son las que orientan el significado que asignan a los mismos y devienen de su propia experiencia, cultura, formación profesional y disciplinar. El resignificar la enseñanza de la enfermería, abre la posibilidad de reorientar la práctica docente.

Palabras clave: enseñanza; instituciones de enseñanza superior; docentes de enfermería; estudiantes de enfermería.

O significado de ensinar e aprender para os docentes

Objetivo. Compreender o significado que os docentes da Faculdade de Enfermagem da Universidade de Antioquia (Colômbia) atribuem-lhe aos processos de ensino e aprendizagem. **Metodologia.** Investigação qualitativa educativa, avaliativa com enfoque etnográfico, realizada durante os anos 2011 a 2013. As técnicas de recolha da informação foram a entrevista semiestruturada, os grupos de discussão, e a análise documental. Participaram 70 docentes do programa de graduação de Enfermagem da Universidade de Antioquia. **Resultados.** O ensino para os docentes significa complexidade, transmissão de informação e conhecimentos, cooperação com os estudantes, interação e transformação da realidade. Isto não depende só da vocação ou do desejo de fazê-lo, pelo contrário, o docente deve ter formação profissional, disciplinar e pedagógica. A aprendizagem para os docentes significa que o estudante entendeu, compreendeu e pôde pôr em prática a teoria. Por outra parte, o estudante deve comprometer-se com sua própria aprendizagem. **Conclusão.** As concepções que os docentes têm sobre os processos de ensino e aprendizagem são as que orientam o significado que atribuem aos mesmos e devêm de sua própria experiência, cultura, formação profissional e disciplinar. O resignificar o ensino da enfermagem, abre a possibilidade de reorientar a prática docente.

Palavras chave: ensino; instituições de ensino superior; docentes de enfermagem; estudantes de enfermagem.

Introduction

*“...we are professors from the past century;
we are teaching with current strategies
for students of the future century” (DC)*

According to Meneses,¹ teaching cannot be understood more than in relation to learning. This reality relates not only processes linked to teaching, but also those linked to learning. Some studies express their concern for the conceptions professors have on teaching and learning; conceptions understood as the set of special meanings conferred to a phenomenon². One of them is that by Trigwell and Prosser³ who

confirmed the relationship between purpose and strategy; the latter is aimed at students, which was associated with a purpose of conceptual change, while a strategy aimed at professors is associated with the purpose of transferring information. Likewise, Villalova *et al.*,⁴ assert that professors feel that their function is that of being a guide for learning; but then, when it comes to helping students to apply what they

have learnt in new situations, more than half of these professors place themselves on the side of the expert. Other authors⁵⁻⁷ emphasize that, for professors, transmission of knowledge and information is a traditional conception, centered on teachers and on scholarly knowledge; hence, from this perspective, teaching is based on imparting information or skills from recounting and repeating – learning is accomplished by receiving information, memorizing, and performing routine exercises.⁸

Everything stated up to now, reveals the concern existing on the theme. Its exploration, analysis, and critical study may permit finding paths to improve the teaching practice. Carvajal and Gómez⁷ explain it more clearly: “the conceptions the professor has, as well as his or her praxis in the classroom, can change through experience, reflection, and critical study he or she conducts of the theories applied in the educational setting”. This study stemmed from the concern of the academic community from the Faculty of Nursing at Universidad de Antioquia (Colombia) for analyzing the pertinence of the current curriculum, given the University’s clear responsibility with society as of an excellent academic formation. Thus, in order to comply with its mission roles, the undergraduate program is evaluated since 1998. This article refers to a the vision or conception professors have with respect to the teaching and learning process, the relationship that exists between the two processes and how these are developed and conceived.

Methodology

This was an educational qualitative, evaluative investigation, with ethnographic focus, carried out between January 2011 and December 2013 in the Faculty of Nursing at Universidad de Antioquia, Medellín, Colombia. A total of 70 professors from the undergraduate Nursing program at Universidad de Antioquia participated in the study. The inclusion criteria consisted in that participants had to be professors from any of the undergraduate formation levels. Collection

of information was carried out with the following strategies:

Interviews of professors (IP). The four researchers and three second-level research students conducted semi-structured interviews of 12 focal groups of professors. The groups were comprised by bearing in mind the different levels and courses assigned. The interviews inquired on aspects related to teaching of nursing; the *what, how, experiences, difficulties, accomplishments, and suggestions*. The interviews were recorded and later transcribed for analysis and discussion.

Field diary (DC). Each of the researchers kept a field diary where they consigned their observations, activities, experiences, and inferences on the events.

Documentary revision. Revision was conducted of the written evaluations professors make at the end of each academic semester about the course, the methodologies, and contents, among others, which are consigned in the records of the Faculty since the last curricular transformation in 1998.

Discussion groups and progress information. Twelve meetings were held with the faculty’s curriculum committee and at least two with each group of professors, seeking to periodically discuss and report the research progress.

Return of information. Meetings were held with groups of professors per course and with the entire group of professors – with attendance of the study participants, as well as those who were not part of the study, to validate the information and complement it when it was deemed necessary.

Analysis of the information. This was begun simultaneously with the information collection. The interviews were transcribed; their reading, discussion, and triangulation with the field diary permitted its coding and subsequent categorization and sub-categorization of the results.

Criteria of rigor. To guarantee participant reality, data coding and categorization were carried out based on statements, points of view, and feelings

expressed by them. The transcriptions of the interviews and registries in the field diaries were performed as soon as possible, seeking not to omit details. The results were examined and contrasted with publications on similar research.

Ethical aspects. This study was based on the fundamental principle of respect for individuals and their autonomy; participation was voluntary and to the point it was considered pertinent, they were at liberty to refuse to answer the interviews completely or partially without any type of direct or indirect pressure exerted. Confidentiality of the information obtained was guaranteed; participants' names were not revealed. Data was analyzed globally and precisions, whenever necessary, were made in impersonal manner. The Ethics Committee of the Faculty of Nursing endorsed the study and the participants signed the informed consent. The researchers reported no conflict of interests. The study was classified as being without risk, according to that established by Resolution 8430 of 1993 issued by the Colombian Ministry of Health.⁹

Results

Professors centered their vision on the way of teaching and on what is considered that students should learn. Teaching is perceived as the action of transmitting necessary knowledge for future professional performance. To achieve this, professors fundamentally use "traditional methodologies", a name used for classes where professors are exponents and students are mere receptors of information. These methodologies were, paradoxically, questioned by the very professors. On the contrary, their purpose is to work with "innovative methodologies", that is, those where students have a leading role or where a relationship exists with the ludic. It was revealed that professors have their own conception on teaching and learning, given that the way of teaching stems from the subjective appreciation of a particular situation without pedagogical reasoning, that is, the orientation of teaching, to

a greater extent, is intuitive, which is why efforts are directed to the manner of teaching, and not on learning itself.

Three categories were constructed. The first encompassed issues related to the action of teaching and it was analyzed through five subcategories; the second gathered aspects related to learning from the vision of the professors and was analyzed through two subcategories; and the third compiled that concerning to the professors' formation and was analyzed through a subcategory.

First category: teaching, complex action

Teaching is a complex action that does not depend solely on the vocation or desire to do it. Teaching is perceived as the act of transmitting necessary knowledge for future professional performance. It meant:

1. Complexity, transmission of knowledge, cooperation with students, interaction, reflection, transformation of reality. As noted in these narrations by some professors: *teaching is a complex action that requires formation (IP); ...we are professors from the past century; we are teaching with current strategies for students of the future century (DC); ...I make my exposition and students take note, it is theoretical,(...) of foundation (IP); ...it is one professor per groups of seven or 10 students, then there are more possibilities to interact with the group, for them to do the exercises. (IP); ...when we speak of teaching, we talk about complexity because ...what is teaching?, how can you make someone else learn what needs to be learnt?; it is really difficult... (DC);...teaching is a complex action, thereby, our practice makes sense and has meaning inasmuch as we contribute to the transformation of the reality we find in nursing services (IP).*
2. The purpose of teaching was related to its own objective; consequently, it was centered on learning and emphasized on what the professor considered the student had to learn.

The purpose was of applying, integrating knowledge, and learning. These professors stated it thus: *...my teaching seeks to have students account for the contents in the praxis (IP); ... I do not see them integrating knowledge from other semesters (IP); ...in class, the idea is for them to understand,... to learn... (IP).*

3. Teaching is thought as a pyramid, which is directed *from the simple to the complex* looking for students to acquire knowledge sequentially and, thus, acquire the necessary skills to progress in knowledge. Some professors describe it thus: *...you try to give the most difficult possible so they can comprehend because there are concepts that have to be very clear from the start to be able to understand the rest, the complex (IP); ... everything has to be taught from the most basic to the most complex (IP); ..it is important for things to come in a process, not introduce it all at once, not placing everything in a single bag, as well as stuffing (IP).*
4. Consensus has been reached among professors in that what has to be taught should be useful for professional life. These are some of their statements: *What students should learn; the useful; the tasks of nursing; the nursing care process (PAE, for the term in Spanish), care:...some topics one thinks students require, during this historical moment, is what they really should be learning to work as nurses (IP); ...a shortcoming exists, students do not know how to perform procedures, (...), that is what the practice is for, for them to learn to do things well,... (IP); ... they need to evaluate a patient by conducting a nursing care process, (...) and... what do we find? ... that there is scarce comprehension of the process, scarce use in practice and do see the maximum use. (IP); We emphasize on nursing care... (IP).*
5. Different methodologies were used for teaching: traditional and innovative. The traditional methodology was defined as master classes led by the professor. Rather,

the innovative methodologies were didactic integrating knowledge (projects, simulation, students as leading players, clinical and community practices). The term methodology was used by professors to refer to all those ways of transmitting knowledge, that is, they speak indistinctly of method, methodology, strategy, didactic, didactic strategies, among others. The design is guided by the concept of teaching and learning professors have and it starts from what they consider students need to know for their future professional work: *...we have tried to innovate with some methodologies although most are traditional, the typical conference (IP); the master, group, massive class for the theoretical portion (IP).* Innovative methodologies are those that have a clear intentionality as of the planning and transcend the traditional methodology, that is, the master class, which is why they are developed within an environment where ludic aspects are relevant: *These are very active methodologies. (...) they bring videos, sometimes use dynamics to represent something, they have games; they are quite didactic (IP); We have placed much emphasis on methodologies, trying for them to be innovative methodologies, which motivate students and we are also expectant of new tendencies (IP).*

Second category: learning from the professors' vision

Learning, conceived as a process that starts from understanding, that is, introjections of the concept to then achieve comprehension, which is what will permit students to apply the knowledge acquired, is accomplished through repetition and commitment by students. In this sense, the role of the professor, if necessary, is aimed at implementing strategies that impose knowledge and this is done through tactics like exams, written assignments, and lectures among others.

1. For the participants, learning meant understanding, comprehending, applying: *... it is quite interesting to know what*

students understand regarding the theoretical concepts (...), how they have internalized these concepts, how they end up comprehending (...). A key guideline exists and it i show they would apply that theoretical concept in their lives or how they see it in their daily lives, that is fundamental, to understand that the theory is not merely abstraction, but that it has an application... (IP); ...that they note the relationship of what they are seeing, with the profession they are pursuing (IP).

2. Learning is achieved through repetition, self-study, commitment, with strategies to force study: *... students learn through repetition, but repetition in different form, then if students do not repeat, they will not learn ... (DC); ...it is through self-study that knowledge is broadened ... (IP); ...do you what we have had to do?, if you spare the rod you will spoil the child, they have to read a particular chapter and from there questions arise for the exam, so then they will go and study (IP).*

Third category: Conceptions on teacher training

What and how to teach is one of the big concerns of professors, given that although they have disciplinary formation and are competent professionally, they feel they have shortcomings in pedagogical bases and recognize the need for training in said aspect to improve their practice. To teach, pedagogical, didactic, and disciplinary training is needed. It was, thus, expressed by some of the participants: ...we need to have professors from the part of pedagogy and it would help us a lot in the formation of students (IP); formation is needed from what pedagogy and didactic are (IP); ...that part of training is pending in pedagogical aspects to teach nursing...(IP); ...you have your technical skills and your knowledge of what you do in your profession (...),some things are still lacking for you to work on the part of teaching, pedagogy, and on the disciplinary (IP).

Discussion

For professors, teaching means complexity, something difficult to address, confusing from the notion of the very concept up to its application, which is directly related to the meaning they assign to learning. It is a process that begins from what they consider simple and easily understood by students, so that they can advance and access knowledge that demands greater abstraction; in other words, it is a process that goes from the simple to the complex. From there, it is expected for students to understand, comprehend, and place the theory into practice; for the professor's contribution to provide knowledge in simple manner. Thus, teaching and learning are conceived as a pyramid that is scaled step by step until reaching the top. Viewed thus, it may be inferred that the meanings assigned by participants to nursing teaching and learning are related to their culture, their own formation, practical experiences, and conceptions. "...it is known that individuals have ideas or beliefs on what learning and teaching are, which are independent of the formal instruction received. (...) The conceptions on learning are understood as ideas of intuitive nature the subjects have with respect to the processes, conditions, and results involved in teaching and learning".⁸

The meanings correspond directly to the intentionality and to the methodological strategies. The teaching strategy was guided by the conception of teaching and learning the professors in the study had; hence, they designed "innovative methodologies" that sought to transcend the traditional, that is, in their words "the typical conference", referring to the master classes, as most of them were trained. Consequently, and seeking to draw a difference, when they spoke of innovative methodologies and didactic classes, they referred to the ludic, to those spaces where students have an active participation and are leading players of an activity preconceived by professors, opposed to the traditional methodologies, master classes, where the protagonist is the professor who teaches

student who then learn. Nevertheless, in spite of the effort to change, these continue being the most used.

Now, it is clear that traditional methodologies, as well as innovative methodologies are designed by professors and what is taught emerges from what professors consider students should know. As expressed by the participants, students are taught what is useful in their working life. All this permits inferring that teaching is done through essentially intuitive methodological strategies. A study¹ discusses that two dimensions exist in the conceptions of professors: a) the structural dimension or how teaching is imparted (transmission of information, helping students to acquire concepts, develop conceptions, and help them to change conceptions) and b) the referential dimension or where knowledge comes from (from the program, professor, or student).

Everything discussed until now, reveals the tensions existing on how we conceive the teaching and learning processes, as well as on the concreteness of the methodological strategies to accomplish the objective. Additionally, it is stated that multiple factors converge in said matter. Professors, independently of their professional and disciplinary formation, come from a social and cultural context that determines their way of thinking and acting that, in turn, conditions their conceptions on teaching and learning. If we add to this little or no pedagogical formation that helps to regulate their actions, it may be – as shown by the results – which professors will be limited to transmitting knowledge that, according to them, students should have, without profound reflection shared with the academic community. Besides, and according to Perkins,¹⁰ professors can dedicate themselves to reproducing what they denominate “domesticated patterns” or traditional pedagogic routines that do not seek to defy and question students, but rather, domesticate the repetition of the concepts acquired”, which coincides with our findings, where the importance of repetition is exalted; no only of technical instrumental activities, but of concepts. The aforementioned agrees with the research by

Pozo *et al.*,⁷ that express that the conceptions on teaching and learning are “undoubtedly above all else, a cultural heritage, a product of how in our cultural tradition (or in any other) teaching and learning activities are organized, or more generally activities of education and transmission of knowledge”.

Likewise, a PhD thesis study in Spain inquired on the conceptions on quality university teaching and it was concluded that university professors, in spite of having knowledge acquired since their formation process, both in their professional discipline as in pedagogical knowledge, (a few) construct their conceptions from their teaching practice, where they really find problems.¹¹ Something similar occurs with the meaning professors in our study gave to learning, given that they considered that students had a commitment and that if they did not comply with it, professors would be obligated to force learning, through other means. To demonstrate it – or rather, argue this vision – they recurred to typical phrases of yesteryear, like “to spare the rod is to spoil the child”. This confirms that the conceptions professors have on learning emanate from their cultural baggage.

Now, it is clear that professors and students have individual and collective responsibilities, given that the new pedagogical models are inclined to teaching centered on learning, or better yet, are inclined to teaching for comprehension; understood as “being able to carry out a range of activities that require thought with respect to a theme; for example, explain it, find evidence and examples, generalize it, apply it, present analogies, and represent it in a new way”,¹¹ from which the responsibilities of the different players remains clearly established. Therein, the need to establish a dialogical relationship between the person teaching and the individual learning where both are in constant learning, although at different levels, *i.e.*, a dynamic relationship that does not permit passiveness from any of the two, where the leading player is not the teacher, but the other – the one learning, who must go from being a passive subject to being an active subject, that is, the one responsible for being participatory and constructor

of their own learning, as stated by Vásquez¹² "... new pedagogical models and, clearly Teaching for Comprehension, seek for teaching and learning to have several characteristics: they must be significant, contextualized, interdisciplinary, dialogical, reflexive, and adapted to the needs of the subject" and of the society.

It is said that the biggest difficulty for teaching refers to the need to be trained to train others, in other words, learning to teach for comprehension, so that it enables active participation in students. Seen thus, professors must constantly and constructively reflect on all aspects inherent to their work, which implies constant learning and unlearning. As exposed by Medina:¹³ "unlearning to develop new approaches to the professional reality means dismantling its elements and analyzing its implications for the practice. It is, in sum, developing reflexive and critical thought that allows us, through questioning the ways of experiencing that constitute for us as subjects, the reconstruction, innovation, transformation, and improvement of our practices".

Delving further, being a teacher transcends being a professional; being a teacher leads to a reflexive professional, a professional capable of evaluating his/her own practice and transforming it. Hence, good professional performance does not guarantee a good teacher. "Teaching is not a monolithic activity of executive sales of a product with a single exposition and reading form. Learning is not passive consumption and deglutinating of information. A whole set of relationships go beyond transmission, teaching an assignment, which condition its effectiveness and explain the difficulty of assuming it by students",¹⁴ so that teachers are not merely trustees of knowledge, "sources of knowledge". They are human, social, and emotional beings that require continuous and permanent formation. Teachers are not born, they are made; besides being professionals in a given area, they must have formation in education.

Being a professional in the field of education has to do with what Schön¹⁵ calls the reflexive professional, that is, reflection on the educational

action. The author states that two types of rationality exist: the first is the technical rationality –"professors are considered sources of knowledge, experts who bring scientific knowledge to practice",¹⁶ a postulate that coincides with the findings in this study where professors express that they are hired because of their work experience in a given field and consider that said experience as professionals does not empower them to teach in nursing, given that they have knowledge and do not know how to teach it. Additionally, students arrive with "theoretical" information that in most cases is insufficient, which hinders the practice. They agree with Schön¹⁵ in that the "theory guides the applied sciences and these, in turn, guide the practice". The gap existing between theory and practice is evident; the latter centered on doing, as shown in this work where professors perceive learning through repetition and define the practice as the materialization of the theoretical, as the technical instrumental – as expressed by one of the participants: "practice for them to know how to do things well,...". The second rationality is "reflection on action"; this rationality proposes that the professionals' reflection on their own actions facilitates comprehension of knowledge on action, besides helping to reach higher professional skills from the practices. All this permits profound analysis of what consequently leads to reassigning meaning to the work not only within the professional and disciplinary aspects, but within the pedagogical aspect.

To end, this study revealed the difficulties existing in nursing teaching and learning processes and can be constituted as an input to propose improvements to the teaching practice. Teaching and learning are processes that worry professors, who assign meanings to these concepts according to their own conceptions, experiences, culture, and formation. The purpose of teaching is clear, given that it is conceived and designed to achieve student learning, but consensus has not been reached on how this should be carried out. In this sense, the result is intuitive teaching. Consequently, the need for pedagogic and didactic formation is evident, in addition to disciplinary training. Learning is a process based on a shared

responsibility, where students have the biggest commitment. The conceptions professors have on the meaning of teaching and learning guide their way of teaching. Our recommendation is that teaching in nursing requires disciplinary and pedagogical formation. Being a professor goes beyond the knowledge acquired during the professional experience; professors need to be reflexive and competent professionals, capable of transforming their practice, guiding it toward significant learning, that is, and working in favor of teaching for comprehension.

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