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SHORT COMMUNICATION

What should a teacher know?

¿Qué debe saber un docente?

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ABSTRACT

A typology is presented to identify the fundamental knowledge, skills and attitudes in the teaching practice, based on a review of literature and good educational practices. The proposal organizes these elements into two main dimensions: the teaching act and the necessary prior knowledge. The teaching act encompasses educational planning, the use of diversified teaching and evaluation strategies, classroom management, the creation of a positive affective climate for learning and the ethical fulfillment of responsibilities. These actions seek to promote both the learning of content and the integral formation of students. In terms of prior knowledge, aspects such as teaching thinking, disciplinary and didactic mastery, pedagogical training and personal qualities, including self-efficacy, commitment and professional ethics, are highlighted. These competencies are considered essential to guarantee effective teaching adapted to the characteristics of the students. The typology is proposed as a useful tool for the training, updating and evaluation of teachers, by delimiting the core competencies necessary for teaching and avoiding the requirement of elements foreign to didactic practice. This facilitates teacher professionalization and improves the quality of the educational process.

Keywords: Teacher typology; Educational competencies; Teaching strategies; Pedagogical training; Teacher evaluation.

RESUMEN

Se presenta una tipología para identificar los conocimientos, habilidades y actitudes fundamentales en el ejercicio docente, basada en una revisión de literatura y buenas prácticas educativas. La propuesta organiza estos elementos en dos dimensiones principales: el acto docente y los conocimientos previos necesarios. El acto docente abarca la planeación educativa, el uso de estrategias diversificadas de enseñanza y evaluación, la gestión del aula, la creación de un clima afectivo positivo para el aprendizaje y el cumplimiento ético de las responsabilidades. Estas acciones buscan promover tanto el aprendizaje de los contenidos como la formación integral de los estudiantes. En cuanto a los conocimientos previos, se destacan aspectos como el pensamiento docente, el dominio disciplinar y

didáctico, la formación pedagógica y las cualidades personales, entre las que se incluyen la autoeficacia, el compromiso y la ética profesional. Estas competencias son consideradas esenciales para garantizar una enseñanza efectiva y adaptada a las características de los estudiantes. La tipología se propone como una herramienta útil para la formación, actualización y evaluación de los docentes, al delimitar las competencias centrales necesarias para la enseñanza y evitar la exigencia de elementos ajenos a la práctica didáctica. Esto facilita la profesionalización docente y mejora la calidad del proceso educativo.

Palabras clave: Tipología docente; Competencias educativas; Estrategias de enseñanza; Formación pedagógica; Evaluación docente.

A typology is proposed on the knowledge, skills and attitudes necessary for teachers to adequately perform their work, based on the results of the literature review on teaching and on good teaching practices (Carlos, 2021). It focuses on didactic aspects and not on other unrelated issues such as demanding that teachers be aware of the effects of globalization and neoliberalism.

It is clarified that this proposal is for teaching as a generic activity useful for any educational level, but which evidently does not include the specific actions of each educational level and of the specific disciplines taught, which will require particular activities and knowledge.

The typology is classified into two dimensions: the first refers to the teaching act and the second to what is required as prior knowledge directly necessary to be able to perform it. Different aspects and components are derived from each of the dimensions; their description is the purpose of this document. First, the components of the teaching act are presented, focusing on the preparation and execution of teaching, as shown in Figure 1.

FIGURE 1. Teaching Act



Source: Own elaboration

Teaching act

We refer with this term to the teaching tasks performed before and during the execution of the course; that is, the teacher needs to prepare the course and once the course begins, he/she needs to do it in a certain way, applying pertinently the teaching and evaluation strategies and techniques, conducting adequately the activities and tasks of the course, creating an affective climate to favor learning and doing all of the above with commitment and responsibility. These five components are described.

Planning

Every teacher needs to prepare his or her course because, although there is usually a syllabus, he or she has to make adjustments and adapt it to the characteristics of his or her students. In the case that he/she

has the power to elaborate his/her program, he/she has to establish its purposes, justify its importance and the choice of contents, describe the topics and subtopics, include the bibliographical references that support each one of them and specify the evaluation criteria and the rules of the course.

What every teacher needs to do is to describe the temporal sequence to follow to review the course contents, which is called programming or elaborating a chronogram, where he/she indicates either by class or by week what will be seen in them.

Other general planning actions for all teachers are: designing the instructional materials to be used, the selection of audiovisual aids including videos on You Tube and choosing the ICTs that support their teaching. Also, ideally, to have the evaluation instruments and rubrics prepared in advance, it is particularly important to continuously update the course by incorporating new materials or removing topics that have lost their validity. This is even more necessary in higher education teaching where knowledge is constantly changing and must keep pace with it. There are other activities and tasks specific to the topics that can be done during the course, although if you have them before, the better. All of the above is recommended to be uploaded on a platform such as Classroom.

Apply teaching and evaluation strategies

Teaching usually has three phases: beginning, development and closing and has three modalities: instructing, modeling and practicing what has been learned (Carlos, 2016).

Teaching should be varied, not only using exposure throughout the course, obviously it is not discarded or prohibited, but other strategies that complement it such as: case-based, problem-based, project-based, experiential and especially cooperative learning, since it is very useful for almost all subjects and disciplines, in addition to knowing how to work in a team is a highly valued skill in the working world (Rios, Guangming, Pugh, Becker, and Bacall. (2020).

Just as it is proposed to use a wide variety of teaching strategies, the same applies to evaluation, that is, not only to use attendance, participation or exams, but to use other tools such as: rubrics, essays, questionnaires, performance tests and, above all, portfolios. Use evaluation to provide feedback and improve teaching and not only for accreditation.

Initially, the class begins with the teacher's exposition, but it should not stop there because it makes learning incomplete, since in order to consolidate it, it is necessary to practice what has been learned through tasks, exercises, work, etc. In each of them, the teacher should model what he/she wants or offer examples of similar work so that the students understand what the teacher wants. Thus, the teacher will give feedback on the student's achievements, which is the best mechanism to achieve learning (Schutte, 2008) since the acquisition of knowledge by the learner is being perfected.

The teacher's actions should be guided by two purposes: to achieve the learning of the contents taught and to contribute to the student's integral formation.

Classroom management

This refers to the actions to control - in the best sense of the word - the group, to carry out the activities and tasks of the course with order and organization, so as not to fall into anarchy or authoritarianism. Adequate management is essential to avoid either of the two previous scenarios, which, if they occur, prevent the achievement of the teaching goals.

It implies the adequate management of the social and emotional aspects that arise during teaching. It is the correct use of disciplinary aspects and the timely use of the necessary corrective mechanisms in order not to lose control of the class, for this it is necessary to let the students know at the beginning of the course what are the rules of the class, they must be agreed by all and apply to both students and teacher. It is very useful for the student to be in a predictable environment where there is order, they need to know what will happen if they act correctly as if they do not, hence the teacher must react congruently and clearly to not confuse them, the same action should be judged equally and not change as when faced

with the same behavior act differently or depending on which student does it, because that is behaving unfairly something that under any circumstances is not desirable.

When students are asked to do an exercise or homework it is necessary to make sure that they have understood what they should do, because many times it does not happen. To reduce this situation, the teacher must be clear in the instructions given when assigning it, so it is advisable to present them in writing and not just verbally.

Management involves managing the time given to each activity or task, deadlines, as well as supervising that the students are performing the assigned activities.

It also has to do with the proper use of the barometer to monitor the class. The barometer refers to the teacher being aware of the non-verbal behavior of the students, so that if he sees them attentive, he can continue with the activity, but if he sees them yawning or bored, he should modify what he is doing because there is no point in continuing with it if the students are no longer paying attention. Good management adapts and contextualizes the activities and tasks of the course.

Classroom climate

Classroom management and classroom climate are very similar processes, but there are differences, the latter emphasizing the affective and interpersonal aspects that occur during the teaching act. Some time ago, the affective components were not given the importance that we now know they have, since teaching involves not only the intellect but also the heart. Hence the importance of creating an adequate affective atmosphere in the classroom to promote learning, such as treating students with respect and confidence, giving them all the support to encourage them, since learning is by no means an easy process and is facilitated if the student knows that he can count on the teacher's help and is patient with him.

Therefore, to facilitate the purposes of the course it is essential to have an adequate personal interrelationship with the students where confidence and high expectations of their achievement prevail in the class and not fear or disqualification.

In this environment, students learn to think critically, to face important problems analyzed in all their complexity, they are not afraid to make mistakes and this makes the learning process interesting and rewarding.

The teacher should not impose his visions, beliefs and ideology on his students, he can express them, but in no way should he force them to follow them and if they do not, punish or reprimand them.

A very particular action is to be fair when evaluating and not to use this activity to punish students for something they do not like or as a way to exercise their power.

Responsibility and commitment

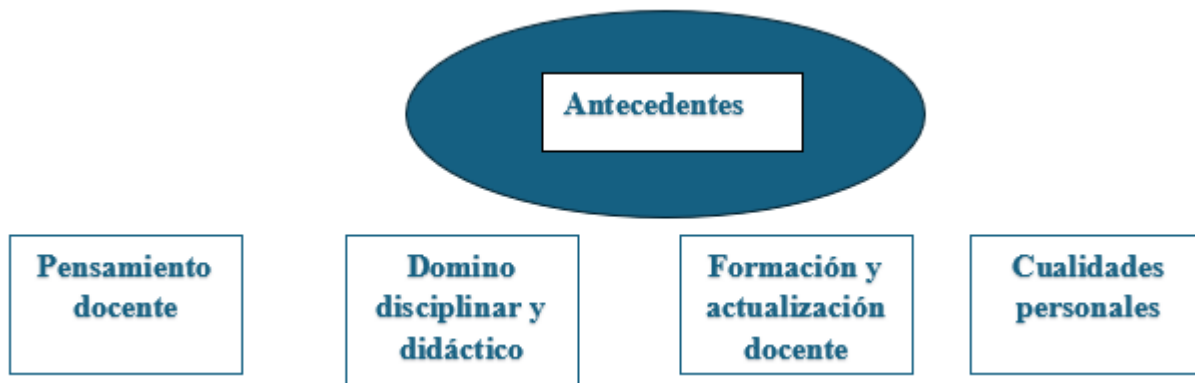
We now move on to the ethical part of teaching, where the teacher's actions should be an example of what he preaches and above all perform all the actions described above with commitment and responsibility, because it is useless to know how to do correctly the four components that we have exposed if the teacher is absent, late or does it with reluctance.

This includes desirable teacher behaviors such as being honest, seeking continuous updating, working collegially and, if possible, performing other actions appreciated in the academic world such as publishing.

Knowledge, skills and attitudes required

We will now go on to expose what was required as background for the teacher to be able to perform what was described in the first dimension. Obviously, we will refer only to the most immediate and not to the whole of their school training. The components are shown in Figure 2.

FIGURE 2. Background



Source: Own elaboration

Teacher's thinking

Since the end of the last century, research has been carried out on the role of teachers' visions and beliefs on issues related to their work, such as their personal definitions of what it means to teach, their goals, learning and the role of evaluation.

Throughout their school education, teachers have created a set of ideas about the topics described above and these conceptions were also formed during their teaching experience, and since they have been found to be of great importance for teaching, it is necessary to identify them and if they interfere negatively with teaching, actions must be taken to modify them. For example, the following ideas are harmful to teaching: "the letter enters with blood", 'I teach, but it is the student's obligation to learn' (Hativa and Birenbaum, 2000). In other words, they do not assume the responsibility they have for their students' learning. A teacher who thinks this way will surely be a sadist or act irresponsibly and with little teaching commitment.

On the other hand, if the teacher believes that he/she can influence his/her students' learning and make a difference in their lives, he/she will act differently.

Therefore, in teacher training and updating courses, it is necessary to detect the type of didactic thinking that teachers have, because if they do not change, their teaching practice will not change no matter how many didactic and disciplinary courses they receive.

Disciplinary and didactic mastery

There are two essential components of teaching: one is to master what is taught and the other is to know how to teach it. In other words, the teacher must be an expert in the subject or discipline he/she teaches, but must also master the psycho-pedagogical strategies to know how to teach and evaluate. Both are essential skills for the correct execution of the teaching act, none of them is more important than the other.

Therefore, the teacher must know the qualities that distinguish teaching, know its phases and modalities, have the elements to plan his courses and carry out the activities described in point 1.1 of the previous dimension.

He/she must also master the different teaching strategies so that teaching is not monotonous but diversified, and must also be able to design the different evaluation instruments. Likewise, he/she needs to know the theories and principles of learning in order to base his/her teaching practice and know the best ways to promote it.

Another essential aspect for teaching is to know and adequately handle the wide range of technological resources that are now available to the teacher.

To be able to adapt his teaching to the characteristics of his students, he needs to know about psychological development, since it will allow him to understand who his student is and why he acts as he does.

He needs to manage the motivational elements to make his teaching attractive and in general to know the emotional factors involved in teaching so that they work in his favor and to be alert to those that can affect it negatively.

Finally, he/she needs to know the different ways and mechanisms to have a better classroom management.

Teacher training and updating

Not all educational levels require preparation to become a teacher, in basic education of course they do, but this is not the case at other educational levels. In higher education, there are some institutions such as the UNAM that have a master's degree for those interested in becoming teachers at this level, but it is not something generalized. In higher education, it is not a requirement to have a teaching preparation to teach and there is no institution that trains for it. What we wish to emphasize here is the importance of teacher professionalization because teaching is a complex activity that requires extensive preparation and not everyone is suitable for it.

Therefore, at some point, the future teacher must be trained in the aspects described in the dimension of the teaching act.

Personal qualities

This last element is not that in some qualities you are formally prepared for it, but it has to do with personality characteristics and having acquired certain essential values to be a teacher, which should have been learned in the family, the community and have been reinforced at school.

We are talking about qualities such as: acting ethically, being honest, authentic, self-critical, enjoying being a teacher, and always being dissatisfied with what one does in order to seek continuous improvement. Earlier we talked about commitment and responsibility.

There are aspects of the personality such as sadism, fanaticism and authoritarianism that are incompatible with the teacher as we have described here, a person with these characteristics should not be a teacher, as well as one who is irresponsible, unmotivated, inept, uncommitted to teaching and his students.

However, there are other very important personal characteristics for teaching that can be formed and favored, such as the sense of teaching self-efficacy. Self-efficacy or confidence in his or her teaching abilities is that he or she reliably feels that he or she has the necessary elements to solve teaching problems and that he or she will not be overwhelmed by them. Another very important quality is to feel responsible for your students' learning, which we have already discussed. These two qualities: self-efficacy and assuming responsibility for the learning of their students characterize good teachers (Carlos, 2021).

The field of teaching is one characterized by having many definitions, as many as authors, with an endless number of perspectives, models, approaches, etc.; although this gives it a richness, it also leads to confusion and can be perceived as a chaotic one where there is little agreement.

In an attempt to give clarity to the field, our proposal highlights the dimensions and components obtained from different authors and especially from what has been studied on good teaching practices. We

reiterate that these are aspects present in the literature, what we have done is to unite them in two dimensions and break down their components.

What are its advantages? We believe that it is useful both for teacher training and updating as well as for teaching evaluation.

Identifying the competencies that a teacher needs to have is useful for teacher training institutions to take them as central axes in their curricula or updating programs; they may add other aspects that they consider important, but the basics are described. Delimiting them as we have done facilitates this task. For teacher evaluation, specify which components should be judged in order to know the degree of mastery that teachers have over them and, once identified, apply programs that directly help to correct them.

In short, it avoids asking the teacher to handle elements that are not properly didactic, which, although desirable, should not be required.

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