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Artículos científicos

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Teacher professionalization, new challenges for higher education teachers at theUPIBI of the IPN

Profissionalização docente: novosdesafios para docentes do ensino superior daUPIBI do IPN

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Resumen

Para afrontar los continuos cambios sociales, científicos, tecnológicos, económicos y educativos, los docentes se ven obligados en adquirir nuevas competencias y a mantener una actualización constante. La profesionalización docente conlleva el compromiso de los profesores en fortalecer la práctica educativa mediante la reflexión e integración de elementos didácticos y pedagógicos congruentes a los modelos educativos institucionales.

Atendiendo el propósito planteado en el presente trabajo, se considera cómo punto de partida la argumentación recogida de manera individual y colectiva de algunos profesores de nivel superior dentro de la Unidad Profesional Interdisciplinaria de Biotecnología (UPIBI), toma en cuenta el momento de ingreso de los profesores al IPN, el trabajo en el aula con los alumnos y las necesidades de nuevas herramientas pedagógicas que requieren los profesores al transitar dentro del IPN.

A partir de un análisis cualitativo, se detallan las dimensiones de la práctica docente, consideradas como inherentes al desarrollo en el aula en el cual, el profesor es considerado como una figura intelectual, ética y moral en su trabajo. Así mismo se detectan áreas de oportunidad encaminadas en fortalecer la labor profesional y formadora de personas íntegras, con sentido humano y responsable socialmente.

En un ejercicio de reflexión, los profesores toman conciencia y reflexionan en la importancia que conlleva el proceso de formación continua, adquirir habilidades y conocimientos que les permita interactuar en nuevos espacios en los cuales la educación se concibe con base a una nueva forma de ser congruente, con un pensamiento crítico, para recrear lo que existe o intentar cosas nuevas que ayuden a construir estilos de vida mejores, ayudando a los estudiantes en su proyecto de vida.

Como docentes del IPN se considera necesario atender áreas de oportunidad dentro de la formación y actualización constante, ya que ello permitirá alcanzar un nivel de desarrollo profesional considerable el cual será útil para coordinar actividades de aprendizaje, encaminados a alcanzar un nivel de desarrollo apropiado y brindar a los estudiantes los conocimientos y habilidades pertinentes con un nivel de pensamiento elevado que les facilite el analizar, interpretar, solucionar e innovar situaciones presentes y futuras en relación con su vida personal, familiar, laboral y social.

Se reconoce que la formación, actualización y profesionalización pueden nutrirse a través de acciones formales como son los cursos, talleres y diplomados, pero también se sustenta



mediante el intercambio de experiencias por medio de espacios de intercambio y convivencia (congresos, foros, encuentros y trabajo colegiado entre docentes) los cuales cuentan con una riqueza inmensa, ya que dichos espacios se destinan precisamente para movilizar los aprendizajes a través de las experiencias y continuar trazando una trayectoria con miras a la profesionalización docente.

Finalmente, se considera que el desarrollo personal es acorde a la experiencia y madurez presente en el profesor a partir de su auto conocimiento como persona y el papel que juega como formador de personas integrales, asume la responsabilidad social con los estudiantes, atendiendo lo establecido dentro de la normatividad del Instituto Politécnico Nacional. Por consiguiente, el docente debe poseer un fuerte compromiso con la institución, contar con habilidades para el manejo de grupo, comunicación asertiva, ser respetuoso con la comunidad y mostrar una apertura social con perspectiva de género.

Palabras clave: docente, experiencia profesional, formación académica, pedagogía, profesionalización, tecnología.

Abstract

To cope with the continuous social, scientific, technological, economic and educational changes, teachers are forced to acquire new skills and to maintain a constant update. Teacher professionalization involves the commitment of teachers to strengthen educational practice through reflection and integration of didactic and pedagogical elements congruent to institutional educational models.

Taking into account the purpose proposed in this work, the argumentation collected individually and collectively from some higher-level professors within the Professional Interdisciplinary Biotechnology Unit (UPIBI) is considered as a starting point, taking into account the moment of entry of the students. teachers to the IPN, work in the classroom with students and the needs for new pedagogical tools that teachers require when traveling within the IPN.

Based on a reflective analysis, the dimensions of teaching practice are detailed, considered as inherent to development in the classroom in which the teacher is considered an intellectual, ethical and moral figure in his work. Likewise, areas of opportunity are detected aimed at strengthening the professional and training work of integral people, with a human sense and socially responsible.



Teachers become aware and reflect on the importance of the continuous training process, acquiring skills and knowledge that allows them to interact in new spaces in which education is conceived based on a new way of being congruent, with critical thinking, to recreate what exists or try new things that help build better lifestyles, helping students in their life project.

As teachers of the IPN it is considered necessary to attend to areas of opportunity within the training and constant updating, since this will allow reaching a considerable level of professional development which will be useful to coordinate learning activities, aimed at reaching an appropriate level of development and providing to students the relevant knowledge and skills with a high level of thinking that facilitates them to analyze, interpret, solve and innovate present and future situations in relation to their personal, family, work and social life.

It is recognized that training, updating and professionalization can be nurtured through formal actions such as courses, workshops and diplomas, but it is also sustained through the exchange of experiences through spaces for exchange and coexistence (congresses, forums, meetings and work collegiate among teachers) which have an immense wealth, since these spaces are destined precisely to mobilize learning through experiences and continue to trace a path with a view to teacher professionalization.

Finally, it is considered that personal development is according to the experience and maturity present in the teacher from his self-knowledge as a person and the role he plays as a trainer of integral people, he assumes social responsibility with the students, attending to what is established within of the regulations of the National Polytechnic Institute. Therefore, the teacher must have a strong commitment to the institution, have skills for group management, assertive communication, be respectful with the community and show a social openness with a gender perspective.

Keywords: Teacher, professional experience, academic training, pedagogy, professionalization, technology.

Resumo

Para fazer frente às contínuas mudanças sociais, científicas, tecnológicas, econômicas e educacionais, os professores são obrigados a adquirir novas competências e a manter em constante atualização. A profissionalização dos professores envolve o compromisso dos professores com o fortalecimento da prática educativa por meio da reflexão e integração de elementos didático-pedagógicos coerentes com os modelos educacionais institucionais.

Tendo em conta o objetivo proposto neste trabalho, considera-se como ponto de partida a argumentação recolhida individual e coletivamente de alguns docentes de nível superior da Unidade Profissional Interdisciplinar de Biotecnologia (UPIBI), tendo em conta o momento de entrada dos alunos no IPN, o trabalho em sala de aula com os alunos e as necessidades de novas ferramentas pedagógicas que os professores requerem nas viagens pelo IPN.

A partir de uma análise qualitativa, detalham-se as dimensões da prática docente, tidas como inerentes ao desenvolvimento em sala de aula em que o professor é considerado uma figura intelectual, ética e moral em seu trabalho. Da mesma forma, são detectados espaços de oportunidade que visam o fortalecimento do trabalho profissional e de formação de pessoas integrais, com sentido humano e socialmente responsáveis.

Num exercício de reflexão, os professores tomam consciência e refletem sobre a importância do processo de formação continuada, adquirindo competências e conhecimentos que lhes permitem interagir em novos espaços em que a educação é concebida a partir de uma nova forma de ser congruente, com o pensamento crítico, para recriar o que existe ou experimentar coisas novas que ajudem a construir melhores estilos de vida, ajudando os alunos em seu projeto de vida.

Como docentes do IPN considera-se necessário atender a áreas de oportunidade no âmbito da formação e atualização constante, pois isso permitirá atingir um nível de desenvolvimento profissional considerável que será útil para coordenar atividades de aprendizagem, visando atingir um nível de desenvolvimento adequado e proporcionar aos alunos conhecimentos e competências relevantes com um elevado nível de reflexão que os facilite a analisar, interpretar, resolver e inovar situações presentes e futuras em relação à sua vida pessoal, familiar, profissional e social.

É reconhecido que a formação, a atualização e a profissionalização podem ser nutridas por meio de ações formais como cursos, workshops e diplomas, mas também se sustenta na troca de experiências por meio de espaços de troca e convivência (congressos, fóruns,



encontros e colegas de trabalho entre professores) que possuem uma riqueza imensa, uma vez que esses espaços se destinam justamente a mobilizar aprendizagens por meio de experiências e continuar a traçar um caminho com vistas à profissionalização docente.

Por fim, considera-se que o desenvolvimento pessoal está de acordo com a experiência e maturidade presentes no professor a partir do seu autoconhecimento como pessoa e do papel que desempenha como formador de pessoas integrais, assumir responsabilidade social com os alunos, atendendo a o que está estabelecido nos regulamentos do Instituto Politécnico Nacional. Portanto, o professor deve ter um forte compromisso com a instituição, ter habilidades de gestão de grupo, comunicação assertiva, ser respeitoso com a comunidade e mostrar abertura social com perspectiva de gênero.

Palavras-chave: professor, experiência profissional, formação acadêmica, pedagogia, profissionalização, tecnologia.

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Introduction

Starting in the 1990s, there has been an emphasis on educational models based on competencies in higher education, which is why various academic units within the National Polytechnic Institute (IPN) - such as the Interdisciplinary Professional Biotechnology Unit (UPIBI) - have been seen involved in a constant assessment of teacher training as a means for economic development and the satisfaction of market demands (Alberto and Bechi, 2020).

However, this figure of the teacher —the central axis of the teaching process— has gradually been blurred, since at present students seem to be more autonomous because they can more easily access multiple resources and carry out activities that allow them to build their own learning. For this reason, there has been an interest in recognizing the importance of teacher professional development through educational reforms that are a key element in the processes of change. In the words of Glatthorn (1995), it is necessary to promote the professional growth of the teacher “as a result of his experience and (...) a systematic examination of his teaching” (p.41). This includes professional experience, specific training within the field of teaching, and teacher professionalization.

The reality of the teacher at a higher level, however, shows that although they start with great enthusiasm and with the idea that they will provide great satisfaction, that feeling is gradually lost, which is caused by a mixture of personal issues (such as economic pressures) and labor peculiarities, which in extreme cases lead to situations of workplace harassment (or mobbing). This, logically, not only leads to frustrations and makes teachers rethink their activity and commitment in front of students, but it even causes them to weigh the amount of work they have to do outside the walls versus the economic remuneration received.

For all the above, it is necessary to promote a deep and collective reflection on the diversity of roles that teachers must play, which include even serving as counselors and motivators of students. Indeed, the teacher is a key element in the students' training process because their actions, in one way or another, impact integration and the sense of belonging to a group, situations that have become even more latent in the classroom. present due to the health contingency generated by covid-19.

In this new reality, the teacher becomes an agent of change on an uncertain and challenging scenario, where the pandemic with a haughty voice challenges society and, at the same time, invites it to learn from it. For this reason, in the words of various authors, teacher professionalization requires extensive pedagogical knowledge and a changing or flexible and adaptive didactic competence for the present historical moment (Buchberger, Campos, Kallos and Stephenson, 2000; Englund, 1996; Eraut, 1994 ; Montero, 1999).

Regarding didactic competencies, teachers focus on the conscious use of their experiences, knowledge, capacities, abilities and skills to promote learning in students and to awaken interest in class topics. These competences allow them to take into account the needs and operating conditions of the teaching-learning processes, in a meta-learning exercise, where the contents and information of the reference knowledge are identified, analyzed and transformed into meaningful knowledge for the students. students with the possibility of continuing to learn.

This means that contextualized didactic proposals for learning can be designed and oriented to specific topics that are intended to be taught with particular didactics according to each area. Englund (1996) refers that didactic competences are the axes on which professionalism and teacher professionalization revolve. For this reason, “the didactically competent teacher contextualizes and takes into account the possible consequences of what

should be taught, is open to different solutions and attentive to the consequences of the different content and method options” (p.75). That will help students to build their own knowledge schemes, listening to each one to initiate critical thinking.

Problematic

Throughout history, man has faced various diseases and pandemics that have caused both economic, social, political and cultural consequences. This has happened, for example, with the so-called Justinian plague that affected the Roman Empire and other parts of Europe, or with the black plague that arose between 1346 and 1353 that ravenously struck the population of the Middle Ages. Likewise, the Spanish flu that appeared in 1919 and affected more than 50 million people worldwide, until today with the appearance of COVID-19, which took modern society by surprise.

In this context, one of the development pillars of the countries that has been seriously affected by this pandemic is education. In the specific case of Mexico, the educational system has implemented actions to continue with its mission of educating, for which reason it issued instructions to managers to work remotely.

These initiatives, however, pose a superlative challenge because it requires new responsibilities, as well as the equitable allocation of financial resources for the institutions, otherwise these proposals can remain in simple formal speeches (Jiménez, 2019).

Although this perspective has had positive consequences in economic terms for some teachers, it has also generated negative consequences. For example, prior to the vacation period of the 19/20 school year, a considerable fraction ofUPIBI teachers manifested exhaustion due to the complexity of academic tasks to be attended, among which are excessive activity in front of students, preparation of materials, evaluation and application of examinations, while the officials focused their day on trying to modify institutional structures in accordance with the demands of the health contingency; On the other hand, students and their families had to make changes to their personal ways of life in response to the demands made by academics to continue the current semester at a time of confinement due to the pandemic.

Given the contextualized problem, this work aims to address the relevance of teaching professionalization in a group of higher education professors from UPIBI-IPN, a



fundamental axis to promote the development of capacities required to address emerging situations such as those generated by COVID-19. To analyze this problem, the following research questions are posed:

- How has the teacher's professional career been?
- From professional and personal experience, how does continuous updating impact the development of activities in front of the group?
- What are the training needs required by teachers to face the future challenges that education requires?

Method

Type of study

To answer the research questions posed, it was chosen to work under a descriptive, observational, non-experimental type study scheme, since it seeks to collect - through the conceptualizations of various sources - data and reflections for their subsequent interpretation on the raised topic .

The purpose is to investigate the actions of the UPIBI professor and his collaborative relationship with the students to find relevant factors that guide and provide recommendations in the higher-level teacher training process.

It is worth mentioning that the scope of this work seeks to gather valuable information from the experience in teaching practice through data collection and the search for information in various sources.

Developing

Before the COVID-19 pandemic, traditional models regarding teacher professionalization made reference to a training of normalist teachers, teacher training or with engineering profiles. In these it was understood as a full-time and life-long occupation, where teaching was based on a transmission of knowledge without questioning the student's learning. However, due to this health situation, the models can be directed towards an education in constant change that enhances scientific knowledge and educational practices to improve

education with the integration of ICTs based on globalization, better known as the fourth industrial revolution. .

For this reason, until today, within the teaching practice and in a large number of UPIBI higher level professors, teaching work has been understood as a part-time profession or a specific phase of working life. Indeed, these academics see teaching as a complement to their professional careers, which helps them to ensure that the student obtains significant learning to promote opportunities or open new fields of work, since the objective is for the student to commit to their professional training ; however, it would be a contradiction to expect students to come with enthusiasm and approach the classes if the teacher does not promote confidence and learning in them or if they do not favor motivation and feedback.

To better understand the problem raised, an interview was conducted with four higher education professors in order to find out about their trajectory within the IPN and identify the need for professionalization.

Professor María de Lourdes A. Torres Díaz, a graduate of the Higher School of Economics, mentioned the following in a fragment of the interview:

My work activity began when I was studying at the upper secondary level, in an accounting firm, so from that moment on my professional performance was in the private sector, in different companies, with which I was gaining experience in my field of academic training; However, for circumstantial reasons I saw myself working as an accountant in the Interdisciplinary Professional Unit of Engineering and Social and Administrative Sciences, and it was shortly after I entered when they told me that since my appointment was a teacher, I had to attend at least one group academic, so I thought that teaching was not a big deal and I said yes, when did it start? But the reality was very complicated for me. And that's how I started my career as a teacher.

Professor Juan Manuel García Velazco expressed:

I have always worked in the private sector and working in a company of the greatest importance in its field; I started working at the beginning of 1969, after the 1968 school earthquake, at that time the school year was annual. I showed up at school with a still present school effervescence and administrative chaos. I was assigned to teach a subject different from my knowledge and without any introduction, recommendation and clarification. Consequently, without experience in front of a group, without any program, I

had to improvise so that they would know me and get to know the members of the group, but not before feeling anguish to face the unknown.

Professor Engelbert Linares González mentioned the following in the interview:

My work activity began when I graduated from ESIME, I joined the private industry, I had the opportunity to work in a renowned foreign industry, I acquired the necessary skills to develop and treat people, speak in public and listen and understand the characters of people. When I entered the IPN, the most complicated thing I faced was the preparation of classes: it took me a long time; Later, I realized that I could combine my work experience with class topics to make it more dynamic and enjoyable. This was very satisfactory. Sometimes I asked other colleagues with more experience to explain strategies to work with the students. I believe that all of us who are dedicated to teaching in the beginning find it difficult to venture into teaching.

As can be seen in the previous testimonies, teaching is a social, objective and intentional practice that seeks a specific objective; However, to achieve this, it must be considered that the work carried out is important to achieve the objective set with the students.

Dimensions in teaching practice

According to Fierro, Fortoul and Rosas (2002), in teaching practice six dimensions are taken into account:

Personal dimension: Considers that teachers have qualities and deficiencies, which are reflected in the way they carry out their work in the classroom. It is important for teachers to be open to the possibility of recognizing limitations and opportunities for change to give a better meaning and guide their profession based on their personal qualities and experiences.

On this aspect, the teacher Ofelia Torres Alonso shares the following testimony in the interview: “Time has passed as a teacher and I had not reflected that as it becomes an everyday life, it depends on us that it does not become routine, monotonous or boring. Being a teacher, we have to be in constant training, preparing material, updating in the teaching-learning process, with globalization and new technologies within my teaching work, this has allowed this great work not to become routine. Thus, talking about everyday life is talking about all the things that happen every day ”.

- Interpersonal dimension: It presents the relationship that teachers have with all those involved in the educational process (students, fellow teachers, directors, support staff), who create a positive or negative work environment that influences their daily activity.

Professor Engelbert Linares González expressed the following at this point: “Sometimes when discussing issues related to gender equality with colleagues, respect for people's diversities, they still show up with certain resistance and the talks end a bit rough; It is not easy to change ideas or customs already ingrained over time, but it is necessary to touch on these issues, since currently our students come with a social openness that needs to be attended by us, as well as being constantly updated in the handling of new technologies; it is necessary to attend to the social changes that occur every day”.

Didactic dimension: Shows the ability of teachers to know how to plan, know the contents and teach them in their daily activity through teaching methods-strategies and materials in relation to ways of evaluating and the student's involvement in their learning. It is on this dimension that students become involved in their learning and that they use technology and the media correctly to achieve the development of competencies (knowledge, skills and attitudes).

Professor María de Lourdes A. Torres Díaz mentioned the following: “That is why I try to create a pleasant atmosphere in the classroom and awaken in the students the curiosity to know and to recognize the application of what they learn. The school has sufficient material resources so that teachers and students can develop their activities; it would be important not to neglect the maintenance and replacement of the equipment in order to continue counting on this support ”.

- Institutional dimension: Teaching activity is organized and regulated to achieve institutional objectives.

On this point there is a common opinion among the interviewees, as they indicate that the IPN has a series of normative documents in which institutional life is organized. This dimension also refers to the institutional culture that gives teachers and students a sense of belonging: it is the addition of identity and dignity to belonging to the institute.

Value dimension: This dimension addresses the values that teachers manifest in their behavior and that they transmit in their interpersonal relationships among their peers and in the classroom with students.

At this point, Professor Juan Manuel García stated the following: “Values as desirable behaviors to follow must be instilled in students. One of the most important values is respect. To be respected it is necessary to respect the students (...); another of the values that must be promoted is justice”.

- Social dimension: The work carried out by teachers is carried out in a specific time. The educational panorama —particularly within the IPN— has varied over time depending on the currents of educational thought, the advances of society and the change of guidelines in educational policy; the proposed curricula bring great hope to the new generations of professionals, whether they are of upper secondary level or higher.

Times of very accelerated changes are currently being experienced. Information can be obtained, processed and transmitted immediately thanks to information and communication technologies. This has generated impressive changes that have forced teachers to transform the way they plan and carry out the means of transmitting knowledge to generate relevant or meaningful learning in the student.

The dimensions previously described by the teachers determine the way in which the teachers carry out their activity, either in a dominant and inflexible manner or respect and support in the process of personal development in both directions (student-teacher).

A common opinion among those interviewed is the following: “It is relevant to recognize the importance of students knowing the topics proposed in the study programs, but we teachers are no longer the ones who have all the knowledge and the last word, so we must encourage and to motivate our students to actively participate in the construction of knowledge from the application of innovative teaching strategies”.

Up to this point, it has been emphasized that in a teaching-learning process the active participation of students is needed, for which it is necessary that they work collaboratively in solving problems that are present in the day to day. This will force them to reflect and propose solutions, but for this, teachers must create the appropriate environment and facilitate the necessary conditions so that students can and want to learn.

Analysis

The teaching practice up to this moment has been conceived as an experience in a continuous process of development and professionalization that is built in the long term from daily activities, where a dynamic and complex exercise determined by various contextual elements, such as daily experiences, is recognized. , institutional training processes or the need to address specific problems. In this sense, teachers are creating a conceptual framework that guides the teaching task, which is complex, with young people whose expectations are diverse. Therefore, teaching implies a personal and collective construction that, based on reflection, must value the experience and dialogue about the work developed by the teacher and his environment.

As has been seen throughout this work, the paths through which teachers have traveled since their entry to the present day have been very different, with motivations and interests that are not always clear, which become even more complex. if there is no initial pedagogical training that favors the teacher-student-learning encounter, which would project a better way of directing teaching and would allow the development of students' skills within the framework of a discipline.

However, it is worth noting that the simple fact of having specific knowledge is not enough to favor a deep understanding of complex learning, as well as the skills to direct and guide students, which is evident in emergent situations such as generated by covid-19.

On the other hand, UPIBI teachers, as well as other educational institutions, find students with a “generation gap” in classrooms caused not only by a question of age, but also by the use of technology. In this sense, it should be noted that although students seem to have a certain competitive advantage in managing these resources, in practice it is shown that they do not know how to discern, analyze and synthesize the wide range of options offered by the Internet on any subject.

For this reason, it is necessary to know how to respond professionally to these demands, despite the fact that some students are reluctant to dialogue with teachers on this subject. To this must be added the challenge that this fourth industrial revolution is beginning to impose, where the trend is to handle most things in a virtual way, through technological networks. In this sense, it is true that the new generations of young people today operate in technological and unstable contexts. However, it is not enough to manage technology, since the issue lies in being digitally competent (Bringué and Sádaba, 2008).

Therefore, alternatives are needed to meet the training and personal development needs of teachers, since the lack of effective solutions to the demands of students is increasingly evident. Simone R. (2001) proposes an approach to the new generation where “the means of production and diffusion of culture introduce modifications in the contents and modes of thought (...), by the use of the 'non-alphabetic vision'” (p 163).

This means that today's students learn through images, which results in poor writing, poor vocabulary, "unprofessional" language, as well as spelling mistakes, etc. In short, “young people, as intensive consumers of images, tend to non-propositional language, which is generic, vague, does not give names to things, but rather alludes, using general words, within which it can be included whatever you want ”(p. 166). This, obviously, causes a total rejection of literacy, which makes analysis, contextualization and meaningful learning difficult.

Aware of the above, from an exercise of self-reflection, key elements in the teaching work are recognized, which enrich and promote the professionalization of the teachers of the National Polytechnic Institute. For the training of the teaching staff, the functional analysis is based on the suitability of being a teacher at the IPN, in order to contribute to the development of both theoretical and methodological skills, and to bring the teacher closer to the progress of their discipline without neglecting their development personal as human being and member of the polytechnic community (IPN, 2017).

Discussion

It must be recognized that although training, updating and professionalization can be nurtured through formal actions such as courses, workshops and diplomas, the exchange of experiences in different spaces also plays a preponderant role (congresses, forums, meetings, collegiate work among teachers, etc.), which offer immense wealth, since they promote learning and continue updating the teaching profession.

Having said this, the following are reflections of the professors interviewed from their teaching practice, as well as the challenges they face towards professionalization. For Professor María de Lourdes A. Torres Díaz, teaching is defined as follows:

Teaching is a profession whose purpose is to train critical, reflective and innovative people, with the intention of facilitating the analysis and reflection processes in students so that they are able to think, learn, provide solutions to personal, work or social that are

presented to them and innovate; therefore, I consider the following proposals aimed at a teaching professionalization:

- Carry out courses on the use of information and communication technologies making efficient use of these technologies in my teaching work environments, applying them in the development of teaching strategies aimed at achieving active learning and empowerment of students in its insertion in the globalized world.
- Training as an educational researcher, since it calls her attention to raise and respond to questions that frequently arise in educational environments, in addition to recognizing the importance of relating research to teaching and linking, recognizing that if there is educational research, the quality provided by each academic unit and the IPN itself will benefit.

Professor Juan Manuel García Velazco defines teaching professionalization as follows:

This represents a great impact on teaching, since it allows the teacher to provide quality teaching. I am aware of the importance of teaching professionalism that implies practicing the profession with relevant capacity and application. Personally, I am also aware of my mediocre teaching practices, that is why today I highlight the need for true professionalization due to the influence it can have on teaching.

Among many other possibilities, for me finding the path of my professionalization is to strengthen collegiate and collaborative work, give more importance to tutorials and advice, and recognize student learning as the axis of professional teacher development.

For Professor Engelbert Linares González, professionalization is conceived as follows:

The need to keep a constant update. Assume the commitment as a professional responsible for their training both in disciplinary and pedagogical terms, regulate the students' learning in knowledge, procedural actions and social communication skills.

From the professionalization, articulate pedagogical and disciplinary knowledge through the execution of auxiliary disciplines. Support new teachers by guiding towards an improvement in their activity in front of students, encourage collaborative work within academies aimed at meeting institutional objectives, participate in institutional projects, research and innovation networks, actively participate in academic events outreach with the aim of sharing experiences that enrich the professional training of the IPN teacher.

Dignify the figure of the teacher, assume commitment and responsibility in student learning from the implementation of teaching-learning strategies and resources in which ICT are incorporated to address the challenges posed in a 4.0 education.

For Professor Ofelia Torres Alonso, teaching is perceived in this way:

The need to innovate my work in front of the classroom; It is clear to me that the students we receive today are different from what they were when I started teaching, even the interests of recognition of the professional development of the teacher and educational reforms have changed.

As stated by A. Glatthorn, the professional growth that a teacher achieves as a result of their experience and the systematic examination of their teaching work should include their professional experience, their specific training within the field of teaching and their formal teaching professionalization (attendance at congresses , courses, workshops, etc.) and informal (readings, professional publications, non-specific learning, experiences, etc.), same that much of what I have studied has been given to me by the IPN.

To all the changes that have occurred in education in the face of globalization, the use of ICTs more and more has turned teaching upside down, since today information is available to everyone, only that we must know how to lead students so that they achieve a good analysis and synthesis of the information that comes to them more easily every day, but that many times they do not know how to discern. Taking on myself as a teacher with ICT has been a change in my actions, in addition to assuming the enormous responsibility.

As can be seen in the teachers' testimonies, and in response to the research questions posed, the role of the teacher in the active construction of knowledge can be reaffirmed, since it is the teacher who guides, promotes and coordinates the teaching-learning activities. This, logically, implies an extraordinary challenge that must be focused on the development of competencies (knowledge, skills and attitudes) to acquire habits such as reflection, communication, interaction, divergent thinking and creativity. In other words, teaching practice should not be conceived as a unidirectional process of knowledge transmission. The role of the teacher, therefore, should focus on fostering in the student an attitude of constant search, so that she can understand and solve problems so that they enhance their personal, work and social life.

Conclusions

In this work, it has been shown that each interviewee has a particular vision of what it means to be a teacher, which is based on their daily work, on expectations and on the particular development experienced throughout their work trajectory. To recognize this unique vision of each teacher, it was necessary for each one to carry out a reflection exercise, which allowed them to recognize those actions that became a watershed in their training.

In fact, according to the opinion of the interviewees, it can be said that the beginning of the teaching work was complicated for them, since at the beginning they lacked didactic knowledge, and only had their initial academic training and work experience. However, as time progressed, double bass and effort, teachers forged a character and commitment in their professional work, which allowed them to commit to being better people and education professionals through training and updating to achieve a significant improvement in your work.

However, due to the uncertainty that is currently experienced as a result of the health contingency, there is an unprecedented opportunity in professional practice to train. In this sense, professionalization emerges as a need to rethink educational processes, seek innovation and improve professional practice according to new times and contexts, where electronic resources play an important role in accompanying not only the student, but also the the teachers. The objective must be to move towards educational models whose base is to train people for life, from open and flexible educational systems that are shaping up to distance education.

This must be addressed because today's students have grown up in the middle of a digital context, where the predominant interaction systems are social networks. To do this, however, teachers also need to be trained, so that they can take advantage of the pedagogical possibilities offered by technology.

It is time, therefore, to abandon old academic practices: leave the comfort zone to face a new reality that, from the covid-19 pandemic, will generate new directions in a different society that will demand a greater sense of responsibility and commitment. .

In short, students must be prepared to face a different future, in which an understanding of problems from a social perspective will be required, as well as the values associated with professional performance and, therefore, linked to the professional's competencies.



Future Research Lines

Once the research work has been developed from the review of the various sources consulted and the analysis of the experiences of teachers in their academic career, lines of research have been revealed with which this topic can be improved; Here are a few:

As teachers of the IPN, it is considered necessary to attend to the areas of opportunity that arise within the academies, since in it the various training and updating needs of the teachers are manifested, so work would be done to evaluate the relationship that it exists in academic work and teacher professional development.

Another line of research that emerges is the qualitative analysis of the various teaching-learning strategies aimed at achieving an appropriate level of professional development in providing students with the relevant knowledge and skills with a high level of thinking that facilitates their analysis , interpret, solve and innovate present and future situations in relation to their personal, family, work and social life.

Analyze and evaluate personal development based on the experience and maturity present in the teacher, from the self-knowledge of him as a person and the role he plays as a trainer of integral people.

Finally, the teacher must have a strong commitment to the institution, so it is considered important to assess the various skills for group management, assertive communication, be respectful with the community and show a social openness with a gender perspective.

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