

THE RESEARCH TEACHER AS A FACTOR IN THE TRANSFORMATION OF SOCIETY: REFLECTION ON HIS ROLE IN THE CONSTRUCTION OF KNOWLEDGE, HIS OWN PRACTICE AND THE CONSTRUCTION OF KNOWLEDGE NETWORKS

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ABSTRACT

The paper presents a reflection on the role of the research professor as a factor of social transformation based on his role in the university and his participation in the substantive functions of teaching, research and extension. It analyzes how their actions contribute to the construction of knowledge, to the improvement of their own practice and to the construction of knowledge networks that involve students in the action of research so that they can contribute to their context and respond to the needs of society. The reflection is based on the consultation of twenty research articles on research in the teaching profession. It is concluded that research requires a teacher profile that allows him/her to act in various scenarios where his/her decisions directly influence the development of research skills in the student and the construction of a research culture.

Keywords: teacher, research, society, university, teaching.

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INTRODUCTION

The mission of the university of the XXI century configures it as the main source of knowledge and elements for the technological advancement that allows the development of the society that coexists in its environment. Research action is therefore a fundamental resource for the fulfillment of this intention and therefore one of the fundamental actors in the whole process is the teacher in his role as researcher.

It is appropriate to emphasize the importance of research conceived from different perspectives to be present in the formation of the individual at all educational levels, since its impact has been relegated only to scientific study in formal fields and as part of the university curriculum, however, for the university to make its mission effective it is essential that the student from an early age develops competencies and skills in research that allow him to reflect on the society in which he lives, its needs, problems, strengths, opportunities and potentials, reasoning about his social responsibility.

This paper presents the authors' reflections on the research teacher as a factor of change in society, addressing his role at different educational levels, his research work to improve learning processes, the need for research to improve his practice and his role as a node in knowledge-building networks.

Research as the articulating axis of all educational levels.

The *raison d'être* of the university in the 21st century is to generate scientific and technological knowledge that produces goods and services at the service of communities in order to improve the quality of life and therefore raise the development of a nation which is directly linked to education, science and technology. According to UNESCO (2016) the relationship between society and science must be reinvented, since science must not only respond to the needs of society, but scientific knowledge must be available to the whole society, so that its dissemination must be increased and literacy must be carried out so that people understand its language.

It is up to education and teachers to build the means to produce knowledge linked to the socio-historical reality that is lived, so research is constituted as a fundamental activity in social construction (Gonzalez Roys, 2019). Research should be a process that accompanies the formation of the individual from an early age, since the questioning of what happens in their environment generates awareness of their role in it and therefore a sense of responsibility for the actions they

carry out.

According to the above, research activity should not be exclusive to the university, but should be present in the pedagogical processes at all educational levels, since they allow reflection and self-reflection to question the world and the subject's actions within it (D'olivares & Casteblanco, 2019). Given this need, it is essential that the teacher, is trained as a researcher, according to Gomez, J. (2018) must possess basic research skills that allow him/her to transfer the knowledge that facilitates carrying out the research; methodological skills that allow developing the skills of other people and enhance in their students the skills that each one possesses, and professional skills that are related to ethics, values, creativity and innovation that the researcher must possess.

Although it is true that research is a substantive function of the university, many of its processes are limited by the student's perception of what each of its activities implies, so that training in research from early ages and school stages prior to professional training allows the student to consider himself as an actor in the process capable of recognizing and freely executing transforming practices coherent between what he does as an individual and as a member of a social collectivity (Gonzalez Roys, 2019).

THE RESEARCH TEACHER TRANSFORMER OF PEDAGOGICAL PROCESSES

The teaching-research relationship in the university in the third decade of the 21st century is synergic, because the teacher is a node in the network that is created around the research act, since he is the actor who generates the space to induce the student to be immersed in the community, accompanies and often creates the research project, creates research seedlings, participates in formal research groups, disseminates in scientific communication events and interweaves inter-institutional knowledge networks (Flores Nessi et al., 2019, 2020).

Although teachers can exercise a variety of roles not only in their classroom environment but also in other disciplines, in some cases their practice has been limited because there are no guarantees that they can perform autonomously; on the contrary, they have focused on imparting or transmitting knowledge. In higher education, the creation, design and implementation of curricula in many cases based on superficial competencies and that do not take into account the real interests of the university community, cause both teachers and students to bias the real academic, pedagogical and professional work that leads to research activities, therefore, there is no reflection and sensitivity to the demands of a society full of challenges and challenges that of course require

studies and strategies for a transformation of impact not only locally but also regionally, nationally and globally.

In this sense, Martínez et al (2020) state that the ideal for an adequate teaching exercise and under the profile of a researcher is to consider the competencies that allow the teacher to contribute to a social practice as infallible. These competencies include pedagogical competencies based on didactic, methodological and evaluation resources. Research competencies that focus on creating, discovering and innovating from science and technology. Cognitive competencies that allow the teacher to be in permanent learning and analysis and thus identify the benefits of research for the good of the community. Finally, personal and participatory competencies where teachers are deployed as leaders, challenging, aware and flexible to changes.

The meaning of teaching today is that of guide and presenter of a real panorama of society to the student, it is a companion in the search and construction of knowledge that is constantly updated, so its goal is no longer that the student learns, but that he learns and detaches, achieving a plastic paradigm of its context, which is able to recognize the changes, accept them and use them in their favor to contribute to individual and collective growth and development (Pinchao Benavides et al., 2019).

The role of the research teacher in education is to energize and integrate the processes of learning, application, reflection and communication of knowledge by students through different actions that lead them to understand how to act flexibly with their knowledge in the environment to solve emerging problems of the needs in different areas (Pelaez & Piedrahita, 2018). In this order of ideas, and as stated by Palencia (2020), *“it is necessary that from the initial training there are conditions for the growth of research skills and competencies, which ensure teacher researchers; at the same time, the exercise of teaching requires stimuli and recognition for those who do research in the classroom”* p. 114.

Of equal importance, the coherence and congruence that should exist between the mission and vision of an institution of higher education and what society really demands in terms of solutions that from the research roles can strengthen the different systems should be emphasized. It must ensure to provide motivation, time, space and permanent qualification so that teachers and students increase their interest in going beyond their role in the classroom as facilitators of topics and experiences, until as a team they do not stop to analyze and understand those situations and realities

that require treatment and study looking for an improvement of environmental, technological, ethical, emotional, social and cultural impact.

In line with the above, research enables the restructuring of the knowledge discussed at the university and at previous levels of schooling, therefore, the researcher teacher transforms pedagogical processes in all fields and disciplines of the curricula, since he/she is able to identify the connection between the knowledge built and his/her didactic knowledge in order to optimize the understanding of an increasingly dynamic and technified environment.

In the case of Colombia, there are many difficulties with the research teacher in the school, according to Echeverri-Alvarez (2016), the little consideration in the school of the importance of research, the unfavorable conditions for the teacher to research and the nonexistent spaces for the teacher to conduct research, are barriers that do not allow research in Colombia to develop, and the teacher to produce new knowledge. Another unfortunate difficulty is that when schools have research teachers, they do not know how to take advantage of them, and when they obtain research results, they do not know what to do with them. In other words, the research teacher in the Colombian school is not valued and therefore does not have the resources to carry out research projects that allow him/her to transform the community where he/she works.

On the other hand, research in Colombian higher education has been consolidating in recent decades. Research courses are taught in teacher training colleges, in the faculties of education future teachers are trained in research, and through the “*seedbeds*” which are extracurricular spaces for the strengthening of research skills, with the support of a researcher teacher, projects are carried out to solve problems present in the context. In these seed groups, the research teacher, first of all, fulfills the task of training new researchers and, at the same time, conducts research that benefits society, seeking a better quality of life for all. The Colombian teacher-researcher is then an agent of change, who through his projects seeks the transformation of society.

THE RESEARCH TEACHER TRANSFORMING HIS OR HER OWN PRACTICE

The challenge of the university is the flexibility and transformation in the conception of the role of the teacher and the knowledge that is transmitted, these actions must rest on a conscious choice of the epistemological bases of the knowledge that is presented to the students, because it is from that starting point that the role of the teacher researcher as a real agent of change is focused. Many institutions at all educational levels enunciate their mission on postulates of contemporary

pedagogical currents and models that conceive the teacher as a companion in the construction of critical thinking, however, in practice, transmissionism continues to be the central axis of the teaching task and the research activity is relegated to checking the elements that the written document of the degree project must have.

Teaching seeks research from the need to apply knowledge in the reality of both the student and the teacher (Becerra & Cristancho, 2018), so it improves teaching from different perspectives: As an activity to achieve student learning and generate research competencies in them, as a reflective action that allows the continuous improvement of pedagogical practice when researching on the teaching action itself and as an action that allows generating new knowledge in different disciplinary fields, so that research enriches the teaching work and turns it into an agent of change with an enormous potential for social transformation.

Social transformation is directly linked to the political actions carried out by the government of a nation and that affect the economic, health and education systems, among others, therefore the teacher or researcher becomes a factor of change in society when he/she is aware of his/her context, recognizes it and identifies the pedagogical and didactic actions to be carried out for the application of disciplinary knowledge in the search for solutions to the needs of his/her territory through research (Reis-Jorge et al., 2019).

According to the above, the teacher's praxis is at the same time a "natural laboratory" that gives him/her the opportunity to investigate his/her own practice, observe, reflect and make decisions with a view to improving his/her classroom work, which makes him/her a factor of constant change in his/her professional performance.

THE TEACHER-RESEARCHER, BUILDER OF KNOWLEDGE NETWORKS

The social responsibility of the research teacher in the face of the demands of society is enormous, since he/she must ensure an ethical development of the research activity, which is oriented both to individual and collective progress, which contributes to the fulfillment of the mission of the educational institution and therefore achieves the articulation with the company and the state, having a profound impact on the attention to the needs identified in the environment (Flores Nessi et al., 2020).

From his role as a researcher, the teacher is the starting point in the construction of knowledge

and elements for technological advancement, since he induces the student to relate to his environment, observe it, analyze it and understand its needs, to subsequently identify the problem situations that require attention and are an opportunity for new knowledge. It is the teacher who guides the research groups and weaves institutional and inter-institutional knowledge networks that deal with the search and application of knowledge that impact the environment and thus cause a transformation of society in scientific, disciplinary, ideological, political, legal, economic, artistic and cultural processes.

The role of the research teacher in Colombia has not been sufficient to provide solutions to problems that have been embedded in society since the first years of republican life, violence for example has been a constant, however the task of the research teacher should be to continue researching and training new researchers who in the medium term can achieve a social transformation of difficult scenarios such as those that have marked situations such as violence, inequality, poverty, among others, hindering the construction and access to knowledge throughout the national territory.

CONCLUSIONS

Research is an activity that generates knowledge instituted from the teaching praxis, who, aware of his social responsibility, reflects on his role, his practice and his individual freedom to commit himself to participate in the construction of knowledge.

It is necessary to promote a research culture from the first years of school life so that all members of society become aware of their role as transforming agents of the context in which they live, where both the teacher and the student must be active protagonists of this activity not only to implement the curriculum, but also to realize the activities of the extension of the university.

It is of vital importance that the teacher-researcher has the competencies and skills to perform his work, since in this way he will be able to build knowledge in terms of new knowledge, in the pedagogy of his discipline, in his practice and thus will trigger a higher qualification of professional training and a positive impact on the quality of education.

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