Research Paper Education

# Training of Researchers Phd. Perceptions and Challenges

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**ABSTRACT**

It is a phenomenological qualitative research to understand experiences and perceptions (Rogers, 1959/1978) of teachers, students and graduates 8 doctoral programs of the State of Chihuahua, Mexico. It seeks to recover the subjective reflection on the processes of training to understand the way the training of researchers is made and propose actions to improve the efficiency and quality of Educational Research, also contribute to the improvement and consolidation of those elements that It depends research capacity within the processes of formation of researchers. The technique of in-depth interviews and survey was used. 16 teachers participated doctoral students from 30 different programs and 16 doctoral graduates. It highlights actions and attitudes of students as self-training exercise, aspects of heterotraining as the necessary academic support and collective participation in the production of knowledge are identified.

**KEYWORDS** doctoral training, research, evaluation.

Introduction

Research promotes social and economic development in Mexico, according to the National Development Plan 2013-2018. There is a need to conduct research and facilitate research processes by linking education and research with the productive sector (DOF, 2013) centers. The higher education institutions have a responsibility to train professionals to propose solutions to educational, social and other sectors of development of science and technology through graduate programs, especially in the doctoral problems.

Currently, we see that the interest in conducting research increases constantly, increasing the number of people entering graduate school, conferences are increasing and production has expanded considerably. Research Congress organized by the Mexican Council of Educational Research from 1981 in which national and foreign researchers every two years involved is identified. This congress documents published and realize research arise, these states of consciousness that are made by grouping production for decades with an analytical and thoughtful sense are included. It is considered that therisa close relationship between the development of educatioal research in Mexico and the process of scientific training of researchers who will carry out that task. However, there is a strong imbalance between the considerable interest generated in Mexico about research and evaluation for the quality of programs and little concern shown in the training of researchers. This strong imbalance is due to the formation of researchers has been a recurring political speech in the Mexican educational system in recent decades, however, the number of graduates, but not the number of researchers is not so safe production of knowledge in education.

This research aims to understand how the training of researchers is made, in order to propose actions to improve the efficiency and quality of educational research. The training of researchers, in the beginning, was scarce and was until the late 90s when he increased the number of doctoral graduates. In this decade, the National Council for Science and Technology (CONACYT) drove the Register of Excellence programs, in order to assess externally to the institutions that were offering graduate studies in exchange for scholarships and incentives for students, but he neglected vocational training. So there is the need to monitor the training of researchers and create a policy for the training of researchers and trainers.

**Therefore the following is proposed:**

How heterotraining process takes place in the doctoral programs of the State of Chihuahua and how it can be improved from the curricular perspective? How the processes of self-training of PhD students and what personal resources demand their training as researchers develop? How can we improve the training of researchers in the state from the perspective of the users?

Theoretical foundation Scientific research since the first decade of the twentieth century has been protagonist of substantial progress in different aspects of human life. In the last two decades it has changed perspectives and paradigms that guide their findings towards solving real problems, recognizes research as an economic resource and a political right to the exercise of power and especially collective participation of researchers organized networks and teams who are interested in making contributions that impact the lives of human beings in general.

However, in Mexico, even a low number of research teams, disproportion between the actual needs and the ability of scientific answer as well as the uncertainty of policies to guide in scientific development and the absence of mechanisms to link research is identified the most urgent needs of the population (Sanchez and Espinoza, 2005).

The growth in the number of programs offered reflects the importance of graduate education. According to data from the National Association of Universities and Institutions of Higher Education (ANUIES) in 2007 they were offered 5,875 graduate programs with a student population of 162, 003 students, data show the tremendous growth of supply and enrollment this level of education. However, an analysis of the

quality of graduate education in Mexico, especially doctorate is required.

Recently, some institutions took interest in increasing the number of graduates without considering the quality and purpose of the educational program. This caused an education focused on producing "a knowledge of" rather than a "know-how" research. Moreno (2005) argues that in many cases the institutions offer graduate programs very poor, showing lack of infrastructure and little academic rigor in the selection of the candidate selection process and the granting of degree; but also it believes that there are institutions that offer quality graduate and inter-enrichment.

The training of researchers According to Moreno (2005), training constitutes or mediation procedures that are used to support the learner. Training refers to the practice, function or profession to be played by the individual in training (Navia, 2009: 212). To Yurén, Saenger and Navia (2005) training is a socio-cultural process or practice that goes beyond education, socialization experience is framed by linking the subject with others in a personal-existential level.

The training involves processes of subjectivity of students and teachers involving transformations in the dispositional system of the subject and structuring their forms of identification (Yurén, Saenger and Navia, 2005), requires processes and self- heterotraining. It distinguishes the self-training as a personal resource that results from the subjectivity of the student and that is at stake in the processes of sharing experiences with others (students and advisors) from which it is intertwined with the heterotraining and from This network will reach the training as a researcher.

Self-education is a process by which the subject takes over the direction of their training (Navia, 2006), with an intentionality that involves being with their attitudes, rules and expectations of achievement. These spaces of autonomy define the training of researchers in a self-teaching process where the student intentionally seeking knowledge about their own objects of study.

The heterotraining, meanwhile, refers to collective or social group experience where other people (consultants and partners) are an important component of behavior in each student as the historical experience that communicates in institutions social permeates all aspects of human life, as knowledge. It is therefore important to recognize the knowledge of former researchers (Sanchez and Espinoza, 2005) affecting new researchers as practical knowledge, which refer to the knowledge of the tutor who is active in the production of knowledge and disseminates findings.

The method
The phenomenological method was applied as it broke the internal framework of the investigation. He considered their experience during their training in the program and the interpretation of internal framework thereof (Seiffert, 1997). Depth interviews with 16 graduates, 16 interviews with program advisers and a mixed questionnaire to 30 doctoral students were applied.

The data were analyzed using discourse analysis, resuming structural analysis proposed by Piret, Nizet and Bourgeois (1996) and the Atlas software was used. Ti.

Results
Attitudes and actions in self-education researcher. Expectations for admission to a doctoral program are important because they reflect the perception of form as a research student. Only 53% of those admitted to doctoral programs recognize that they were interested in conducting research, 47% were admitted to improve their academic background and have job promotions. 47% think that entered the doctoral program because it had the research of interest, but 53% were admitted and adjusted to existing lines. Which shows that conducted an investigation that was not within the field of knowledge of interest, which affects performance during their training as a researcher. 59% believe that their expectations were not met graduation, while 41% said the opposite.

The reasons for studying a doctorate are taking an ethical and political stance, favoring vulnerable, provide education, professionalism as a teacher in higher education, a degree more of a taste for studies and research. Attitudes formed as a researcher who is assuming the role of investigator, to study oriented training of research, reading habits, perseverance, commitment, overcome fear, spread what occurs, greater commitment and dedication and finally network with other researchers, that is linking students with experts.

The requirement in collective self-education 53% agree with the methodology used in each of the programs, but 47% suggests changes in ways of approaching research issues.

88% believe that the meetings should be in person, only 12% think that may be virtual, because of the complexity of the task of investigating.

Is seen as the ideal tutoring, 76% maintained good communication with tutors or trainers, 24% recognized that the communication should be improved. For 53% of participants maintained good communication between students and 47% suggested that should be improved.

From the perspective of the students tutor-student relationship is crucial in the formation of the researcher. The dynamics of this relationship influences the depth and rigor of knowledge production that, besides the timely monitoring of student research and support in social activities and exchange of experiences (Sanchez and Evans, 2005) achieved.

An important step in this tutorial working relationship aspect is the emotional aspect, since the feel accompanied motivates him to continue the research work is not easy.

The elements of heterotraining perceived as indispensable in the process of formation are: curricular spaces, experiences and knowledge of consultants, interdisciplinarity,human attitude of the tutor, the process of mentoring, joint approach to publishing and tutor.

The aspects of the programs to be improved is the allocation-of time as it is considered to be devoting more time to the discussion of epistemological and methodological assumptions.

**Activities greater impact on heterotraining are:**
Devote more time to research, analysis and collective discussion with experts. Encourage the publication, open spaces to communicate findings, promote interaction among students, doctors carefully select the program and select candidates and engage

students in institutional research projects. The need for students to participate in the program evaluation is recognized. 18% participated in the program evaluation activities, 82% no. Students in doctoral programs do not participate in the evaluation process lose

the opportunity to make contributions to improve the evaluation should be open, participatory and discuss the results and act accordingly.

Conclusions
The training of researchers is a process that involves attitudes of self-education and self- education for the heterotraining as a result of a collective work of negotiations regarding the production of knowledge that demands linking student-stu-

dent and student-tutor from processes joint epistemic-methodological reflection and discussion. Tasks to be developed carefully and not divert attention to issues that have no direct relation to the learning process of the researcher.

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