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Strengthening university academic commitment in
Colombia: the need to train research and teaching
assistants*

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Abstract

The studies that have been carried out on student participation mostly refer to an individual participation in which emphasis is placed on the academic achievement and individual aspects of the student. However, the importance of promoting an institutional academic commitment in which the student contributes to the construction of the university, either by participating in research or pedagogical activities, is not emphasized in these studies. From this perspective, universities in Colombia should promote institutional academic commitment, through academic and economic incentives for students who support teachers in the implementation of research projects, and in activities that support teaching. In this way, students are encouraged to be part of the university community, and to go beyond attending classes.

Keywords: Academic achievement, research assistants, teaching assistants, student participation, meritorious scholarships.

Introduction

Many students who enroll in Colombian universities think that the main sense of going to college is to take classes that prepare them for a professional career (Abello and Pardo, 2014) or to find a qualified job that will provide them with a long-term economic livelihood.

Activities related to formative research, such as classes in research methodology, statistics, and research seedlings, are seen by some students as distant, complicated, and not very useful within their formation process, since they fail to see their direct applicability¹ (Aldana de Becerra, 2012). The typical behavior of many students is to take classes and strive to pass and graduate, but without participating directly in other academic training scenarios (Rojas and Méndez, 2013).

Therefore, it is of utmost importance to take up again Article 11 of Decree 80 of 1980 (Ministry of National Education, 1980), which defines the freedom of learning as the freedom of the student to access all sources of scientific information and to use that information to increase and deepen his or her knowledge

The previous situation, then, invites academics from higher education institutions to reflect on the meaning that students are being taught to do research (Rojas, Méndez and Rodríguez, 2012), the advantages of professional projection that it offers and its social sense, since there is a tendency to teach research procedurally, but without a reflective character that motivates students to participate in formative research activities (Córdoba, 2016; Pineda-Báez, Bermúdez-Aponte, Rubiano-Bello, Pava-García, Suárez-García and Cruz-Becerra, 2014).

Thus, several authors agree that there is greater learning and knowledge on the part of students when they are strongly committed to their education (Córdoba, 2016; Pineda-Báez, Bermúdez-Aponte, Rubiano-Bello, Pava-García, Suárez-García and Cruz-Becerra, 2014).

1. Many academics and students according to Aldana de Becerra (2012) consider that research in the strict sense is only for those who are doing postgraduate studies for doctoral or masters degrees with emphasis on research, but could start from undergraduate.

From this perspective, this article aims to propose a new way of conceiving the academic commitment of students, as well as suggesting strategies aimed at strengthening it in Colombia.

Traditionally, studies of academic commitment have focused on describing it as the physical and psychic energy that students invest individually to participate in academic and extracurricular activities (Zapata, Leihy and Theurillat, 2018; Peña, Cañoto and Angelucci, 2017; Mehdinezhad, 2011; Astin 1999), depending on their academic achievements and the possibilities they have to integrate into a student community, but almost no study has raised the importance of academic commitment in the construction of a scientific and academic university community; that is, a perspective of academic commitment in terms of institutional development.

From this conception of academic commitment, the academic community is not only made up of passive students who take their classes and are rewarded for their academic performance, but also of active students (Killinger, Spies and Runyambo, 2016; Martínez and Márquez, 2014) who not only see the courses foreseen in the curriculum, but also are committed to activities that strengthen institutional teaching and research (Petrella and Jung, 2008), with the purpose of projecting themselves professionally in the academic environment, as well as contributing to the projection of the educational institution in which they study (Büyükgöze, and Gün, 2017).

Therefore, this type of institutional academic commitment is based on: 1) a clear sense of institutional belonging; 2) openness to an academic vocation of a scientific and pedagogical nature; and 3) collective academic entrepreneurship, where the student is involved in the development of products and intellectual projects as proposed by Restrepo (2003).

In order to promote this in students, it is necessary to change the way in which teaching and research activities are conceived as belonging solely to the teachers because of their experience and training (Romero, 2007); and to give students a greater role and responsibility in support of this type of work

(Ariza-Hernández, 2017)², generating for the latter new roles formally established within the scientific research projects as "research assistants"³ and in the classrooms, as "teaching assistants"⁴.

The idea is that students are offered spaces for experiential education and training under the supervision and accompaniment of teachers (Madan and Teitge, 2013; Petrella and Jung, 2008) to exercise both roles, and that they finally lead to alternative forms of institutionally certified professional qualifications⁵, which allow students to project themselves into the academic world in the long term.

As additional incentives⁶ that motivate students to exercise the roles of "research assistants" and "teaching assistants" together with the degree, significant incentives could be offered such as half scholarships (Guzmán and Trujillo, 2011; Gómez and Celis, 2009), homologation of some postgraduate courses, and recognition of their work in scientific teaching publications. The aim is to make the academy attractive to university students, so that they feel more motivated to participate.

However, it would be pertinent to demand some basic requirements from those who wish to have the privileges of these auxiliary roles, in order to do a good job and not just for economic benefits. For example, they could be required to: 1) have remained in the educational institution during the first three academic periods or semesters of the degree program without interruption; 2) have an accumulated academic average equal to or higher than 4.0 points throughout those three periods; 3) dedicate at least six hours per week to the tasks assigned to them in the auxiliary role; and 4) commit to performing the auxiliary work chosen throughout the degree program, in order to demonstrate the necessary experience to qualify for the auxiliary role.

2. Students nowadays tend to enter universities when they are very young, so they require the accompaniment of their teachers to learn to be disciplined, responsible and to be able to clarify their professional goals.

3. For example, Restrepo (2003) reports that at the University of Michigan students were linked to research projects of teachers.

4. Gordon, Henry, and Dempster (2013) describe an undergraduate assistant professorship program at Virginia Commonwealth University.

5. For example, professional degrees with emphasis on teaching support or with emphasis on research support.

6. Guzmán and Trujillo (2011), refer to the importance of giving economic incentives to university teachers to promote research, but it is also relevant to do so with students in order to strengthen their commitment here.

To the extent that students are required and provided with significant incentives, they are more likely to be motivated to become involved in these auxiliary roles described above; which require for their formalization, to be included as formative activities with defined time load within the curriculum of all undergraduate programs.

Although currently there are research seedbeds and monitoring as training activities in research, these present some shortcomings that are listed below.

The Concept of "Research Seedbed"

The research seedbeds are spaces of formative research in which university students are instructed to develop research skills, and are made up of students who carry out research around a specific disciplinary subject under the guidance of an expert professor in that subject (Villalba and González, 2017; Quintero-Corzo, Ancízar and Munévar-Quintero, 2008).

According to Villalba and Gonzalez (2017), seedbeds benefit students because they promote independent, team, and directed work; they help them strengthen the methodological tools seen in class; and they give them tools to create research products.

Historically, according to Saavedra-Cantor, Muñoz-Sánchez, Antolínez-Figueroa, Rubiano-Mesa and Puerto-Guerrero (2015), the first university model to promote research was that of the University of Humboldt in Germany, but in the case of Colombia, research training began to be provided in the 1980s, when it was first included as a component within the curricular plans and activities such as graduate work and seminars began to be implemented, but it was not until the 1990s that the first research seedbeds emerged at the University of Antioquia and Caldas, and then gradually spread to other universities thanks to the seedbed promotion policy developed by Colciencias.

As a result of Colciencias' efforts, the Colombian Research Seedbed Network (RedCOLSI) emerged in 1998, convening the first meetings of research seedbeds at the national level (González, 2008).

Concept of "research assistant"

Research assistants are generally people from undergraduate or graduate programs who provide services in certain activities after a training process. It is also important to note that being a research assistant involves sharing different learning spaces (Calle, Franco, Londoño and Urrego, 2006).

Currently, universities have opened as spaces for formative research, research seedbeds, which arise from topics of interest to students, but are very similar to classes in research methodology, in that: they address mainly theoretical issues; they usually have few spaces for applied and contextualized research; and the contributions they make to scientific projects developed by teachers are restricted, because they are limited to generating articles, posters and products that generally tend to replicate existing knowledge.

It follows that, in the future, the research seedbeds should disappear and evolve into academic spaces for auxiliary research (Grenville and Ciuffetelli, 2013), in which students help teachers in: the search for specialized bibliography for their scientific projects; the application of instruments for collecting information; the synthesis of data obtained and in the writing of academic products such as articles, books and articles.

When we speak of student support, we refer to a collaboration guided and supervised by the teacher, who from his experience and career will give experiential feedback to the student (Kabakçi and Odabaşı, 2008), so that he learns in context how research activities should be carried out taking into account ethical, technical and personal aspects that are gradually modelled from the example of the teacher.

Curricularly, the training hours for the role of "research assistant" could be included from the fourth to the tenth semester in the undergraduate programs that last five years, and in the case of professional careers such as medicine or theology that last longer, they could go up to the last semester.

Within the hourly load, it could include support activities for the research teacher in context and also specific training hours in topics such as: scientific writing (Nigro, 2008), scientific-metric indicators (Torres, Cabezas and Jimenez, 2013), management of software programs specialized in data analysis (Rodríguez and Medina, 2014; San Martín, 2014; Elosua, 2009; Sanoja and Ortiz, 2007), among others that contribute to the training of students.

In this way, the student acquires experience in different types of projects with the same teacher with whom he or she has the greatest affinity, and he or she becomes a junior researcher.

Concept of "tutoring"

Tutoring⁷ is a space for teaching support in which a student in advanced semesters of a career is chosen by a teacher because of his or her good academic performance in a given subject, to help other students who have low academic performance in understanding complex issues, as well as in the preparation of articles and exams (Torrado-Arenas; Manrique-Hernández and Ayala-Pimentel, 2016; Cardozo-Ortiz, 2011). On occasion, monitors also support the teacher in class preparation and article grading, depending on the teacher's level of confidence in the monitor and the teacher's time availability.

Pedagogically, the spaces for tutoring, serve the student tutors and their peers, to learn to work collaboratively (González, García and Ramírez, 2015; Jiménez, 2015), strengthen topics seen in class and prevent low-performance students from dropping out of their studies (Castrillón, Sánchez and Vanegas, 2018).

However, in Colombia tutoring is usually sporadic because in many cases it takes place for a semester or year and lacks a common legal recognition⁸ for all universities in which the functions of this role, hours

7. The concept of tutoring is most often used in the context of higher distance education and some research is found under the category of peer tutoring.

8. Resolution 176 of 2013 (Hoyos, 2013) and Resolution 2212 of 2008 define the functions of the monitors of the National Learning Service (Díaz, 2008), but these do not apply to other higher education institutions, which have their own conceptions on the subject.

dedication, formal requirements to apply, economic or academic benefits that a monitor may have, among other aspects, that it is necessary to clarify so that they are constituted in spaces of formal academic participation that are attractive for the students.

Concept of "teaching assistant"

Bearing in mind that the monitor's role is sporadic and depends on each teacher, as the one in charge of choosing him/her, it would be convenient to open a formal space for those students who want to carry out teaching support tasks (Gordon, Henry and Dempster, 2013; Borgobello and Peralta, 2011), in which an application process with defined requirements would be defined⁹, and six hours a week would be assigned to carry out teaching support tasks: teaching support in the preparation of class materials such as guides, readings or workshops; support in the grading or evaluation of work and projects; as well as systematic monitoring¹⁰ and guidance to students with difficulties or low academic performance.

The student "teaching assistant" should keep a written record of the work done in these functions, which will allow the supervising teacher to keep track of his or her work and give feedback on positive aspects and on improving his or her performance (Arshavskaya, 2018). In addition, it would be good for the student "teaching assistant" to attend once a semester to take a training seminar on such topics as: teaching strategies, evaluation criteria, student accompaniment and other topics that will help him or her train in teaching skills.

In the long term, a student with a degree and experience as a teaching assistant could apply to work in academic positions with an administrative focus such as: academic secretary, student coordinator, academic coordinator or university welfare, where practical pedagogical knowledge is required.

9. For example, students who want to be "teaching assistants" could be asked to: 1) have completed at least the first three semesters of their degree with an accumulated average of more than 4.3 points; 2) have six hours of weekly availability to perform the tasks of this role; and 3) commit to this work until the last semester of their degree in order to certify it.

10. Part of the follow up implies having a confidential handling of the information of the advised students and reporting to the university welfare area, those students who have a high risk of dropping out of their studies.

11. A good accompaniment is of a personalized nature.

The idea is that students have the possibility to project their careers in a different way and from the undergraduate level gain experience in classroom contexts, knowledge of the needs of students and the role of teachers, so that they can formulate relevant projects and curricular proposals.

The educational role of teachers: preparing future generations

In order for the implementation of these types of spaces, such as "research assistant" and "teaching assistant", to become true university training scenarios, it is essential that university teachers commit to welcoming and accompanying those students who want to carry out these roles as part of their professional life project.

Achieving this requires that, within the functions of the teachers, along with the hours of direct teaching and research, hours destined to accompany and provide feedback to the assistants, which should not be more than three or four students per teacher¹¹.

One difficulty that may arise is that many teachers receive a purely theoretical and research training as part of their master's, doctoral and post-doctoral studies, but few receive the pedagogical tools to carry out the accompaniment required by student assistants and go beyond the evaluation based on grades, to make qualitative evaluation reports of the learning process of their assistants.

This means that the academic directors of each university would be responsible for training teachers (Montes and Suárez, 2016; González and Malagón, 2015; Padilla, López and Rodríguez, 2015), and showing them how to accompany teaching and research assistants, motivating them and helping them to project themselves as future generations of teachers and researchers.

Conclusions

The university is more than a space for the acquisition of content, because it is a community of people who appropriate the knowledge, research and teach it; but sometimes students assume that the

meaning of going to university is to take classes and obtain a professional degree to replicate knowledge, which is a limited vision of what it means to be a university student that is to learn critically and research about the scope and limitations of existing professional knowledge in different fields of knowledge to improve it and transmit it to others, either through teaching or research by participating in high impact academic events and making research products.

It is up to teachers to encourage this vision in their students and to link them in the roles of teaching and research (Demuth and Sanchez, 2017; López de Parra, Polanco-Perdomo and Correa-Cruz, 2017), inviting them to participate in extracurricular academic activities, showing them new forms of professional projection from the academy (Hernández, 2009), believing more in them and assigning them greater levels of responsibility through the roles of "teaching assistant" and "research assistant" that go beyond the conventional monitoring and research seedbeds, because they are directly related to research in the strict sense.

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