

## Enhancing PhD Education: Research Collaboration and Assistantship Insights from Columbia Teachers College and Georgian Universities

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### Abstract

Postgraduate education has always been a vital component of academic development, delivering specific expertise and knowledge and advancing innovation throughout different sectors of science and industry. In the context of an ever-changing environment, universities seek to improve their postgraduate programs by embracing successful models from different parts of the world. This endeavor of improvement necessitates an integrated approach to forward-looking postgraduate studies, designed to equip learners with the knowledge and competencies needed to thrive not only in conventional scholarly careers but also in a broader spectrum of positions within non-academic circles. All earnest efforts should be made to nurture the competencies of doctoral students to become applicable for diverse fields, such as industry, public or private sectors, non-profit institutions, and business organizations, therefore facilitating graduates to find their way in a competitive labour market successfully. The focus of this paper is to identify and analyze the advantages associated with experiential teaching and learning through professor assistantships and cooperative research in doctoral programs. This paper uses qualitative data and analyzes them from institutional policy documents and primary documents such as curriculum and policies for teaching/learning in postgraduate courses at Columbia Teachers College, NYU, and recent changes to institutional regulations concerning

doctoral education at International Black Sea University (IBSU). Additionally, it investigates specific mechanisms embedded in these programs that foster development at both the prospective academic and professional levels. The findings suggest that professor assistantships and collaborative research are considered valuable experiences that benefit both doctoral students and the staff of the university through the development of teaching experience, professional development, and mentor/mentee relationships. Finally, this paper gives insight and recommendations for Georgian universities based on successful models found and could have implications for the quality and relevance of doctoral programs and their ability to prepare graduates for the competitive and diverse labour markets.

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**Keywords:** Postgraduate education, professor assistantship, research collaboration, academic and non-academic community, labor market

## Introduction

The Professor Assistantship program offers teaching (Teaching Assistantship: TA) and research (Research Assistantship: RA) opportunities for graduate students, typically those pursuing their doctoral degrees. The specifics of professor assistantship programs may vary by institution and field of study; however, their key components are generally similar. An assistantship with a faculty member involves a range of activities, including observing the professor's teaching methods, reading, grading assignments or exam papers, conducting seminars and practical lab sessions, facilitating discussions, and proctoring exams. Under the research assistantship, they supervise BA and MA students' work on conference papers and consult with them on their theses. These programs provide valuable experience to PhD students in educational settings, as they promote collaboration between doctoral students and faculty members, scholars, researchers, and education specialists, intended to enrich the research process. This partnership has a wide range of forms, including joint project initiatives, co-authored papers, collective resources, and cross-organizational research programs. Because of the elaborate nature of research, teamwork is critical; research teams share significant knowledge, proficiency, and skill level, and by coming together, researchers form constructive and collaborative interactions that are often more advantageous and more impactful than self-generated research (National Research Council, 2015). Furthermore, working together makes leverage possible, allowing researchers to get the most out of their own results and outputs while enhancing all the benefits derived from their contributions (Wai-Chan, 2017). Besides, assistantships serve as a bridge between theoretical and practical knowledge. By leveraging acquired theories in real-life educational environments-observing, grading, proctoring, and leading the process-the PhD

students gain their understanding of teaching/learning practices that will benefit them in their educational journey.

Apart from the above-mentioned factors, assistantship programs are paid employment opportunities for doctoral students. They work for predetermined hours per week, and in exchange, they get a tuition waiver and a monthly stipend. The United States is widely regarded as one of the key destinations for pursuing an academic degree; however, this comes at a considerable expense. According to the National Center for Education Statistics (NCES) for the academic year 2023-24, full-time graduate students at public postsecondary institutions in the U.S. following an academic year calendar faced an average tuition and required fees of \$11,827. This figure originated from data gathered from 1,598 institutions. The expenses associated with tuition and living costs are significantly higher for international students. Although there are different sources of financial aid, including scholarships and student grants or loans, these resources are often limited and primarily based on academic merits. To alleviate this financial burden, a lot of the U.S. universities offer paid assistantships for graduate students, especially for teaching assistantships (TAs) and research assistantships (RAs); alternatively, it may include a monthly stipend or tuition remission. Hence, pursuing a degree in the U.S. is more affordable and accessible.

Engaging in teaching assistantships (TAs) offers graduate students a wealth of benefits that extend far beyond financial assistance. This experience deepens their understanding of their field by requiring them to explain and convey complex concepts to others. Through instruction, resource creation, clarification of ideas, and facilitation of student participation, TAs enhance their comprehension of the subject matter (Darling & Potter, 2021) and develop essential pedagogical skills. They refine their abilities in lesson planning, classroom communication, student learning assessment, and feedback delivery – skills critical for effective teaching. TAs provide diverse classroom support, including one-on-one guidance and small group instruction. Importantly, positive TA-student interactions correlate with improved student attitudes and perceptions of their learning (Wheeler et.al., 2017), suggesting that students feel more comfortable with course content and their own learning progress when supported by a TA. Conversely, research indicates that a TA's disinterest or failure to cultivate a positive and supportive relationship with students diminishes students' competence in the subject and significantly decreases their overall motivation to learn (Trenshaw et. al., 2016). Beyond the direct classroom experience, TAs also contribute to student engagement and social integration. Social integration, facilitated through co-curricular activities like joining clubs and interacting with faculty and staff outside of class, is vital for student success. Kamphorst et al. (2015) provided empirical evidence linking social integration and engagement, demonstrating

the importance of belonging for overall student participation. By actively engaging in these roles, TAs enhance the educational experience and contribute to improved learning outcomes for students (Freeman et al., 2014). Developing these practical and interpersonal skills not only enhances their immediate performance but also prepares them for future academic endeavors and provides a competitive advantage in the job market (DeAngelo et al., 2016). Furthermore, the mentorship and management skills acquired through TA positions are valuable assets beyond academia, displaying leadership and communication abilities that are highly sought after (Shannon et al., 2015). However, access to assistantships and productive research collaborations can present challenges for doctoral students. While TAs provide invaluable teaching experience and networking opportunities, gaining access can be difficult. Similarly, while productive research collaborations expose doctoral students to contemporary research methodologies, systemic barriers may impede equitable access. Access to primary research resources and competent, supportive advisors are also critical benefits of research collaboration. These collaborations offer opportunities to develop grant writing skills, prepare manuscripts for peer-reviewed journals, and build professional networks that are essential for career advancement (De Welde et al., 2015). Unfortunately, the current landscape of intrusive institutional structures and competitive funding may limit opportunities for assistantships and collaborative research experiences (Yampolsky et al., 2022), which can exacerbate existing disparities in access and retention within the research workforce.

## **Methodology**

As professor assistantships and research collaboration programs can vary widely, this section of the paper outlines comprehensive frameworks to evaluate the impact and effectiveness of these programs. To this end, two case studies will be presented, one from the internationally recognized Columbia Teachers College (the U.S.) and another from the International Black Sea University (Georgia). Based on both qualitative and quantitative data, this comparative analysis captures the peculiarities of these universities' programs, explores the varied experiences, and presents an overall perspective on the opportunities and challenges faced by the doctoral candidates involved in these programs. Additionally, visual aids, including charts and tables, will illustrate key points.

Data was collected using primary sources such as syllabi, institutional policies, framework papers, as well as surveys and interviews. Respondents were faculty members, authors of programs/program coordinators, and doctoral students engaged in assistantship and research collaboration programs. Moreover, the semi-structured interviews were designed to grasp the views of the program's target group, to identify the program's strengths

and weaknesses, to explore the gained skills, professional development opportunities, support mechanisms, and overall impact of these programs on students' academic journeys as well as the academic institution itself.

The combination of qualitative and quantitative results proved to be a valuable basis for illustrating the current state of these programs for PhD students and offers some recommendations for IBSU to share the experience from Columbia University to enhance these programs for better outcomes. This paper seeks to deepen understanding of robust professor assistantship and research collaboration programs in an ever-evolving educational setting, encouraging a discourse on best practices that benefit both prospective doctoral candidates and higher educational institutions.

### **Results of case studies**

For this research, two case studies-Columbia Teachers College and International Black Sea University-have been selected to dig deeper into the peculiarities of the assistantship programs, uncover both common and uncommon elements between these two educational institutions, outline the expected academic and time commitments, share valuable experiences from the U.S., and contribute to honing the assistantship programs in Georgian higher educational institutions.

To begin with, there are various assistantships available at Columbia Teachers College, having specific obligations, commitments, and compensation measures depending on the program offered. Assistantship types include Research Assistantships (RAs), Teaching Assistantships (TAs), Administrative Fellowships (AFs), and Course Assistantships (CAs). At Columbia Teachers College, assistantship programs offer graduate students both professional growth and financial aid. While peculiarities of assistantships may differ linked with each role, there are shared aspects that most programs have in common. With assistantship roles, graduate students get different types of compensation, including a mix of salary, hourly wage, and/or tuition credits in exchange for their work on teaching, research, or administrative projects.

Firstly, students involved in assistantships are permitted to work up to 27 hours per week across their assistantship roles. Along with hourly wages, some programs offer tuition credits as part of their compensation. Additionally, students may receive regular paychecks in agreement with the Teachers College payroll scheme, ensuring that students manage their funds easily while striving for academic excellence. It is also important to note that any earnings students receive from assistantship positions are considered taxable income, meaning they have a responsibility to ensure compliance with tax regulations. Students can gain a thorough understanding of all necessary details to make informed choices regarding their assistantship options at

Columbia Teachers College. These assistantships serve two primary goals: to support graduate students in alleviating financial burdens while helping them develop the academic and professional skills crucial for future success. Moreover, students involved in RA and/or TA have a chance to earn credit points and enhance their academic performance as PhD students.

Please find the charts below to have a better understanding of the types, duties, and compensation ranges of assistantships at Columbia Teachers College:

**Table 1:** Types of Assistantships, Their Compensation and Time Commitment

Assistantship Type	Duties	Work Hours per Week (by Semester)	Compensation Range	Tuition Credit
Research Assistant (RA)	Perform academically relevant research.	15-20 (Fall/Spring); 18.75-25 (Summer)	\$3,375 - \$9,000 per semester	Up to 9 points/year
Teaching Assistant (TA)	Assist professors with instructional activities.	15-20 (Fall/Spring); 18.75-25 (Summer)	\$3,375 - \$9,000 per semester	Up to 9 points/year
Administrative Fellow (AF)	Perform administrative services.	15-20 (Fall/Spring); 18.75-25 (Summer)	\$18 per hour	Up to 9 points/year
Course Assistant (CA)	Work closely with a faculty member to perform academically relevant tasks.	4.5 (Fall/Spring); 10 (Summer)	\$18 per hour	None

The case study results exemplify that the assistantship programs at Columbia Teachers College serve as a bridge for integrating theoretical knowledge with practice in graduate studies. Moreover, the robust structures and different types of assistantships are available, along with a diverse set of duties and responsibilities assigned to graduate students. The compensation provided (such as wage and/or tuition credit) and rigorous assessment criteria collectively prepare students to acquire essential competencies to become well-versed and successful academics in the future.

Another case study examined was the syllabus of the IBSU doctoral assistantship program in American Studies. The assistantship program proves to be a robust framework at a School of Social Sciences, Humanities, and Education at the International Black Sea University. The main objective of a course designed for doctoral students in American Studies is to closely connect theoretical knowledge with hands-on experience in higher education,



engaging the students in various activities at the BA and MA levels. The qualitative analysis of the syllabus demonstrates a strong alignment between theory and practice, equipping doctoral students with a deeper understanding of pedagogy. Moreover, the students are exposed to different activities, such as observation, grading the assignments, and running the discussions, which promote a favorable learning environment, preparing the doctoral students for their future academic paths. In addition, the focus has been made on communication skills enhancement, including verbal and non-verbal presentation skills that are critical for PhD students. The program supervised by any professor involved in the program is elective; however, it is mandatory for those who lack university teaching experience. The key activities of the course that includes 10 ECTS (250 hrs.) encompass observing lectures, assisting in planning and carrying out classes, holding seminars and lab works, assessing homework and exam papers, proctoring at exams, designing educational materials, supervising student research, and consulting students working on their thesis consultation (all at BA and MA levels). As for the learning outcomes, upon completion of the doctoral assistantship program, students are equipped with a mix of knowledge, including critical thinking, verbal and non-verbal presentation skills, collaborative techniques, and planning abilities. Furthermore, it should be noted that as part of this analysis, an interview was conducted with Prof. Dr. Ekaterine Pipia, the Head of Education Sciences PhD (in English) and Education Administration MA Programs, who has highlighted that IBSU acknowledged the importance of practical work for postdoctoral students. Accordingly, it has become mandatory for potential doctoral candidates to have experience in writing grant proposals and participating in international conferences, eventually leading to the publication of research papers.

### Comparative Analysis

To have a better understanding of the similarities and dissimilarities between the educational institutions' assistantships examined, a thorough comparative analysis has been conducted. The table presented below highlights the features of the compared programs.

**Table 2:** Comparison of Assistantship Program Features

	<b>Program Structure</b>	<b>Mentorship</b>	<b>Scope of Activities</b>	<b>Learning Objectives</b>	<b>Assessment</b>
<b>Columbia Teachers College</b>	Departmental Supervision	Dedicated Faculty Member	Academic, Instructional and Administrative Roles	Research and Teaching Skills Development, Professional Networking	Performance Evaluation, Portfolio Assessment
<b>IBSU</b>	Individual Supervision	Dedicated Professor	Focus on Teaching Support Only	Pedagogical Skills	Reports and Presentations

Based on this comparative analysis, it is evident that IBSU can learn some lessons from the Columbia Teachers College methods, renowned for their comprehensive and student-driven structure of assistantships. Here are some basic areas for improvement:

1. **Mentorship:** The assistantship program serves as a bridge between theory and practice. It would be better to shift from individual supervision to a department-centered structure aimed at supporting students in navigating their academic paths, allowing for a wider range of opportunities beyond the research work.
2. **Diversified Assistantship Roles:** When the emphasis is primarily placed on teaching support at BA and MA levels, it somehow limits the scope of activities for doctoral students. Once the assistantship expands on curriculum development, planning mandatory workshop/lab work, writing grant proposals, and providing administrative assistance not only to the dedicated professor but to other staff as well, it broadens the set of competencies, uncovers different aspects of academic life, and diversifies the future employment areas for doctoral students.
3. **Assessment:** A multifaceted assessment approach is fundamental for enhancing student performance. Diverse assessment methods that go beyond presentations or reports, including progress monitoring, constructive professional growth, and feedback made by both faculty and BA/MA students, are instrumental in identifying areas for improvement. This assessment approach aligns with the primary goal of preparing doctoral students for various academic positions and promotes their professional development.
4. **Compensation:** Considering that the assistantship responsibilities require high participation and time commitment from doctoral students, providing some compensation possibilities would be a valuable help to alleviate the financial burden of pursuing an academic degree for students.

To conclude, the examined professor assistantship syllabus for doctoral students in American Studies at IBSU proves to provide a strong framework; however, it can be significantly improved by sharing the Columbia Teachers College Assistantships experience. By integrating more effective mentorship and doctoral student-centered methods, diversified roles, and robust assessment criteria, IBSU can ensure that doctoral students get the support necessary for their diverse career roles as researchers, professors, educators, mentors, and other related positions. The proposed recommendations should be viewed as a roadmap for facilitating institutional changes at IBSU.



## **Obstacles on the way**

Given that assistantships encompass a wide range of duties, they can be very demanding for doctoral students. Some barriers are presented below:

### ***Lack of funding***

One of the key obstacles to successful assistantships and research collaborations is a deficiency in adequate funds. According to Stephan and Levin (2016), for assistantships, research partnerships, and the science enterprise, adequate funding is a necessity. The absence of funding provides little to no support, setting up a barrier to funding that can strangle innovation and limit researchers' potential, especially that of graduate students. Limited funding severely limits the breadth and depth of research projects, and it also limits access to opportunities and experiences of graduate research assistants and any collaborative projects. Additionally, limited funding may restrict access to or limit equipment, data, and personnel, hindering the possibility for transformational discoveries and innovations. For example, insufficient financial backing can restrict access to necessary tools, software, and data, which are crucial for conducting reliable and thorough studies (National Academies of Sciences, Engineering and Medicine, 2019). Moreover, inadequate funding can impede the ability to attract and retain talented and skilled researchers and constrain collaboration possibilities within the research community (Stephan, 2012). This situation also stays the same for IBSU, where the finances allotted for postgraduate studies are inadequate and often hardly meet the research needs of students. For this reason, students may find it difficult to pursue research projects, participate in conferences, or access to resources they need on this journey. Overcoming these financial barriers is crucial for fostering the potential of graduate students at IBSU and beyond.

### ***Time constraints***

Often, PhD students balance coursework, training, teaching responsibilities, and research, among many other obligations. When various demands compete for the same time, it can greatly affect available time for assistantship duties (Pyhältö et al., 2015). Furthermore, limited time and resources can lead to stress, burnout, and decreased well-being, which can negatively impact the strength of their assistantship program and their contributions to research (Evans et al., 2018; Levecque et al., 2017). Additionally, relevant support and unclear boundaries and expectations from supervisors may have effects on research productivity and overall doctoral experience (Metcalf et al., 2018). Most students are involved in employment in parallel with their tertiary education. One potential solution to this critical issue is to encourage participation through financial backing, performance-related bonuses, or other incentives. Tackling this prevalent challenge requires

a multifaceted strategy, including organizational adjustments, policy and structural changes, and social transformations. Earning money is necessary to cover education expenses. More efforts should be made by the university and the government to provide financial support to tertiary-level students. More resources should be allocated for postgraduate students who have high academic achievements but are in need of financial aid from the university administration, including scholarships, grants, part-time jobs, awards, or fellowships.

### ***Mentorship quality***

The mentorship quality under professor assistantships can differ significantly. Effective mentorship is vital to promote the growth of the student's professional competencies. The mentoring quality as part of assistantships has a significant impact on the development of students. Quality of mentoring is now recognized as critical to the professional skill development and well-being of students (DeCastro, 2019). High-quality mentoring has been related to increased levels of student motivation, improved research productivity, and academic achievement (Sverdlik et al., 2018). More specifically, supportive coaching can deepen students' research skill set, enhance critical thinking, and develop their sense of their own field. These benefits demonstrate an opportunity to engage PhD students in multidisciplinary and collaborative assistantships and research, which assists in student-generated learning. Thus, there is a greater opportunity to engage PhD students in multidisciplinary projects and further involve them in group work as part of their assistantships and research activities at IBSU. There is a well-established practice to encourage students to take part in the American Studies Annual International Research Conference, the Annual International Silk Road Conference, where students can make their presentations and publish their papers in the Research Journal and the International Scientific Conference proceedings in American Studies. This is a valuable tool for them to gain credibility, build a professional portfolio, and get recognition within the academic community. For this purpose, PhD student presentations of the doctoral dissertation blueprint at the end of each semester and scientific presentations at annual conferences are good examples. However, given that publishing papers in peer-reviewed and indexed journals is rather costly, the universities may consider providing at least partial funding for publication costs, especially for graduate students with high academic achievements, as an incentive.

It is noteworthy that the establishment of a scientific board is critical to guiding academic endeavors in the modern research community. Given that the Scientific Board is composed of experienced scholars in different fields, through collective mentorship, they guarantee each research project follows

rigid quality standards, including data collection and analysis and scientific integrity, thus mitigating the risk of biases, as well as ensuring the reliability of findings (Thompson, 2018).

To conclude, universities and national educational institutions can make valuable contributions to equip tertiary education students with the necessary competencies, provide support to navigate into the complex world better, cope with contemporary challenges, and embark on thrilling new professional adventures. To this end, it is advisable to provide numerous opportunities for doctoral students to attend annual national and international conferences, seminars, and workshops. This networking can facilitate building strong connections with peer researchers and industry professionals, resulting in more job offers and collaborations beyond graduation.

## **Conclusion**

In conclusion, this paper explored the role of professor assistantship and research collaboration at Georgian universities for improving doctoral student-quality outcomes, as well as its potential contribution to national development. The examination of the Columbia Teachers College Assistantships, in conjunction with the examination of international best practices, encouraged three key areas in which programs could significantly develop doctoral student preparation. First, structured professor assistantship experiences can improve pedagogical skills. Second, collaborative research design and experiences can build critical thinking and analytical skills for future leaders in academia. Third, these programs can also develop networks and partnerships that bring students into the wider community, thus creating career pathways outside of academia. When applying the analysis of the findings to the Georgian context, attention to funding streams and current departmental structures is imperative. While the Columbia model is a viable approach to assist in the exploration of the possibilities, it is unlikely that the program would be appropriately replicated. Instead, piloting programs on a phased basis within priority departments that align with national development priorities is arguably a more sustainable approach within Georgia. A potential challenge to implementing professor assistantships will be consistent funding for paid positions. However, partnerships with private sector companies in developing paid positions may result in knowledge exchange and utilize company or local business investment in developing skilled researchers and innovators. Therefore, Georgian universities may wish to engage proactively with the opportunities to implement structured professor assistantship and research collaboration programs.

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