



Publishing in International Peer-reviewed and Indexed Journals (An option of recognizing articles instead of a doctoral dissertation) [Policy paper]

> Archil Chochia Tallinn University of Technology

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## Introduction

Presented policy paper focuses on issue of doctoral dissertations in Georgia, specifically the format of the doctoral theses. Paper offers a new format option to be added to the currently permitted ones. Proposed format being a doctoral thesis based on certain minimum number of the research publications, rather than a single monograph dissertation. Describing why offering such additional option would be beneficial for the doctoral student, the university and Georgian doctoral level education in general.

According to the Erasmus+ Office Georgia (2021), despite impressive growth after Georgia has regained its independence, country's research productivity remains very limited. At the same time, 70% of publications from Georgia are the result of international collaboration. International academic cooperation provides additional research funding opportunities and increases quality and quantity of produced research. Unfortunately, with a few exceptions, Georgian universities struggle to be internationally competitive in the research productivity and quality. Georgia must invest in internalisation of its higher education to improve competitiveness on international arena, raise quantity of research outcomes and improve their quality. Among the main goals of education and research internationalisation in Georgia, National Erasmus+ Office Georgia lists enhancing quality of education and research, attracting additional resources: intellectual and financial, and enhancing Georgia's visibility.

The government and the universities must support sustainable, responsible and high-level research groups, which make a significant contribution to the society. Research outcomes produced by Georgian scholars must be published in high-quality journals. Research at the universities should be

made open, more inclusive, and results should be made accessible to the public. Aiming to make society more science-based, the academic communities should interact with general public, explaining their scientific accomplishments to the society and making those more visible. Visibility is essential, not only internationally, but also locally. According to Bregvadze (2020), in order to improve research management, Georgian institutions should be more aware of their own research activities and outcomes, as well as those of their partners.

One of the crucial components to achieve this is raising the quality and effectiveness of doctoral level studies. Doctoral education must aim to prepare doctoral students for their future, supporting their scientific careers from early stages, integrating them into academia even more and therefore increasing the competitiveness and innovation not only within a given university, but in Georgia as whole. During the doctoral studies, students must acquire knowledge and skills, as well as the attitudes required for independent research and development. The highest cycle of higher education where students acquire these learning outcomes. Furthermore, doctoral studies must be regularly evaluated, in accordance with the university requirements and established procedure, in order to guarantee the relevant progress of the studies. A doctorate degree is obtained after the completion and public defence of a doctoral dissertation, an independent research that presents original, well-argued solution to an essential problem of the corresponding scientific field. Currently in Georgia, doctoral dissertations are completed and defended in the format of a monograph. The government and the universities should consider amending such practice, including research publication-based doctoral dissertations as an additional option.

In Georgia, where clearly defined policy of research management is lacking, there are no field specific or university research priorities and research productivity of the country is low, (please see *e.g.* Bregvadze 2020; Erasmus+ Office Georgia 2021), it is essential to use every possible option to promote research activities and install structured mechanisms raising research outcomes. Furthermore, as part of its European integration process, it is essential for Georgia to share the best European practices in the field of higher education, specifically doctoral level. The format of research publication-based doctoral dissertations is practiced in several European countries. In Germany, for example, such doctoral dissertations are being referred to as cumulative doctoral theses (*kumulative dissertation*).

## From monograph doctoral dissertation to publication-based thesis

It is important to underline that proposed research publication-based doctoral thesis format should be made as an additional option to the doctoral candidates, rather than only option available. Therefore, making such format as another option in addition to monograph and creative research doctoral dissertations.

A research publication-based doctoral thesis must be formalised as summary, or so-called roof article, along with earlier published at least three research publications on the topic of the doctoral dissertation, which the roof article is based on, binding those research publications into a single whole.

The following type of research publications must be accepted as part of a doctoral thesis:

- Research papers in peer-reviewed scientific journals, which have an international panel, which are internationally distributed, which are indexed in several international databases and which are open to contributions;
- Book chapters in the academic books published by the renowned international research publishing houses;
- 3. A monograph published by an internationally renowned research publishing house.

As an additional measure, universities must be allowed to require at least one of the research publications to be accepted/published in Scopus, in order to further increase the level and the visibility of their research outcomes. Furthermore, the universities must be allowed to add a provision, when as an alternative, based on a well-considered decision of the relevant university structure, a doctoral thesis may consist of only two research papers if the published research papers are internationally outstanding, *i.e.* the papers have been published in Q1 and/or Q2 journals in the field and the doctoral student is the lead author of at least one of the publications.

A publication must be deemed acceptable once sufficient proof, an official confirmation, has been provided that given publication has been accepted for publication by the given journal/publisher. Therefore, not requiring the research paper to be actually published by the time of doctoral thesis' public defence.

At least one of the research publications included into a doctoral thesis should be co-authored, along with the doctoral student, by their supervisor(s). However, it should be allowed that any of the publications included into a doctoral thesis might have multiple authors, besides the supervisor(s). In cases when included publication has multiple authors, doctoral student's specific contribution to the research must be clearly defined. Additionally, the doctoral student should be the lead/first author of at least one of the included publications.

If a research publication cannot be published due to the author's economic rights belonging to other persons, a reference to the disclosure of a publication must be published along with a reference to the Internet source.

## Conclusions

The government should allow university administrations to implement research publication-based doctoral thesis practice, based on the above-described requirements and characteristics. However, such format of the doctoral theses should be made as optional, therefore leaving possibility for the students to complete and defend their doctoral theses in the form of monograph dissertations, or creative work.

One of the key learning outcomes for doctoral level education is for the students to be able to present the problems and conclusions relating to the branch of science and their research, the underlying theories, to present reasons and participate in relevant discussions. Publication of the original scientific results in internationally pre-reviewed academic publications, for local or the international audience, greatly contributes to the process of achieving this learning outcome. The learning outcomes of the doctoral theses, as required minimum result according to the doctoral programmes, achieved by the monograph dissertation format, can be equally achieved by the research publicationbased doctoral thesis format. Therefore, there is no educational, or technical, obstacle for the implementation of such practice, if relevant legislation is amended.

Proposed amendment will result in more research publications, directly contributing to above -listed goals of enhancing quality of education and research in Georgia, attracting additional resources: intellectual and financial, and enhancing country's visibility. Increased quantity and quality of research outcomes will contribute to improved university rankings and international competitiveness.

Moreover, Georgia, as many other countries, has a problem when supervision of the doctoral dissertations is not adequately appreciated, clearly evaluated and reflected in contractual relations between a supervisor and their employer institution. With proposed format of the doctoral dissertations, supervisors of these theses will be given an additional benefit of their academic guidance. They will have more options to be able to publish the research outcomes of their cooperation with the doctoral students and therefore increase quantity of their research publications, further increasing their motivation for supervising the doctoral students.

As mentioned above, for the purpose of the progress assessment, doctoral studies of the student must be regularly evaluated, based on the university and study programme requirements. Introduction of research publication-based format of doctoral theses, would make such evaluation easier due to more measurable character of the relevant research publications and the process of their publication.

All above defined recommendations, if implemented, must also apply to the joint doctoral programmes, unless otherwise stated in the joint programme cooperation agreement.

Therefore, the recommendation would be to implement the following amendments:

- The government should allow university administrations to implement research publicationbased doctoral dissertation practice (as above described in details);
- Such format of the doctoral theses should be made as optional, in addition to the existing formats;
- Implemented changes must also apply to the joint doctoral programmes, unless otherwise stated in the joint programme cooperation agreement.

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