

Redesigning the Model of Book Evaluation in the Polish Performance-based Research Funding System

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Abstract

Purpose: This study aims to present the key systemic changes in the Polish book evaluation model to focus on the publisher list, as inspired by the Norwegian Model.

Design/methodology/approach: In this study we reconstruct the framework of the 2010 and 2018 models of book evaluation in Poland within the performance-based research funding system.

Findings: For almost 20 years the book evaluation system in Poland has been based on the verification of various technical criteria (e.g. length of the book). The new 2018 model is based on the principle of prestige inheritance (a book is worth as much as its publisher is) and is inspired by the publisher list used in the Norwegian Model. In this paper, we argue that this solution may be a more balanced policy instrument than the previous 2010 model in which neither the quality of the publisher nor the quality of the book played any role in the evaluation.

Research limitations: We work from the framework of the 2018 model of book evaluation specified in the law on higher education and science from 20 July 2018, as implementation acts are not available yet.

Practical implications: This study may provide a valuable point of reference on how structural reforms in the research evaluation model were implemented on a country level. The results of this study may be interesting to policy makers, stakeholders and researchers focused on science policy.

Originality/value: This is the very first study that presents the new framework of the Polish research evaluation model and policy instruments for scholarly book evaluation. We describe what motivated policy makers to change the book evaluation model, and what arguments were explicitly raised to argue for the new solution.

Keywords Book evaluation; Norwegian Model; Performance-based research funding system; Poland; Publisher list



1 Introduction

The performance-based research funding system (PRFS) in Poland was created in 1990 (Kulczycki, Korzeń, & Korytkowski, 2017). Since then, the Polish research evaluation model has evolved several times from being peer-review based to a mostly metric model. In July 2018, a new law for the science and higher education sectors was adopted. The goal of the new law was to construct a new, coherent and clear regulation regarding the functioning of the system of science and higher education. These new regulations redesign the metric based evaluation model operating since 2010 (Kulczycki, 2017a). This new 2018 model is rather an evolution of the 2010 model than a brand new solution. Nonetheless, there are some original elements, such as the publisher list, used for the assessment of scholarly book publications.

The 2010 model served to distribute research funding among scientific units in the higher education and R&D sectors. The result of research evaluation was one of the key factors, which influenced the final funding, with the most important parameter of evaluation being publications. Journal articles were assessed according to bibliometric based ranking (Kulczycki & Rozkosz, 2017), whereas scholarly book publications were assessed according to several formal criteria, such as book length (Kulczycki, 2018).

The Polish and the Norwegian PRFSs share some common components. For instance, in both systems, data from the current research information systems are used for evaluation purposes and the publications are translated into the points according to publication channels. In Poland, however, a number of publications is limited whereas in Norway all publications assigned to a particular institution are counted. Moreover, both systems are designed to represent all areas of research equally and properly.

In the last evaluation exercise in Poland, conducted in 2017 for the 2013–2016 period, almost one million evaluation items (e.g. articles, patents, monographs) were submitted by 994 scientific units representing 86,500 full-time equivalent (FTE) academic staff. Scientific units submitted over 157,000 evaluation items related to scholarly book publications, among them 21,730 monographs were published by over 3,800 publishers. However, 50% of those monographs came from only one hundred publishers.

The 2018 model introduces a few systemic changes. The main role of the model, i.e. distributing funding, has been maintained and publications have remained the key parameter. Assessing journal articles is still based on bibliometric based rankings. Nonetheless, for the very first time the Polish government has introduced a new model for book evaluation based on the publisher list.



The aim of this paper is to analyze the frameworks of both the 2010 and 2018 models of scholarly book evaluations, and to investigate the arguments for redesigning the 2010 model, based mostly on formal criteria, and to implement the 2018 which emphasises the role of the publisher.

This study is structured accordingly: firstly, we present how scholarly book publications are evaluated in various European research evaluation models. Then we show the framework of book evaluation in the 2010 model and describe the reforms of the Polish PRFS. In the fifth section, we present the key systemic changes implemented in the new Polish PRFS and describe the framework of the publisher list for book evaluation. In the final section, we discuss the main findings and conclusions.

2 Book evaluation in European performance-based research funding systems

Scholarly book publications (i.e. monographs, edited volumes and chapters) play an important role in the majority of research evaluation models within the PRFSs. Nonetheless, assessing books is not an easy task as there are various challenges not present in journal assessing. These unique issues are related to various ‘matching’ problems related to the ISBN (Zuccala & Cornacchia, 2016), insufficient indexing books in the databases (Torres-Salinas et al., 2013), a lack of widely recognized rankings of academic book publishers (Giménez Toledo, 2016), and problems with combing data on various book editions and translations into groups of works or book families (Zuccala, Breum, Bruun, & Wunsch, 2018). Thus, book evaluation is mostly based on publisher profiles (Manana-Rodriguez & Giménez-Toledo, 2018), library holdings (Biagetti, Iacono, & Trombone, 2018), internationalization indicators (Verleysen & Engels, 2014), book reviews (Basili & Lanzillo, 2018) and formal criteria (Kulczycki, 2018).

Giménez-Toledo et al. (2016, 2018) categorized book evaluation models within PRFSs in European countries and show that they have three main characteristics. Firstly, a differentiating factor uses a national or regional Current Research Information System (CRIS) in the evaluation procedure. The CRISs allow collecting data on scholarly book publications. It is important because the coverage of books in international databases is not sufficient for effective assessment. Such systems are used, among others, in Croatia, the Czech Republic, Denmark, Finland, Norway, and Poland.

Secondly, models can be differentiated according to how much the procedure is formalized. In other words, in Denmark, Finland, Flanders (Belgium), Lithuania, Poland and Spain, evaluation is formalized because of some type of publisher classifications and quality labels, or formal criteria for books are formalized and



used. In non-formalized systems, like in Serbia, France, Italy, Latvia, Israel, Portugal and Switzerland, evaluation is based on expert panels or committees.

Thirdly, the analyzed European models are characterized by quantitative or qualitative approaches. For example, in Lithuania and Portugal, a qualitative approach is used in which the content of each scholarly book publication is taken into consideration. In Poland, on the contrary, in their qualitative approach, neither the content of the book nor the prestige of the publisher is taken into consideration. Only the formal criteria play a role.

One of the best known policy instruments used for book evaluation is the publisher list, i.e. an authority list of publication channels, which serves to decide which books can be counted or assessed in the evaluation exercise. In this way, all peer-reviewed books published by publishers included in the authority lists might be acknowledged in evaluation.

Norway began using authority lists of publication channels, which inspired Denmark and Finland to implement similar solutions (Sivertsen, 2016). Also to some extent, Flanders (Belgium) implemented authority lists into its system, based on a combination of Web of Science and regional comprehensive databases for the social sciences and humanities (Verleysen, Ghesquiere, & Engels, 2014). Moreover, in Spain an information system of publishers (the Spanish Scholarly Publishers Indicators) is used (Giménez-Toledo, Mañana-Rodríguez, & Sivertsen, 2017).

In the four systems in Denmark, Finland, Flanders and Norway, authority lists of book publishers are constructed by panels of experts. Publishers are classified into two or three quality levels according to their prestige. Publisher lists are non-field-specific which means that at the same level, there might be a publisher which publishes books only from art history, and a global publisher which publishes scholarly books from almost all fields of science.

As Giménez-Toledo et al. (2018) point out, the publisher list as a policy instrument is important for the social sciences and humanities because it covers publication channels very often not visible in international databases. Moreover, the cost of constructing publisher lists is low and the process of designing may be transparent and predictable. As negative features of this solution, the authors indicate using the book publisher as a proxy of quality instead of the book itself, may lead to possible (un)intended changes in publication behavior and inappropriate local use of the publisher lists.

3 Assessing publications within the 2010 model in Poland

In Poland within the framework of the 2010 model, a scientific unit could submit a limited number of scholarly book publications. This limit was expressed as 40% for social sciences and humanities and 20% for other sciences in a $3N-2N_0$ formula,



where N is the arithmetic mean of FTE academic staff members during the evaluated period, while N_0 is the number of academic staff members who were not authors of any scientific publication during the evaluated period. Journal articles occupied the remaining part of $3N - 2N_0$. Points were assigned to each submitted evaluation item and their number depended on the publication channel (journal article or scholarly book publication).

For a journal article, a scientific unit could obtain from 1 to 50 points according to the rules of the Polish Journal Ranking (Kulczycki & Rozkosz, 2017). For a monograph, a scientific unit could obtain 25 points (and 5 points for a chapter or edited volume). Moreover, up to 5% of monographs submitted by a given scientific unit could be acknowledged as an “outstanding monograph” (50 points) if it had won a prestigious award (national or international). A monograph should meet the following criteria:

- a) It must be a thematically coherent research essay (elaboration).
- b) It must present an original research problem.
- c) It must be peer-reviewed.
- d) It must contain a bibliography (or footnotes/endnotes).
- e) Its length should be at least six author sheets (an author sheet is 40,000 characters or approximately 6,000 words).
- f) It must be published as a standalone volume. The work was published online, or copies were sent to libraries.
- g) It must be identifiable by an ISBN, ISMN, ISSN, or DOI.

4 The 2018 reform of the Polish research evaluation model

In 2016, the Polish government began a three-phase participative structural reform of the science and higher education systems. In Phase 1, the government announced an open tender for three independent teams of experts to prepare three concepts for the reforms. In Phase 2, eleven national events were organized under the National Congress of Science to discuss new ideas and to hold a debate between the governmental policy makers and the academic community. These two phases created interactions among the academic communities and permitted them to join the process of designing and operating the model. The final project for the new law was presented in Phase 3 during the great national gathering of scientists and stakeholders in September 2017 in Kraków. In August 2018, the Polish parliament and the president of the Republic of Poland accepted the new law.

4.1 Pros and cons of the 2010 model

Since the beginning of this reform, the research evaluation model had been a key element of the discussions and debates. Two national events were dedicated to



research evaluation and assessing research excellence. The topic of the first event was the role of social sciences and humanities and possible ways of evaluation research in these fields. The other event was devoted to discussions on the old and possible new models of research evaluation in Poland.

During the National Congress of Science, the 2010 model of evaluation was discussed in detail. In general, researchers, policy makers and stakeholder accepted that a research evaluation system was needed in Poland. The 2010 model was recognized as a meritocratic solution which allowed allocating funding on the basis of scientific unit performance. Moreover, this system was designed for all types of research institutions, and could influence the improvement of individual as well as scientific unit performances. Nonetheless, the 2010 model was dominantly based on numerous parameters and formal criteria, could have been simplified and the main regulations should have been clearer.

In the field of book evaluation, scholars argued that books were underrated in comparison to articles in journals. Regardless of the quality and publishing house, all books in the evaluation were treated the same. Researchers from social sciences and humanities indicated that a book is the most prominent communication channel in their domains and is insufficiently reflected in the PRFS. On the other side, the Ministry of Science and Higher Education argued that peer-review of almost 22,000 books submitted to the evaluation is not feasible within the provisioned 6-month time frame.

4.2 Expectations placed on the 2018 model

After announcing the 2018 model of evaluation in July 2018, the Ministry of Science and Higher Education published the *Guide to the Evaluation of the quality of scientific activities* (Ministerstwo Nauki i Szkolnictwa Wyższego, 2018a) where it argues that research evaluation is the key instrument for their funding distribution. This instrument and its results need to be transparent to convince taxpayers that investing in science is a sound investment. In the guide, the 2010 model is assessed as too much of a bureaucratic exercise which evaluated vastly different units of analysis. Moreover, it has been indicated that in the 2010 model, too much information was gathered with many parameters not playing any significant role in the evaluation.

The ministry noticed that a metric-oriented model generates a pressure to publish more and more, without looking on their quality. Therefore, according to the ministerial declaration, in the 2018 model only a few of the best publications per scholar will be assessed. According to the ministry, this change will reduce the pressure to producing more and more publications. Moreover, in the 2018 model, excellence in research has become the key pillar of the Polish science policy (Antonowicz et al., 2017).



The 2018 model is based on three main assumptions: (1) criteria and weights should be fitted to the different disciplines, especially for the social sciences, humanities and the arts, where scholarly book publications are the key channel of communication; (2) the model should introduce incentives for high quality interdisciplinary works; (3) the weight of impact generated by the research results should play a more important role in the final assessment.

5 Key systemic changes within the 2018 model in Poland

The framework of the 2018 model of research evaluation is presented in the act for science and higher education (Ministerstwo Nauki i Szkolnictwa Wyższego, 2018b). Specific details are defined in two ministerial decrees: their official projects were published and publicly consulted in August 2018.

The 2018 model has introduced various important changes. The two most substantial systemic advancements are related to the unit of analysis, and limiting the number of publications submitted by single academic staff member.

For the very first time since the beginning of Polish PRFS, a scientific unit (in the case of universities, a faculty) is not a unit of analysis. For the next cycle of evaluation in 2021, a unit of analysis is defined as a discipline within the university or within the research institute. Moreover, the government reduced the list of disciplines used in Poland from over 100 to less than 50. The Fields of Science and Technology classification of the Organisation Economic Co-operation and Development (OECD) inspired the new classification in Poland. Thus, the new unit of analysis goes across old units. For instance, scholars from linguistics will be evaluated within one unit of analysis (“Linguistics”) whereas in the 2010 model—depending on the university structure—their output could be included in four of five different faculties (e.g. Faculty of English Studies, Faculty of Modern Languages). Moreover, each researcher can be assigned to one or two disciplines according to their declaration, which can be changed every two years. This solution also requires important changes on the level of data aggregation. In the 2010 model, the legal framework for the Polish CRIS was designed to aggregate and use data on the level of the scientific unit. From now, data will be aggregated on the level of a single researcher like in the Current Research Information System in Norway. It is noteworthy to add that this is a change in the legal framework and is not a technological solution itself. Even in the 2010 model, data was aggregated on the researcher level, but for research evaluation purposes was re-aggregated on the level of the scientific unit.

In the 2010 model, each scientific unit could submit up to $3N-2N_0$ publications, where N was the arithmetic mean of the FTE of academic staff members. This



solution allowed using the most important (in terms of the points assigned in the Polish model) publications produced by just a few top-productive researchers instead of all the members employed in a given institution. Therefore, one researcher could submit dozens or hundreds of publications (in the case of physical sciences with kilo-author articles). It was possible because not just points but also “slots” for publications are fractionalized. In the new model, the number of publications submitted by a unit of analysis (e.g. all psychologists from a given university) is limited by $3N - 3N_0$. At the same time each researcher can submit a maximum of four publications.

The number of criteria and parameters is significantly reduced, with a new criterion added; assessing societal impact. In 2016, the Ministry of Science and Higher Education announced that the impact assessment will be implemented in the new research evaluation model. The introduced solution is inspired by the British assessment within the Research Excellence Framework and the Australian one implemented in the Excellence in Research Australia.

6 The publisher list in the 2018 model in Poland

The new way for assessing scholarly book publications is based on the principle of prestige inheritance. This solution in the 2018 model was inspired by the Norwegian Model and its two-level authority list (Aagaard, Bloch, & Schneider, 2015; Sivertsen, 2016), and, as a point of reference, was suggested during the National Congress of Science, to be included in the project of ministerial regulation for research evaluation published on 22nd of February 2018.

In the 2010 model, book assessment was based on verification whether various technical criteria were met (e.g. the monograph length should be at least six author sheets), as declared by the scientific unit. However, neither paper nor electronic copies of the books were collected. Thus, experts working in the panels had a very difficult task to even verify this information.

This old model did not provide any incentives to publish books in the best publishing houses. From the evaluation perspective, a book published by Cambridge University Press had the same point value as a self-published book in Polish printed in 10 copies and actually not distributed. Therefore, from the researchers' perspective, putting a lot of effort into publishing a monograph by a prestigious and recognized publishing house was not rewarded. As Korytkowski and Kulczycki (n.d.) show, explicit and clear incentives in the area of journal articles evaluation have influenced publications patterns in Poland. In the area of book evaluation, a similar solution was not implemented for almost 20 years. Moreover, book evaluation in the 2010 model could produce and legitimize a variety of bad publication behaviors. For



example, in the last evaluation exercise, one researcher submitted over 50 self-authored monographs for assessment in 2013–2016.

One of the biggest cons of the 2010 model was the ratio of points assigned to a monograph and to a journal article. A scientific unit could obtain 25 points per monograph (up to 5% of the best monographs could obtain 50 points) and 50 points per article published in the best journals. The monograph is the key communication channel for many disciplines in the social sciences and the humanities. In a system focused only on the formal criteria of the book itself, the only way to differentiate books could be by adding new criteria like ‘more author sheets more points’. Kulczycki (2017b) highlights that the book evaluation model in Poland did not use the same principles as a journal article evaluation model where an article inherits the prestige of the journal, expressed by a bibliometric indicator. In this way, an article is worth as much as the journal is in which it is published. Thus the principle of prestige inheritance can be implemented also for book evaluation where a book could inherit the prestige of the book publisher, expressed by the level to which this publisher could be assigned by the experts. The equal treatment of both the main scholarly communication channel, i.e. journal articles and scholarly book publications, is an important element of a balanced research evaluation model.

This new book evaluation model avoids the use of various technical criteria and measuring the length of books. It is a brand-new solution for Polish scholars after almost 20 years of an old parametric solution. Thus, one of the most important challenges for policy makers will be to build trust in this system.

7 Conclusions

Implementing a new policy instrument is a demanding task, from which all effects cannot be foreseen but mostly have been exposed in the Norwegian Model. The analysis of policy instruments and ongoing discussions on the publisher list allow us to indicate what problems the policy makers should address. Firstly, the publisher list should allow differentiating the best scholarly books from second-best books. Secondly, this list should serve as an explicit incentive to change the publication behavior of researchers and to entice publication of their manuscripts in the best-choice publishing houses. Searching (considering) for a good publisher could motivate researchers to improve their scientific work to meet publisher requirements. Thirdly, thanks to the publisher list, not all “books” meeting the formal criteria will be acknowledged in the evaluation. In the new solution, publishers conduct the peer-review and assess whether a particular book deserved to be published. Finally, the publisher list allows—by treating publishers as a proxy of the book quality—assigning more points to monographs in the 2018 model than the 2010 model in relation to points assigned to journal articles.



Explicit motivations expressed by policy makers and stakeholders during the participative reform (Ministerstwo Nauki i Szkolnictwa Wyższego, 2017, 2018a) reveal that the role of the publisher list as a policy instrument is to give attention to the scientific quality of scholarly books, and to treat publishers as the key gatekeepers of scholarly communication. Moreover, one of the aims that might be achieved by the use of this list is an increase in the quality of the peer-review process conducted by Polish publishers, which due to publishing poor quality scholarly books may be excluded from the list.

Therefore, the publisher list can be perceived in two ways. On one hand, it is a path to value the best books and assign them more points than articles, and on the other hand, an unknown policy instrument which will differentiate publications that were equal from the evaluation perspective up to now.

Examining how this publisher list is actually designed and how it is used will be possible after the next evaluation exercise. Meanwhile, the academic community in Poland will try to understand these instruments and the potential effects. As one of our earlier analyses (Korytkowski & Kulczycki, n.d.) has shown, policy instruments that focus on scholarly book publications only shape publication patterns to some extent: books are planned and written over longer period than journal articles, therefore the actual effects of this instrument would be assessed after at least two evaluation exercises (eight years).

8 Related documentations

The new evaluation will be conducted by a new advisory board to the Ministry of Science and Higher Education, i.e. the Commission for Research Evaluation, which will be established in March 2019. The new act for higher education and science where the main framework of the new Polish model is defined is published here:

<http://www.dziennikustaw.gov.pl/du/2018/1668/1>, data access: 31 August 2018.

The most comprehensive descriptions in English of the 2010 model can be found in the following publications:

- Kulczycki, E., Korzeń, M., Korytkowski, P., 2017. Toward an excellence-based research funding system: Evidence from Poland. *Journal of Informetrics*. 11, 282–298. <https://doi.org/10.1016/j.joi.2017.01.001>.
- Kulczycki, E., 2017. Assessing publications through a bibliometric indicator: The case of comprehensive evaluation of scientific units in Poland. *Research Evaluation*. 45, 41–52. <https://doi.org/10.1093/reseval/rvw023>.
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national journals in Poland. *Scientometrics* 111, 417–442. <https://doi.org/10.1007/s11192-017-2261-x>.

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