How does the context of research influence the use of educational research in policy making and practice?

Georgeta Ion (corresponding author)

Georgeta Ion, PhD: Associate professor, Department of Applied Pedagogy, Universitat Autònoma de Barcelona
Cerdanyola del Valles, G6-248
Barcelona, Spain
e-mail: Georgeta.ion@uab.cat
ORCID: 0000-0001-9915-0698

Elena Marin. Assistant professor

University of Bucharest
Centre for Development and Training in Higher Education
University of Bucharest
Elena.marin@fpse.unibuc.ro
ORCID: 0000-0002-7200-2887

Carmen Proteasa, Assistant professor

University of Bucharest
Centre for Development and Training in Higher Education
University of Bucharest
Carmen.proteasa@gmail.com
ORCID: 0000-0003-0221-0338

This paper presents results from a survey of Romanian education researchers on their experience of research uptake and transfer to policy-makers and practitioners. A range of variables are analysed in order to understand the factors they perceived to influence the use of educational research. The researchers' context was analysed, including factors such as conceptions of the academic role, funding, type of research and collaboration in research.

An adaptation of the Research Utilization scale (Knott and Wildavsky 1980 and Cherney et al. 2012) survey was administered to a sample of 115 academics from 17 public universities in Romania, representing 31% of the total number of academics in Schools of Education. The quantitative date was complemented with qualitative data derived from in depth interviews with 14 university managers from the main research intensive universities.

The results indicate that researchers' context is a determinant key of research mobilization in practice. Despite the importance given to this aspect by the researchers, the lack of institutional coherent strategies to enhance the research transfer and use could represent constraints and challenges that are often faced when academics engage in research aimed at influencing policy and practice.

Introduction

The present research takes as a reference point the transfer of research to policy and practice and attempts to advance the debate on research utilisation and evidence-based policy and practice in education. This paper focuses on knowledge producers and the factors that influence the efforts made by academics in the transfer of research. The paper brings new insights to the characteristics of the university—the context in which researchers work—as "knowledge producer" and how these characteristics influence the use of research. Using an adapted version of the research utilisation scale (Knott and Wildavsky 1980, adapted by Cherney et al. 2012), we examine the factors related to the research-production context that appear to influence reported levels of research impact. We analyse factors identified by Cherney et al. (2012) as comprising the variable of "researchers' context"; these factors include whether the research is targeted to the user, the importance of academic funding, the

importance of other funding, the benefits of collaborative research and the barriers that academics experience in the transfer and uptake of their research.

Despite decades of empirical investigation into research utilisation and a renewed interest in evidence-based policy and practice in recent years, our understanding of the factors that influence the uptake of educational research remains underdeveloped (Cain 2016). Using survey data acquired from academics in Romania and interviews with selected university managers, this paper aims to contribute to the discussion about the role of the organisational factors connected to the context in which researchers conduct and transfer their research that could influence the use of their research in policy and practice. In addition, we contrast this information with the perception of academic leaders as a result of their capacity to promote and sustain change in organisations.

Factors involved in research use in practice

The literature on this topic has been extensive in recent years and has focused especially on the researchers' perceptions; however, combining quantitative and qualitative data and facing individual and structural contextual factors from the perspective of the analysis could represent a major understanding of the topic. Regarding the type of research mobilised to policy and practice, policy makers and practitioners have considered as a reference a medical model of research use, although a body of philosophical writing argues that educational research use is more likely to be 'conceptual' (Wieser 2016) than practical. While research utilisation in the field of medicine has been widely explored (Meijers et al. 2006, among others), in the social sciences, and especially in the educational sciences, it remains an underrepresented research field (Cain 2016).

In the field of education, the link between research and policy and practice has been intensely debated, and the literature has concluded that academic research rarely has an impact on policy and often fails to meet the needs of decision makers or practitioners (Coburn and Talbert 2006; Hess 2008; Levin and Edelstein 2010; Cherney, Povey, Head, Boreham, and Ferguson 2012; Brown, Daly and Liou 2016; Gelderblom, Schildkamp, Pieters and Ehren 2016). In this process of interconnection between fields and contexts, different agents intervene, each with their own roles. For instance, Levin (2013) discusses three different agents in interaction—the producers of research, the users of research and the intermediaries—and states that a gap between them remains.

There are several reasons for this gap, from research-transfer characteristics and access to research topics, to the various barriers academics face in their intent to transfer their research to users, and, finally, to the users' particularities (Ion and Iucu 2014). This gap creates communication problems between policy makers, practitioners and academic researchers, given that they live in different professional domains with differing languages, work cultures, work values and professional rewards (Heinsch, Gray and Sharland 2015; Bell, Cordingley, Isham, and Davis 2010; Levin 2011; Vanderlinde and van Braak 2010).

Consequently, studies have demonstrated that educational researchers, bureaucrats and practitioners often have different priorities and perceptions of what constitutes useful and valid research, the role of theory, data quality and research methods, project outcomes, the brevity of results and the practicality of research recommendations (Cherney et al 2012).

Searching for synergies between educational researchers and users raises important issues around the role that educational research should play in relation to policy and practice. Collaboration between the research producers and the practitioners and policy makers through mutual involvement appears to be a possible solution to this gap (van Schaik et al

2018, Ion and Iucu 2014; Kearney and Lincoln 2014; Coburn and Penuel 2016). While a prodigious amount of literature analyses the context of research users (Lubienski Scott and DeBray 2014; Adedoyin 2015), research production focuses on topics such as the quality and relevance of research (Cooper, Levin and Campbell 2009) and represents a highly contested issue (Burkhardt and Schoenfeld 2003; Lingard 2011). The intensity of debate on the value of academic research has also increased in several countries due to the amplified interest in the impact of research that has required academics to prove the impact of their research in the form of publications, patents and products of industry and society.

In the study of research transfer and uptake from production to utilisation, several factors intervene, all of which are associated with the production and utilisation contexts. These factors affecting research mobilisation have been discussed in the literature. The literature has examined different explanatory models for evidence-based policy and practice, integrating the different contexts mentioned before. Landry et al. (2001) analysed the different models existing in the literature, highlighting their potentials and limitations. The explanatory models of research utilisation cover a wide range of scenarios, and the authors discussed four major alternatives: the science push model, the demand-pull model, the dissemination model and the interaction model. Each one explains only some of the factors contributing to research use. One of these models in particular, *the science push model,* emphasises the role of researchers and research in the process of research utilisation and highlights the role of the researchers' context in the production and use of research.

Stages and agents involved in research use.

Research production is linked to universities, higher education institutions and research centres. For research to be used, the quality of research findings must be ensured, and tailoring the theme to users is critical. To this end, a significant amount of the literature is

dedicated to researchers' activities in research production, to how research is organised and managed at the university level and to the strategies used by researchers to enhance the impact and use of research.

Using a grounded theory approach, Amo (2007) identified the different stages in the research-impact process, namely, conducting the research, sharing the findings and disseminating the knowledge, the short-term impact, and finally the long-term impact. Each stage involved some form of knowledge transfer and use: conducting research helped to develop the research capacity of individuals and groups; informal sharing helped to spread knowledge beyond the research team; and dissemination communicated knowledge through both "scholarly" channels, such as conferences and publications, and "nonscholarly" channels, including the news media. The author noted that researchers typically have a high level of control over the early stages of the process, but much less control over the later stages, where other influences determine the nature and the scope of impact.

Similarly, Honerød Hoveid (2012) identified four stages of research utilisation, some of which are similar to those in Amo's model—production, dissemination, reception and implementation. Hoveid further identifies different levels of researchers' involvement in and control over the process.

Independent of the stages of research transfer and utilisation, the purpose of the process remains the same: scientific knowledge is used to solve social problems and to improve the work of practitioners (Qvortrup 2016), researchers and policy makers.

Research has demonstrated that social factors influence the transfer of knowledge from researchers to policy makers (Crona and Parker 2011), drawing attention not only to the quality of research but also to the characteristics of the context in which the research is

produced and the context in which the end-users are able to implement the research findings. All these assumptions make us consider that the factors affecting research utilisation can be diverse, and some depend on the researchers' context and the strategies employed by them. In a science push model, the researchers' context and aspects regarding dissemination and knowledge transfer processes play a critical role (Vanderlinde and van Braak 2010). In the process of research utilisation, dissemination and the collaboration between researchers and users are vital. Cherney et al. (2012) found that academics recognise a need to engage with end-users through meetings and dissemination processes and, contrary to some of the literature, recognise that non-academic end-users have different priorities and perceptions in regards to judging the relevance and use of research evidence.

In general, the research into knowledge producers has shown that "impact work" is additional to the work of research itself. It involves what Penuel et al. (2015) called "boundary crossing"—researchers working, directly or indirectly, with policymakers, practitioners and other stakeholders, including the mass media. This process involves new ways of working, not least because researchers must learn the priorities of these other stakeholders and use the "ideas in common currency" among them. There are costs to doing "impact work", and the research suggests that few institutions are committing substantial support for such activity.

Conditions for research use

The literature identifies the problems that make educational research utilisation more difficult. Some of these problems are connected to the researchers' work (Rickinson 2003; Gelderblom et al. 2016), while others are more closely linked to the institutional aspects of academia (Metcalfe and Fenwick 2009) or the resources needed for both academics and users (Ion and Iucu 2014). In this sense, a significant portion of the literature is dedicated to the types of research, its funding, how research

is organised and managed at the university level and the strategies used by academics to enhance research transfer and utilisation (Cummings et al. 2007; Kwiek 2015; Honerød 2012; Ion and Castro 2016).

Transferring educational research is a difficult balancing act between ensuring that research is relevant to end-users and the benefits of utilisation reports for end-users. Although extensive attention is dedicated to research production and the factors affecting it and to strategies to enhance research utilisation, these aspects of transference to the end-user remain underdeveloped. Cherney et al. (2012) found that academics recognise the need to engage with end-users and highlighted a series of barriers affecting research utilisation, such as resources, access, academic reward systems or a lack of collaborative actions between researchers and end users (Brown, Daly, and Liou 2016). In addition, Cain (2016) summarised the main factors that can serve as barriers to research utilisation in practice. In contrast, some studies have recognised that non-academic end-users have different priorities and perceptions when judging the relevance and use of research evidence (Anwaruddin 2016, among others). Another major challenge for educational researchers is that developing the necessary know-how to more effectively manage dissemination and engagement with users is not part of mainstream academic training but is a skill developed over time through experience and mentoring.

In the process of promoting evidence-based policy and practice, both academic researchers and academic leaders play critical roles, and their collaboration depends on the success of the process (Brown and Zhang, 2017). Leaders are able to exert influence in their universities in a number of ways, including:

- providing a vision;
- developing, through consultation, a common purpose;

- facilitating the achievement of organisational goals and fostering high performance expectations;

- linking resources to outcomes;

- working creatively and empowering others;

- having a future-facing orientation;

- responding to diverse needs and situations (Day and Sammons 2013: 5.)

The role of academic managers has been analysed by Sá, et al. (2011), who used semistructured interviews with senior administrators of 13 faculties of education in Canada to explore their institutional strategies for knowledge mobilisation. They found that academic leaders recognise knowledge mobilisation as a desirable institutional mission, but few faculties have dedicated institutional supports and infrastructure for such activity.

Studies on the use of research in practice and policy have emerged in Europe in recent years, but they are mainly from Eastern European countries because of the specific development of research activity there. In the post-communist context, where traditionally, "psychological research offers a clear route to the production of educational solutions" (Temple 2003, 222), educational research may improve the system. Although Romania experienced growing interest in the potential of research for improving schools, there have been few studies on the attitudes of academics toward educational research. The available studies show that educational research has little to no influence on policy and practice (Vîiu and Miroiu 2013; Curaj 2015; Vlăsceanu and Hâncean 2015 among others). In addition, the study conducted by Ion and Iucu (2014) reveals that practitioners consider research to be important for practice, but they struggle with organisational and personal factors that limit their ability to engage in genuine and sustainable research-based practices. According to Singer (2013), one of the main causes of this phenomenon is the 'Cinderella' status of educational research in

Romania. Indeed, the gap between educational research and its translation into policy and practice has been identified as a main problem of the educational system in Romania, along with the lack of cooperation among all those involved in education (researchers, practitioners and policy makers).

Despite the diversity of strategies that researchers use to promote the dissemination and utilisation of their research, this process is difficult to measure (Cherney 2012; Belkhodja Amara, Landry and Ouimet 2007; Lester 1993; among others). The difficulty is even greater when attempting to quantify its interruptive function (Biesta 2007, 2010).

These studies provide a glimpse of the complexity of the research production and utilization, starting with the differences in discourse when talking about research, the wide range of stakeholders` expectations and to the different needs and priorities when engaging in the process of research. Consequently, the process of underpinning of good practices and specific mechanisms developed and implemented successfully by higher education institutions is a challenging one. Having considered the existing models mentioned in the literature review, we intend in our study to answer the following question: how the constellation of factors act on the utilisation of research in the policy-making process? To this end, we intend to provide insight into the factors that influence research utilisation in the policy-making process, adding new elements to the existing models. To do so, we chose to employ the research utilisation (RU) scale for the following reasons: it has been used to measure research utilisation by policy makers and academics; it has been proved to be reliable; and it is one of the most used scales in the field of research mobilisation studies, as evidenced by Landry et al. (2001) and Cherney et al. (2012).

Methods

The data presented in this article are drawn from a project funded by the Ministry of Education through the Romanian National Authority for Scientific Research and Innovation, and our aim is to analyse the impact of educational research mobilisation on policy making. The project involved four phases: (1) a targeted survey of Romanian academics in the field of education; (2) interviews with academic managers; (3) interviews with a selection of policy makers and experts in the field of education; and (4) focus groups with a select group of academics, university managers and policy makers.

The results reported here are based on phase 1 and 2 data and are derived from a mixed-methods approach, combining the administration of a survey and the conducting of interviews. The two methods complement each other, providing a deep understanding of the factors influencing research utilisation according to the agents involved.

Survey structure

The survey was administered to educational academicians working in schools of education throughout Romania and was based partially on questions and scales used in previous studies (e.g., Knot and Wildavsky 1980; Landry et al. 2001 and Cherney et al. 2012).

Knowledge utilisation (KU) was measured using a validated version of the Knott and Wildavsky (1980) RU scale, as adapted by Cherney et al. (2012). The instrument was requested from Cherney and his team, who sent a printed copy to be used in the present study. Each question in the survey was adapted to the context of Romanian universities; the questions are listed in the appendix of this paper. The scale is based on six stages: transmission, cognition, reference, effort, influence, and application. For each stage, respondents were asked to answer questions about what had become of their research using a 5-point scale, where 1 = never, 2 = rarely, 3 = sometimes, 4 = usually, and 5 = always.

The researchers' context is a scale confirmed in the study of Cherney et al (2012) and includes the following categories:

(1). Research targeted to the user

(2). Importance of academic funding

(3). Importance of other funding

(4). Barriers academics encounter in the transfer and uptake of their research

(5). Benefits of collaborative research

Each category includes a series of dimensions, such as types of research outputs produced by academics (e.g., qualitative or quantitative studies), whether the research is focused on nonacademic users, the importance of internal or external funding sources, the barriers to research-transfer encountered by academics and the institutional drivers that influence the initiation of collaboration with end-users (Bogenschneider and Corbett 2010; Cherney, Head, Boreham, Povey and Ferguson 2012).

The definition of each category and the dimensions are provided in the appendix.

Survey sample

The survey was administered between April and July 2016, and nearly 347 academics from 17 public universities with schools of education received the questionnaire through their department heads. Of these, 115 academics completed the survey, which represents approximately 31% of the total number of academics in Romania.

Most survey respondents were drawn from middle academic positions (senior lecturer and lecturer). As Table 1 shows, over 30% of the sample was at the senior lecturer level, followed by lecturers, associate professors and assistant lecturers. Respondents were mainly academics

who occupied teaching and research positions, in contrast to those with research-only roles (only 14% of the sample were academics with research positions).

Respondents were asked about their disciplinary backgrounds, and the distribution is illustrated in Table 1. Most of them worked in more than one field of education, while others worked in didactics and organisation, lifelong learning, and levels of education.

The participants worked mostly individually or in teams with colleagues from their own research domains.

Interview

In addition to the survey, semistructured interviews were conducted with university managers from the research-intensive universities that responded to the survey. The aims of the interview component were to clarify the results of the survey, to obtain deeper analysis and to verify our findings to increase the reliability of the conclusions and to obtain new information about the process of research use. The interviews provided us with deeper insight on the process of research production, how academics disseminate and transfer their research findings and the barriers they face in this process. The interviews began with an open-ended question about research production at the university level. The second block of questions was related to the researchers' context (work dynamics, funding, and organisational aspects related to research activity). The third part consisted of questions about the research transfer and dissemination (obstacles and facilitators, dissemination culture, etc.).

Interview participants

The interview participants were academic managers from research-intensive universities in Romania. The selection of the universities was based on the classification provided by the

Ministry of Education of Romania, in which the universities have been evaluated according to their performance in research activity. We selected the four universities (University of Bucharest, Babes Bolyai University Cluj-Napoca, West University Timisoara, Al. Ioan Cuza University Iasi) with schools of education, and from each one of these we contacted the vice rectors in charge of research activities, deans of schools of education, and heads of teacher education departments and pedagogy departments (according to each university's specific organisation). As argued in the theoretical framework, the role of academic leaders in the promotion of strategic measures and setting the vision is crucial. After contacting each university from our sample, we had a total of 14 leaders agree to participate to our research. Their profiles are detailed in Table 1.

TABLE 1. INSERT HERE

Data analysis

We analysed the survey data by means of descriptive statistics (frequencies, means and standard deviations). In addition, a bivariate analysis was carried out. All interviews were transcribed, and the transcripts were analysed by means of a coding system according to the categories described previously. The codes were established according to the variables that emerged from the survey. The codes are consistent with the guide for the interview structure and the variables of the survey, and are as follows: process of research production, strategies academics use to disseminate and transfer their research findings, and the barriers they face in this process. In addition, codes related to the researchers' context (work dynamics, funding, and organisational aspects related to research activity) and to research transfer and dissemination (obstacles and facilitators, dissemination culture, etc.) were added. At the start of the analysis, significant fragments were selected; a code was later assigned to each of these

fragments. Quotations from respondents were listed and compared to identify patterns and similarities between quotations from different respondents.

Results

First, the use of a research scale was analysed. Second, the researchers' perceptions of four variables—research targeted to users (RTU), the importance of academic funding (IAF), barriers to transfer of research (BTR) and the benefits of collaborative research (BCR)—were analysed in relation to the research use (RU) variable.

To whom are research findings transferred and how?

The RU variable is the aggregated mean of six variables on a continuous scale with a mean of 2.584 (SD of 1.193). First, regarding the six variables of the research utilisation scale, the respondents declared that they transmit their research results mostly to the users. Second, they considered that their research reports have been read and understood by users. Third, they considered that their research was applied to the users. Table 2 illustrates the means of each research utilisation scale.

TABLE 2. INSERT HERE

The second group of questions related to the potential users of research findings. As illustrated in Table 3, the participants stated that their main targets were students, followed by teachers from primary and secondary schools and other researchers. Academics said they oriented their research to users from their academic departments and closely related fields. Decision makers, practitioners, and private institutions were not their priority targets.

TABLE 3– INSERT HERE

To obtain more detail on RTU characteristics, we contrasted data regarding the RTU variable with the academic managers' interviews; their explanations for the declared beneficiaries of the research outcomes were numerous, ranging from the academic model, which is student centred and teaching based, to academic values, which highlight the preoccupation with the transfer of research to classrooms. In addition, the interest in other educational levels is justified by the role of universities and schools of education in the continuous training of teachers.

"In my opinion, we should consider students, regardless of their level of study, an important asset; not only do we have to involve students in our research activities, but we must be aware that they are directly interested in our research findings that they will later use in their theses." *(*Vice rector, University of Bucharest*)*

The RTU variable is the aggregated mean of seven variables on a continuous scale with a mean of 1.396 (SD of 0.467). The RTU variable is compared for two groups: academics who studied abroad during their professional activity and those who realised any research stay at an international level. Data show that the mean RTU, when used as an independent variable, is similar for the two groups. Those who have stayed abroad have a slightly higher mean RTU (1.459) than those who have not (1.366); however, the difference is not statistically significant.

In addition, data show that the mean RTU is higher for those who realised continuous training abroad (1.451) than for those who did not (1.249), and the difference is statistically significant.

Having computed the RTU with two of the variables that describe the role of the professionals' context, ANOVA tests were adjusted to compare the mean RTU variable across the five types of work academics perform. The mean RTU increases along with the frequency of work with other researchers in the same institution, and the differences between groups are statistically significant (p-value 0.005). The RTU did not vary across the categories of individual work in research, and no statistical significance was found.

Finally, the association between the RU and the RTU Pearson correlation test was analysed, showing the level of association between these two variables. Table 4 shows that the value of the Pearson correlation is positive (0.189) and statistically significant (0.049). In addition, the two variables and the correlation line are plotted. Although the correlation is positive and statistically significant, it can be considered weak.

TABLE 4 – INSERT HERE

Research funding and its influence on the RU

The third group of questions related to research funding. Here, two categories of sources were explored: funding from academic sources and external funding. As illustrated in Table 5, respondents considered external funds to be their main funding source and declared that most research is funded by national agencies, ministries and European funds. Slightly less important are the internal funds, and even less important are other funding sources, such as private or local state funds.

Analysis of the association between the RU and IAF (the aggregated mean of two variables—internal university funding and research funding agencies) on a continuous scale with a mean of 3.687 (SD of 1.461) showed a Pearson correlation that was positive (0.153) but not statistically significant (0.112).

Analysis of the association between the RU and importance of other funding (the aggregated mean of four variables) on a continuous scale with a mean of 2.909 (SD of 1.567) showed a Pearson correlation that was positive (0.153) but not statistically significant (0.135).

The survey data were complemented by the interviews, where academic leaders explained that, in most cases, their main funding sources are national sources, such as the Ministry of Education, despite the low availability of funds, especially in recent years, and European funds (Romania benefited from the structural funding of the European Union). Few universities have issued their own calls for research purposes, trying to substitute for the lack of external funding, as one of the vice rectors stated:

> "The lack of continuity at the level of research funding is characterized by a discontinuity regarding research calls." (Vice rector, West University Timisoara)

Due to this precariousness of national funding, academic managers have asked for an increase in university, public, and private-sector collaboration to attract new funding. The transfer of technology or knowledge appears as a major priority for academic leaders, as one department head stated:

> "Certain funding opportunities must exist, opportunities that support research activities that will provide clear and understandable results that will be attractive for policymakers to use in their policy papers." (Department head, West University Timisoara)

Barriers to transferring knowledge to users

The fourth group of questions related to the barriers that academics encounter to their efforts to transfer their knowledge to users (the "barriers to transfer of research," or BTR, variable).

Financial aspects appear in this case as a major preoccupation, followed by the lack of training of academics in knowledge transfer, and finally the pressure to publish in academic journals, which diminishes the interest in other dissemination contexts. Table 5 shows the distribution of answers to each question in this group.

The academics' responses are explained and detailed by the academic managers. While the lack of funding has been mentioned previously, the superficial importance attached to the researchers' training emerges as a topic that should be considered in the future. Department heads and vice rectors mentioned the poor competencies among young academics, especially research competencies. In addition, they called special attention to the academics' selection process, which prioritizes those people with a greater research profile.

"There is no consistency, and saying that, I think about the fact that young teachers go directly after graduation (master or doctoral students) to teach without having a supervisor." (Department head, University of Bucharest)

From a much broader temporal perspective, it is proposed that, at the university level, researchers' training should become more visible, such that:

"Universities must create their own mechanisms, which implies that first year students attend courses that will make them more familiar with research methodology, academic writing …; these courses may be seen as interdisciplinary courses." (Vice rector, University of Bucharest).

Benefits of collaborative research

Finally, the last group of questions related to the variable of BCR—benefits of collaborative research. The respondents had the option to choose between factors related to researchers' development, funding, and access to research data.

There were few differences among the responses, with participants recognising the benefits of conducting research in collaboration with users. A close look at the mean values indicates that the better-valued option is related to its social benefit. Academics consider that external collaborations bring them the opportunity to work in practical settings and to bridge the gap between theory and practice. Second, they recognise collaborations as facilitators of academic progress, that is, opportunities to publish in academic journals.

Collaborative research is seen as an opportunity to strengthen professional relationships— relationships that have as their main goal the development of new and innovative activities in the field of education. One of the participants stated,

> "We are in constant collaboration with the education inspectorate due to the fact that we are in charge of doing research that will show the state of the education system in a region, for example conducting research that will help better understand the need to implement more vocational schools in a certain region." (Department head, West University Timisoara)

Additionally, a vice rector stated that the benefits of collaboration are seen as a great opportunity for researchers and universities to develop a "professional portfolio that will help them become reliable partners when it comes to accessing future research grants" (vice rector, Babes Bolyai University Cluj Napoca).

Research partnerships are seen as beneficial for researchers because they provide the opportunity to publish in a broad range of national and international journals:

"As researchers, we become more visible by publishing papers in journals, participating in national and international scientific events, publishing reports that present best practices that are later used by school teachers or educational inspectorates as a good practice." (Department head, Al. Ioan Cuza University Iasi)

Discussion and conclusions

Starting with a revision of the literature concerning the use of research knowledge our study focus on the factors and conditions involved in this process considering both the voices of academics and university leaders. The findings of our study reveal new insights into the perspectives of academics and academic leaders on the issue of educational research utilisation. Research production is the starting point for any discussion on the research utilisation process, and researchers' context determines whether this practice succeeds.

Our study moves forward the debate about academics and university leaders perceptions on the academic research, its transfer strategies and their role in mobilizing academic knowledge for its use in policy and practice by identifying, as well as categorising barriers and conditions.

The results reveal that research utilisation is a complex process, and the participants recognised that a series of variables can have great impact on their work. Tailoring research to users, the existence of funding and other resources, mechanism of access to beneficiaries and collaboration are all critical to pushing research up and out of the university context.

In the first place, the study identifies who are the perceived users of educational research and revels the students as main beneficiaries, together to school teachers and colleagues from academia. Research is produced and delivered to students; this insight can help us understand the context of research production in Romania, which is centred on a model of academia that prioritises teaching as a university mission (Kwiek 2015). The transformation process of the European university model is still progressing, especially in countries with a strong teaching tradition (Zgaga 2014). The impact of research outside academia is still limited, and the results are conclusive in this sense. Despite reports that academic researchers do not understand the needs of policy makers or practitioners (Burkhardt and Schoenfeld 2003), our sample was aware that users have different priorities and perceptions with regard to judging the relevance and use of research evidence. The engagement and use of research not only depends on the audience but is also influenced by researchers' initial and continuous training. Our findings reveal that researchers involved in continuous training abroad are more likely to transfer their research to policy makers and practitioners, who are more sensitive to these needs and expectations.

Secondly, the study focus on the factors influencing the research use, mong which the access of resources and funding appear as critical issues. As presented by other studies that focus on the Romania situation, studies mention above, (Vîiu and Miroiu 2013; Curaj 2015; Vlăsceanu and Hâncean 2015), funding is still a critical issue for research utilisation. As in other national contexts, in Romania, the main sources of funding are the national government and public European funds. Private funds provided by nongovernmental agencies or other private sources are still feeble, which could explain the weak connection between research and non-academic users. This finding could have implications both for public funding agencies that support research production and for non-public agencies that may benefit from research

findings, aligning their agendas with researchers' priorities and thereby enhancing the collaboration between both contexts.

Thirdly, the study identifies the role of research collaborative communities to foster the research uptake in practice. Academics perceive benefits for academic progress and social benefits in terms of social contribution. Research partnerships represent a key point for academic researchers, and these partnerships are seen by researchers as opportunities to enhance their own results and to close the gap between theory and practice. Our results are in line with studies which stress the role of collaboration between different stakeholders in order to take full advantage of research benefits (Cornelissen, et al 2015, Malin, Brown and Trubceac 2018). This position allows us to consider partnerships between researchers, policy makers and practitioners as a priority for any educational reform agenda. While much is made of the need for academics to work more closely with external collaborators, such as agencies and private entities, the potential implications in terms of research management at the university level and priorities for partners cannot be ignored (Cherney et al. 2012). Although researchers, policy makers and practitioners are driven by different views and perspectives on research and its use, and they live in different cultures and contexts (Bogenschneider and Corbett 2010; Edwards et al. 2007), bridges can be built. This process requires significant involvement by both parties and the ability to overcome challenges (Ion, Stingu and Marin 2018). Coherent training programmes, the facilitation of researchers' mobility and the exchange of practices in other contexts in which research utilisation is more developed represent possible solutions and appear as factors influencing the research uptake for policy makers and practitioners. Researchers should possess the necessary know-how to manage their research, to disseminate their findings appropriately and to manage collaborations effectively. All these tasks are not easy to achieve and are not part of a

mainstream initial training programme for researchers; rather, they require structural effort and are the result of extensive experience.

Finally, our study attempts to enhance the literature by including the role of the academic leaders in the research transfer and utilisation. Our study reveals a series of interdependent factors that school leaders and academics need to consider in order to enhance the research use beyond the university context. We know academics are the main actors in this process. However, of the leadership processes depend the creation of an organisational culture sensitive to the production but also transfer and research dissemination, the promotion of coherent and effective structures, system and resources that facilitate and support research production and use. Our study complements the results of Brown and Zhang (2017) about the role of leaders in the use of educational research in school practice and highlight the significant role of leadership in setting a favourable organisational culture to research use.

This study has several limitations. The data are collected through surveys and interviews and, therefore, reflect the participants' perceptions, which can be subjective, depending on their academic environment and personal experiences. Although survey data were complemented with information from qualitative data derived from interviews, as suggested in the study by Cherney et al. (2012), the data provided by respondents must be considered from this perspective, and future analysis should be conducted (correlating the RU variable with the number of projects funded for each of the respondents or the number of partnerships with external collaborators). These measures can help increase accuracy.

This study has implications for higher education institutions, policy makers, and practitioners as users who are engaged with research. First, research producers, such as higher education institutions, must adopt research as part of their mission and priority, promoting institutional measures and organisational cultures that support research and users' priorities. The research

culture in the Romanian higher education system remains in transition from teaching-based values to research-intensive environments. Second, to succeed, initial and continuous training with a strong research component are required. Academics must understand the priorities of policy makers and practitioners and craft their research accordingly. This process draws attention to the professional identity of academics and shifts their work paradigm from teaching to teaching and research; alternatively, it includes only research-intensive profiles.

Translating educational research is a complex process and requires a balance between researchers' own research and disciplinary interests and the agendas of policy makers and practitioners. Harmonizing these two contexts is difficult and, as Levin (2011) recognised, translation activities are sometimes poorly understood in the academic social sciences. In parallel with research-production actions, policy makers and practitioners must provide researchers with opportunities for interaction, knowing that their partnership is crucial for influencing policy and practice within the educational field. Strategic dialogue between research production and research use is still needed to overcome these barriers.

Acknowledgement

References:

Adedoyin, OO. (2015). Barriers Inhibiting Utilization of Educational Research Findings within the School System: Views of Botswana Junior Secondary School Teacher. *International Journal of Research in Humanities and Social Studies,* 2(1), 1-9.

Amo, C (2007). Conceptualizing Research Impact: The Case of Education Research. *Canadian Journal of Program Evaluation*, *22*(1), 75.

Anwaruddin, SM. (2016). Language teachers' responses to educational research: addressing the 'crisis' of representation. *International Journal of Research & Method in Education*, 39(3), 314-328.

Belkhodja, O, Amara, N, Landry, R, and Ouimet, M (2007). The extent and organizational determinants of research utilization in Canadian health services organizations. *Science Communication, 28*(3), 377-417.

Bell, M, Cordingley, P, Isham, C, and Davis, R. (2010). Report of professional practitioner use of research review: Practitioner engagement in and/or with research. *Available at: http://www.curee.co.uk/files/publication/[site-timestamp]/Practitioner%20Use%20of%20Research%20Review%20-%20FINAL%2011_02_11.pdf* (accessed December, 8th, 2016)

Biesta, G. (2007). Why "what works" won't work: Evidence-based practice and the democratic deficit in educational research. *Educational theory,* 57(1), 1-22.

Biesta, G. (2010). Why "what works" still won't work: From evidence-based education to value-based education. *Studies in Philosophy and Education,* 29(5), 491-503.

Bogenschneider, K and Corbett, T. J. (2010). *Evidence-based policy making: Insights from policy minded researchers and research-minded policymakers*. New York: Routledge.

Brown, C, Daly, A and Liou, YH. (2016). Improving trust, improving schools: findings from a social network analysis of 43 primary schools in England. *Journal of Professional Capital and Community,* 1(1), 69-91.

Brown, C. and Zhang, D (2017). How can school leaders establish evidence-informed schools: An analysis of the effectiveness of potential school policy levers. Educational Management Administration & Leadership. 45(3), 382–401

Burkhardt, H, and Schoenfeld, A. H. (2003). Improving educational research: Toward a more useful, more influential, and better-funded enterprise. *Educational Researcher*, *32*(9), 3-14.

Cain, T (2016) Research utilisation and the struggle for the teacher's soul: a narrative review. *European Journal of Teacher Education*, DOI: http://dx.doi.org/10.1080/02619768.2016.1252912

Cherney, A, Povey, J, Head, B, Borehamb, P. and Ferguson, M. (2012). What influences the utilisation of educational research by policy-makers and practitioners?: The perspectives of academic educational researchers. *International Journal of Educational Research,* 56, 23–34.

Coburn, C, and Talbert, J. (2006). Conceptions of evidence use in school districts: Mapping the terrain. *American Journal of Education,* 112, 469–495.

Coburn, CE, Penuel, WP. (2016). Research–Practice Partnerships in Education Outcomes, Dynamics, and Open Questions. *Educational researcher,* 45(1), 48-54.

Cooper, A. Levin, B, and Campbell, C. (2009). The growing (but still limited) importance of evidence in education policy and practice. *Journal of Educational Change ,10*(2-3), 159-171.

Cornelissen, F., Daly, A. J., Liou, Y. H., Van Swet, J., Beijaard, D., & Bergen, T. C. (2015). Leveraging the relationship: Knowledge processes in school–university research networks of master's programmes. *Research Papers in Education*, 30(3), 366–392.

Crona, B I, and Parker, JN. (2011). Network determinants of knowledge utilization preliminary lessons from a boundary organization. *Science Communication*, *33*(4), 448-471.

Cummings, G G, Estabrooks, C A, Midodzi, WK, Wallin, L and Hayduk L. (2007). Influence of organizational characteristics and context on research utilization. *Nurs Res.,* 56(4), 24-39.

Curaj, A. A. (2015). *Stairway to Excellence Country Report: Romania*. Bucuresti: UEFISCDI. Available at: http://uefiscdi.gov.ro/Upload/cec07eff-0631-4133-8052-04a553ae0d07.pdf (Accessed December, 8th 2016)

Day, C. and Sammons P. (2013). Successful Leadership: A Review of the International Literature. Reading: CfBT Education Trust.

Edwards, A, Sebba, J, Rickinson, M. (2007). Working with users: Some implications for educational research. *British Educational Research Journal,* 33 (5), 647–661.

Gelderblom, G, Schildkamp, K, Pieters, J and Ehren, M. (2016). Data-based decision making for instructional improvement in primary education. *International Journal of Educational Research,* 80, 1-14.

Heinsch, M, Gray, M, Sharland, E. (2015). Re-conceptualising the link between research and practice in social work: A literature review on knowledge utilization. *International Journal of Social Welfare,* 25(1), 33-45.

Hess, FM. (2008). *When research matters: How scholarship influences education policy.* Cambridge, MA: Harvard Education Press.

Honerød, M. (2012). Educational Research and Useful Knowledge: production, dissemination, reception, implementation. *European Educational Research Journal,* 11(1), 56-61.

Ion, G. and Castro, D. (2016). Transitions in the manifestations of the research culture of Spanish Universities. *Higher Education Research & Development*. DOI: http://dx.doi.org/10.1080/07294360.2016.1208153

Ion, G. and Iucu, R (2014). Professionals' perceptions about the use of research in educational practice. *European Journal of Higher Education, 4*(4), 334-347.

Ion, G, Stîngu, M. and Marin, E. (2018). How can researchers facilitate the utilisation of research by policy-makers and practitioners in education? *Research Papers in Education*, DOI: 10.1080/02671522.2018.1452965

Kearney, ML and Lincoln, D. (2014). Researchers and policy-makers: a stakeholder alliance. *Studies in Higher Education,* 39 (8), 1291–1292.

Knott, J and Wildavsky, A. (1980). If Dissemination Is the Solution, What Is the Problem?. *Knowledge: creation, diffusion, utilization, 1*(4), 537-78.

Kwiek, M. (2015). Academic generations and academic work: patterns of attitudes, behaviours, and research productivity of Polish academics after 1989. *Studies in Higher Education,* 40(8), 1354-1376.

Landry, R, Amara, N, and Lamari, M. (2001). Climbing the ladder of research utilization–Evidence from social science research. *Science Communication,* 22(4), 396– 422.

Lester, JP (1993). The utilization of policy analysis by state agency officials. *Science Communication, 14*(3), 267-290.

Levin, B. (2011). Mobilising research knowledge in education. *London Review of Education, 9*(1), 15-26.

Levin, B. (2013). To know is not enough: Research knowledge and its use. *Review of Education,* 1(1), 2-31.

Levin, B. and Edelstein, H. (2010). Research, policy and practice in education. *Education Canada,* 50(2), 29–30.

Lingard, B. (2011). Policy as numbers: Ac-counting for educational research. *The Australian Educational Researcher, 38*(4), 355-382.

Lubienski, C, Scott, J. and DeBray, E. (2014). The Politics of Research Production, Promotion, and Utilization in Educational Policy. *Educational Policy*, 28 (2), 131-144.

Joel R. Malin, J, Brown, C. Trubceac, A. (2018) Going for Broke: A Multiple-Case Study of Brokerage in Education. AERA Open April-June 2018, 4 (2), 1–14

Meijers JM, Janssen MAP, Cummings GG, Wallin L, Estabrooksc, A. and Halfens RYG (2006). Assessing the relationships between contextual factors and research utilization in nursing: systematic literature review. *Journal of Advanced Nursing*, 55(5), 622–635.

Metcalfe, AS, and Fenwick, T. (2009). Knowledge for whose society? Knowledge production, higher education, and federal policy in Canada. *Higher Education, 57*(2), 209-225.

Penuel, W. R, Allen, A. R, Coburn, C. E., and Farrell, C. (2015). Conceptualizing research–practice partnerships as joint work at boundaries. *Journal of Education for Students Placed at Risk (JESPAR), 20*(1-2), 182-197.

Qvortrup, L. (2016). Capacity Building: Data- and research-informed development of schools and teaching practices in Denmark and Norway. *European Journal of Teacher Education* DOI: http://dx.doi.org/10.1080/02619768.2016.1253675

Rickinson, M. (2003). Reviewing research evidence in environmental education: some methodological reflections and challenges. *Environmental Education Research, 9*(2): 257-271.

Sá, C M, Li, S X, and Faubert, B. (2011). Faculties of education and institutional strategies for knowledge mobilization: an exploratory study. *Higher Education 61*(5): 501-512.

Singer, FM (2013). Cercetarea ştiinţifică românească în educaţie: încotro? Romanian Research in Education: Where to? *Revista de Politica Stiintei si Scientometrie – Serie Noua* 2(4), 286–302.

Temple, P (2003). Educational Research and Policymaking: findings from some transitional countries. *London Review of Education, 1*(3), 217-228.

Vanderlinde, R, and van Braak, J. (2010). The gap between educational research and practice: views of teachers, school leaders, intermediaries and researchers. *British Educational Research Journal, 36*(2), 299-316.

van Schaik, P, Volman, M, Admiraal, W, Schenked, W (2018). Barriers and conditions for teachers' utilisation of academic knowledge. *International Journal of Educational Research*, 90, 50–63

Vîiu, GA, and Miroiu, A. (2013). Evaluarea cercetării universitare din România. Abordări metodologice alternative. *Revista de Politica Stiintei si Scientometrie – Serie Noua,* 2(2),89-107.

Vlăsceanu, L, and Hâncean, M.G. (2015). Policy Incentives and Research Productivity in the Romanian Higher Education. An Institutional Approach. In: Curaj A et al (eds)*The European Higher Education Area*. Springer International Publishing, pp. 185-203.

Wieser, C. (2016). Teaching and personal educational knowledge – conceptual considerations for research on knowledge transformation. *European Journal of Teacher Education* DOI: http://dx.doi.org/10.1080/02619768.2016.1253673

Zgaga, P (2014). The role of higher education centres in research and policy: a case from a European periphery. *Studies in Higher Education,* 39(8), 1393-140.

Appendix: Description of the variables used in the study

Name of variable	Description of the index	Dimensions
RU	(1). Transmission (2). Cognition (3). Reference (4). Effort (5). Influence (6). Application	(1). I transmit my research results to end-users (2). My research reports have been read and understood by end-user (3). My work has been cited in reports and strategies by end-users (4). Efforts were made to adopt the results of my research by end-users (5). My research results have influenced the choices and decisions of end-users (6). My research has been applied by end-users
Researchers' context		
Research targeted to user	This index measures whether the majority of research conducted by academics is directed at policy-makers and practitioners. This index is comprised of four dimensions that range on a 4-point scale, ranging 1 (never) to 4 (always).	The eight dimensions are: (1) policy makers within government; (2) practitioners/managers within the public sector; (3) practitioners/managers within the community sector; (4) practitioners/ managers within the private sector, (5) Academic researchers, (6) Students, (7) Pre-university teachers
Importance of academic funding	This index measures how important academic type funding is in ensuring research is conducted. This index is comprised of two dimensions that range on a 6-point scale, ranging from 0 (does not apply), 1 (very unimportant) to 5 (very important).	The two dimensions are: (1) my university's internal research funds; (2) funding organisations at national level
Importance of other funding	This index measures how important other funding sources are in ensuring research is conducted. This index is comprised of five dimensions that range on a 6-point scale, ranging from0 (does not apply), 1 (very unimportant) to 5 (very important).	The five dimensions are: (1) not for profit organisations; (2) state government agencies; (3) local government agencies; and (4) private sector organisations
Benefits of	This index is based on academic	The 10 dimensions are: (1) I have been

collaborative research	perceptions of the benefits of carrying out research in collaboration with government, industry or community sector partners. This index is comprised of ten dimensions that range on a 6-point scale, ranging from 0 (not applicable), 1 (strongly disagree) to 5 (strongly agree).	able to use data that would otherwise be difficult to access; (2) Research partnerships have provided me with opportunities for my research to have an impact on policy and practice; (3) Research partnerships have helped to increase my industry contacts; (4) My industry contacts have helped with developing future research projects; (5) Research partnerships enable me to generate extra income for my work unit; (6) Such projects have provided me opportunities to commercialise research outcomes; (7) Research partnerships have helped me with career advancement; (8) Such projects have required me to be pragmatic and realistic in relation to research outcomes for industry partners; (9) Research partnerships have enabled me to publish in a broad range of publication outlets; (10) I find projects with external partners more satisfying than fundamental ''blue sky'' research.
Barriers academics experience in the transfer & uptake of their research	This index is based on the barriers academics experience in the transfer and uptake of their research. This index is comprised of five barriers that range on a 6-point scale, ranging from 0 (not applicable), 1 (strongly disagree) to 5 (strongly agree).	The six dimensions are: (1) There are high costs (e.g. time and resources) in translating the results of research for policy-makers and practitioners. (2) There are insufficient forums and networks available for bringing together researchers and non-academic end-users of research. (3) Academic reward systems do not adequately recognise dissemination work to non-academic end-users. (4) The academic requirement to publish primarily in peer-reviewed journals inhibits a focus on policy and practitioner audiences. (5) Networks and partnerships that might support research uptake are often undermined by turnover of contact staff in public agencies, (6) Researchers' lack of training in research transfer process at higher education institutions level