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RESEARCH AND KNOWLEDGE TRANSFER IN EDUCATIONAL SCIENCES: AN ISSUE OF SOCIAL JUSTICE

*Investigación y transferencia del conocimiento en ciencias
de la educación: una cuestión de justicia social*

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ABSTRACT

The literature seems to support the university as a nucleus of development in the community and environment around it. However, the label research and transfer is increasingly being questioned in various academic forums—and outside of higher education. This is largely because it can be difficult to see the applicability of results produced in university research centres, or because the results

have not been disseminated effectively. The purpose of this paper is to confirm that educational research must be anchored in socio-educational interests, and that it must have suitable strategies for effective transfer of knowledge to and for the community. To that end, we review and examine how the university's second and third missions have been understood in the scientific literature and go on to make a proposal within the framework of social, environmental, and structural challenges that we will face in the near future. Finally, what concerns us is establishing new pathways for connecting academia and society based on reciprocal meeting points, where both parties participate in the process, albeit playing different roles. In short, it is about promoting a more applied scientific culture—what we study affects target groups, and this should be identified. Therefore, we must show that science in general, and pedagogy in particular, is a way to achieve social justice, from research with firm foundations allowing real advances and epistemological consistency.

Keywords: higher education; pedagogy; research; knowledge transfer; social responsibility; university.

RESUMEN

La literatura existente parece avalar a la Universidad como un núcleo de desarrollo en sus comunidades o entornos circundantes, pero el binomio investigación y transferencia está cada vez más cuestionado en diferentes foros académicos -y también fuera del ámbito de la educación superior- en cierta medida porque no se ha visto, o no se ha difundido suficientemente, la aplicabilidad de los resultados obtenidos en Facultades, centros de investigación o institutos. El objetivo de este trabajo pasa por constatar que la investigación educativa debe tener sus anclajes en intereses socioeducativos y dotarse de suficientes estrategias que permitan su transferencia efectiva en y para la comunidad. Para ello, hacemos una revisión y análisis de cómo se ha entendido en la literatura científica la segunda y tercera misión de la Universidad en las últimas décadas, para así hacer una propuesta en el marco de los desafíos sociales, ambientales o estructurales que se plantean en un futuro inminente. Finalmente, lo que nos ocupa -y preocupa- es establecer nuevas vías que conecten academia y sociedad a partir de puntos de encuentro recíproco, es decir, donde ambas partes participen del proceso, aunque con roles diferentes. En definitiva, de lo que se trata es de promover una cultura científica más aplicada, es decir, que lo que investigamos tenga repercusión sobre el colectivo diana y este así lo identifique. Por tanto, debemos evidenciar que las ciencias en general, y la pedagogía en particular, son una vía para la consecución de la justicia social partiendo de la investigación como un cimiento que permite avanzar con solidez y consistencia epistemológica.

Palabras clave: educación superior; pedagogía; investigación; transferencia de conocimiento; responsabilidad social; universidad.

1. INTRODUCTION

A notable professor at a prestigious American university once said—and took the care to put it in writing—that educational research was among the most difficult to carry out due to its complexity and to the unpredictable nature of the accompanying factors and variables. This is not due to any theoretical or investigative ambition, but rather because putting methodology into practice is mediated by actions and decisions that are out of researchers' hands. He continued by saying that this means many educational researchers have to work in and accept conditions that other academics in other fields would never accept (Berliner, 2002).

What our colleague is saying is that, on occasion—in contexts that make agents' participation in the knowledge production dynamic (families, teachers, etc.) harder rather than easier—managing the viability of a project becomes more important than conducting the study, as this process is often governed, either openly or covertly, by guidelines from authorities. What he also sought was to stir awareness and encourage positive discourse, noting the singularities that must be considered in this field, including predictive power, generalization of findings, types of validity, and control of variables.

One of the authors of this paper noted six years ago now (Santos Rego, 2016a) that context mattered, and mattered a lot. This needs to be reiterated in the face of so many misguided media headlines. Unlike in physics, in education, all variables are important and examining them produces results that are not easy to extrapolate to other contexts.

Temperature, pressure, and magnetic fields are elements that are perhaps easier to deal with than people's cultures, motivations, or identities (Phillips, 2014). This is the path that educational research must often tread, without assurances of any success. Remember the ironic comment from a Nobel prize-winner (Weiman, 2014) in support of what we are saying here, atoms need no permissions, nor approval from inspectors, education authorities, or parents' groups when trying to learn something about what is happening in reality.

Even so, despite administrative and institutional obstacles (which are clearly justified when we undertake research in fields where ethical considerations are paramount), educational research has over recent decades demonstrated a spectacular potential for growth within the more generic ambit of social sciences. It has done this while still encouraging research that is both topically and contextually relevant and significant, as well as being clearly concerned with theoretical and methodological rigor. This holds no matter whether it is quantitative, qualitative or takes a pragmatic complementary (frontier) position, when this is seen as an alternative to often sterile arguments between models and paradigms (Bredo, 2009). The goal is

to promote solutions to problems that always have degrees of complexity but which need suitable or combined responses.

We must bear in mind that any agenda for the common good needs consensus and respect for quality research. Naturally this includes the field of education (Feinberg, 2012), which has seen growing awareness of and need for results which can be transferred to society by various means and formats to enhance opportunities offered by increased knowledge about individual and collective axes of development.

Hence, the aim of this paper is to provide an analysis of the state of the issue. More specifically, we aim to show that educational research must be anchored in the socio-educational interests of the community and must have sufficient strategies to allow effective transfer. This is not something that is only justified as the third university mission, it is also coloured by the idea social justice. In other words, what we study has an impact on the target group we are studying.

2. THE SEARCH FOR CREDIBILITY FOR IMPROVING PRACTICE

Because this article must be consistent with the sense of the volume as a whole, there needs to be an analytical reference or a kind of “state of the art”. We also have the “historical” advantage of having managed the biases of the occasional macro-report on research work in the north-west of the Iberian Peninsula (Santos Rego, 2004, 2016a).

In those joint reports, we demonstrated data on the progression and gradual consolidation of educational research in Galicia. This progression is largely due to groups and networks that were created in search of synergies—a search which is still ongoing—to meet the evaluation requirements from funding bodies where applicable. It is clear that this has led to a notable advance in sound contributions (articles, books, programs, etc.) in topics of interest for the education system and society as a whole. In addition, the processes and products resulting from high-quality research (in both theoretical and methodological terms) and its conclusions have improved connections with the interests of civil society in terms of pedagogical development.

Hence, we must do everything necessary for there to be more and better knowledge transfer from educational research. This is why the second of the joint reports (Santos Rego, 2016b) advocated for consultation between research groups, professional associations, and civil society in general. Knowledge must serve to discern educational policies and practices that fit the challenges we face.

The key to our social credibility continues to be effective improvements in practice. This does not mean we can ignore the reflection that educational action within classrooms deserves—aside from the very real problems that concern us—in a democratic society. That said, occasionally we lose our perspective by obsessing over the exclusive search for “what works”, forgetting the warnings

of much evidence, which in education is from a specific place, but immediately transferrable (Wellington, 2015; Whitty, 2006).

At the same time, research and knowledge transfer may run in parallel, and not everything goes just from research into practice. Instead, in the opposite direction, there may be “empirical adjustments” resulting from proper collaboration when dealing with explicitly-agreed goals between the parties. Listening and demonstrating sensitivity to the hard work of dealing with educational needs will benefit our research in terms of relevance to practice (Knapp, 2003), and will help that research to address meaningful problems with agents who are willing to jointly discuss proposals that educational communities may find valuable.

Transferring knowledge in education, whether into practice, to community agents or to society in general, means one clear primary condition; having sound, valid, proven knowledge, relevant for use in a specific context, with its effects evaluated.

This is why there has been talk of research summaries available to a broad public audience (Suri & Clarke, 2009) on social networks, and of course in the media. Fortunately, we are living in a time when educational and scientific policies emphasize dissemination of all kinds of knowledge, which happens every day, that can help guide the decisions of families, teaching professionals, guidance counsellors, social educators, designers of educational materials, headteachers, and other agents. Making decisions in education should require some pedagogical knowledge in order to do so with responsible understanding.

Furthermore, in seeking educational knowledge, we must be aware of the variety of approaches and methodologies of use, as well as the undeniable complexity of the object of study, which of course includes the new models of knowledge production and the way of considering innovation as the product of a unique institutional interaction. This interaction is substantially represented by what is called the “triple helix” (government, industry, academia), key in which are the processes of hybridization between the actors, along with balance in terms of the driving agent of the interactions (Bernal, 2020).

The Triple Helix model, typical in developed countries, focuses much more on technological innovation than on anything that would add value to organizations and the voluntary sector working on the construction of more participative, egalitarian, inclusive societies. It was the “Quadruple Helix” (Carayannis & Campbell, 2009) that added the component of civil society to the previous prominence of the state, business, and academia, along with the media and interest groups that shape it (who can deny that cultural and educational dynamics contribute to development?).

However, the university cannot be separated from civil society, and in fact, one pillar of the new model is “University Social Responsibility” (USR). We might equally talk about the university’s “civic mission”, a label with a clear educational meaning through which we might discern the 2030 Agenda and the Sustainable

Development Goals (SDG) as a framework of knowledge transfer adding social value (Mato, 2020).

It is worth adding that including civil society in this argument (the Quadruple Helix model) completes the EU's outline of a core axis for achieving a competitive knowledge-based society (Carayannis & Campbell, 2012). This reinforces the university's "...role as an engine of technological development and responsibility in economic, social, and cultural development that is productive and critical, in addition to teaching and research" (Tourriñán, 2020, p.80).

3. RESEARCH IN EDUCATION, A PATH TOWARDS SOCIAL JUSTICE

When carrying out rigorous scientific research, there needs to be prior study about the state of the art. Without that, we cannot know what our contribution will be, or whether we are doing something that has already been done in the same terms. This is how a project's starting point can be established whether the aim is to support, rebut, expand, or test information. This prior study is necessary to comply with the three requirements for the scientific method laid out by Ferraces *et al.* (2019): 1. Empirical, it should be objective and use controlled observation and measurement; 2. Replicable, it should be able to be repeated by other researchers; and 3. Acceptable and publishable, in that the content should be verifiable and contribute to improving the field and area of knowledge. Fox (1981) noted that two types of bibliography could be differentiated in this initial process. On the one hand, the conceptual bibliography, made up of books, chapters, or articles by authorities in the specific area of study, describing the paradigms, theories, experiences, and existing ideas about the topic. On the other, the research bibliography, which covers the applied studies on the topic and extrapolation of their results.

In his book, *The Structure of Scientific Revolutions*, Kuhn (1962/1975) provided a historical perspective of the changes in science over time. His definition of paradigms in this text is surprisingly simple, though not facile, considering them "universally recognized scientific ideas that, for a certain length of time, provide models of problems and solutions to a scientific community" (Kuhn, 1975, p. 13). Hence, a scientific paradigm contributes to creating the construct that must be observed, guides investigators, and the questions that research must formulate in the process, along with the structure and shape of the research, and even influences how the results are interpreted. Considering this argument, we can say without a doubt that a paradigm acts as a kind of interpretive ideology around the art being studied, influencing the nature of the research process.

Like many authors (Álvarez, 1986; Baker, 2000; Bericat, 1998; Ferraces *et al.*, 2019; Filstead, 1986; Reichard & Cook, 1986), we believe that combining paradigms in social and educational research can enhance the richness of the data while also helping contextualize the research in reality. Bryman (2006) took a balanced position, avoiding epistemological excess and technical indifference. Dialogue

between guidance and integration is both useful and legitimate. Each method has strengths and weaknesses requiring balanced designs based on the initial construct. So, if we want to advance our overall understanding of reality, we must not position ourselves solely based on one postulate or another in the research process, because no paradigm is above the rest, nor should it monopolize how knowledge is interpreted (Caride, 2006).

Social sciences, and more specifically pedagogy, has been the “poor relation” in research, treated with disdain and even contempt at times. Justice has been served over time, or so we humbly believe, noting how advances in this area of knowledge have contributed to individuals’ and communities’ wellbeing. The path before us is still long and the journey difficult, since it seems as though only the tangible product is valid, and we work with constructs and intangible advances.

University departments, research centres, and other institutions where people demonstrate epistemological sensitivity and rigor in pedagogy have prized—and continue to prize—the strengths and weaknesses of processes, methodologies, programs, and resources, leading to improved learning in specific areas. Even historical research has been vindicated in relation to pedagogical advances that seemed to have been forgotten, revitalizing the socio-educational foundations of the present.

Educational research is a tool at the service of society, helping to balance variables that may tend to destabilize the social equity and equality that has been achieved. In both formal and informal fields, many researchers look into factors that help heal social rifts. And despite economic, political, health, and environmental challenges putting the system as we know it on the back foot, there can be no doubt that educators have been able to overcome whatever obstacles have been thrown at them. We doubt that this would be the case if it were not for the methodologies, resources, and current validated programs provided by educational research institutes.

The various governments and responsible bodies must offer their citizens opportunities regardless of socio-economic situation. Only by taking this path will it be possible to achieve long-awaited social justice. To that end, we believe that investing in research, and in educational research is a way to fight against injustice and inequality, because optimizing resources, programs, and teaching methodologies will reinforce the work of education professionals.

4. RESEARCH BETWEEN TEACHING AND TRANSFER. THE CONVERGENCE OF THE THREE MISSIONS OF A UNIVERSITY

Recent years have seen continual questioning of the university and its future in the face of the challenges thrown up by rapid social change. This includes asking why now when it comes to the greater interest in transference, when it is something that was raised many years ago and never had the impact it has

currently. Professor Cristina de la Cruz (2010) tells us that there has never been so great a distance between the expectations placed on institutions of higher education as part of their responsibility to society and their response to those expectations. The changes imposed by the COVID19 pandemic also led to much thinking on this score, and rethinking the role that higher education must play in such a changing, and very vulnerable world (Santoverña & Gil Quintana, 2022; Pascualetto *et al.*, 2023). The contributions in this regard include indications of the need for an epistemological about-face in university research practice, necessitating theoretical and applied approaches to social problems, understanding the reality of the community as an indivisible whole, with ethical guidance based on the values of sustainability (Torres & Cobo-Beltrán, 2022). In turn, it is worth noting the implementation of the SDGs as desirable medium-term goals, a process in which USR must acquire an interdisciplinary perspective, covering the issues from a variety of angles and achieving a coalition of university, government, civil society, and the private sector in order to put the results of research into practice (Pernía *et al.*, 2022). In 2010, professor José Miguel Rodríguez noted various issues that universities may be “held accountable” for by the society that supports them. These include:

- Highlighting the importance of tailoring how universities operate to the needs of employers, encouraging entrepreneurial spirit and business awareness, promoting innovation, facilitating knowledge transfer, increasing productivity, optimizing economic efficiency, and seeking organizational excellence.
- Proposing significant changes in the relationships between public administrations and universities, exploring new sources of funding to ensure these institutions’ viability and sustainability.
- Recognizing the notable influence of new information and communication technologies in the profound transformation of university teaching, research, and management.
- Addressing internationalization, globalization, and the growing competition between universities in various areas. There is explicit competition for management of funds and distribution channels for educational services.
- Underscoring the growing opinion that there needs to be a new type of “agreement” between university and society, reflected in public perception and possibly influenced by the increasingly marked tendency of creating various classifications and indices. This is interpreted as the need to open the gates of universities to knowledge, allowing it to flow in and out of the institution and its surroundings.

We are firm believers that modern universities must transform themselves into a fundamental element of 21st century society for “...dealing with and transferring

established, legitimate social values, for developing the next generation of citizens, and for political socialization” (García *et al.*, 2008, p. 83). Within our socio-political contexts, universities establish their own institutional ways of interacting with the surrounding society. In theory, social councils (*Consejos Sociales*) are one means of achieving this. As collegiate bodies they act as a meeting point between civil society and academia, facilitating communication and collaboration between the two sectors in order to contribute to technological, occupational, cultural, economic, social, and educational development. These bodies arose in legislation, the Universities Act 6/2001, 21 December, (BOE 24/12/2001), as amended by Organic Law 4/2007, 12 April 2007 (BOE 13/04/2007), and are defined as “... the body for society’s participation in the university”.

From another perspective, the 2016 public report entitled “*Social Responsibility in Universities: from knowledge to action. Guidelines for implementation*” indicates thatUSR is also driven by membership of compacts and networks. At that time, 26 Spanish universities were part of the United Nations Global Compact, while 7 were signatories to the *Principles for Responsible Management Education* (PRME), 7 were part of the GUNI Network, 5 were part of the *Talloires* Network. This same report, coordinated by the University of Burgos, indicated that the third mission also covered offices and bodies created purposely to deal with areas such as equality, volunteering, disability, the environment, sustainable development, culture, and sports which were active—with varying levels of impact—in all Spanish universities (González-Alcántara *et al.*, 2016).

At this point, it seems appropriate to reflect on the suitability of current channels of interaction between universities and society, and what the possibilities are for improving and extending these connections. The development of university practice means that there is a particular need to review teaching and the relationship between theory and praxis. There has been recent reconsideration of the traditional distinction in universities between learning and students’ participation in civic, social, political or environmental activity inside and outside of the university—a distinction which had traditionally viewed the students’ role as predominantly passive receivers of knowledge (De las Heras, 2014; González-Rabanal, 2022). This has been alongside growing awareness of the importance of the university community being socially involved, underscoring the need to optimize and raise the visibility of learning processes. The pace of this change increased at the end of the 1990s with the restructuring of European universities in the context of the European Higher Education Area. In Spain, the Volunteering Act (Law 6/1996, 15 January) played a significant role, leading Spanish universities to incorporate university services and extension programs that encouraged student participation in community projects. Similarly, the University Student Statute, approved by Royal Decree 1791/210, established mechanisms to increase student participation in university life and their contribution to management of university services. It recognized the value of student participation in university management as a

complex task. Nowadays, the University System Act (Organic Law 2/2023, LOSU), highlights the need for universities to strengthen their links with their surrounding reality, emphasizing that students play a central role in this process (Art. 18, Art. 33, Art. 48).

As we argued above, student participation in various aspects of the university is a relatively recent phenomenon. This participation was initially limited to mostly non-academic activities, and focused principally on cultural or sporting events associated with the university (Aznar *et al.*, 2023). However, in recent years, public universities have begun to more consistently incorporate services and programs aimed at encouraging the university community's participation in the activities of entities engaged in social action close to campus. These services, which have variously been called volunteering, university extension, and participation, among other labels (Arias & Simón, 2004; Gaete, 2011), seek to promote young people's active interaction with the society around them.

This process was not undertaken by chance, instead, the international context seemed to lay out a path to deal with people's overall education, at all educational levels, which of course includes the university environment. Kymlicka (2003) defined this phenomenon as the "rise of civility". According to Bowen (1984), by considering social responsibility, university departments and colleges gain two fundamental commitments: one technical and the other ethical or moral. Their technical responsibility is related to the provision of technically competent professionals for society, well-trained, self-disciplined people with a clear, ongoing interest in continuing to extend their learning. The moral responsibility is around educating people with broad knowledge and culture who are able to take on leading roles in society, and who can constructively influence the community and civic life (Agrafojo *et al.*, 2018). This means that higher education should prepare its students so that they become thoughtful, critical citizens who can think for themselves (Ugarte & Naval, 2010). In other words, educational institutions will prepare students for involvement and participation in society, and this is also transfer (Sotelino *et al.*, 2016). In the 1970s, Otero (1974, p. 110) advocated for an educational approach that would encourage student participation, arguing that "making decisions involves problems of motivation and attitude, as well as problems of knowledge". The ability to choose between different alternatives and understand the implications of those decisions requires a deeper understanding of the variables involved, and therefore the need to access relevant information. Hence the convergence of research, teaching, and transfer seems both inevitable and desirable. The challenge will be to seek new ways of connecting community and academia that are not solely via official bodies and institutes, but rather which also involve those who share the university, from teachers and students to administrative and service personnel.

5. HOW TO TRANSFER KNOWLEDGE: A SUMMARY OF MODELS

In the literature on the subject, beyond the pioneering role attributed to Bozeman’s (2000) model, there is a common sense that transfer—via an informative route or a more effective or utilitarian route for society—will generally be according to four models (Becheikh *et al.*, 2010; Hidalgo *et al.*, 2002; Santos-Rego, 2020; Touriñán, 2020) (Table 1).

In our opinion, the social interaction model has more advantages due to its dynamic focus which reinforces the links between researchers and end-users, increasing the chances of developing mutual areas of interest between the two. In any case, the risk of this type of model is that it may significantly simplify the transfer process in certain sectors of society.

To be more specific, it is worth remembering what Davenport and Prusak (1998) hinted at over twenty years ago. They indicated that effective knowledge

TABLE 1
 MODELS OF KNOWLEDGE TRANSFER

Model	Short Description	Deliverables
Linear, unidirectional, or transactional model	Based on clear scientific findings	Has resulted in what are known as Offices for the Transfer of Research Results and businesses
Problem-solving model	Here, the users identify needs that the researchers have to respond to	The steps go from identifying needs to satisfaction of those needs, via clarifying the problem, seeking solutions, and selecting the best possible options.
Link model	Dissemination and, where appropriate, commercialization of knowledge are the main tasks.	Creation of spin-offs or management of agreements with companies/organizations to create products, programs, or technical improvements.
Social interaction model	What stands out here is the dissemination of knowledge between people and systems such that users can be considered co-producers of knowledge in a continued interaction with researchers.	Service-learning projects, open science projects or other agreements with organizations or businesses.

Source: Authors’ own work based on the models from Becheikh *et al.*, (2010), Hidalgo *et al.* (2002), Santos-Rego (2020) & Touriñán (2020)

transfer involved not only the simple transmission of information, but also effective absorption and use of that information by those on the receiving end. In an instant, we see that transfer and transmission are not the same concept, but this should not lead us to conclude that transmission will never be valuable as transfer. Many dissemination activities might lead to this possible erroneous assessment, as they can be both things at the same time.

Let us look at this difference between transmission and transfer according to criteria laid out by Touriñán (2020). Transmission can be identified by the activity and the medium used (radio, without being too exotic) rather than the goal, which is exactly what knowledge transfer would prioritize. And this is besides the use that we might hope to make of the transferred knowledge via—for example—an advisory service for an association of immigrant families, or by putting a new co-operative learning strategy into practice in teaching mathematics in the *bachillerato* (17-18 years-old).

6. CONSTRUCTING AN APPROACH FOR LINKING EDUCATIONAL RESEARCH AND KNOWLEDGE TRANSFER

At this point, our position on this issue should be clear. The time has passed in which social and education sciences were passive participants in poorly addressing the relationship between university and society by not discussing scant contextualization and remote semantic references brought about through the acritical translation of predominant patterns in hegemonic disciplines in the scientific canon (physics, biology, chemistry...), copying ideas and models from other fields that were clearly insufficient (García del Dujo *et al.*, 2020).

Of course, education is as specific and distinct an area as any other, and the National Commission for Assessment of Research Activity (CNEAI) has recognized this in the current six-year evaluations in Spain. What is interesting is to identify rigorous scientific activity in the study of educational processes, and look at how powerful it may be as knowledge that could be suitable for transfer, given how it might be used to innovatively change or moderate activity in the real world.

We believe that the perspective which brings together knowledge and research should be communicated more broadly, extending it beyond simple products and services. This should not, however, mean losing the critical perspective that we must apply unambiguously for sound, reliable transfer of knowledge in education.

There often seems to be a certain forgetfulness on our part, as experts in pedagogy, that innovation in teaching is a consequence—or should be a consequence—of high-quality research activity that has been proven in relation to learning methodologies or competencies to develop and evaluate. It is well known that having useful studies does not automatically guarantee that teachers and professionals in the field will find them effective. However, by paying attention to the

formats used to communicate these studies, it is possible to move forward. We agree with Szulanski (2000) in emphasizing that the reliability of research results is not a minor obstacle in knowledge transfer. Which means that our research must combine clear conditions of interest, importance, and usefulness for someone.

And clearly in that desire for perspective, bidirectionality is missing. This can be addressed by encouraging partnerships between research and practice, so that small collaborative groups can produce action strategies aimed at improving processes and results both in and out of the classroom.

Not too long ago, Farley-Ripple and colleagues (2018) presented a model that redefined the ways in which educational research was carried out, disseminated, and ultimately applied. We are aware that it is not easy to address, or even produce good channels of communication between the practitioner and research communities in a field as singular as the one we work in. Even so, we have to try to speed up our progress, and this needs the help of administrations, professional groups, and corporations, as well as the help of the university, understood as a driving agent of innovation in the education system it is part of.

Both communities (researchers and practitioners) basically trust different types of knowledge (Snow, 2015), however much they influence or complement each other, from internal and external sources used to produce them. It is a fact that the research community prizes the theoretical and methodological rigor informing its activity, whereas the professional community values research which is relevant to the problems and difficulties they face in practice. What might serve professionals in their activities is exactly what interests educational research. To put it another way: this is the framework of transfer that captures their attention most.

With due caution, what professionals request in day-to-day practice are flexible, functional ways to be able to get the right information to deal with issues and manage problems in and around the classroom. One reasonably successful US Department of Education initiative is called the *What Works Clearinghouse* (WWC), which systematically reviews products, programs, and practices, evaluating and reporting on their potential impact in intervention (Taylor *et al.*, 2021).

Being able to access sound knowledge resulting from research, disseminated through simple formats, will help translate it into practice (Crain-Dorough & Elder, 2021). As researchers, we need to improve our ability to produce products which professionals can use in their work, considering formats that are appealing, so that these professionals do not view research as not coming close to their needs.

The perhaps unfair misunderstandings, more due to ignorance than for any other reason, that affect our field of scientific and professional endeavour must be faced head on and in the open. A communication strategy in the public arena about the excellent studies done in faculties of education would help debunk some of the ideas floating around that social sciences and education research produce little of benefit to society.

In this regard, the evidence that we place in legitimate systems of “accountability” that public bodies have to periodically activate will help to block perceptions that no doubt affect education research funding, with consequences, sooner or later, for the transfer of knowledge to education.

7. DISCUSSION AND CONCLUSIONS

It seems somewhat obvious to state that education science cannot be done apart from the substantive problems that occur in its area of impact (learning, education, training...). However, perhaps it may not be so obvious if, paraphrasing Gibbons *et al.* (1997, p. 4), we realize that education science is shaped from practice, and not solely by theory. We can see this in the range of problems identified in formal, non-formal, and even informal contexts in countries and societies that do not always share similar cultural backgrounds. Despite that, their requirements often agree in calling for educational research that centres on real problems and provides benefits from application within and outside the system. This means that it is important to recognize that in some cases, understanding educational phenomena cannot simply be reduced to a strict scientific argument (Bernal, 2020; Santos Rego *et al.*, 2022) as there are approaches which are limited to interpretive or deconstructionist analysis.

In any case, there will be not good knowledge transfer without relevant educational research for improving intervention that enhances opportunities for people, groups, and organizations. This is especially so if the knowledge achieved is transferred as processes, products, and even services which have a measurable impact in the areas of application.

This is why, despite the objective difficulties we face, we must continue to make an effort to offer useful services and even products to people and the community. This will surely benefit our profession’s reputation and social influence.

Dissemination of consistent reports and studies about problems with a high social impact may be one vector of strategic action. This relates to periodic production of good summaries of educational research (Santos Rego, 2016a) through newsletters that, without being too expensive, could be made available to schools, organizations, and communities, ensuring a minimum level of explanatory support and training in the field.

We know from experience that knowledge transfer in education does not follow a single, exclusive path. Often it goes in both directions, both towards and away from the university. Such evidence encourages us to restate the possibility of having “linking agents” in the form of specialists in managing or facilitating communication and the exchange between researchers and educational practitioners. This figure is similar to what Bernal (2020) and Touriñan (2020)

called “transfer mediators” from offices created for that purpose in universities, and from the centres of knowledge production. So much so that it is almost worth requesting posts for ‘mediation personnel’ with certain criteria who can invigorate transfer and perform technical functions.

Allow us one general observation to finish. Perhaps this structural articulation at an institutional level between research and knowledge transfer is the link that needs to be assembled and developed in the chain of social value. And it is fair to expect such an articulation in the coming years from the innovative potential of educational research programs and projects with a clear goal of exploring significant change in the forms and procedures available for improving education for the newest students along with society’s wellbeing.

At the end of the day, it is a question of perspective. The question needs to be asked, with a certain democratic firmness, who is responsible for making decisions in the university and in other agencies that matter in the education system?

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