

Research-Teaching-Practice linkages: A challenge for Business Schools

Dr Anabel GUTIERREZ

Senior Lecturer

European Business School, Regent's University London, UK

Email: gutierrez@a@regents.ac.uk.

Abstract

Changes in the global business environment are driving changes to the way business schools deliver higher education. However, the long debated gap between academia and industry (research-practice) remains unsolved. This paper explores the integration of research-teaching activities as an alternative to overcome the sometimes conflictual relationship between research and teaching and, more importantly, as a mechanism to reduce the research-practice gap. The aim of this research is to evaluate the extent to which it is feasible to integrate research-teaching in higher education. The practical suggestions to reduce the research-teaching gap proposed by Burke and Rau (2010) are tested in this paper through action research. This research provides empirical evidence on the relationships between research, teaching and practice which could help to improve academic performance, produce better managers for industry and consequently, build a bridge between academics and practitioners.

Keywords: Research-teaching, Research-practice, Business schools, Management research

Introduction

The complexity of management issues, augmented by rapid changes in the global business environment are driving forces for business schools to continue to evolve the way they prepare students for modern organisations. Higher education needs to prepare students to tackle issues in the complex and challenging world that they will face as professionals (Brew, 2010).

At the same time, the market context for business schools is changing with an increase in tuition fees, tighter immigration controls and challenging employment opportunities creating a more competitive environment between business schools. Under these circumstances, collaboration between researchers and practitioners is paramount, as management research undertaken in collaboration between academic and practitioners is more likely to have a positive impact on management (Amabile et al., 2001). However, strong debate continues over the research-practice gap in business and man-

agement research, making this collaboration difficult to achieve and further highlighting the existing gap between research and practice.

With the growing perception that business schools are facing an identity and image crisis, it is imperative that the research-practice relationship address the current business environment. Although European-based schools are said to be much better placed to do this than their US counterparts, reducing the research-practice gap has major implications for the reinvigoration of business schools (Antunes and Thomas, 2007; Reed, 2009). Considering that students are not necessarily taught by researchers, the research-practice gap is only one part of the challenge; higher education will benefit if a broader approach is adopted that considers the interrelations between research-teaching-practice. This research therefore aims to investigate the extent to which it is feasible to integrate research-teaching in the context of a private business school institution of higher education. The following sections explain the research-teaching gap and review suggested ways to reduce that gap. This is followed by an explanation of the research design used to test research-teaching integration in higher education. The final section then identifies conclusions and recommendations arising from the empirical results.

Research-Practice & Research-Teaching Gap

The perennial debate over the research-practice gap in business and management research leave practitioners without relevant research findings and researchers without relevant research questions. This gap has been analysed from several perspectives and suggested solutions include: a return to university roots, a refocusing on experienced managers, reforms to the curriculum, a contextualization of teaching, new publication outlets, and the professionalization of management (Birnik and Billsberry, 2007). However, the nature of the research-teaching-practice gap should perhaps be better understood before attempting any of those solutions.

Reed (2009) explained that research is driven by a systematic application of theoretical reasoning and empirical investigation to better understand and explain general issues while practice is grounded in modes of deliberative reflection and judgement based on direct experience within context-specific issues. Van de Ven Johnson (2006) categorises the theory-practice gap in three ways:

First, as a knowledge transfer problem, no attention is given to transferring the specialist knowledge to a wider audience and making management research more accessible, understandable and relevant for practitioners (Burke and Rau, 2010).

Second, as a philosophical problem, academic research and practical actions are rooted in very different assumptions. While researchers need to build and test general theories, practitioners are looking to solve specific problems. This creates barriers to cross-communication and results in less collaboration.

Third, as a knowledge production problem, research activities and outputs lack relevance to the wider civil society in which they are embedded. Thus, Van de Ven and Johnson (2006) proposed that scholars and practitioners should address complex problems as collaborative learning communities, using a dialectic mode of inquiry to evolve understanding and a synthesis of common problems.

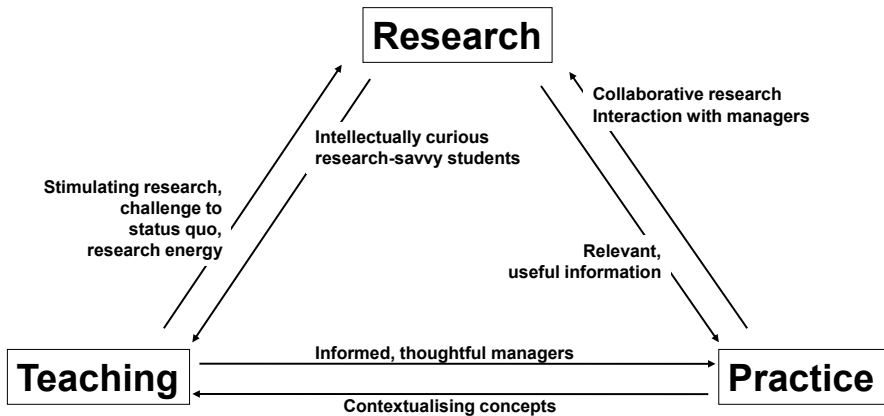
In contrast to the research-practice gap, less has been said about the research-teaching gap and its impact on research-practice. In charge of educating the next generation of managers, business schools have the challenge of imparting an understanding of the value of research that will later favour research-practice links (Burke and Rau, 2010).

Considering the research-practice and research-teaching gaps, Burke and Rau (2010) explain the reciprocal relationship between research, teaching and practice as follows. While collaborative research is desirable between academics and practitioners, managers will not be willing to participate if they do not value research. Therefore, it is not possible to reduce the research-practice gap without addressing the influence of research-teaching. An interesting perspective illustrated in Figure 1 is the fact that teaching and research should not be seen as independent activities. Moreover, teaching, research and practice should be looked as integrated learning processes that reinforce each other.

The multiple influences showed in Figure 1 can be summarised as follows. The research-practice arrow represents how research can be made more accessible, understandable and relevant to practitioners. The practice-research arrow relates to how practitioners can be more involved in contributing to research. The practice-teaching arrow illustrates how instructors and students can contextualise concepts to make management theories more relevant in the learning process; consequently teaching will influence practice producing informed and thoughtful managers.

The research-teaching arrow emphasises that research in its various forms enables teachers to introduce students to relevant and newly developed ideas, demonstrating the various ways of using that research to evaluate workplace scenarios and, thus, making the research process relevant to their future development. On the other hand, teaching can influence research by stimulating meaningful research questions; challenging researchers' thinking and reinvigorating the educator's mind-set.

Figure 1: Narrowing Research-Teaching-Practice Gap



Source: Burke and Rau, 2010

This reciprocal relationship begs consideration of what research is and its purpose. From the students’ perspective, some value the opportunity to work with academics in a one-to-one relationship (Baxter et al., 1998), while others dislike learning research skills as they do not see their practical relevance (Murtone, 2005). For academics, research-teaching attitudes also vary; whilst some academics believe that teaching and research are positively correlated, others regard research as more important than teaching and vice versa (Smeby, 1998; Griffiths, 2004; Leisy et al., 2009). Furthermore, research also means different things in different contexts. While a general meaning of research outside the academic context is ‘finding out’ information in order to perform a specific task, in the academic context research involves a systematic process of investigation in which the findings and methods are valid and represents a contribution to the existing knowledge (Griffiths, 2004). These different views cause misunderstanding and even inhibit the integration of research-teaching, especially when inside the academic context there are variations on types of scholarship.

A useful classification of types of scholarship is proposed by Boyer (1990): scholarship of discovery (basic research); scholarship of teaching (pedagogical research); scholarship of integration (synthesizing what has been discovered to provide a more comprehensive understanding); and scholarship of engagement (how research can help individuals and organizations). Although most lecturers get involved in some of all of those types of research, few have clarity on how to integrate them within the teaching environment.

Table 1: Suggestions to Strengthen the Research-Teaching Nexus

Practical Suggestions	Involved Stakeholders
Emphasize the research-teaching link in graduate program application process and new faculty recruiting and selection process.	Administrators and faculty
Assess the research-teaching link strength in curriculum design efforts and curriculum reviews.	Administrators and faculty
Use a team-based approach with research/teaching faculty, or partner with other institutions as needed.	Administrators and faculty
Communicate the value of integrating research and teaching with students and external stakeholders (e.g., employers).	Administrators and faculty
Pursue faculty development activities that effectively assimilate research and teaching.	Administrators and faculty
Define the faculty role as integrative of research and teaching and communicate to faculty.	Administrators
Integrate the research-teaching link in strategy, mission, and values statements and allocate funds for initiatives to support it.	Administrators
Make work assignment decisions that support the research-teaching nexus (e.g., create research-aligned curricula).	Administrators
Reinforce the research-teaching link in promotion, tenure, performance evaluation, and merit pay decisions.	Administrators
Provide and support training and faculty development opportunities that educate faculty about the research-teaching nexus.	Administrators
Support and use a research-across-the-curriculum approach in business courses (e.g., actively collaborate with students, teach research methods, and encourage students to be effective consumers of research).	Faculty
Integrate evidence-based management principles across courses and pursue professional development opportunities (e.g., conferences) to stay updated.	Faculty
Adopt textbooks that extensively integrate research findings and provide such feedback in reviews and decisions to publishers.	Faculty
Coach graduate assistants about the research-teaching nexus and the importance of reflecting it in their doctoral applications.	Faculty

Source: Adopted from: Burke and Rau, 2010

Integrating research and teaching is a challenge that requires rethinking what teaching and research mean; an assessment of the characteristics of students and academics, a definition of the learning environment that students and academics are operating within and a review of the business environment the students will face. Even though academics may like to teach and to research, Brew (2010) observes that these desires are often compromised by the following barriers:

- (1) Elements of the nature of the work (such as competing demands on time and complexity of knowledge);
- (2) Individual characteristics (such as self-efficacy, role expectations, experience/skills, personality, and beliefs about the link between teaching and research);
- (3) Institutional characteristics (such as strategic planning and management tactics, resource allocation, and departmental ethos);
- (4) The culture of the profession (such as value of teaching versus research and understanding of higher education); and
- (5) Societal culture (such as a short-run focus and perceptions of research). Such barriers make it difficult for higher education institutions to achieve the ideal of a strong research-teaching link.

The practical suggestions in Table 1 provide a list of actions that can be undertaken by managers and academics to reduce the research-teaching gap. However, their implementation represents a challenge for teaching oriented

organisations. One of the main arguments that prevent research being a priority is the fact that research is often not integrated but treated as an independent activity at the expense of good teaching. However, the relationships between research-teaching-practice discussed in the previous sections could help to change this culture by addressing the research-teaching gap which will improve academic performance, produce better managers for industry and consequently build a bridge between academics and practitioners. The following section describes the action research undertaken to implement some of Burke and Rau's (2010) suggestions.

Research Strategy

Action Research

Action Research is understood as a cyclical process and a participatory undertaking that has been influenced and shaped by many different disciplines within the social sciences. Although action research has evolved in multiple ways there are common themes in literature which emphasise that action research is research in action; the researchers are part of the organisation where the research takes place and the research aims to understand organisational situations and produce changes (Saunders, 2009). Therefore, action research involves active reflection to obtain new insights and changed self-perceptions and practices through the cyclical process of planning, executing, and evaluating the results (Drummond and Themessl-Huber, 2007; McIntosh, 2010). This cyclical process represents a valuable model to better understand the practical aspect of integrating research and teaching as suggested from the literature.

Research Aim and Context

The theoretical model presented in section 2 suggests the research-practice gap can be narrowed by reducing the research-teaching gap. This action research aims to investigate the extent to which it is feasible to integrate research-teaching in the context of higher education. Evidence-based support on how to conduct such integration could provide managers and faculty with a better understanding and a road-map to reduce the research-teaching gap and consequently reduce the research-practice gap.

The action research will focus on an MBA course in which the researcher delivers an information systems module. In this context, it is expected that integrating research-teaching will be very challenging due to the institution's teaching orientation. However, as recommended in the literature, reducing the research-teaching-practice is in the best interest of any educational institution and an aspiration for any educator working in it. Therefore the following context and agreements were discussed prior to the research design.

With support from the line Manager, Program Director and the Faculty Learning and Teaching Group in the institution, it was agreed that during the timescale allocated for the project (July 2010–June 2011):

- the researcher will get involved in the research methods module and use the information systems module to implement the action research.
- the researcher workload hours will be adjusted to allocate time for executing this research, delivering research methods workshops and working on the subject research-publications and
- the researcher will report and present the results of the project to the Learning & Teaching Group.

The action research consists of three stages:

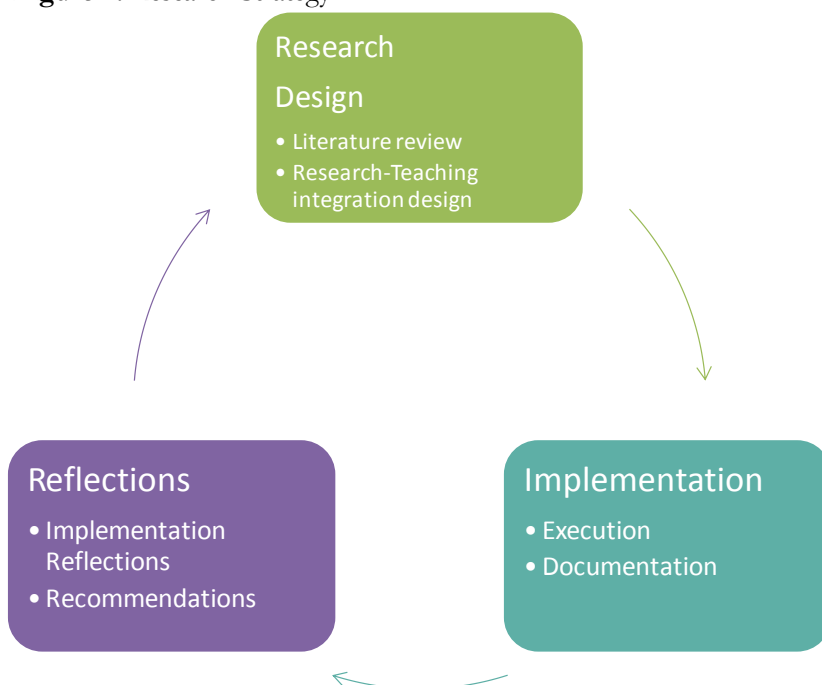
1. Research design: The literature review offered suggestions on how to integrate research-teaching. However, not all the suggestions to strengthen the research-teaching nexus are feasible due the teaching role of the researcher and consequently this stage focuses on selecting those suggestions that are feasible and explaining how they will be reflected in practice without interfering with the teaching.

2. Implementation: An interpretation of the selected suggestions was developed in order to design an overall plan with specific tasks. Once the term started, the execution of planned actions was documented for each activity.

3. Reflection: At the end of the term, a review of the theoretical framework was conducted in light of the new experience the action research provided. As a result recommendations are highlighted and a new research design is conducted for the next action research cycle as illustrated in Figure 2.

The following section describes the tasks planned, their implementation and reflections.

Figure 2: Research Strategy



Implementation and Reflections

The literature review provided a better understanding of the relevance of integrating research-teaching-practice and Table 1 illustrates suggestions to specifically strengthen the research-teaching nexus for both administrators and faculty. However, due to the teaching role of the researcher, only those suggestions related to faculty members were used for this research. The tasks planned and their implementation is summarised below:

A. Support and use of a research-across-the-curriculum approach in business courses (e.g., actively collaborate with students, teach research methods, and encourage students to be effective consumers of research).

At the beginning of the research, teaching research methods represented the most direct and effective way to support students doing research and encourage them to be effective consumers of research as explained in Task 1:

Task 1. Teach research methods (workshops)

The researcher offered to deliver two research workshops for students doing dissertations. The first challenge of the workshops was to recognise the high variances of research skills the students have, due to their diverse national and educational backgrounds. Additionally, the timescale for the MBA dissertation overlaps with intensive course work demands of other modules making it difficult to manage deadlines and workshops. As an academic, it is important to understand the students' specific characteristics and management process (deadlines, credits, supervisor allocations, etc.) that influence the research learning process. Despite the fact that workshops can be useful ways of teaching research methods, it becomes clearer that post-graduate students would benefit more if module leaders engage in this research-teaching approach providing students with more opportunities to conduct applied research. Doing research is a process that takes time and by incorporating research in the curriculum students would be allowed to better understand the research process.

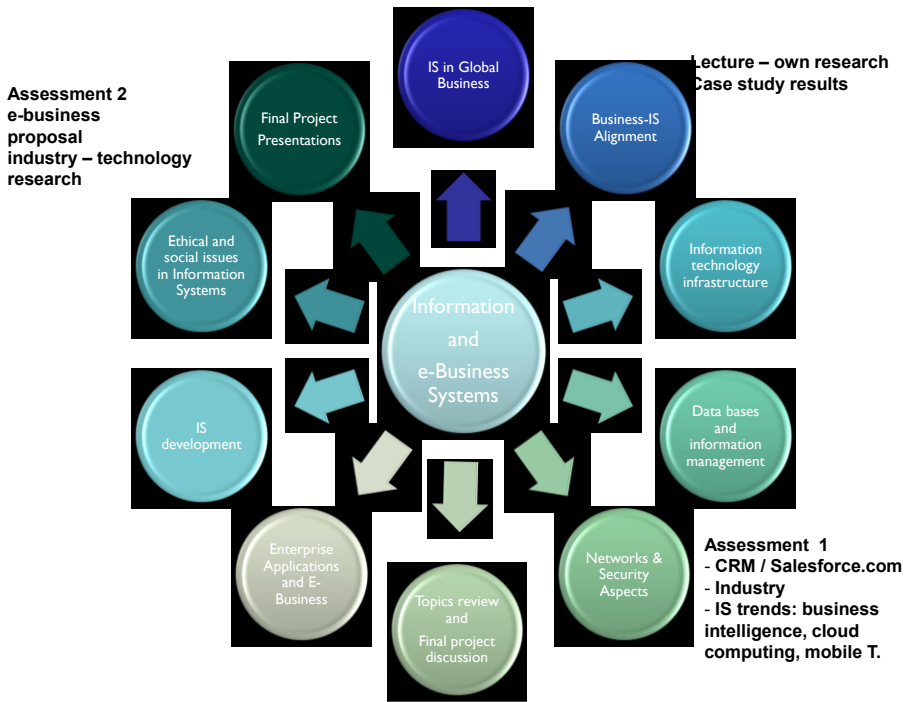
The researcher also delivers an information systems module. This module has two research assessments that could be redesigned in terms of the research-teaching approach without affecting the learning outcomes or current assessment policies as described below.

Task 2. Re-design assessments to emphasise the research process.

The Information and e-Business Systems Module has two assessments that were redesigned in terms of the research-teaching approach without affecting the learning outcomes or current assessment policies. Assessment 1 focuses on developing research skills thorough a research report on enterprise systems and Assessment 2 focuses on developing practical skills to integrate the module concepts by developing a research-industry e-business proposal.

Re-designing the assessments brief, feedback and deadlines with a focus on research skills allow the students to become more aware of the research process in terms of the quality of their research sources, the evidence they provide for their arguments and the clarity of their ideas. Current module learning outcomes and content lead to the selection of three components (assessments 1, 2 and lecture on Business-IS Alignment) where the emphasis of research-teaching-practice approach could be incorporated as illustrated in Figure 3.

Figure 3: Research-Teaching module redesign



Assessment 1 involved an individual research-intensive report on a selected topic from the module content. For this assessment the students also analysed one of three technology trends to evaluate its impact. The assessment brief included the marking criteria linked to the research process. Therefore, the assessment was flexible enough to generate topics which interested the students and the marking criteria guided them on the research requirements for the report. The redesign of the assessment helped to integrate research-teaching in the following ways:

- Students become more aware of the research process by doing their individual research and asking specific questions before submitting their work.
- The daunting challenge of marking an individual report was slightly reduced as a result of having more interesting projects. With the aim of providing valuable feedback to the students, detailed notes were added to identify areas of improvement in both content and form. Those notes were very useful during the face-to-face feedback.

-
- Face-to-face feedback was offered to students and 50% of them booked a 15 minutes appointment. For each appointment, the actual time spent was a minimum of 30 minutes and when possible the discussions extended up to 60 minutes. From this feedback, students were able to better understand the research process in terms of the quality of their research sources, the evidence they provide for their arguments and the clarity of their ideas. Despite the increased time required by the researcher, this activity was highly valuable as it allowed for the identification of common areas of challenge or difficulty to the students around the research process. Moreover, instead of being focused on the grade, the dialogue facilitated the sharing of detailed information that was not always clear in the report such as how a student's topic was informed by their research or personal experience.
 - Although this activity was not designed to help students with their dissertation, the students recognised that the feedback process helped them to understand how to do research and draw conclusion from their findings.
 - The face-to-face feedback process also allowed for the identification of possible topics of collaboration with students resulting in the development of a draft proposal to be supervised by the researcher.

Assessment 2 was a group e-business proposal intended to enhance students' awareness of selecting appropriate sources of information depending on the type of research they are conducting and more importantly, to evaluate how research can help them to support their business ideas. Although all the students' proposed innovative ideas, one team concluded in their final report that their proposal was not feasible despite the fact that the technology involved are fully available and mature. That their research revealed that the proposal was not feasible for the UK culture and legislation represented a good example of how businesses could save money by conducting relevant research before investment. As this assessment was submitted at the end of the term there was no opportunity to provide detailed group feedback that could be beneficial for all the participants. This will be an aspect to improve for the next cycle.

B. Integrate evidence-based management principles across courses and pursue professional development opportunities (e.g., conferences) to stay updated.

This suggestion involves two main considerations: first, the use of evidence-based data from relevant research. Secondly, keeping our knowledge updated through different professional opportunities.

For the evidence-based management, the researcher had empirical data for the topic of IS-Business alignment that could be used for teaching as described below in Task 3.

Task 3. Design an IS-Alignment session to communicate own research.

The researcher has empirical data for the topic of IS-Business alignment that was used as evidence based data linked to the module theory. Although this task was initially seen as a straightforward way to integrate research into teaching, its implementation was very challenging. The students were assigned pre-readings (academic journals on the topic) and during the seminar it became evident that the students found it difficult to assimilate the journal content. Consequently, the researcher simplified the lecture to focus the presentation on interpreting the evidence presented from the empirical research in the light of the theory covered. The students were very interested in understanding the industry evidence provided and asked many questions. Informing teaching with one's own research made it interesting for the students in terms of linking relevant industry evidence and research. It also promotes relevant discussions and represents a rewarding intellectual exercise for the researcher.

Task 4. Plan attendance of internal development activities, academic and industry conferences.

The researcher got involved in learning and teaching activities and submitted a conference paper for peer review. Keeping our knowledge updated through different professional opportunities is a challenging task alongside teaching. Although class preparation involves constant reading about the state of the art, interaction with colleagues to discuss and share ideas, best practices and trends is ideal to shape our knowledge that would benefit the teaching approach.

C. Communicate the value of integrating research and teaching with students and external stakeholders (e.g. employers).

Communicating the value of integrating research and teaching should be a primary and easy task of any educator but it represents and remains a challenge. Misconceptions of research and the teaching orientation of the institution represent a barrier as most of the lecturers do not consider themselves as researchers and therefore assume that they do not have either the opportunity or responsibility to participate in this model. However, the institution already has a Learning and Teaching Forum that represents the best environment to learn about research-teaching integration.

Task 5. Communicate the outputs of this research.

Produce a short presentation focused on the practical examples to illustrate the research-teaching-practice model and a written report to expand the theory behind the model and more details of its implementation.

D. Use a team-based approach with research/teaching faculty, or partner with other institutions as needed.

The purpose of any research is to better understand a problem and the best possible solutions. In some cases research becomes an isolated activity when students are writing their postgraduate dissertation and lecturers are writing their academic publications. Active collaboration with students has been suggested as desirable. However, students' topics are not always related to the lecturer research topics making this collaboration more difficult. Therefore, a starting point of collaboration could be colleagues or contacts from other universities.

Task 6. Identify colleagues for collaboration.

Collaboration could be promoted not only on information systems but also on research methods, pedagogical research or any other relevant area to the researcher. This task involved the development of a plan with feasible short-term outcomes to expand the research-teaching approach as a way to collaborate with students, colleagues and researchers from other universities.

The implementation of this task arose as a consequence of all the previous tasks. Attendance to development events allows lecturers to keep updated on learning and teaching innovations and, at the same time, open opportunities to establish collaborations with other colleagues. Additionally to internal activities, two paper conferences were submitted and successfully accepted. One of the papers was written in collaboration with a colleague from another institution; a positive way of gaining fresh insight. The conference presentations are also highly valuable opportunities to share ideas with other researchers and make contact with industry and academic personnel who could be guest speakers or possible collaborators for future research. Having the research-teaching-practice approach in mind has helped to foresee opportunities and translate them into specific short-term projects that will help to improve the integration of research-teaching-practice in the long term.

Conclusions and recommendations

This paper has discussed narrowing the research-teaching gap as a way to reduce the research-practice gap that has been long debated. Furthermore, the integration of research-teaching-practice is a challenging view to over-

come the sometimes conflicting priorities of research and teaching and also represents an opportunity to reinvigorate business schools' educational models. The practical suggestions to faculty proposed by Burke and Rau (2010) to reduce the research-teaching gap are tested in this paper through action research. The aim of this research is to evaluate the extent to which it is feasible to integrate research-teaching as recommended by Burke and Rau (2010) at postgraduate level.

Table 1 in section 2.2 illustrates Burke and Rau's (2010) suggestions to reduce the research-teaching gap. The following four suggestions were selected to investigate how they could be implemented:

A. Support and use a research-across-the-curriculum approach in business courses (e.g., actively collaborate with students, teach research methods, and encourage students to be effective consumer of research).

B. Integrate evidence-based management principles across courses and pursue professional development opportunities (e.g., conferences) to stay updated.

C. Communicate the value of integrating research and teaching with students and external stakeholders (e.g. employers).

D. Use a team-based approach with research/teaching faculty, or partner with other institutions as needed.

The integration of research-teaching is unlikely to occur naturally or easily. Most people approach research and teaching as independent activities and have different views of what constitutes research. However, the first cycle of this action research intervention illustrates that it is feasible to start with small adjustments to current practices in order to better understand the relevance of this integration. Furthermore, these small adjustments could lead to more support from the management and create a culture that promotes research-teaching integration at different levels across institutions.

This first action research cycle is only a small step to better understand how to interpret and implement the aforementioned suggestions. Considering the current higher education environment, the institutions would benefit from:

1. Promoting a culture that enables research-teaching integration in their own modules and across the curriculum (Program Directors and Head of Departments)

2. Research training and identification of the types of scholarship that are more ad-hoc for the different topics covered in a business school (Head of Departments and Lecturers).

3. Sharing experiences and developing research-teaching integration skills to support the final learning outcomes of postgraduate students (Head of Departments and Lecturers).

4. Active participation on the different development opportunities currently available and development discussion groups focused on lecturers needs (Lecturers).

Despite the multiple barriers preventing the integration of research-teaching-practice, academics should persist on finding feasible mechanisms to reduce the research-teaching gap which will benefit not only their academic performance but could also improve their institution's performance, having a direct impact on students learning.

References

- Amabile, T. M., Patterson, C., Mueller, J., Wojcik, T., Kramer, S. J., Odomirok, P. W., et al. (2001). Academic-Practitioner Collaboration in Management Research: a Case of Cross-Profession Collaboration. *Academy of Management Journal*, 44(2), 418-431. doi: 10.2307/3069464.
- Antunes, D. and Thomas, H. (2007). The competitive (dis) advantage of European business school, *Long Range Planning*, Vol. 40, pp. 382-404.
- Baxter Magolda, M., Boes, L., Hollis, M. L., and Jaramillo, D. L. (1998). Impact of the undergraduate summer scholar experience on epistemological development. Miami, OH: University of Miami.
- Birnik, A. and Billsberry, J. (2007). Reorienting the Business School Agenda: The Case for Relevance, Rigor, and Righteousness. *Journal of Business Ethics*, 82(4), 985-999. doi: 10.1007/s10551-007-9607-x.
- Brew, A. (2006). Research and Teaching from the students' perspective. [Online] Available from: http://portal-live.solent.ac.uk/university/rtconference/2007/resources/angela_brew.pdf [Accessed April 18, 2011]
- Brew, A. (2010). Imperatives and challenges in integrating teaching and research. *Higher Education Research & Development*, 29(2), 139-150. doi: 10.1080/07294360903552451.
- Burke, L. and Rau, B. (2010). The Research – Teaching Gap in Management. *Academy of Management Learning & Education*, 9(1), 132-143.
- Drummond, J. S. and Themessl-Huber, M. (2007). The cyclical process of action research: The contribution of Gilles Deleuze. *Action Research*, 5(4), 430-448. doi: 10.1177/1476750307077317.
- Griffiths, R. (2004). Knowledge production and the research-teaching nexus: the case of the built environment disciplines. *Studies in Higher Education*, 29(6), 709-726. doi: 10.1080/0307507042000287212
- Leisyte, L., Enders, J., & Boer, H. (2009). The balance between teaching and research in Dutch and English universities in the context of university governance reforms. *Higher Education*, 58(5), 619-635. doi:10.1007/s10734-009-9213-1.
- McIntosh, P. (2010). *Action Research and Reflective Practice: Creative and visual methods to facilitate reflection and learning*, London and New York: Routledge.

-
- Reed, M. I. (2009). The theory/practice gap: a problem for research in business schools? *Journal of Management Development*, 28(8), 685-693. doi: 10.1108/02621710910985450.
- Saunders, M. Lewis, P. and Thornhill, A. (2009). *Research Methods for Business Students*, 5th ed. London: Prentice Hall.
- Smeby, J. C. (1998). Knowledge production and knowledge transmission: The interaction between research and teaching at universities. *Teaching in Higher Education*, 3(1), 7–20. doi:10.1080/1356215980030101.
- Van de Ven, A. and Johnson, B. (2006). Knowledge for theory and practice, *Academy of Management Review*, Vol. 31 No. 4, pp. 802-21.