Accepted Manuscript

DOI: https://doi.org/10.5281/zenodo.2819643

Citation: Moschieri, C., & Santalo, J. (2019). ARE STRATEGY RESEARCHERS WORSE STRATEGY TEACHERS IN BUSINESS SCHOOLS?.

ARE STRATEGY RESEARCHERS WORSE STRATEGY TEACHERS IN BUSINESS SCHOOLS?

Caterina Moschieri

Caterina.moschieri@ie.edu

IE Business School

Calle Maria de Molina 11– Madrid

Juan Santalo

Juan.Santalo@ie.edu

IE Business School

Calle Maria de Molina 11– Madrid

The research reported in this paper was partially funded by the Spanish Ministry of Economy and Competitiveness and European Regional Development Fund (ERDF) Grants ECO2016-78980-P and ECO2016-77205-P.

Abstract

In this study we examine whether in business schools a professor's research quality impacts her performance in the classroom. We build a novel dataset of students' teaching evaluations of 922 strategic management courses in a top-ranked business school in Spain in the period 2011-2016 linking it to the publication outcome of each professor. We find a significant positive association between research quality measured by the sum of the number of publications in a six-year interval and students' evaluations of teaching. Specifically, we find that an increase of two standard deviations on our variable of research quality is associated to an increase in students' evaluations equivalent to the jump from being a median professor to being in the top quartile of best performers in class. Moreover, we find that a professor with four publications in a six year period increases the likelihood of her students choosing strategy elective courses up to 21.5 percent. We also find a positive and strongly significant interaction of research quality with course length, suggesting that the benefits of research may emerge specifically in longer courses. These findings extend the current discourse on the impact of research on teaching to strategic management courses in business schools.

Keywords: Business schools, Strategic management, Students evaluations,

Teaching.

INTRODUCTION

The discussion about the linkage between research and teaching in academic institutions is extremely relevant especially in business schools and for 'practical' subjects such as strategic management, because they exist at the intersection between the academic side and the practitioner side of education (see the *Academy of Management Journal*'s 2007 dedicated issue). Scholars, professional associations as well as students have been questioning whether who teaches, e.g. researchers or practitioners, and what is taught, e.g. theory-driven and research-inspired content or practical, business knowledge, makes a difference to students and their success (Adler, 2016; Grant, 2008).

Many studies and continuous literature reviews and meta-analyses on the research and teaching tension have examined whether professors' performance in the classroom may at least partially depend on their research productivity (Artes, Pedraja-Chaparro, & Salinas-Jimenez, 2017). However, extant findings are not consistent and little is known specifically on business schools and strategic management courses. Existing literature has essentially focused on universities (e.g., Labini & Zinovyeva, 2008) and on courses of social sciences (e.g., Stack, 2003). While some studies found either no correlation or at best a tiny positive one between research and class performance (Marsh & Hattie, 2002), other studies found that research is fundamental for knowledge transfer through teaching (e.g., Landry, Saïhi, Amara, & Ouimet, 2010). A possible explanation for these heterogeneous results is that these prior studies differ greatly in the manner they define, operationalize and measure research and teaching activities (Verburgh, Elen, & Lindblom-Ylanne, 2007).

In this study, we analyze a top-ranked business school and we examine how research quality of professors of strategic management, i.e. professors that have

published in top academic journals in a six year period, impacts their performance in the classroom. It is important to examine the implications of research on teaching specifically for strategy courses in a business school, because in the ongoing development of the service sector in many countries and the increased competition between firms worldwide, business schools have become central in satisfying the continuous demand for high quality managerial skills (Besancenot, Faria, & Vranceanu, 2009). In an attempt to disseminate managerially relevant knowledge as well as to reduce expenses, most business schools and universities hire practitioner teachers, non-research active teachers and professors of management practice (AACSB, 2016; AAUP, 2016; Markides, 2007). Thus, it is relevant to bring the increasing debate about the calling, nature, and objectives of business education (Adler, 2016) specifically to strategic management courses in business schools.

We address our research question – whether and when in business schools a professor's research quality impacts her performance in the classroom – using a sample of 922 strategy courses taught in a top business school in Spain by 138 professors during the period 2011-2016. We find a strong positive association between students' evaluations and a proxy of research quality that is the total number of publications in academic journals at the end of the six year period. Better researchers seem to perform better in the classroom, not worse. This association is not only statistically significant but also economically meaningful. Our results indicate that a professor that in a six-year period has four publications in academic peer reviewed journals has on average students' evaluations of teaching that are between 0.21 and 0.32 points higher than a professor with zero academic publications. This implies that a jump from the median to the top quartile in the distribution of students' evaluations. Similarly, an increase of two standard deviations in the number of publications translates into an increase of the

students' evaluations of around one quartile in its distribution. We also find that research quality of the strategy professors increases the likelihood of their students choosing strategy electives in the last period of the MBA. In particular a professor with four publications increases this likelihood between 9.3 percent and 21.5 percent depending on the empirical specifications that we use. Finally, we find some evidence that this effect of research quality is stronger in longer courses.

The results of this study complement and advance earlier research in several ways. First, they extend the ongoing debate on the research-teaching tension to business schools, showing that in business education research affects professors' performance in the classroom. Our analyses show the existence of this effect across two different measures of teaching quality, i.e. students'' evaluations and their affiliation to elective courses of strategy. Second, our results offer new insights on course characteristics, indicating that the increase in students' evaluations is driven by the professor's research quality in longer courses. In sum, the results of this study are interesting for professors and researchers in business education and strategic management courses, because they inform on the development of business schools and on their practical future.

THE TEACHING-RESEARCH TENSION IN BUSINESS SCHOOLS AND IN STRATEGIC MANAGEMENT COURSES

The ongoing debate about the research-teaching tension is especially important in subjects and institutions that have as a primary mission both the development and the diffusion of cutting-edge research with relevant practical implications, such as business schools or schools of engineering (e.g., Landry et al., 2010; Prince, Felder, & Brent, 2007). In the last decades, both the academic community and the business community have criticized business schools. Academics from other disciplines view business

schools as trade schools and argue that research from business schools does not deliver on their self-proclaimed standards of rigor (Adler, 2016). Most worryingly, the business community believes that the teaching of abstract and theoretical models is damaging the students. Business schools teach concepts not relevant for business practice (Bennis & O'Toole, 2005; Pfeffer & Fong, 2002), they do not transmit useful skills, they fail to prepare future leaders and they even struggle to lead graduates to good corporate jobs (Bennis & O'Toole, 2005).

Consequently, business schools have been asked to distance themselves from a scientific, abstract model of academic institutions to move towards a model similar to that of medical or law schools, where professional or clinical aspects are predominant. 'Business school faculties simply must rediscover the practice of business. We cannot imagine a professor of surgery who has never seen a patient, or a piano teacher who doesn't play the instrument, and yet today's business schools are packed with intelligent, highly skilled faculty with little or no managerial experience. As a result, they can't identify the most important problems facing executives and don't know how to analyze the indirect and long-term implications of complex business decisions' (Bennis & O'Toole, 2005: p.102).

Strategic management courses

Strategic management is the discipline, within business education, best suited to analyze the research-teaching linkage, because of its centrality in the business education landscape and the general consideration of strategy-as-practice (Boyd, Finkelstein, & Gove, 2005). Some scholars argue that the study of management should be understood as a science of the artificial (Romme, 2003; Van Aken, 2005). Thus, professors of strategic management should deliver into the classroom practical knowledge to improve the efficacy of solutions (Whitley, 1988), like in engineering schools (Dutson, Todd,

Magleby, & Sorensen, 1997), and case-based content, like in medical schools (Ogrinc et al., 2003).

In contrast, other scholars argue that teaching strategic management needs to be informed by scientific knowledge (Burke & Rau, 2010). Different from discipline-based courses (e.g., economics and statistics) or functionally-based courses (e.g., accounting, marketing, and finance), strategic management is uniquely broad and multifaceted and needs to prepare students to develop capabilities to make decisions in complex and unforeseen circumstances (Grant, 2008). Course content rooted in research-based theory may gift students with a set of pre-established steps that allow to learn more efficiently and economically (Grant, 2008). These considerations have contributed to the lingering discussion about the profile of professors of strategic management in business schools.

The importance of research quality in business schools

In the last decades, the faculty of business schools and universities has incorporated research professors, i.e. professors that seek to constantly publish in academic peer reviewed journals. The decision to incorporate more research faculty in business schools emerged not only as a reaction to the criticism of business schools' being trade schools (Gomez-Mejia & Balkin, 1992), but also under the belief that research faculty may be beneficial for business schools' students. Research faculty seem to have specific individual skills, such as intellectual expansiveness, clarity and intelligibility, and encouragement of independent thought (Stack, 2003). Beyond their individual qualities, empirical evidence shows that their research focus can push professors to offer students updated insights transferable to any future business situation (Grant, 2008; Stack, 2003), and to emphasize concepts related to the global, political, and economic environments and to their interactions (Jarzabkowski & Kaplan, 2015). Their research focus helps

professors to master knowledge in their field and keeps them more up-to-date (Artes et al., 2017).

The increase of non-research faculty

However, recent reports on North American universities and schools of business indicate that in the last decades business schools and universities have increased their focus and efforts on the practical nature of business education and have started hiring more and more business practitioners, or clinical professors, to teach (AAUP, 2016)[1]. A first reason for hiring more practitioners was to achieve a greater inclusion of real-world experience in the classroom in business education. The presence of practitioners in universities addresses the criticism that academic professors have limited real-world experience and end up delivering in the classroom abstract teaching that is based on scientific research and not relevant to managers-to-be (Adler, 2016; Bennis & O'Toole, 2005; Clinebell & Clinebell, 2008; Greiner, Bhambri, & Cummings, 2003). A second reason for hiring non-research faculty was to cover teaching needs when students' enrollment spiked, to deliver a particular type of expertise, or to fill in for unavailable full-time faculty members for a particular course. The recent recession, which caused a shift of administrative and institutional priorities in most academic institutions and a consequent decline of the tenure system and the decrease in the proportion of tenure track faculty (AAUP, 2016), further accelerated this trend, at least in US higher education. Full-time positions, both tenure and tenure-track, have shrunk to a small

[1] AACBS defines clinical professors (2006: p. 3) those faculty members who possess at least a masters' degree (or equivalent qualification) in a discipline or field related to the area of teaching responsibilities; who have professional experience at the time of hiring that is significant in duration and level of responsibility and consistent with the area of teaching responsibilities; and who show continuous development activities that demonstrate the maintenance of intellectual capital (or currency in the teaching field) consistent with the teaching responsibilities.

percent of the academic work force in the last decades, with the bulk of the teaching load shifted to adjuncts, part-timers, graduate students and full-time professors not on the tenure track (AACSB, 2016; AAUP, 2016).[2]

Not everybody is convinced by the rightfulness and sustainability of these decisions. First, allegedly, the choice of increasing the proportion of part-time, non-research faculty was based on stretched budgets and public pressure to keep costs down (AACSB, 2016; Street, Maisto, Merves, & Rhoades, 2012), that forced many business schools to reduce tenure and tenure-track jobs. But the success in the pursued savings seems in reality to be limited. Universities now spend more on administration than professors (Ginsberg, 2011).[3] Second, non-research faculty were meant to be better teachers and deliver more useful content into the classroom. Contrasting this belief, recent reports by the American Association of University Professors (2016) and by the American Center for Higher Education (Street et al., 2012) show that the increasing proportion of non-research professors is harming the students' educational experience, both inside and outside of the classroom. In universities in North America, the greater is the proportion of non-research professors, the fewer are the students who achieve graduation.[4]

---

[2] The latest annual Salary Survey performed by the Association to Advance Collegiate Schools of Business (2016) shows that on average the salary of an instructor, i.e. part-time or full-time non-tenure track faculty, is about 60 percent that of a research professor in US business schools. Since 1975, the proportion of the professors in business education holding full-time tenured positions has declined by 26% and the shareholding of full-time tenure-track positions has declined by 50%. Conversely, there has been a 62% increase in full-time non-tenure-track faculty appointments and a 70% increase in part-time positions (AAUP, 2016: p. 14).

[3] Between 1985 and 2005 administrative staff increased by 240% and the expenses related to their jobs increased by 85%. In the same period, spending on faculty increased by only around 50% (Ginsberg, 2011: p.25).

[4] A 10% increase in part-time faculty positions at public institutions is associated with a 2.65% decline in the institution's graduation rate, and a 10% increase in full-time non-tenure-track faculty positions is associated with a 2.22% decline in the institution's graduation rate (AAUP, 2016: p.15).

Students' evaluations of teaching in strategic management courses

Students' evaluations of teaching are appropriate and important to examine whether and how, as it seems, using researchers or non-research professors affects our students' learning experience. The majority of the literature agrees that students' evaluations of teaching provide useful information for both professors and administrators (Spooren, Brockx, & Mortelmans, 2013). Academic programs increasingly use students' evaluations of teaching as a measure of teaching quality, that is to determine the overall capacity and quality of the professor and of the course taught. In fact, most evaluation agencies rely on students' assessments and opinions to determine the schools' position in rankings and accreditations. Most notably, although academic institutions serve multiple constituencies, students remain their primary audience (Adler, 2016; Trieschmann, Dennis, Northcraft, & Niemi, 2000). In many schools, both publicly financed and private, students are the primary source of funding. Students' opinions have a direct impact on their school. In sum, students' evaluations are used to assess professors' teaching performance and the quality of the institution itself, as well as to attract funding (Spooren et al., 2013).

However, only a handful of studies analyses the specific linkage between professors' research quality and students' evaluations, offering mixed empirical results. This difference in empirical findings may be due to factors such as including in the analysis faculty who are full-time researchers and no longer teach (Spooren et al., 2013), different measures of research and teaching activities, collinearity across university departments (Artes et al., 2017; Verburgh et al., 2007), or the different scopes and contexts of these studies (see for example, Hattie & Marsh, 1996; Verburgh et al.,

2007).[5] Different measures, datasets based on different universities or schools, datasets comprised of different countries, different disciplines or different departments easily lead to different, incomparable results.

Despite these criticisms and the noted empirical limitations, students' evaluations remain the preferred metrics to assess professors' teaching quality and effectiveness (Hattie & Marsh, 1996). Spooren et al. (2013) presented several arguments in defence of the predictive validity of students' evaluations. Students' evaluations are consistent across their different dimensions and with other indicators of teaching quality. Typically, the different dimensions of students' evaluations (e.g., student achievement, alumni ratings, self-ratings) are highly correlated (Sonntag, Bassett, & Snyder, 2009; Spooren et al., 2013; Timmerman, 2008). Students rate how much they like the course and the professor and based on this unique individual assessment they answer all the other questions very similarly. This is consistent with the so-called halo effect in the psychology literature (Thorndike, 1920). The halo effect is a bias in attribute ratings resulting from the tendency to rely on a global effect rather than carefully discriminating among conceptually distinct dimensions (Thorndike, 1920).

Alternate measures of teaching quality include questionnaires (Gulbrandsen & Smeby, 2005), students' grade in subsequent similar course (Gerlich & Sollosy, 2010), and in recent years, new measures of students' satisfaction available on faculty-rating sites, such as RateMyProfessors.com (Otto, Sanford Jr, & Ross, 2008). However, these other instruments lack any clear theory of effective teaching (Ory & Ryan, 2001), any evidence of content validity, representativeness, and reliability of the results (for an

[5] In general, most of these prior analyses used data from the 1970s and 1990s, with some methodological limitations (an exception is Artes et al. (2017)).

overview, see Davison & Price (2009)). Thus, these instruments might fail to measure what they claim to measure (Onwuegbuzie, Daniel, & Collins, 2009).

Thus, teaching evaluations of strategic management courses are especially suited to examine a professor's ability to perform in the classroom. In our analyses, we use students' teaching evaluations that are multi-dimensional and include open-end questions. We also incorporate a new measure of teaching ability, which captures students' appreciation of strategic management courses, when they have to choose an elective course.

HYPOTHESES

In the last decades, business schools have incorporated in their instructors' ranks more non-research faculty. While the original reason for hiring non research faculty may have been cost control (AACSB, 2016), these faculty members offer many other benefits. Because of their practical experience, non-research teachers can bridge the real business arena and the academic world and easily connect with students of strategic management courses. For example, they can translate complex concepts into a more comprehensible language (Brennan & Ankers, 2004), delivering the scientific message to the classroom (Kelemen & Bansal, 2002; Walsh, Tushman, Kimberly, Starbuck, & Ashford, 2007). While academicians living in 'ivory towers' detached from the business reality may fail to understand the difference between disciplinary structures and the structure of practical problems (Romme et al., 2015; Van de Ven & Johnson, 2006), non-research faculty can develop prescriptions and instrumental knowledge, that do not interest management researchers (Romme et al., 2015). Because non-research teachers do not need to dedicate their time and energy to scientific research, they can be fully vested into teaching (Coate, Barnett, & Williams, 2001; Gautier & Wauthy, 2007).

According to a report on US universities, most non-research faculty are employed full-time in education (CAW, 2012).

On the other hand, several factors seem to suggest that using research faculty may be beneficial for the students of business schools (e.g., Artes et al., 2017; Gomez-Mejia & Balkin, 1992). We argue that a first benefit derives from *how research informs faculty's teaching*. Non-research professors in business schools mostly teach operative issues (Gopinath & Hoffman, 1995) and micro-practice close to their own experience and how their specific organization works (Clinebell & Clinebell, 2008; Jarzabkowski & Kaplan, 2015). This distinction is fundamental, given that different from medical and law schools, which prepare students for a specific profession i.e. that of doctors and lawyers, the call of business schools is to prepare students for a broader career. Business school students and especially students of strategic management courses are faced with broad and complex problems and need concepts related to the global, political, and economic environments and transferable to future business situation (Grant, 2008; Jarzabkowski & Kaplan, 2015), going beyond common sense, anecdotal accounts of past victories or mistakes and street wisdom (Segev, Raveh, & Farjoun, 1999). Different from non-research teachers, research professors are more likely to offer these insights. Evidence on US universities in the 1990s shows that because researchers are more likely to keep the pace with the latest advances of the field and be on the cutting edge of knowledge, their knowledge can enhance their teaching effectiveness (Stack, 2003).

Second, we argue that research may be important for teaching because of the typical *individual ability* of the research professor. Specific individual skills could explain the positive linkage between research productivity and students' evaluations: knowledge of the subject, intellectual expansiveness, preparation and organization, clarity and

intelligibility of course objectives, encouragement of independent thought, perceived outcome and impact, and stimulation of interest in the course (Stack, 2003). These skills are typically present in research faculty, who can consequently better motivate and transfer enthusiasm and knowledge to their students (Hattie & Marsh, 1996). In their meta-analysis, Hattie and Marsh (1996) found that being very knowledgeable in a broad perspective, valuing learning, and being committed are characteristics correlated with being good teachers and good researchers.

In sum, we argue that, because of the nature of business schools and of strategic management courses, a professor's higher research productivity is associated with higher students' evaluations.

Hypothesis 1: A professor's higher research quality is associated with higher students' evaluations in strategic management courses in business schools.

Within the teaching-research debate, most existing studies have focused on what is taught in the classroom, i.e. whether it is practice or theory based, rather than on *how it is taught*, e.g. in campus or online, in longer or shorter courses (for a review see Verburgh et al. (2007)). Yet, the current debate on the teaching-research tension needs to take into consideration how the recent changes in academia may affect the ability of research and non-research faculty to teach specifically in business schools. For example, the move to mass higher education and the availability of online courses like those offered by online providers, the increasingly limited amount of time available for teaching and research, and the technological changes in the nature of research and teaching (Verburgh et al., 2007) may impact the characteristics of the courses offered in business schools and the faculty's ability to effectively deliver them.

A first consequence of these changes is that faculty have less time to dedicate to teaching. This reduction of time for teaching may especially affect research faculty.

Prior studies indicate that non-research faculty have more time to dedicate to teaching, as they are not distracted by the publishing game (Gautier & Wauthy, 2007). Thus, non-research faculty should be able to deliver their experience and personal examples in short, focused courses as well as in longer courses. In contrast, the research faculty's teaching ability relates to their knowledge (Artes et al., 2017) and to their preparation and organization (Stack, 2003). Research helps professors to master knowledge and current developments in their field, allowing them to teach courses with a wider, deeper, and more up-to-date content (Artes et al., 2017). We argue that these characteristics are more likely to be perceived in courses of a longer duration, where professors have more time to explain the course content to the students and to transmit commitment.

Hypothesis 2: The positive relationship between research quality and students' evaluations is stronger in longer courses.

Following the same reasoning, one could expect non-research faculty to excel in online courses. Because non-research faculty have more time to dedicate to teaching (Gautier & Wauthy, 2007), they should be better able to keep up with the recent technological advancements, such as teaching online (Verburgh et al., 2007). Online courses are more time consuming. In fact, in the school that we analyze online sessions are paid twice as much face-to-face sessions. Research professors may be less vested in teaching online courses, because the opportunity cost of divesting time from research to teaching is greater than for non-research professors, which can be fully dedicated to teaching (Coate et al., 2001; Gautier & Wauthy, 2007).

A second explanation relates to the students' experience of the teaching offered. It is plausible that the benefits associated with research faculty's commitment, knowledge and intellectual engagement (Artes et al., 2017; Stack, 2003) are more likely to be evident, when students see the professor and can interact with her in person, that is in

face-to-face courses, and less evident in online courses. In contrast, online courses are better suited for non-research professors to engage students with practical knowledge and industry examples (Jarzabkowski & Kaplan, 2015).

In sum, because online courses take more time to teach and for research professors it is costlier to devote time to teaching and the faculty's knowledge and engagement may be more apparent in face-to-face courses, we expect the students' evaluations of research professors are lower in online courses.

Hypothesis 3: The positive relationship between research quality and students' evaluations is weaker in online courses.

DATA AND METHODS

Research setting

Our research setting is an international, top-ranked business school in Spain for the period 2011-2016. With the support of the Dean of Faculty we compile a sample of all courses assigned to the Strategy department in this business school. Most of them are Strategy courses but not all of them are core strategy classes. A series of executive education programs are assigned by the Strategy Department and these programs include courses like CEO vision or Geopolitics that, although Strategy related, are not core Strategy courses. Furthermore our full sample contains MBA strategy electives that are either specialized courses about Strategy in specific industries (i.e. Strategy in the luxury industry) or courses specialized in a particular Strategy tool (i.e. Scenario planning analysis). The original sample contains 1349 different courses but we eliminate those with a duration lower than eight hours (five sessions of 90 minutes), which cover material not directly related to strategy, such as mini courses designed as introduction to the use of the case method for students. After this deletion, the final

sample consists in 922 remaining courses taught by 138 different professors[6]. The average number of courses taught per year in the period of study is 265.

In the school, the total number of students is 1,900 and 91 percent come from outside Spain. The number of professors in the Strategic Management Department in the period under study is 61. Of these professors, about a third hold a PhD. About a fourth (26 percent) are full-time professors, and the rest are part-time professor. However, this statistic is misleading because part-time professor have a lower teaching load than full-time professors and this means that in our sample 40 percent of the courses are taught by full-time professors. Given the characteristics of both the students and the faculty analyzed, which is similar to that of other top business schools such as INSEAD, London Business School or Harvard Business School, the school we analyze is a representative case of business schools in top positions in international rankings.

By contract full-time professors have three main duties, i.e. research, teaching, and administrative tasks. Professors' contractual conditions and related financial incentives may change from person to person and even throughout a professor's career over time. However, as a general rule, if a professor is a researcher, her teaching and administrative duties are capped, while for non-research professors the teaching and administrative load is adjusted to compensate for the reduced time dedicated to research. The school hosts a variety of professors' profiles. Not all full-time professors are researchers since 57 percent of the professors in our sample have zero academic publications. Not all as part-time faculty are practitioners, since there are a number of visiting professors from other institutions that have taught Strategy courses in the period under study that have one or more research publications. Specifically, 5.7 percent of

[6] The results are qualitatively unchanged if we use the whole sample

part-time professors in our sample have academic publications in the period under study. All of them are visiting professors from other institutions. This heterogeneity allows us to examine professors' research quality beyond the classic dichotomy of full-time academic versus part-time practitioner faculty.

In the Business School of reference students' evaluations are a critical input in the overall evaluation of professor performance. Every year full-time professors are evaluated in relation to three activities: Teaching performance, Research performance and Administrative duties. Part-time professors are only evaluated based on their teaching performance. Both for full-time professors and part-time professors the only input that matters to evaluate teaching performance is the average students' evaluations received during the year. For this reason, students' evaluations are taken extremely seriously. To avoid that this pressure for receiving good students' evaluations impacts the grading done by professors, all student grades need to fit a curve, according to which each class has the same proportion of letter grades regardless of the professors' criteria. This means that in our sample there cannot be professors that grade more or less easily since the distribution of grades will be exactly the same regardless of the professor. Additionally, the students evaluate the professors when the course is over but, crucially, before they write the final exam. As a result, when the students evaluate a professor, they ignore the level of difficulty of the final exam. These policies alleviate the concern that students evaluation are capturing student perception of how easily the professor grades and avoid professors strategically grading with leniency to inflate their teaching evaluations.

Dependent Variable

Building on prior literature (Marsh & Hattie, 2002; Spooren et al., 2013), our dependent variable consists in the average evaluation assigned to the professor by the

students in each individual course. As mentioned above, students evaluate the performance of each professor towards the end of each course before the final exam or final assignment project, to avoid that students' evaluation are influenced by their individual perception of their performance in the final exam or assignment. Students evaluate the performance of the professor in eight different dimensions: 1) Academic and professional performance, 2) Management of class discussions, 3) How the professor motivated the students to learn the subject, 4) Quality of teaching materials, 5) How well structured and easy to follow were the classes, 6) How the assignments and deliverables facilitated student learning, 7) Overall evaluation of the professor, and 8) How much the student thinks she has learnt in the course. Students evaluate each dimension using a scale from 1 to 5, where 1 is the lowest degree of student satisfaction.

Nothing prevents students to evaluate differently the eight dimensions of the Survey. However, in practice, the students' evaluations in the different dimensions are highly correlated. Basically students have an internal appraisal about how much they liked the course and the professor and based on this unique individual assessment they answer all eight questions very similarly. This is consistent with the so-called halo effect (Thorndike, 1920). For this reason, the only number that the school uses for internal evaluation of professors' teaching performance is the average of the eight dimensions. We use the same students' evaluations average for our analyses. Our dependent variable consists in the average students' evaluation of the professor teaching performance in the eight dimensions.

Independent variables

For our Hypothesis 1, we use a simple indicator of scientific publishing, i.e. *Professor research quality,* which we identify as the research quality of each individual professor. Following recent studies, we prefer the clarity and straightforward-ness of

this measure to impact factors or more complex measures (Gulbrandsen & Smeby, 2005; Nederhof, 2006; Tahai & Meyer, 1999). As other scholars did before us (Ting, 2000), to measure research capability we take the number of publications in well-established refereed journals. The school has a list of the journals in the different disciplines used for professors' evaluation (attached in the Appendix). All of them are journals in which the double-blind, peer reviewers anonymously evaluate whether the study is original enough and rigorous enough to be publishable. Focusing on these journals allows us to overcome the shortcoming of prior studies, which focused on the number of publications instead of on their quality (Stack, 2003). For each professor we use as proxy of her research quality the total number of publications in journals in that list in the six academic years comprised in the interval 2009-2015.

For this, we match the information of each course with the research output compiled yearly by the Vice Dean of Research for professor evaluation purposes. This information is only directly available for full-time professors, since only full-time professors have their research output evaluated. For part-time professors we compile information about their research output manually relying on the information they publish in their individual webpages.

For our Hypothesis 2 on course length, we build on prior studies which used course workload (Beran & Violato, 2005) and build a variable *Course length*, which measures the number of sessions of each course. Longer courses may favor the identification of the student with a professor teaching style, or alternatively longer courses may saturate students that therefore reward/penalize the professor in their evaluations. In the school analyzed, each session lasts about 90 minutes. In online courses a session equates either to a videoconference of 90 minutes or to an online forum discussion that the professor has to moderate intermittently during a four-day period.

For our Hypothesis 3 on online courses, we build a dummy variable *Online*, which indicates whether all or part of the course is taught online. The school we study offers not only face-to-face courses but also purely online courses and blended courses in which part of the teaching is done in person and another part is done online with videoconferences and online forums. As we have argued above, the online experience may affect students' evaluations and furthermore it could be the case that the ability of researchers to teach online is different than those of non-research professors.

Controls

Following prior research, we control for factors that together with research productivity may explain higher students' evaluations of teaching: Subject type (Basow & Montgomery, 2005), Number of students (Bedard & Kuhn, 2008; McPherson, 2006), Experience (McPherson, 2006), Part-time versus full-time professors (McPherson, Jewell, & Kim, 2009). We also add two novel controls: Professor teaching training and Audience type.

Subject type. The typical Strategy courses are one of three raw types: Strategy Formulation, Strategy Implementation and Nonmarket Strategy. The topic covered within each subject varies depending on the audience, number of sessions and professor. Basically Strategy Formulation includes topics like industry analysis, innovation, identification of firm strategic resources, basic game theory tools, diversification and internationalization strategies. The Strategy Implementation courses usually cover organization design, scenario planning, firm culture, alliances and issues of power and control inside the firm. Finally, the Nonmarket Strategy courses cover corporate social responsibility, antitrust, lobbying and political risk. Since students' evaluations may depend on the subject, we introduce dummies for each course type. We assign courses

that do not fit none of these three categories to a generic subject type that we denominate 'Others'.

Number of students. Students' evaluations may depend on the number of students in the course. A lower number of students may be associated with more personalized teaching and higher student satisfaction. It could also be the case that research professors are more likely to be assigned to small classes (Stack, 2003). Hence, we control for this variable in all our regressions to make sure that any association between researchers and class size does not influence our results.

Experience. As with any other activity, professors may improve their in-class performance with experience. Following Artés et al. (2017), we control for the professor experience using the number of years since a given professor started teaching at the business school.

Part-time versus *Full-time professors.* The school offers courses taught by either full-time professors or part-time professors. Full-time professors have additional administrative duties in the school or are expected to publish in academic journals or both. Part-time strategy professors are of two distinct types. Some are professionals that employ the majority of their working time in other non-academic activities, mostly in consulting or in top management positions. Other part-time professors are academics in other institutions that either visit the school for a short period of time or come recurrently every year to teach one or a few specific course(s). It could be the case that part-time professors have either less time to prepare or less motivation to obtain a good class performance. We control with a dummy for whether the professor is part-time or full-time.

Professor teaching training. The school regularly offers teaching training to its professors. In particular, every year the school sends two professors to the Colloquium

on Participant Centered Learning (CPCL) in Harvard. This two-week program seeks to train professors on how to teach using the case method. Since this training may impact students' evaluations, we control for this effect with a dummy equal to one if the professor attended the CPCL program.

Audience type. Following Stack (2003) and Artés et al. (2017), we control for the audience type, since researchers could be allocated more likely to PhD courses. Since we focus on a business school, our audience types are different than the previous literature. The school basically offers strategy courses to five distinct audience types. First, it offers courses to Masters of Management (MIM) students that consist in young people just graduated from college with no previous work experience. Second, it offers courses to MBA students that are required to have a minimum of five years of working experience. Third, strategy courses are taught to executives. Executive programs can be traditional Executive or Global MBAs targeted to professionals with at least ten years of working experience, open enrollment, short, focused programs, or tailored executive programs to a specific company. Fourth, strategy courses are also offered to students in the Masters of Law programs in the school. Finally, there are strategy courses offered at the doctorate level for PhD students. Because distinct audiences may evaluate differently professor performance, in all our regressions we add dummies that identify the audience type of each course.

*******INSERT TABLE 1 AND TABLE 1 ABOUT HERE**********

*******INSERT FIGURE 1 ABOUT HERE**********

Table 1 displays the descriptive statistics of all variables used in the analysis. The average students' evaluation is 4.21. The average number of publications per professor is low, i.e. 0.69. This happens because many professors have zero research publications.

60 percent of the courses in the sample are taught by part-time professors. Strategy Formulation is the most common course representing 42 percent of the observations in the sample. In terms of audience, Executive courses represent 54 percent and MBA courses represent 25 percent of the courses in our sample. The average course length is about 13 sessions and online courses represent only 11 percent of the total offering.

Given the importance of publications for our purposes, in Figure 1 we show the course distribution depending on the number of publications of the professor. It is noteworthy that, reflecting the data reported in Table 1, almost 700 out of 922 courses in the sample are taught by professors that achieved zero research publications in the six academic year period 2009-2015.

RESULTS

We start by exploring some descriptive statistics. Table 2 reports the correlation matrix between all variables used in the regression analyses. The important number for our purposes is the correlation coefficient between number of publications and students' teaching evaluations that is 0.25 and statistically different than zero. This suggests that the research profile of the professor is associated to better students' evaluations. In that same Table we can observe that students' evaluations are higher in Formulation and Doctorate courses and also in longer courses. On the contrary, students' evaluations are lower in Implementation subjects, in MBA and MIM audiences, in courses with a larger number of students and in courses whose professors have more experience and are part-time. Of course, these raw correlations should be interpreted with caution because of the confounding effects of multiple variables on course evaluations that should be disentangled using multivariate regression analyses as we perform below.

**********INSERT FIGURE 2 AROUND HERE********

Figure 2 shows how the average students' evaluations vary with the number of research publications of the professor. The graph is consistent with the positive correlation coefficient reported in Table 2 and it displays how courses whose professor has research publications have around 5-10 percent higher evaluations than those in which the professor has no publications. This 5-10 percent difference may seem low but it is important to note that 90 percent of students' evaluations are concentrated in the interval between 3.33 and 4.86. This means that an increase of 0.21 points in students' evaluation, i.e. a 5 percent increase with respect to the median of the distribution 4.21, represents a jump from the median (4.21) to the percentile 72, a jump of almost one quartile in the distribution of students' evaluations.

Next we run a fully fledge econometric specification in which the dependent variable is the students' evaluation and the independent variable is the number of publications, *Professor research quality*. Since professors may teach more than one course, we use clustered standard errors at the professor level. Table 3 displays the results of three different specifications. The first column (model 1) has just professor publications as independent variable. The results indicate that the marginal effect of having a professor with one more publication increases students' evaluations by 0.08 and this effect is statistically significantly ($p<.0001$). In the second regression (model 2), we add controls for professor type (full-time or not), professor experience, course length and course size. Now the marginal effect of having a professor with one more publication is 0.051. This marginal effect is still statistically significant ($p=.009$). Finally model 3 displays the same regressions, adding fixed effects of year, audience, program type and course subject. The marginal effect on students' evaluation of research publications is 0.05 and significant ($p=.0072$). This last result indicates that even after controlling for a myriad of course characteristics and professor

characteristics, researchers that publish in academic journals seem to have better students' teaching evaluations. The R-squared of the regressions imply that our independent variables explain around 10 to 15 percent of the variation in student evaluations.

These results are relevant. A professor with four publications would have student teaching evaluations that are between 0.32 (=4*0.08) and 0.21 (=4*0.053) points higher than a professor with zero publications. A jump of 0.32 (0.21) points represents an increase from the media of the distribution of students' evaluations to the percentile 78 (70). The results also imply that an increase of two standard deviations in the number of publications translates into an increase of between 0.23 (=0.08*2*1.46) and 0.15 (=0.053*2*1.46) points in students' evaluations. This increase in points implies a jump from the median of the distribution to the interval between the percentile 71 and the percentile 64 of the distribution of student's evaluations. These results are consistent with Hypothesis 1.

Next, we add the interactions of the number of research publications with the course length and with the dummy that indicates whether the course involves online teaching (model 4 in Table 3). The interaction of *Research publications* with O*nline* is negative with a coefficient equal to -0.039 as predicted in Hypothesis 3 but is not significant. On the contrary, the interaction of *Research publications* with C*ourse length* is positive with a coefficient equal to 0.004 (p=.009). Hence, we find empirical support consistent with Hypothesis 2. To properly interpret the magnitude of the coefficient of this last interaction, we have to take into account that the minimum number of course length is 5 sessions (equivalent to eight hours of class). Furthermore, the main effect of research publication is not statistically different than zero when we add the interactions. Figure 3 displays how the marginal effect of the number of publications on students' evaluations

varies with course length. One more research publication increases by 0.02 the students' evaluations of courses of five sessions, while it increases by 0.17 the students' evaluations of courses that consist in 35 sessions.

In terms of control variables, Table 3 shows how course length affects positively the students' evaluations in all models. For space constraint reasons, we do not report the coefficients of most dummies in Table 3. They indicate that older years tend to have lower course evaluations consistent with an overall school trend that has improved student class satisfaction. The unreported regression coefficients also show how executive programs and doctorate programs have systematically higher evaluations than the rest of the courses.

**********INSERT TABLE 3 AROUND HERE********

Robustness tests

We tested the robustness of our results to different dependent and independent variables, different subsample and introducing non-linear specifications. We started by investigating whether our results may be dependent on a narrow definition of research quality, in which we are just taking into account the total number of academic publications. For this, we obtained from the business school a *Research index*, a measure developed by the Dean's office to include not only publications in top journals but also conference presentations, tutoring of doctoral dissertations, editorial work in academic journals (editorial board, associate editor duties and referee reports written), research grants obtained and finally books written during the period. This *Research index* is used by the Dean's office to evaluate yearly the research output of each full-time professor in the school. As we did with our previous measure of number of publications, we added all research points obtained by each professor between 2009 and 2015 and divided it by the number of years the professor has been in the institution in

the same interval. We believe that this aggregate (time invariant) measure to proxy for research quality may alleviate any concerns about critical information missing in our research output measure. By constraining the sample to only that faculty that has research points, we are eliminating all part-time faculty from the sample since part-time faculty is only evaluated based on their teaching scores. Thus, not only we eliminated part-time professors but also visiting research professors that visit and teach during the period. Our sample gets reduced to only 280 courses taught by a total of 13 full-time professors. We cannot test the effect of online courses as we did for longer courses, because in the full-time MBA all classes are face-to-face.

In Table 4 we report the results of our main regressions using this *Research index* as independent variable (instead of total number of publications). Columns (1), (2) and (3) show how the positive and statistically significant impact of research quality on students' evaluations persist. However, the interactions with course length are not statistically significant.

********* INSERT TABLE 4 AROUND HERE**********

Second, although students' evaluations are widely used by academic institutions to evaluate teaching performance, there is an abundant literature that questions whether students' evaluations are really measuring teaching ability or instead they are measuring other professor or subject dimensions (Spooren et al., 2013). For this, we tested the robustness of our results to a new dependent variable, *Number of students that choose strategy electives*, that proxies for how much interest in Strategy the professor is able to infuse in her students. We built this variable using the full-time, face-to-face MBA of the business school analyzed, where the last quarter of the program is composed just by elective courses. Students freely select which courses they want to attend in this last period and each subject area offers a variety of courses. For instance, the Strategy

department offers on average 10-12 different courses that the students can select (e.g., Strategy in the luxury industry, Strategic foresight or Strategies in creative industries). Similarly, other areas, i.e. Marketing, Finance, Economics, Organizational Behavior, Entrepreneurship and Accounting, offer a variety of courses. For instance, Information Systems offers electives about Managing Big Data, Robotics or Customer analytics. The total number of elective courses from which the students can choose oscillates between 90 and 100. Students have complete freedom on the courses they can choose, and they can opt to have several courses in different subjects or concentrate all their course electives in just one area if so they fell like it. But a course is finally taught only if at least 12 students signed up. This means that many of the offered courses are not taught due to lack of students enrolled. We took the subsample of courses offered only in the full-time, face-to-face MBA (the only program that has this elective period design) and we estimated the impact of research publications of professors that teach the core strategy class on student affiliation to elective strategy courses in the last period of the program. The main intuition is that according to the literature (Ting, 2000), when students are satisfied with the instructor, they should have a higher interest in the Strategy subject and this should reflect in students being more likely to choose Strategy electives in the elective period.

In particular, we computed the new dependent variable calculating for each MBA cohort the total number of students attending strategy electives over the total number of students in the cohort. This is an estimate of the probability that a student in one cohort chooses a strategy course elective. To compute the estimated number of students in a given strategy core course that will have to choose strategy electives, we multiplied the above mentioned ratio by the total number of students in the class.

Thus, we estimated the impact of research publications of professors that teach the core strategy class on student affiliation to elective strategy courses. Since this empirical strategy relies only in the face-to-face MBA programs, we do not have information for any online course. Executive MBA programs that are partially taught online do not have elective period. Thus, we cannot include the dummy that indicates whether the course is taught online in the analysis. The results for this new dependent variable, reported in Table 5, remain qualitatively the same as in the main models.

The marginal effects of the coefficients displayed in the first column of Table 5 indicate that professors of core strategy courses that have four publications motivate 7.9 (=1.969*4) more students to strategy electives than professors with zero research publications. Given that the average total number of students from a given MBA section choosing Strategy elective courses was 36.6 in the period under study, this means an increase of 21.5 percent. If we use the coefficients of column 3, we see instead that professors with four research publications motivate 3.4 (=4*0.849) extra students to choose strategy electives, an increase of around 9.3 percent.

The estimation of the marginal effect of research quality in column 4 is similar. If we consider that the average course length is 12.79 sessions, then the marginal impact of having one research publication in a course of average length is equal to 0.81 (=12.79* 0.063). This means that a professor with four publications increases by 3.24 (=4*0.81) students. This corresponds to an 8.8 percent increase in the number of Strategy students.

********** INSERT TABLE 5 AROUND HERE**********

We also run a series of analyses to test the robustness of the results to the use of different empirical specifications. First, we wanted to explore nonlinear functional forms for the publication-students' evaluation linkage. Thus, we replicated the analyses

using a log-log specification (using natural logs of both dependent and independent variables). To understand the effect of the uneven distribution of publications across professors, we also replicated the analyses using a dummy equal to one if the professor has one publication or more and zero otherwise. Finally, our sample of course evaluations includes non-core strategy courses, such as strategy course electives taught in the MBA, executive courses that although coordinated by the Strategy department are loosely related to the mainstream topics of Strategy, e.g. Geopolitics or CEO vision. To confirm that our results hold in mainstream Strategy courses, we performed an additional robustness test, running our main regressions only in core strategy courses (68 percent of our sample). In all specifications the results remain qualitatively unchanged.

Finally, we run regressions in which the number of publications is interacted with different professor and course characteristics (i.e., professor experience, course size, course length and audience type). With this exercise we tried to identify contingencies under which professor research capability was more or less important. However, none of the interactions was statistically significant, while the main effect was essentially the same as the one reported in models 3 and 4 in Table 4. For space considerations we do not report these results in the paper but they are available upon request to the authors.

DISCUSSION

This study analysed the so far overlooked linkage between professors' research quality and students' evaluations in business schools' strategic management courses. Taking a novel approach to the research-teaching debate, this study focused on the students' assessment of teaching quality to specifically answer the question of whether in business education research affects professors' performance in the classroom. We

undertook an empirical analysis of 922 courses corresponding to 138 professors in the period 2011-2016 in the strategic management courses of a top-ranked business school.

Our results show that there is a strong positive association between students' evaluations and number of publications in academic journals. A research professor with four academic publications has on average students' teaching evaluations that are 0.21 points higher than a professor with zero academic publications. This means that an increase of two standard deviations on our variable of research quality is associated to an increase in students' evaluations equivalent to the jump from being a median professor to being in the top quartile of best performers in class. Although in a much reduced sample, we also report that research quality of the professor in the core strategy course increases the likelihood that her students choose Strategy electives between 9.3 percent and 21.5 percent. We find a positive and strongly significant interaction of research quality with course length, suggesting that the benefits of research may emerge specifically in longer courses.

This study makes several contributions. First of all, we argue and empirically show that teaching and research are interdependent activities in the Strategy subject. Research can not only produce teaching material and involve students in the classroom (Rynes, 2007), but also make strategy professors better strategy teacher. Our results indicate that 'academy really mattered' (Hambrick, 1994: 11) also in the classroom.

These findings offer a twofold advancement to the ongoing debate on whether teaching evaluations depend on professors' research. Previous research on the impact of research on teaching accounted for all types of research output (e.g., Artes et al., 2017). We offer further empirical evidence to this claim, as with a more restrictive definition and measure of research quality, focusing only on top international publications, we find that research quality is associated with higher teaching evaluations. Stark (2006)

noted that the often-reported small correlation between research productivity and teaching evaluations may be spurious. The skewed distribution of research productivity with few professors accounting for most of the citations and articles (16 percent according to Zuckerman (1988)) may explain these confusing results. There have been few studies on the possible nonlinear relationships between research productivity and teaching evaluations (e.g., Marsh and Hattie, 2002). Yet, even without logarithmic or similar transformation to normalize the skewed distribution, we find that there is a link between research and teaching evaluations in business-school's strategy departments.

Second, we offer evidence on the linkage of research and teaching in Strategy and that depending on how we teach (i.e., long courses or online) the effect of research on teaching evaluations varies. In particular, our findings show how the value added by strategy researchers in the classroom seems more appreciated by students attending longer courses. Furthermore, we contribute to the ongoing conversation on the unbalanced allocation of time for research career faculty. When professors' career depends on research, their incentive is to reduce the time and effort spent on teaching (Marsh & Hattie, 2002). Online courses are more time demanding and therefore researchers may have conflicting incentives that induce them to allocate less effort to this type of courses. However, this interpretation is inconsistent with our findings that the relative performance of strategy researchers does not seem to decrease in online courses.

Limitations

Our focus on a single business school in Spain allows us to control for intrinsic institutional characteristics, as prior research did (e.g., Agrawal, 2006; Artes et al., 2017; Mindruta, 2013; Van Looy, Ranga, Callaert, Debackere, & Zimmermann, 2004). Although we have explained how our school and department share the characteristics of

many other schools and departments, caution is needed to generalize our results, which may be idiosyncratic of the specific empirical context. It would be interesting to extend our analyses to other settings. For example, future research could try to replicate our results in other departments in business schools or in other strategic management departments. Future research could further explore other contexts where research can impact our profession. For example, it could compare the research quality of deans to understand whether it affects their school's performance.

Another possible interpretation of our results is that the qualities that make a person a better researcher make this person also a better teacher, e.g. intelligence, creativity, motivation, organization. Individuals that have these characteristics can perform both teaching and research better. Thus, our findings present an interesting normative implication for academic hiring, that schools may look at the prospect faculty's research output to understand their general abilities. Our new measures of research quality (as total research points in the professors' yearly evaluations before the Dean) and of teaching performance (as the number of strategy elective courses chosen by the students) allow us to substantiate and fine-tune the meaning of our results. But future research could further explore the related idea that these abilities also make these individuals more capable of attracting financial opportunities for the school, e.g. public and private grants.

Both our theorizing and our empirical constructs are based on research quality, measured as professors' publications in the best scientific journals in the management field. Our argument is that this research skill has a positive impact on students' evaluations and not that higher research activity leads to better teaching. Although we empirically operationalize research quality using a measure of output, our argument is about a research skill that is somehow time independent - as opposed to research

activity that has a time component. However, this is a limitation of the study, which future research may try to address with novel, alternate measures of research quality or individuals' abilities.

CONCLUSIONS

We hope that our results are interesting and informative about our professional roles and the importance and relevance of scientific research for the broad academic community, starting from our students. As more than a decade ago several scholars noted (Markides, 2007; Mintzberg, 2004; Segev et al., 1999), business schools and business education in general in their current format need some serious rethinking. Recent industry reports indicate that, despite the above reported alarming indicators about the effect of the increasing use of non-research professors, business schools continue to hire more non-research professors. One possible interpretation for this choice is that non-research professors are cheaper (AACSB, 2016). However, our study suggests that this substitution may revert in lower class quality. Therefore, our results can be useful to shape the discourse about how to rethink in practice the future of business education.

FIGURES AND TABLES

Table 1: Descriptive statistics

Variable	Mean	Std Dev	Number of observations	Min	Max
Part-time	0.60	0.49	922	0	1
Strategy Formulation	0.42	0.49	922	0	1
Strat. Implementation	0.08	0.27	922	0	1
Nonmarket Strategy	0.18	0.39	922	0	1
Other subject	0.31	0.46	922	0	1
Master of M. program	0.10	0.30	922	0	1
MBA program	0.25	0.43	922	0	1
Law program	0.04	0.21	922	0	1
Doctorate program	0.06	0.24	922	0	1
Executive program	0.54	0.50	922	0	1
Professor Experience	7.06	5.10	922	0	25
Online course	.11	.32	922	0	1
Course length	12.79	5.81	922	5	30
Number of students	26.67	15.31	922	1	68
CPCL	.108	.310	922	0	1
Publications	0.69	1.46	922	0	7
Research index	57.24	23.79	282	22.12	96.37
Number of students choosing Strategy electives	36.66	13.24	76	11.89	59.45
Students' evaluations	4.21	0.48	922	1.98	5

Table 2: Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Part-time	1.00																	
2. Formulation	-0.02	1.00																
3. Implementation	0.11***	-0.25***	1.00															
4. Nonmarket	-0.04	-0.41***	-0.14***	1.00														
5. Other	-0.02	-0.58***	-0.20***	-0.32***	1.00													
6. Master of Mgmt	0.06*	0.16***	-0.10***	0.10***	-0.19***	1.00												
7. MBA	-0.07**	-0.20***	-0.02	0.30***	-0.03	-0.19***	1.00											
8. Law	-0.10***	0.24***	-0.06**	-0.10***	-0.13***	-0.07**	-0.13***	1.00										
9. Doctorate	-0.27***	-0.16***	-0.08**	-0.06	0.27***	-0.08**	-0.15***	-0.05*	1.00									
10. Executive	0.20***	0.06*	0.14***	-0.25***	0.06**	-0.36***	-0.64***	-0.24***	-0.28***	1.00								
11. Experience	0.14***	0.21***	0.05	-0.11***	-0.16***	0.00	-0.09**	-0.01	-0.07**	0.11***	1.00							
12. Course length	-0.15***	0.20***	-0.17***	0.17***	-0.25***	0.26***	0.48***	-0.11***	0.22***	-0.63***	0.04	1.00						
13. Class size	-0.02	0.20***	-0.01	0.24***	-0.41***	0.31***	0.43***	0.09***	-0.35***	-0.43***	0.00	0.40***	1.00					
14. Publications	-0.52***	0.03	-0.05	0.01	-0.01	-0.03	0.16***	-0.09**	0.44***	-0.30***	-0.11***	0.34***	0.03	1.00				
15. Students' evaluations	-0.22***	0.06**	-0.09**	-0.05*	0.03	-0.11***	-0.07**	-0.01	0.20***	0.04	-0.07**	0.08**	-0.13***	.25***	1.00			
16. Online	0.10***	0.08**	0.13***	-0.06*	-0.12***	-0.12***	-0.21***	-0.01	0.09***	0.21***	0.02	-0.07**	-0-12***	-0.06*	0.02			
17. Prof. Training	-0.40***	0.12***	0.001	-0.10***	-0.03	-0.005	-0.01	0.18***	0.18***	-0.11***	0.03	0.07***	0.03	0.41***	0.11***	-0.03	1	
18. Research index	--	-0.13**	0.33***	-0.26***	0.24***	-0.02	0.09	-0.33***	0.31***	-0.16***	-0.24***	0.13**	-0.14**	0.78***	0.22***	0.02	0.11*	1
19. St. Strat. Elect.	--_0.33***	0.31***	-0.31***	--	--	--	--	--	--	--	0.002	0.25**	0.65***	0.31***	0.30***	--	0.25**	-0.42***

P-correlation coefficients of all variables used in the analysis. Below each coefficient we report P-values, * means that P value is less than 0.1; ** means that P-value is less than 0.05; *** represents that P-Value is less than 0.01

Table 3: Main regressions.

DV = Average students' evaluations	(1)	(2)	(3)	(4)
Constant	4.152***	4.307***	4.033***	4.090***
	(.038)	(.100)	(.132)	(.141)
Full-time professor		.109	.112	.117
		(.093)	(.090)	(.091)
Professor years of experience		-.003	-.007	-.007
		(.004)	(.005)	.005
Course length		.006	.014**	.008
		(.005)	(005)	.006
Course size		-.005***	-.002	-.002
		(.001)	(.001)	(.001)
Professor training		.0673	.041	.052
		(.076)	(.073)	.074
Research publications	.084***	.051**	.050***	-.023
	(.019)	(.020)	(.018)	(.040)
Online		.503	-.002	.024
		(.079)	(.076)	(.084)
Research publications*Course length				.004**
				(.002)
Research Publications*online course				.-039
				(.033)
Year fixed effects	NO	NO	YES	YES
Subject fixed effects	NO	NO	YES	YES
Audience fixed effects	NO	NO	YES	YES
Number of observations	922	922	922	922
R-squared	.063	.100	.151	.158

Each column displays the results of OLS regressions with clustered standard errors at each individual professor level. P-Values are reported below each coefficient. * means that P value is less than 0.1; ** means that P-value is less than 0.05; *** represents that P-Value is less than 0.01. In parentheses, robust standard errors.

Table 4: Robustness tests. Main regressions with a different independent variable: the mean of research points obtained by each professor in the period under study. (Sample is restricted to full-time professors).

DV = Average students' evaluations	(1)	(2)	(3)	(4)
Constant	3.644***	3.815***	3.472***	4.286***
	(.297)	(.253)	(.391)	(.569)
Professor years of experience		.000	-.003	-.002
		(.011)	(.01)	(.013)
Course length		.016***	.016**	-.043
		(.004)	(.006)	(.059)
Course size		-.005***	-.003*	-.004**
		(.001)	(.001)	(.001)
Professor training		.064	.057	.042
		(.053)	(.052)	(.053)
Online course		-.044	-.066	-.976
		(.103)	(.101)	1.121
Research index (in natural log)	.194**	.123*	.185**	-.030
	(.075)	(.057)	(.085)	(.136)
Research index (in logs)*Course length				.015
				(.014)
Research index (in logs)*Online course				.234
				(.278)
Year fixed effects	NO	NO	YES	YES
Subject fixed effects	NO	NO	YES	YES
Audience fixed effects	NO	NO	YES	YES
Number of observations	282	282	282	282
R-squared	.059	.146	.207	.223

Each column displays the results of OLS regressions with clustered standard errors at each individual professor level. P-Values are reported below each coefficient. * means that P value is less than 0.1; ** means that P-value is less than 0.05; *** represents that P-Value is less than 0.01. In parentheses, robust standard errors.

Table 5: Robustness tests. Main regressions with a different dependent variable: Number of students that choose strategy electives. (Sample is restricted to MBA core strategy courses: Strategy formulation and Strategy design).

DV = Number of students that choose strategy electives	(1)	(2)	(3)	(4)
Constant	32.435***	-3.922	-5.656	-3.510
	(2.849)	(3.620)	(5.285)	(5.560)
Full-time professor		2.059	-.927	.022
		(3.299)	(1.088)	(1.280)
Professor years of experience		.484*	-.034	-.032
		(.259)	(.066)	(.064)
Course length		-.204	.079	.008
		(.231)	(.117)	(.140)
Course size		.843***	.684***	.677***
		(.082)	(.089)	(.088)
Professor training		5.015*	-1.211	-.730
		(2.666)	(2.229)	(2.305)
Research publications	1.969**	.809	.849*	-.763
	(.839)	(.559)	(.444)	(1.029)
Research publications*Course length				.063
				(.036)
Year fixed effects	NO	NO	YES	YES
Subject fixed effects	NO	NO	YES	YES
Audience fixed effects	NO	NO	YES	YES
Number of observations	76	76	76	76
R-squared	.096	.517	.918	.919

Each column displays the results of OLS regressions with clustered standard errors at each individual professor level. P-Values are reported below each coefficient. * means that P value is less than 0.1; ** means that P-value is less than 0.05; *** represents that P-Value is less than 0.01. In parentheses, robust standard errors.

Figure 1: Number of courses' distribution as a function of the number of professor academic publications

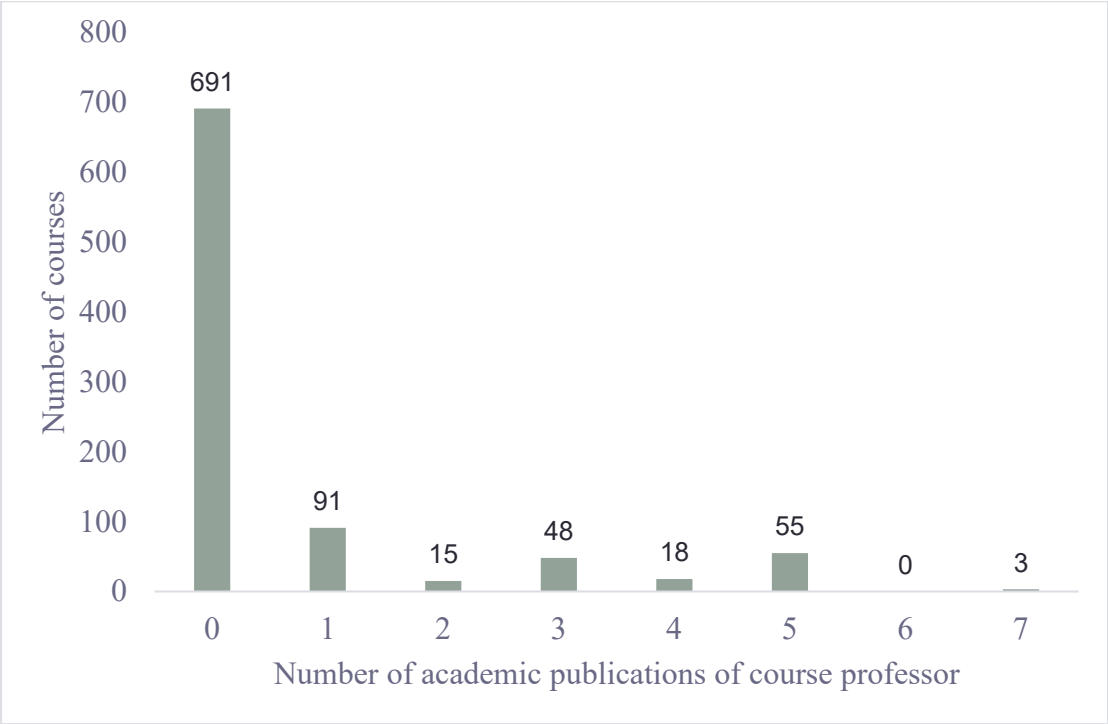


Figure 2: Students' evaluations as a function of research publications of the professor

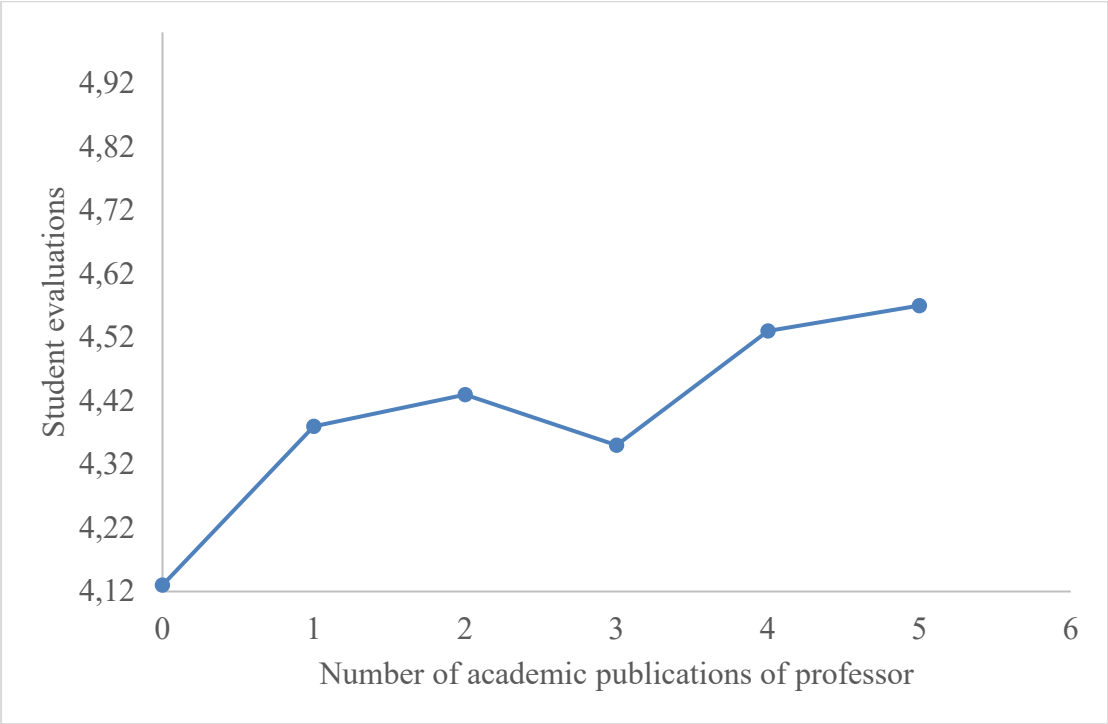
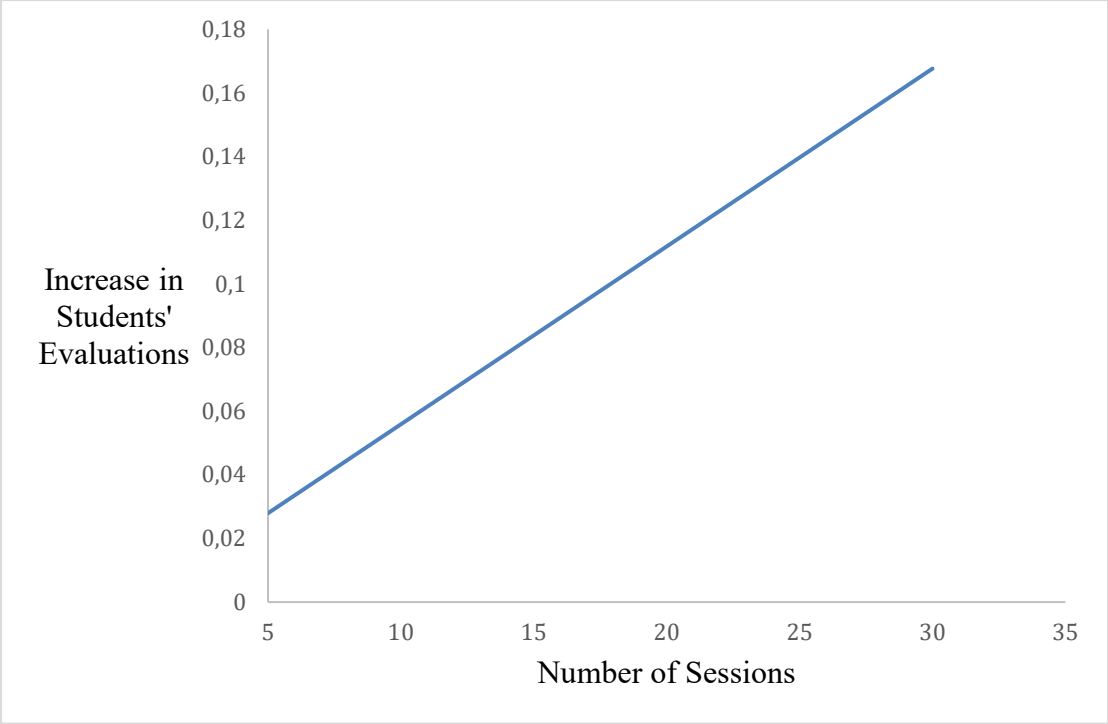


Figure 3: Marginal effect of research publications on students' evaluations as a function of course length. Course length is measured by number of sessions in which one session lasts 90 minutes.



REFERENCES

AACSB. 2016. Salary Survey Reports 2015-2016. ***The Association to Advance Collegiate Schools of Business***, http://www.aacsb.edu/~/media/AACSB/Publications/data-reports/global-salary-survey/2015-16%20Exec%20Summary.ashx.

AAUP. 2016. Higher eduucation at a crossroad. ***The Annual Report on the Economic Status of the Profession, 2015-16***.

Adler, P. S. 2016. 2015 Presidential Address: Our Teaching Mission. ***Academy of Management Review***, 41(2): 185-195.

Agrawal, A. 2006. Engaging the inventor: exploring licensing strategies for university inventions and the role of latent knowledge. ***Strategic Management Journal***, 27(1): 63-79.

Artes, J., Pedraja-Chaparro, F., & Salinas-Jimenez, M. d. M. 2017. Research performance and teaching quality in the Spanish higher education system: Evidence from a medium-sized university. ***Research Policy***, 46(1): 19-29.

Basow, S. A., & Montgomery, S. 2005. Student ratings and professor self-ratings of college teaching: Effects of gender and divisional affiliation. ***Journal of Personnel Evaluation in Education***, 18(2): 91-106.

Bedard, K., & Kuhn, P. 2008. Where class size really matters: Class size and student ratings of instructor effectiveness. ***Economics of Education Review***, 27(3): 253-265.

Bennis, W. G., & O'Toole, J. 2005. How business schools lost their way. ***Harvard Business Review***, 83(5): 96-104.

Beran, T., & Violato, C. 2005. Ratings of university teacher instruction: How much do student and course characteristics really matter? ***Assessment & Evaluation in Higher Education***, 30(6): 593-601.

Besancenot, D., Faria, J. R., & Vranceanu, R. 2009. Why business schools do so much research: A signaling explanation. ***Research Policy***, 38(7): 1093-1101.

Boyd, B. K., Finkelstein, S., & Gove, S. 2005. How advanced is the strategy paradigm? The role of particularism and universalism in shaping research outcomes. ***Strategic Management Journal***, 26(9): 841.

Brennan, R., & Ankers, P. 2004. In search of relevance: is there an academic-practitioner divide in business-to-business marketing? ***Marketing Intelligence & Planning***, 22(5): 511-519.

Burke, L. A., & Rau, B. 2010. The Research—Teaching Gap in Management. ***Academy of Management Learning & Education***, 9(1): 132-143.

CAW. 2012. A Portrait of Part-Time Faculty Members. ***The Coalition on the Academic Workforce***.

Clinebell, S. K., & Clinebell, J. M. 2008. The Tension in Business Education Between Academic Rigor and Real-World Relevance: The Role of Executive Professors. ***Academy of Management Learning & Education***, 7(1): 99.

Coate, K., Barnett, R., & Williams, G. 2001. Relationships between teaching and research in higher education in England. ***Higher education quarterly***, 55(2): 158-174.

Davison, E., & Price, J. 2009. How do we rate? An evaluation of online student evaluations. ***Assessment & Evaluation in Higher Education***, 34(1): 51-65.

Dutson, A. J., Todd, R. H., Magleby, S. P., & Sorensen, C. D. 1997. A Review of Literature on Teaching Engineering Design Through Project‐Oriented Capstone Courses. ***Journal of Engineering Education***, 86(1): 17-28.

Gautier, A., & Wauthy, X. 2007. Teaching versus research: A multi-tasking approach to multi-department universities. ***European Economic Review***, 51(2): 273-295.

Gerlich, R. N., & Sollosy, M. 2010. Predicting Assessment Outcomes: The Effect of Full-Time and Part-Time Faculty. ***Journal of Case Studies in Accreditation and Assessment***, 1.

Ginsberg, B. 2011. ***The Fall of the Faculty: The Rise of the All-Administrative University and Why It Matters***. New York, N.Y.: Oxford University Press.

Gomez-Mejia, L. R., & Balkin, D. B. 1992. Determinants of faculty pay: An agency theory perspective. ***Academy of Management Journal***, 35(5): 921-955.

Gopinath, C., & Hoffman, R. C. 1995. The Relevance of Strategy Research: Practitioner and Academic Viewpoints. ***The Journal of management studies.***, 32(5): 575.

Grant, R. 2008. Why Strategy Teaching Should be Theory Based. ***Journal of Management Inquiry***, 17(4): 276-281.

Greiner, L. E., Bhambri, A., & Cummings, T. G. 2003. Searching for a Strategy to Teach Strategy. ***Academy of Management Learning & Education***, 2(4): 402-420.

Gulbrandsen, M., & Smeby, J.-C. 2005. Industry funding and university professors' research performance. ***Research Policy***, 34(6): 932-950.

Hambrick, D. C. 1994. What if the Academy actually mattered? ***Academy of Management. The Academy of Management Review***, 19(1): 11.

Hattie, J., & Marsh, H. W. 1996. The relationship between research and teaching: A meta-analysis. ***Review of Educational Research***, 66(4): 507-542.

Jarzabkowski, P., & Kaplan, S. 2015. Strategy tools-in-use: A framework for understanding "technologies of rationality" in practice. ***Strategic Management Journal***, 36(4): 537.

Kelemen, M., & Bansal, P. 2002. The conventions of management research and their relevance to management practice. ***British Journal of Management***, 13(2): 97-108.

Labini, M. S., & Zinovyeva, N. 2008. ***The relationship between academic research, teaching quality and graduates' employment outcomes***. Paper presented at the EALE Annual Conference, Oslo.

Landry, R. j., Saïhi, M., Amara, N., & Ouimet, M. 2010. Evidence on how academics manage their portfolio of knowledge transfer activities. ***Research Policy***, 39(10): 1387.

Markides, C. 2007. In search of ambidextrous professors. ***Academy of Management Journal***, 50(4): 762-768.

Marsh, H. W., & Hattie, J. 2002. The Relation between Research Productivity and Teaching Effectiveness: Complementary, Antagonistic, or Independent Constructs? ***Journal of Higher Education***, 73(5): 603-641.

McPherson, M. A. 2006. Determinants of how students evaluate teachers. ***The Journal of Economic Education***, 37(1): 3-20.

McPherson, M. A., Jewell, R. T., & Kim, M. 2009. What determines student evaluation scores? A random effects analysis of undergraduate economics classes. ***Eastern Economic Journal***, 35(1): 37-51.
Mindruta, D. 2013. Value creation in university-firm research collaborations: A matching approach. ***Strategic Management Journal***, 34(6): 644.
Mintzberg, H. 2004. ***Managers, not MBAs: A hard look at the soft practice of managing and management development***: Berrett-Koehler Publishers.
Nederhof, A. J. 2006. Bibliometric monitoring of research performance in the Social Sciences and the Humanities: A Review. ***Scientometrics***, 66(1): 81-100.
Ogrinc, G., Headrick, L. A., Mutha, S., Coleman, M. T., O'donnell, J., & Miles, P. V. 2003. A Framework for Teaching Medical Students and Residents about Practice‐based Learning and Improvement, Synthesized from a Literature Review. ***Academic Medicine***, 78(7): 748-756.
Onwuegbuzie, A. J., Daniel, L. G., & Collins, K. M. 2009. A meta-validation model for assessing the score-validity of student teaching evaluations. ***Quality & Quantity***, 43(2): 197-209.
Ory, J. C., & Ryan, K. 2001. How do student ratings measure up to a new validity framework? ***New directions for institutional research***, 2001(109): 27-44.
Otto, J., Sanford Jr, D. A., & Ross, D. N. 2008. Does ratemyprofessor. com really rate my professor? ***Assessment & Evaluation in Higher Education***, 33(4): 355-368.
Pfeffer, J., & Fong, C. T. 2002. The end of business schools? Less success than meets the eye. ***Academy of Management Learning & Education***, 1(1): 78-95.
Prince, M. J., Felder, R. M., & Brent, R. 2007. Does faculty research improve undergraduate teaching? An analysis of existing and potential synergies. ***Journal of Engineering Education***, 96(4): 283-294.
Romme, A. G. L. 2003. Making a difference: Organization as design. ***Organization science***, 14(5): 558-573.
Romme, A. G. L., Avenier, M. J., Denyer, D., Hodgkinson, G. P., Pandza, K., Starkey, K., & Worren, N. 2015. Towards common ground and trading zones in management research and practice. ***British Journal of Management***, 26(3): 544-559.
Rynes, S. L. 2007. Editor's Foreword-Carrying Sumantra Ghoshal's Torch: Creating More Positive, Relevant, and Ecologically Valid Research. ***Academy of Management Journal***, 50(4): 745-747.
Segev, E., Raveh, A., & Farjoun, M. 1999. Conceptual maps of the leading MBA programs in the United States: Core courses, concentration areas, and the ranking of the school. ***Strategic Management Journal***, 20(6): 549.
Sonntag, M. E., Bassett, J. F., & Snyder, T. 2009. An empirical test of the validity of student evaluations of teaching made on RateMyProfessors. com. ***Assessment & Evaluation in Higher Education***, 34(5): 499-504.
Spooren, P., Brockx, B., & Mortelmans, D. 2013. On the Validity of Student Evaluation of Teaching: The State of the Art. ***Review of Educational Research***, 83(4): 598-642.
Stack, S. 2003. Research productivity and student evaluation of teaching in social science classes: A research note. ***Research in Higher Education***, 44(5): 539-556.

Street, S., Maisto, M., Merves, E., & Rhoades, G. 2012. Who is Professor "Staff". ***Center for the Future of Higher Education Policy Report***, 2.

Tahai, A., & Meyer, M. J. 1999. A revealed preference study of management journals' direct influences. ***Strategic Management Journal***, 20(3): 279.

Thorndike, E. L. 1920. A constant error in psychological ratings. ***Journal of applied psychology***, 4(1): 25-29.

Timmerman, T. 2008. On the validity of RateMyProfessors. com. ***Journal of Education for Business***, 84(1): 55-61.

Ting, K.-f. 2000. A multilevel perspective on student ratings of instruction: Lessons from the Chinese experience. ***Research in Higher Education***, 41(5): 637-661.

Trieschmann, J. S., Dennis, A. R., Northcraft, G. B., & Niemi, A. W. 2000. Serving multiple constituencies in business schools: M.B.A. program versus research performance. ***Academy of Management Journal***, 43(6): 1130-1141.

Van Aken, J. E. 2005. Management research as a design science: Articulating the research products of mode 2 knowledge production in management. ***British journal of management***, 16(1): 19-36.

Van de Ven, A. H., & Johnson, P. E. 2006. Knowledge for theory and practice. ***Academy of Management Review***, 31(4): 802-821.

Van Looy, B., Ranga, M., Callaert, J., Debackere, K., & Zimmermann, E. 2004. Combining entrepreneurial and scientific performance in academia: towards a compounded and reciprocal Matthew-effect? ***Research Policy***, 33(3): 425-441.

Verburgh, A., Elen, J., & Lindblom-Ylanne, S. 2007. Investigating the myth of the relationship between teaching and research in higher education: A review of empirical research. ***Studies in Philosophy and Education***, 26(5): 449-465.

Walsh, J. P., Tushman, M. L., Kimberly, J. R., Starbuck, B., & Ashford, S. 2007. On the relationship between research and practice: Debate and reflections. ***Journal of Management Inquiry***, 16(2): 128-154.

Whitley, R. 1988. The management sciences and managerial skills. ***Organization Studies***, 9(1): 47-68.

Zuckerman, H. 1988. The sociology of science. In N. Smelser (Ed.), ***Handbook of Sociology***: 511–574. Newbury Park, CA: Sage Publications.

APPENDIX

Focal business school's list of top research journals (alphabetical order)
Abacus (Blackwell)
Academy of Management Annals (Routledge Journals, Taylor & Francis LTD)
Academy of Management Journal (Academy of Management, Ada, Ohio)
Academy of Management Learning & Education (Acad Management)
Academy of Management Perspectives (Academy of Management/ Oup)
Academy of Management Review (Academy of Management)
Accounting and Business Research (Institute of Chartered Accountants)
Accounting, Organisations and Society (Elsevier)
Administrative Science Quarterly (Cornell University)
American Economic Review (American Economic Association, Nashville)
American Journal of Comparative Law (The American Society of Comparative Law)
American Journal of Political Science (John Wiley and Sons)
American Political Science Review (American Political Science Association)
Auditing-A Journal of Practice & Theory (Amer Accounting Assoc)
British Journal of Political Science (Cambridge University Press)
California Management Review (Uc Berkeley)
Columbia Law Review (Columbia Journal Transnational Law Assoc)
Common Market Law Review (Wolters Kluwer)
Comparative Political Studies (Sage Publications Ltd)
Contemporary Accounting Research (Canadian Accounting Association)
Decision Sciences (Wiley-Blackwell)
Ecological Economics (Elsevier Science)
Econométrica (Econometric Society, University of Chicago)
Entrepreneurship Theory and Practice (Baylor University, Waco, Texas)
European Accounting Review (Routledge Journals, Taylor & Francis Ltd)
European Constitutional Law Review (T M C Asser Press)
European Journal of Information Systems (Palgrave Macmillan Ltd)
European Journal of International Law (Oxford Journals)
European Law Journal (Wiley-Blackwell)
Financial Management (Wiley-Blackwell)
Harvard Business Review (Harvard Business School Publishing)
Harvard Law Review (Harvard Law Rev Assoc)
Human Relations (Sage Publications Ltd)
Human Resource Management (John Wiley and Sons)
IEEE Transactions On Engineering Management (IEEE-Inst Electrical Electronics Engineers)
Industrial and Labor Relations Review (Industrial Labor Relat Rev)
Industrial Relations (Wiley-Blackwell)
Information and Management (Elsevier Science)
Information Systems Journal (Wiley-Blackwell)
Information Systems Research (Informs)
International Comparative Law Quarterly (British Institute of International and Comparative Law)
International Journal of Human Resource Management (Routledge)

International Journal of Industrial Organization (Elsevier Science)
International Journal of Operations and Production Management (Emerald Group Publishing Limited)
International Journal of Physical Distribution & Logistics Management (Emerald Group Publishing Limited)
International Journal of Production Economics (Elsevier Science)
International Journal of Production Research (Taylor & Francis Ltd)
International Journal of Research In Marketing (Elsevier Science)
International Organization (International Organization Foundation)
International Studies Quarterly (Willey-Blackwell)
Journal of Accounting and Economics (Elsevier)
Journal of Accounting and Public Policy (Elsevier)
Journal of Accounting Research (University of Chicago)
Journal of Advertising (M E Sharpe Inc)
Journal of Advertising Research (Advertising Research Foundation)
Journal of Applied Psychology (American Psychological Association)
Journal of Banking and Finance (Elsevier Science)
Journal of Behavioral Decision Making (Wiley-Blackwell)
Journal of Business and Economics Statistics (Amer Statistical Assoc)
Journal of Business Ethics (Kluwer Academic)
Journal of Business Finance and Accounting (Wiley-Blackwell)
Journal of Business Logistics (Wiley-Blackwell)
Journal of Business Research (Elsevier Science Inc)
Journal of Business Venturing (Elsevier)
Journal of Conflict Resolution (Sage Publications Ltd)
Journal of Consumer Psychology (Elsevier)
Journal of Consumer Research (University of Chicago)
Journal of Economic Behaviour and Organizations (Elsevier Science)
Journal of Economics and Management Strategy (Wiley-Blackwell)
Journal of Environmental Economics and Management (Academic Press Inc Elsevier Science)
Journal of Finance (Blackwell)
Journal of Financial and Quantitative Analysis (Univ Washington Sch Business & Administration)
Journal of Financial Economics (Elsevier)
Journal of Human Resources (Univ Wisconsin Press)
Journal of Information Technology (Palgrave Macmillan Ltd)
Journal of International Business Studies (Academy of International Business)
Journal of International Money and Finance (Elsevier Sci Ltd)
Journal of Labor Economics (Univ Chicago Press)
Journal of Law and Economics (Univ Chicago Press)
Journal of Law, Economics and Organization (Oxford Univ Press Inc)
Journal of Management (Sage Publications Inc)
Journal of Management Information Systems (M E Sharpe Inc)
Journal of Management Studies (Wiley-Blackwell)
Journal of Marketing (American Marketing Association)
Journal of Marketing Research (American Marketing Association)
Journal of Money, Credit and Banking (Wiley-Blackwell)
Journal of Operations Management (Elsevier)

Journal of Personality and Social Psychology (Amer Psychological Assoc)
Journal of Political Economy (University of Chicago)
Journal of Politics (University of Arizona and American University)
Journal of Product Innovation Management (Wiley-Blackwell)
Journal of Retailing (Elsevier Science Inc)
Journal of Risk and Uncertainty (Springer)
Journal of Small Business Management (Blackwell)
Journal of Supply Chain Management (WILEY-BLACKWELL)
Journal of The American Statistical Association (American Statistical Association)
Journal of The Association For Information Systems (Assoc Information Systems)
Leadership Quarterly (Elsevier Science Inc)
Long Range Planning (Elsevier)
Management Science (Informs)
Manufacturing & Service Operations Management (Informs)
Marketing Science (Informs)
Michigan Law Review (Mich Law Rev Assoc)
MIS Quarterly (University of Minnesota)
Omega International Journal of Management Science (Pergamon-Elsevier Science Ltd)
Operations Research (Informs)
Organization Science (Informs)
Organization Studies (Sage Publications Ltd)
Organizational Behaviour and Human Decision Processes (Academic Press)
Personnel Psychology (Wiley-Blackwell)
Production and Operations Management (Wiley-Blackwell)
QME-Quantitative Marketing and Economics (Springer)
Quarterly Journal of Economics (MIT)
Quarterly Journal of Political Science (Now Publishers Inc.)
Rand Journal of Economics (The Rand Corporation)
Research Policy (Elsevier Science)
Review of Accounting Studies (Springer)
Review of Financial Studies (Oxford University Press)
Sloan Management Review (MIT)
Stanford Law Review (Stanford Univ, Stanford Law School)
Strategic Management Journal (John Wiley and Sons)
Technovation (Elsevier Science Bv)
The Accounting Review (American Accounting Association)
Ucla Law Review (Univ Calif)
World Politics (Cambridge University Press)
Yale Law Journal (Yale Law J Co Inc)