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# The Teaching-Research Nexus: Perceptions of Exchange Students in the United States and United Kingdom

Barry J. Griffiths

*University of Central Florida*, [barry.griffiths@ucf.edu](mailto:barry.griffiths@ucf.edu)

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## **Abstract**

An extensive amount of study in recent years has focused on the relationship between teaching and research among academic staff, with many concluding that an environment of increased scrutiny and assessment has tilted the priority towards research. Few studies have looked at how students perceive the teaching-research nexus, and this paper offers a new perspective on the issue by considering the perceptions of exchange students from the United States and the United Kingdom.

Data was collected by conducting in-depth interviews with twelve multidisciplinary students representing eight universities in the two countries, and an analysis conducted according to established phenomenological principles. The results suggest that exchange students have a high opinion of research, and generally do not believe that academic staff prioritise their own research to the detriment of undergraduate students. Exceptions are more prevalent in the United Kingdom, where research is more prominently discussed in the classroom.

## **Keywords**

Teaching-research nexus, exchange students, student perceptions

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# The Teaching-Research Nexus: Perceptions of Exchange Students in the United States and United Kingdom

Barry J. Griffiths

University of Central Florida

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An extensive amount of study in recent years has focused on the relationship between teaching and research among academic staff, with many concluding that an environment of increased scrutiny and assessment has tilted the priority towards research. Few studies have looked at how students perceive the teaching-research nexus, and this paper offers a new perspective on the issue by considering the perceptions of exchange students from the United States and the United Kingdom. Data was collected by conducting in-depth interviews with twelve multidisciplinary students representing eight universities in the two countries, and an analysis conducted according to established phenomenological principles. The results suggest that exchange students have a high opinion of research, and generally do not believe that academic staff prioritise their own research to the detriment of undergraduate students. Exceptions are more prevalent in the United Kingdom, where research is more prominently discussed in the classroom.

## INTRODUCTION

This paper revolves around the relationship between teaching and research, and the long-standing issue of whether faculty members value their research more than their teaching duties, prioritizing the former to the detriment of the latter. This accusation has been commonly attached to faculty worldwide (Arum and Roksa, 2011; Chen, 2015; Willetts, 2013), and is often exacerbated by a promotion structure that is primarily based on research output (Parker, 2008). The discussion was brought to national prominence in the United States with the publication of *Profscam* by Sykes (1988), who famously declared that “The academic culture is not merely indifferent to teaching, it is actively hostile to it. In the modern university, no act of good teaching goes unpunished” (p. 54).

A more nuanced view of the relationship between teaching and research was given by Coate et al. (2001), who alluded to six possible relationships between the two disciplines (see Table 1), and which serves as a categorical framework for this study.

<b>Table 1. The possible relationships between teaching and research</b>	
<b>Integrated</b> Research and teaching are not distinct, considerable overlap (if not identical)	
<b>Positive</b> Research has a positive influence on teaching	<b>Positive</b> Teaching has a positive influence on research
<b>Independent</b> Research and teaching independent of each other (neutral relationship)	
<b>Negative</b> Research has a negative influence on teaching	<b>Negative</b> Teaching has a negative influence on research

A new perspective is offered by considering the perceptions of exchange students with regard to research, in particular how they view the relationship between teaching and research, and whether they believe faculty research detracts from classroom teaching. Although the literature looking at the teaching-research nexus<sup>1</sup> is well served by the perceptions of academic staff in the United States and the United Kingdom, there have been few studies focused on the views of students with regard to this is-

sue, and none that use exchange students as the primary source of data. While one might question whether students can accurately perceive the priorities of faculty, or whether exchange students in particular are able to make valid comparisons, this study takes the view of Schweisfurth (2012), who contends that as participant observers of different educational systems, international students make natural comparativists, and offers fresh insight from those uniquely positioned to discuss the situation in the two countries.

## Academic Perceptions of the Teaching-Research Nexus

There is no shortage of studies concerned with what is perceived to be a declining focus on undergraduate teaching on the part of academic staff in American institutions of higher education, with the increased focus on research being largely to blame. Boyer (1990) stated that “Research has come to be viewed as the first and most essential form of scholarly activity” (p. 15), and urged academics to view teaching as a fundamental aspect of scholarship. Resh (1998) wrote metaphorically that “research articles in refereed journals are the traditional coin of the realm for academic scientists,” a claim that was investigated in terms of real currency by Fairweather (2005), who concluded that “The declining monetary value of classroom instruction across types of institution should give us all pause to consider the fit between our rhetoric about the value of teaching and the rewards actually accrued by faculty who teach the most” (p. 418). However, it should be noted that while there is general agreement that the nature of the academic profession is changing, with increasing emphasis on research based external grant funding (Gallup and Svare, 2016), not every study agrees with the assertion that teaching has assumed a reduced role due to the research commitments of academic staff. Altbach (2005), citing the results of national surveys, contends that research staff are not turning their back on their teaching responsibilities, and that “American professors seem to be working longer, not shorter, hours, and classroom hours have not declined” (p. 299).

Another long-standing argument in the literature is whether academic research prowess is correlated to classroom value as a teacher. Over a century ago, David Starr Jordan (1896) at Stanford declared that “No second-hand man was ever a great teach-

er, and I very much doubt if any really great investigator was ever a poor teacher” (p. 38). However, Feldman (1987) conducted an extensive study concerned with the correlation of research output and instructional effectiveness, and found that approximately 98% of the variation in the latter was due to something other than the research ability of the staff member. This view was supported by Hattie and Marsh (1996), who looked at 58 studies done on the subject of the teaching-research nexus, and concluded that “The common belief that teaching and research were inextricably intertwined is an enduring myth. At best teaching and research are very loosely coupled” (p. 529).

In the United Kingdom, the balance between teaching and research reached a point whereby in 1997 the government-commissioned Dearing Report (Dearing, 1997) found that only 3% of academics believed that the promotion structure in place at their university rewarded high quality teaching. The report recommended a significantly enhanced emphasis on teaching by administrators when considering promotion, and that universities should not exclusively consider research credentials. This support for teaching was endorsed by a report by the Secretary of State for Education and Skills (Clarke, 2003), which stated that “In the past, rewards in higher education – particularly promotion – have been linked much more closely to research than to teaching. Indeed, teaching has been seen by some as an extra source of income to support the main business of research, rather than recognised as a valuable and high-status career in its own right. This is a situation that cannot continue” (p. 51). However, an investigation by Parker (2008) found that the rank of (full) professor is still awarded almost exclusively on the basis of research, while neo-liberal policies such as the creation of the Research Excellence Framework have created systems of individual and institutional scrutiny which has led to a division of labour between teaching-oriented staff and research oriented staff (Geschwind and Broström, 2015). According to Stromquist (2017) this “does not foster collegiality, and defies the very values of equity and quality [that institutions] profess to uphold” (p. 132). This is in spite of several recommendations from policymakers and academics encouraging institutions to emphasize a more symbiotic relationship between the two disciplines. Recent studies by Jenkins and Healey (2013), Spronken-Smith et al. (2014), and Vereijken et al. (2017), have echoed the sentiment of the Boyer Commission (2009) in suggesting that enthusiasm for research can be generated by its early introduction into undergraduate courses.

## Student Perceptions of the Teaching-Research Nexus

Previous studies looking at the perceptions of the teaching-research nexus by undergraduate students have been conducted in several countries, with a tendency to focus on those who have recently completed an undergraduate research project (Brewer et al., 2012; Imafuku et al., 2015; Myatt, 2009). However, there are no broad studies which consider the general attitude of American students towards research done by academic staff and its relationship with undergraduate teaching. Gilmore et al. (2015) found that postgraduate students perceive a significant and supportive relationship between the two disciplines, especially in the social sciences and humanities.

Looking at perceptions in the United Kingdom, Jenkins et al. (1998) addressed the fact that “To date no studies have been located which directly examine the teaching-research nexus

with a focus on students’ views” (p. 129). Their work on the subject involved interviewing approximately 40 students at Oxford Brookes University, and while some of the participants in the study complained that researchers were often unavailable, and as a consequence appeared preoccupied with their research at the expense of teaching, the overall conclusion was that perceptions of the teaching-research nexus “are largely positive, while the main adverse impacts can, in part, be resolved through effective management” (p. 139). Another study conducted at Oxford Brookes University, by Breen and Lindsay (1999), found that negative perceptions of research are often formed by students less willing to interact with academic staff, and that those more motivated and communicative often have positive perceptions. Zamorski (2002) looked at undergraduate student perceptions of the teaching-research nexus at the University of East Anglia, with twelve students being recruited, who then asked open-ended questions to eight of their peers in order to gather the data. They found that while students valued the idea that universities form part of a research community, they also expressed a misunderstanding of the different aspects of an academic staff member’s responsibilities, and did not always see the relationship between teaching and research. These findings were confirmed in a study by Healey et al. (2010), who concluded that inquiry-based learning is the best way to link the disciplines of teaching and research, and that while students can often be initially resistant to doing research projects as undergraduates, academic staff “have an important part to play in developing [undergraduate] students as researchers and active learners” (p. 240). In recent years, studies looking at student perceptions of the teaching-research nexus have become more specialized, with perceptions within individual departments being considered. Ball and Mohamed (2010) surveyed hospitality management students at Sheffield Hallam University, while Johnes (2006) interviewed final year sports science and sports studies students at St. Martin’s College. In both cases a positive attitude was found towards research, with participants indicating that they value the skills learned during the completion of their research projects.

## METHODOLOGY

Twelve students, subsequently given alphabetised pseudonyms, consented to in-depth interviews during 2013 in order to gather data on their perceptions of research and the teaching-research nexus. Six of these students were current exchange students from the United States studying in the United Kingdom, while the other six were United Kingdom students who had previously spent a semester or a full academic year studying in the United States. Two sites were used to collect the data, Keele University in England and the University of Central Florida, with purposive sampling used in a manner that ensured that a balance was maintained between the number of male and female participants, and that the students represented a wide range of academic disciplines (see Table 2). All were aged between 20 and 22, with the British students being in their second or third year of study when travelling to the United States, and the American students being in their third or fourth year of study when travelling to the United Kingdom. Eight research universities were represented in the study: Keele, Surrey, Queen Mary, and Leicester in the United Kingdom; Central Florida, North Carolina (Wilmington), Ball State and Southern Mississippi in the United States.

**Table 2. Demographics of the Participants**

Participant	Gender	Major	Home Country <sup>2</sup>
Allison	Female	Mathematics	USA
Beth	Female	Mathematics	USA
Colin	Male	Chemistry	USA
Diana	Female	US Studies	UK
Eric	Male	Psychology	USA
Felix	Male	Mathematics	USA
Grace	Female	Hospitality	USA
Hazel	Female	Hospitality	UK
Ivan	Male	Hospitality	UK
Jessica	Female	Biochemistry	USA
Kyle	Male	Music	UK
Lee	Male	Chemistry	UK

While prepared questions were used as the basis for the interviews, they developed into a semi-structured format, with additional questions asked when it was either felt that the original question was misinterpreted, or the answer that was given allowed further insight to be sought. No incentives were given to those participating in the study, and all twelve of the students interviewed seemed very willing to give their time and answer the questions thoroughly. Interviews typically lasted between 30 and 40 minutes, and covered a range of topics, half of which were connected to this study. The interviews were fully transcribed and analysed using the phenomenological approach advocated by Åkerlind (2005), whereby the interviews were analysed in an iterative manner, repeatedly reading through the transcripts to find the underlying intentions expressed. Commonalities and differences were found by comparing and contrasting individual responses, with emerging hypotheses being confirmed and modified, before finally being integrated into a coherent narrative.

## RESULTS

### Perceptions of Faculty Priorities

The majority of the participants interviewed commented favourably on the instruction they had received, and most were openly dismissive of the notion that academic staff care more about their research than their teaching. Allison commented that “My teachers were excellent, both here and in the UK,” adding later in the interview that “I never heard the faculty bring up their research, they never missed any lectures, they were always on time.” Beth spoke of how “I really felt like the faculty cared about the students,” and Colin mentioned the enthusiasm that academic staff have for the material that they teach: “The faculty are very interested in teaching you what they want to teach you, in both places.”

When asked specifically whether they believed academic staff prioritize their research at the expense of their teaching, it was noticeable that those who did not were curtly dismissive of the notion, and did not feel the need to elaborate further. Hazel and Kyle both responded “No. No,” while Ivan was similarly briefly in stating “No, no, no. Never.” After a long pause Grace answered “No, I don’t think so. Sorry, that wasn’t very elaborate,” while the longest such answer was provided by Felix, who said “No. No I don’t. Both here [in the US] and there [in the UK]. I don’t think they value their research over their teaching.”

By contrast, those who believed that academic staff prioritize research over teaching went into greater detail in order to illustrate their point of view. Diana described how academic staff in the United Kingdom can be granted research leave for a semester, which excuses them from their teaching duties:

*[In the UK] staff go off on research leave for a semester. One of my lecturers went to LA recently for a week and a half. I don’t know what for. I didn’t really notice that it that much in America, people going on research leave. You know of what they’ve done, but it didn’t seem as big a problem as it does [in the UK].*

Some participants discussed specific staff members who they perceived to be unhappy with the amount of teaching they were doing, surmising that it was due to a preference for doing research. Colin made a statement to this effect:

*I’ve noticed some teachers are a little annoyed by how much they’re teaching. Probably because they’d rather be doing their research, or teaching upper-level classes. They’d rather have less of the lecture workload; maybe distribute it among their peers who aren’t teaching.*

**Table 3. Perceived Relationship of Teaching and Research by Participants**

Relationship Between Teaching and Research	Participants
Research positively affects teaching	Allison Beth Felix Grace Hazel Ivan
Research negatively affects teaching	Diana Eric Jessica Lee
Teaching and research positively affect each other	Colin Kyle

### Perceptions of the Teaching-Research Nexus

The categorical framework provided by Coate et al. (2001), shown in Table 1, shows six different ways to describe the relationship between teaching and research. The data collected from the twelve interviews shows that six participants believe research positively affects teaching, four participants believe research negatively affects teaching, and two participants perceived there to be a symbiotic relationship between teaching and research whereby both activities positively influenced the other. Table 3 shows the distribution of perceptions.

Participants who believed that research positively affects teaching alluded to how faculty presenting contemporary ideas helps students keep abreast of current developments in their subject, and in the words of Beth “makes a class more interesting”. Ivan cited a specific example, stating that “Last week we had a tourism lecture, and we were talking about ecotourism, and it’s useful to have research and then put it into practice or present it in the college”. Grace commented that being up to date with present-day research gives students an edge, presumably with regard to future employment:

*[Faculty discussing research in the classroom] keeps the students really engaged with what is going on. New trends in the indus-*

tries, new advancements. By relaying that kind of information to your students, and keeping them focused on it, it keeps them ahead of other students and ahead of the competition.

For the most part, the four participants who viewed research as having a negative effect on teaching cited examples where faculty appeared more interested in their research, and hence demonstrated a lower priority for their classroom duties. Diana spoke of how “I’ve never ever met my personal tutor, and you’re meant to, so that’s a bit awkward. I don’t know why, but he goes on research leave quite a lot. The study abroad tutor, he’s now on research leave”. Lee gave a similar justification for why research has a detrimental effect on teaching, believing that for many faculty teaching occupies a secondary role:

*I do think research is bad for the teaching. I always used to ask the professors in [the UK] what kind of research they were doing, as I was quite interested, but I remember them telling me that they only teach because they have to. They’re going to the lectures thinking about their research, so that does affect teaching in a negative way.*

Jessica gave a different explanation of why she believed research can lead to less effective teaching, inferring that when a faculty member cares too much about their research it can lead to an overly narrow focus of the material that they are teaching, which does not allow undergraduate students the broader knowledge that they need:

*I think that a lot of the time a faculty member’s interest translates to the class they are teaching, and it can be a little bit detrimental. For example, in animal physiology they had a neurology and a reproductive research specialist giving the lectures, so the class was very focused on those two subjects, and I think it hurt the course a little bit because you didn’t learn the spectrum of everything that should be taught in that course. It was focused on what their interests were and not on teaching the entire subject.*

It was interesting to observe that the two remaining participants believed that teaching and research affect each other in a symbiotic way, which combines two of the six relationships discussed by Coate et al. (2001). While Colin did not go into detail, just commenting that “I think they can help each other, yeah, they affect each other,” Kyle answered with a quizzical look, as if a trick question were being asked: “Isn’t it kind of like a cycle? Teaching helps stimulate the research, and then the research will feed back in to the teaching”

A prevailing sentiment among almost all of the participants was that research is more prominent at the undergraduate level in the United Kingdom versus the United States. This was expressed positively, with participants discussing how they relished the opportunity to do research as an undergraduate in the United Kingdom, and how it was a highlight of their program. Grace stated that “Here [in the US] we don’t do as much research. Most of my learning [in the UK] was through research and reading articles and writing these really long papers with groups or just on my own, which I liked,” while Kyle stated that engaging in undergraduate research had been one of the best aspects of his bachelor’s degree:

*Dissertations and things like that? Yes. That was definitely one of my highlights [in the UK]. It was worth three modules, so a fair chunk of my overall degree, and I found it really, really interesting, whereas I haven’t had anywhere near the same kind of emphasis on research here [in the US] at all.*

Even those who had not had the opportunity to participate in an undergraduate research project noticed that academic staff in the United Kingdom tend to mention research more in the classroom (often their own) compared with their counterparts in the United States. Eric alluded to this distinction:

*Some lecturers do mention their research, some of them don’t. Less so in the States. They mention research more here [in the UK]. The material is more research based. In the US they might give you a broad overview of the topic, here they’ll tell you specifically what specific people found.*

This recurring perception of research being more prevalent in the British undergraduate curriculum was also emphasised by Jessica:

*[Discussing research] was done very much more so [in the UK]. Here [in the US] they don’t really mention their research at all. If it’s an example they are giving for a particular topic you’re on, the professors here will mention their research, but over there it was very, very focused on their research, they would bring it up a lot, and incorporate it into their entire course.*

As a follow-up question, Jessica was asked why she believed this to be the case. She responded by conjecturing that the curriculum is more standardised in the United States:

*I’m not sure. I think that teaching and research are a little more separated [in the US]. I think it has a lot to do with what the school expects them to cover as far as the course goes. [Academic staff in the US] have to stay focused on a set number of topics.*

The same question was also posed to Lee, who posited that while academic staff in the United States will wait until students are in graduate school before exposing them to research, in the United Kingdom most students will terminate with a bachelor’s degree:

*In America it seems all about the postgraduate degree. As an undergraduate, you learn your stuff, but when you go to graduate school, that’s where you become a chemist in America. England has more of an emphasis on the undergraduate degree.*

## DISCUSSION

The purpose of this study was to consider the perceptions of exchange students with regard to the teaching-research nexus. While one may question whether undergraduates are sufficiently knowledgeable with regard to this subject, they are certainly affected by the consequences. The results show that although research leave and attending conferences during the semester is a source of irritation, few of the participants could be said to have shared the opinion that “It remains hard to shift the impression that what really counts in higher education is research,” a sentiment voiced in the United Kingdom by (then) Education Secretary David Willetts (Feilden, 2010).

The generally positive sentiment towards research furthers the case for expanding opportunities for undergraduates to engage in meaningful projects, whereby students can contribute rather than just learn (Brew, 2012), which will lead to an enhanced ability to follow contemporary advances in the literature, the development of collaborative study habits, and a closer relationship to postgraduate study (Madan and Teitge, 2013). However, it should be noted that one third of the participants perceived an antagonistic relationship between the two disciplines<sup>3</sup>, which

is symptomatic of how current evaluation systems have placed an emphasis on research, to the detriment of creativity and innovation in undergraduate teaching (Cadez et al., 2017; Geschwind and Broström, 2015). The quotes by Diana and Colin support the report by Newman (2008) that leading researchers in the United Kingdom are rewarded by having their teaching loads reduced via an increase in the number of designated research days, though the same phenomenon is also common in the United States, where external funding causes teaching assignments to be altered, often at short notice (Smith and Smith, 2012).

For several reasons, one has to be careful in interpreting the results in a wider context. Firstly, the ability and motivation of exchange students means that they often bridge the gap to lecturers more than typical undergraduates, and are more likely to be aware of the teaching-research nexus (Neumann, 1994). Secondly, the fact that everyone taking part in this study has been a student in the United Kingdom, where undergraduate research projects are a common part of the bachelor's degree may also play a part in the findings. Thirdly, it was shown by Breen and Lindsay (1999) that motivated and communicative students (which certainly describes the participants of this study) have more positive perceptions of research. Fourthly, Taylor (2008) cautions that perceptions of the teaching-research nexus can vary by discipline and level of academic maturity, and that "the relationship may vary over time, not just in the course of a career, but even week to week and day to day" (p. 55). And finally, the participants of this study were from institutions with a significant emphasis on research. Turner et al. (2008) found that students had an elevated awareness of research under such circumstances, and hence the positive perceptions found by this study might not extend to universities where research is not prioritised to the same extent. Ultimately, as suggested by Coate et al. (2001), any synergistic relationship between teaching and research is derived from the way that departments are managed, and whether those in charge view them as integrated or independent activities.

Further work needs to be done to investigate whether the perceptions of the teaching-research nexus found in this study extend to a larger pool of undergraduate students, or whether exchange students have qualities which skew their perspective. The positive views of the participants regarding the role of research have interesting implications, as the popularity of undergraduate research among those who have engaged in it raises the question of why it tends to be restricted to a small number, especially in the United States, with one solution being to tilt assessment mechanisms to reward the integration of teaching and research. While participant Lee makes a good point in recognising that the bachelor's program in the United Kingdom represents a terminal degree for a majority of students, who are therefore more inclined (and often better prepared) to engage in a semester or yearlong research project, this should not exonerate universities in the United States that wait until students enter postgraduate courses to begin integrating research into the curriculum, especially in the sciences where it can often be difficult to recruit domestic postgraduate students. Student-staff ratios at large public universities in the United States often make the expansion of undergraduate research programs difficult, but increasing participation in directed research and the expansion of grant-funded programs would allow more students to participate in what is perceived to be a beneficial and popular endeavour.

## NOTES

1. For the purpose of this paper the definition of "teaching-research nexus" by Wuetherick (2009) will be used, which states that "the teaching-research nexus refers to the interplay between the teaching and research roles of universities, whether at the level of the institution, faculty, department, or individual academic."
2. Home country represents the location of the home institution of each participant. In most cases it is the same as their nationality, with the two exceptions being Hazel, who has dual citizenship of the United Kingdom and Hong Kong, and Ivan, who is from Slovakia.
3. This is higher than the 4.5% reported by Gilmore et al. (2015) when surveying postgraduate students, though lower than the 44.1% of engineering students in the study by Stappenbelt (2013) who agreed to some extent that "my lecturers appear to prefer to spend their time on research rather than teaching."

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