

Research-based learning in the linguistics classroom ^{*}

Arne Zeschel

University of Southern Denmark

The present paper discusses benefits and challenges of implementing classes with a focus on *research-based learning* (Healey 2005) into the linguistics curriculum. Having sketched relevant connections between research, teaching and learning, a concrete illustration of the approach in the context of applied linguistics is discussed. Strengths and weaknesses of the implementation are assessed and implications for curricular improvement are considered.

Keywords: *Research-based learning, inquiry-based learning, empirical methods, sociolinguistics, language and gender.*

1 Introduction

Research and teaching are the prime occupations of scientific staff at modern universities, and the link between these two activities has been the subject of extensive controversy ever since the days of Wilhelm von Humboldt. Empirical contributions to the debate are almost exclusively concerned with assumed relationships between research productivity and teaching effectiveness, i.e. show a strong focus on skills and motivations of the researcher/teacher. The present paper takes a different perspective: it discusses the benefits of a close connection between research and teaching for *learning*, i.e. with a focus on students and the demands of changing educational objectives within a restructuring institutional environment.

The paper is structured as follows: section 2 sketches general connections between research, teaching and learning as suggested in the literature. The focus

^{*} I am grateful to the participants of NLK 11 for comments and discussion.

is then narrowed to benefits of research-based learning with regard to both subject content and the development of non-subject-specific competencies that are gaining more and more importance given current developments in higher education. Following Healey (2005), possible manifestations of an explicit research orientation in teaching are broken down into four categories, with the types ‘research-oriented’ and ‘research-based’ teaching forming the focus of the present discussion. Section 3 illustrates concrete applications of these strategies in the linguistics classroom. Benefits and challenges of forging close links between research, teaching and learning are considered on the example of a project-based class on language and gender. I give a brief overview of the overall learning targets, the syllabus, the employed resources and the objectives and design of individual projects, followed by an evaluation of how well the course lived up to its didactic objectives. Finally, section 4 draws conclusions about main problems and tensions encountered in implementing the intended focus on research-based learning and sketches possible venues for improvement.

2 Research, teaching and learning

The view that academic research and teaching are two sides of the same coin – inseparably connected, and also mutually enhancing – is deeply rooted in conventional wisdom and also firmly institutionalised in modern academic life. It is also a widespread belief among academic staff (Centra 1983). On closer inspection, however, the assumed connection is by no means uncontroversial: in the literature, positions on the issue range from the assumption of a supportive link between research and teaching (Faia 1976) over a null relationship (Harry and Goldner 1972) to a constellation of irredeemable conflict (Fox 1992). Empirical evidence on the issue is inconclusive (Braxton 1996). Many of the commonly used indices in the correlational literature (e.g. citation counts vs.

peer ratings vs. publication counts as operationalisations of research quality) yield conflicting results, and there is generally little consensus as to how the targeted qualities should be measured (Brew & Boud 1995). As a result, the authors of a large meta-analysis of relevant studies conclude that “the common belief that research and teaching are inextricably entwined is an enduring myth” (Marsh and Hattie 2002: 606).

What all these studies share, however, is a focus on the institutional roles of researcher and teacher and what (if anything) is complementary about them. In other words, the interest is in finding out whether (and if yes, how) research activity can be beneficial for academics’ teaching performance and vice versa.¹ By contrast, the focus of the present paper is not so much on possible benefits for lecturers but on advantages for students. So which positive effects *on learning* are associated with a strong research orientation in teaching? In order to answer this question, it is first necessary to clarify exactly what is meant by ‘a strong research orientation in teaching’. Developing suggestions by Griffiths (2004), Healey (2005) proposes a useful four-way distinction of the way in which research may be reflected in teaching:

- in *research-led* teaching, course contents are based on lecturers’ personal research interests and covered within a traditional approach to teaching as information transmission (e.g. through lectures);
- in *research-tutored* teaching, supervisions take students through published research and encourage them to reflect on their own

¹ For instance, a strong personal involvement in cutting-edge research is assumed to ensure that lecturer’s teaching is both up to date and delivered with a sense of enthusiasm, whereas an integration into the undergraduate curriculum requires that highly specialised research findings be clearly articulated and placed in broader context, which can in turn promote the development of new research perspectives.

understanding of the underlying rationale and concrete processes involved;

- in *research-oriented* teaching, discussions of methodology, empirical resources and questions of research ethos are integrated into the curriculum on a par with the codified knowledge collected on the basis of these resources;
- in *research-based* teaching, the emphasis shifts from the transmission of predefined subject content to more open-ended, inquiry-based classroom activities in which the students themselves act as researchers and the division of roles between teacher and students is minimised.

Healey argues that the differences between these four types can be broken down to two dimensions: involvement (i.e., are the students audience or participants?) and process- vs. content-orientation (i.e., is the emphasis on the research process or on its results?). Healey offers the following schematic representation of the connection between the four approaches:

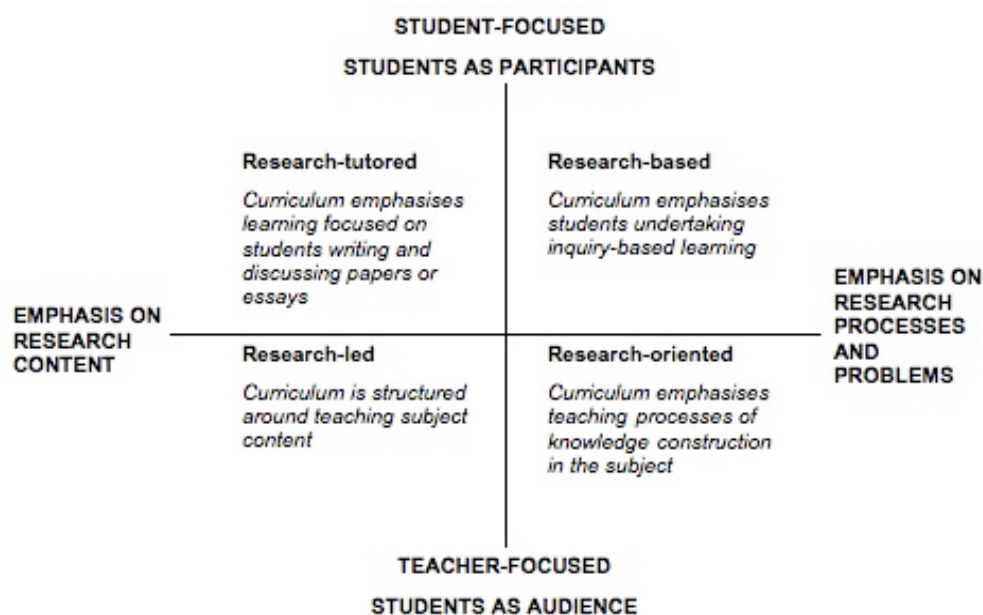


Figure 1 Research-centered teaching modes compared (from Healey 2005)

Actual teaching of course often combines elements of more than one of these idealised types. In what follows, I will nevertheless concentrate on the two approaches on the right hand side of figure 1 – i.e., on teaching the requirements of what is called *forschendes Lernen* in German (‘learning through research’). Main benefits of this approach can be summed up as follows (cf. Huber 2004; Huber et al. 2009; Roters et al. 2009):

- students are not passive recipients of facts but active participants in a research process. This usually causes an increase in involvement, motivation, identification with the subject matter and depth of learning all at the same time;
- topics for projects can be developed in cooperation with students, thereby facilitating the integration of relevant prior knowledge and personal interests into a given study;
- students can work on real-life problems manifesting in authentic data, which is usually viewed as more appealing than exercises in more detached forms of scientific practice (Abrandt Dahlgren & Dahlgren 2002);
- empirical research projects commonly produce tangible results that either do or do not refute a particular research hypothesis. For many students, the prospect of working toward a clear result that makes an original contribution is rewarding (however small the question);
- research-based learning fosters the development of critical thinking. Students come to see science not as a fixed body of facts and correct solutions, but as an open-ended process of inquiry that constantly generates new questions;
- independent thinking and active problem solving are encouraged. Students are forced to cope with unexpected difficulties arising in the course of their

investigation, learn to take responsibility for their decisions and how to defend (and when to revise) them in the face of criticism;

- students have ample opportunity to build up non-subject-specific ‘key qualifications’ such as the ability to work in teams, persistence and commitment to a joint objective, the ability to screen and restructure new information and a variety of computing and presentation skills.

In view of this impressive record of advantages, it is no surprise that a switch to more research-based learning strategies is generally considered a prime objective of current reform initiatives in higher education. To give but two examples, the first of the ten recommendations for the reform of undergraduate education in the United States that was issued by the American *Boyer Commission* in 1998 reads “Make research-based learning the standard” (Strum Kenny 1998: 15), and the German *Wissenschaftsrat* (2001: 41) demands: “Hochschulausbildung soll die Haltung forschenden Lernens einüben und fördern” (‘higher education is to train and foster the attitude of research-based learning’).

What *is* surprising, then, is the realisation that hardly any of this has found its way into the realities of academic teaching yet. I think it is fair to say that at least in English linguistics departments at German universities, classical lectures and seminars with fixed syllabi based on a scheduled sequence of oral presentations are still the norm, and only very little effort is undertaken to implement elements of research-based learning into the curriculum.

3 Research-based learning in the linguistics classroom: an illustration

The present section illustrates one such implementation on the example of an introductory class on *Language and Gender* held at the University of Hamburg

in the winter semester 2009/2010. Following a characterisation of the main learning targets (3.1), I introduce the syllabus (3.2) and the resources employed (3.3) and survey the objectives, methods and procedure of each of the five student-led research projects that were conducted in the course (3.4). Section 3.5 gives a critical assessment of the didactic strategy of the course.

3.1 Learning targets

Learning targets of the course can be grouped into three categories: conceptual, methodological and empirical. Conceptual learning targets included

- the recognition of gender as a socially constructed category, including a recognition of the pervasive naturalisation of gender ideologies in virtually all aspects of social life;
- an appreciation of the complex dialectic relationship between gender and language use, including a possible re-assessment of personally held beliefs and stereotypes about their connection prior to participation in the course;
- a broad orientation about the historical development of language and gender research in applied linguistics from the 1960s onwards;
- familiarity with common topics and key findings of language and gender research and influential theories invoked for their explanation.

Methodological learning targets can be summed up as follows:

- a sound understanding of the elements and structure of standard models of empirical research (from testable hypotheses over operationalisation and data collection to analysis and conclusions);
- an awareness of both available resources (e.g. appropriately annotated corpora, internet platforms for surveys, online statistics calculators etc.) and

the possibility of constructing one's own research materials (e.g. self-compiled corpora);

- basic knowledge of the use of relevant software such as concordancers, text editors and spreadsheet programs;
- efficient use of electronic communication resources such as discussion forums, wikis and blogs as well as online resources for collaborative data coding and cooperative text production (e.g. *Google Docs*);
- practical experience with integrating all of the above into a self-organised research project and its professional presentation in class.

Finally, the course had three objectives relating to concrete empirical insights:

- to elicit relevant preconceptions of the participants and a number of peers at the beginning of term and trace possible changes therein over the course of the semester;
- to alert students to the shaky to non-existent empirical basis of many influential contributions to the academic debate about language and gender;
- to evaluate aspects of both popular stereotypes and prevalent academic views about language and gender through student' own empirical research.

3.2 Syllabus

The course consisted of 14 sessions that were divided into four sections: first, there were two introductory sessions that elicited participants' opinions on a wide range of gender-related issues (not all of which had direct connections with language and linguistics) using an electronic questionnaire (week 1) before analysing selected parts of the results in class (week 2). Next, there was a section of four theoretical sessions employing 'research-led' teaching to establish the relevant conceptual background for students' later project work.

Third, there were three sessions of ‘research-oriented’ teaching in which students were equipped with the basic methodological toolkit for their projects. Finally, there were five ‘research-based’ sessions in which students presented their project work in class.

3.3 Resources

The course took place in a computer lab and employed a wide range of teaching materials including a reader, lecture slides, different linguistic corpora, concordancing and text processing software, a course website and separate project group websites as well as blogs and various other free resources for communication and research cooperation between students (cf. section 3.1).

For conceptual background, students read the introductory chapter of Eckert & McConnell-Ginet (2003) as a general introduction to the concept of gender and its relation to language. Next came Lakoff (1975) as an influential early text in the field that introduced the much-debated notion of ‘women’s language’. Following up on Lakoff’s ‘deficit’ model of gender differences in language use were famous statements of the two classic alternative explanations of such asymmetries: Fishman (1983) as an example of ‘dominance’ theories and Maltz & Borker (1982) as an example of the subcultural ‘difference’ approach. In the fourth session of the section, the theoretical round-up was concluded with Bing & Bergvall’s (1996) and Cameron’s (2005) accounts of the postmodern shift to ‘performative’ theories of gender and language that currently dominate the field.

In the methodology section, students read the chapters “Experiments”, “Questionnaires, interviews and focus groups”, “Using computers to study texts” and “Statistics and your project” from Alison Wray, Kate Trott and Aileen Bloomer’s (2006) extremely useful resource book *Projects in Linguistics*. Being humanities students, participants had come to the class with little to no

background in statistics and empirical research methods, and there was no time to give a proper conceptual introduction to inferential statistics and the logic of individual tests to be used in the research projects. Instead, students were provided with a spreadsheet into which they could enter whichever figures they would obtain as part of their particular project, and which would then perform a t-test or a chi-square test for them to test their findings for significance.

From the beginning of the ‘conceptual’ section onwards, students were required to keep blogs about the seminar. They were free to post anything they found relevant to the course contents or that related to their project work in some respect. The only requirement was that they had to publish at least one post per week. The course website (part of the local e-Learning platform *Agora*) was used for general announcements, project sign-up, data exchange, uploading session slides and publishing specialised methodological tutorials (e.g. ‘Corpus data extraction and postprocessing’) that were relevant for only some of the project groups and hence not discussed in class. Each group also had a separate project website of its own that was used especially for discussions and file exchange. In addition, one group also used *Google Docs* for joint online editing of spreadsheet data.

3.4 Student projects

The idea behind the project component was to have students apply a particular empirical method to language and gender research or even replicate and extend an already existing study in the field. Given the narrow time schedule and the fact that the course was not about a single joint project but rather about five different studies, topics were predefined rather than developed collaboratively over the course of the semester. However, each project idea was open for adjustments and extensions depending on students’ interests and suggestions.

The first project, entitled *Gender ideology in popular culture*, consisted in a corpus analysis of gender ideology in women's and men's magazines. Students were supplied with issues of *Cosmopolitan* and *Esquire* which they scanned and treated with character recognition software in order to transform them into machine-readable corpora. At the same time, they read parts of Baker (2006) to familiarise themselves with basic tenets and tools of corpus-based discourse analysis. Originally, the project had been intended as an illustration of the analytical potential of simple keyword and collocation analyses, but the group's actual analysis moved far beyond these rather superficial stages. For instance, the group went on to tag all texts semantically for membership in particular content/topic categories, they conducted a comparison of the kinds of advertisements that were found in both types of magazines and even offered a qualitative analysis of differences in visual style, typography and layout.

The second project, *Gender and language attitudes*, investigated the effect of using features of 'woman's language' as described by Lakoff (e.g. many tag questions, many hedges and intensifiers, rising intonation in declarative utterances etc.) on social-psychological evaluations of the speaker (e.g. were such speakers really judged to be less assertive or more childlike than others?). The group conducted a matched guise experiment that was a slightly simplified replication of a study submitted as a master's thesis at the University of Pittsburgh (Dennison 2006). Students had two male and two female friends record answering machine messages in which they inquired about an apartment for rent. Each speaker recorded one telephone call in which they inquired about an apartment in 'standard language' and one in which their message contained features of 'women's language'. The students then constructed a questionnaire in which subjects had to rate ten different personality traits of the speakers of the four recordings (i.e., how dominant, shy, sensitive etc. did these speakers appear on a scale from 1 to 5?).

The third project was devoted to *Gender differences in language use*, specifically with regard to male and female use of formal/(overtly) prestigious language. The idea behind the project was to compile internet corpora of product reviews written by men and women (as identified by the names that authors had supplied for their reviews), to extract all evaluative adjectives from these corpora and then have people rate the relative formality of all words in the study on a seven-point scale. Methodologically, this study was therefore the most complex of all projects: work began with corpus compilation and analysis, followed by the construction of a questionnaire on the basis of the corpus findings, before these results were fed back into the corpus study again: this way, students could identify evaluative terms that occurred significantly more frequently in women's reviews as opposed to men's and vice versa, and also quantify the overall formality contrast between male and female verbalisation preferences for the contextually salient domain EVALUATION.

The fourth project, *Gender asymmetries in language structure*, investigated language change in a contested area of English grammar: the use of gender-neutral pronouns rather than generic masculines to refer to antecedents of mixed or unknown sex. Extending an earlier study by Persson (2006), students compared the use of singular *they* (cf. *everbody take off their shoes, please*) in corpora of written British and American English of the 1960s and 1990s (i.e. BROWN/LOB vs. FROWN/FLOB). The goal of the study was to determine whether growing public sensitivity to sexist tendencies in language use would privilege the spread of gender-neutral grammatical alternatives despite prescriptive arguments to the contrary (which discount singular *they* as ungrammatical due to its number concord violation).

The last project, *Gender and conceptualisation*, was a study on language and thought. Extending previous work by Boroditsky et al. (2003, in preparation), students conducted a psycholinguistic experiment to investigate

whether the grammatical gender of words for inanimate/asexual objects influences people's conceptualisation of the denotata. Students generated lists of English nouns whose single/dominant translations had opposite gender assignments in German and Spanish, two languages with a grammatical gender system (e.g. *die Gabel*, fem. vs. *el tenedor*, masc. 'the fork', *der Löffel*, masc. vs. *la cuchara*, fem. 'the spoon'). Thanks to two Spanish ERASMUS students in the group, it was possible to compare property associations for the English nouns obtained from both Spanish and German native speakers with a high proficiency in English. In an extension of the original experiment, students collected associations not only for nouns denoting artifacts but also for words denoting natural phenomena (e.g. *moon*, *apple*, *stone* etc.) and for an additional control condition in which Spanish and German translations of the English test items had the same gender. In a second experiment, the adjectival property associations thus obtained were then categorised by English native speaker judges in a forced-choice task as describing a 'rather masculine' or 'rather feminine' property of the object in question. This way, mean Spanish and German gender connotation scores were obtained for 60 English nouns which could then be compared between groups.

3.5 Evaluation

So how well did the course live up to the objectives laid out in 3.1, and how was it received by students? Since the paper is explicitly concerned with benefits of research-based learning *for students*, it will be useful to begin with an abridged overview of participants' (anonymous) responses to the evaluation questionnaire. Beginning with the positive aspects, the majority of students indicated that

- they were more interested in issues of language and gender now;

- they had enjoyed working in a group rather than on their own;
- they liked the idea of conducting a self-organised small research project;
- they had enjoyed the concrete empirical work for their project;
- some aspects of their computer skills had improved;
- they had personally benefited from the course;
- they had enjoyed the course altogether.

On the downside, the majority of respondents also said that

- they had found the workload too high;
- they had found the course too difficult;
- not enough time had been devoted to methodological issues;
- their interest in conducting their own empirical research had not increased;²
- they had disliked the blogging component.

I think these judgments (supported also by comments on students' blogs) sum up the main strengths and weaknesses of the course quite well. As regards the positive aspects, the evaluation confirmed that many of the assumed benefits of research-based learning identified in section 2 were also perceived as such by students. In particular, the orientation towards inquiry-based project work and the concomitant opportunity to conduct self-organised 'actual research' instead of a mere reproduction and discussion of pre-defined content was much appreciated. Furthermore, students reported that the concrete activities involved

² This may seem a bit puzzling since the majority of respondents also claimed that they had *enjoyed* the empirical part of the course. However, most students also indicated that they had only taken the class because of curricular requirements and actually preferred literature and cultural studies to linguistics and empirical social science. In other words, they had enjoyed the class, but were nevertheless happy to go back to their main study focus (where they would not have to deal with such things as quantifiable hypotheses and statistics).

had increased their interest in the subject matter and had also led to an overall assessment of the project experience as worthwhile and personally rewarding (specifically, many students remarked that the course had made a notable change to the way they think about gender issues). As a positive side effect, these benefits also extend to non-subject specific qualifications such as teamwork experience, strategic thinking and presentation skills, which were practised in the context of an experience that students described as enjoyable.

On the other hand, greater student autonomy and the emphasis on group work were not only welcomed and are not without risks either. A good illustration of the former point was students' rather mixed response to the blogging component of the course. Only a minority perceived the openness of the blogging task as an opportunity to develop their own perspective on the course contents, introduce new aspects to the agenda or experiment with the format of a research diary. The majority of the course instead experienced the blogging requirement as a strain, and sometimes students explicitly complained that they "didn't know what to write". All in all, the integration of the blogs was not successful: discussions on the blogs did not really get off the ground, and several participants indicated in the evaluation that they had liked the idea in the beginning, but had soon realised that they had neither the time nor the nerve to regularly follow the blogs of fellow students.

By contrast, the idea of working in project groups was evaluated positively throughout, even though the actual work did not always go smoothly. In fact, two of the five project groups nearly failed because of problems within the groups: two students had simply dropped out of the course as soon as the actual work began, deserting the rest of their group and leaving them with much extra work at very short notice. Moreover, the group work setting of course also makes it more difficult to give fair individual grades if not all group members contribute to the success of a project to the same extent. The fact that individual

input and effort was documented in the discussion forums of the different project websites was helpful in this respect, but then again not all groups had made use of these forums to the same extent. In short, though generally perceived as rewarding, a heavy reliance on group work also introduces additional complications and risks both for the lecturer and the students.

Finally, it is understandable that students perceived the workload for the course as too high. Replicating studies that were originally conducted as master's theses or even as professional research by trained scientists is certainly much more effort for students than preparing an oral presentation about some assigned article and later writing it up as a term paper. This is of course even more true if students have no prior experience with the methodology that is to be applied and have to learn more or less everything from scratch. Such integrated learning of methodology is often described as an advantage in the didactics literature (e.g. Tremp 2005: 344). However, it can also be experienced as overpowering by students. The following comment (from the course evaluations) is clearly intended as a criticism: "A little more explanation of the methodology would have been useful. As it was, we stumbled rather blindly into the project and learned only while doing our research". And, needless to say, the additional effort is not only large for students. Coaching students on the many specific methodological problems and questions arising in their particular projects is also very time-consuming for the lecturer, and there is no compensation for the extra work.

Summing up, then, I believe that the outcome of the course convincingly demonstrates that an implementation of research-based learning into the linguistics curriculum is both feasible and rewarding. Clearly, however, it also comes at a price that both students and lecturers must be prepared to pay.

4 Summary, outlook and conclusion

In this paper, I have explored connections between research and teaching with a focus on learning on the example of a course in applied linguistics. I have reviewed didactic arguments and official recommendations of contemporary education reform commissions that strongly favour the implementation of research-based learning and teaching strategies into undergraduate education. In the following illustration of one such implementation, I have discussed concrete benefits and problems of integrating relevant learning activities into a course on empirical sociolinguistics.

The most pressing problem that has emerged from this discussion relates to the coverage of empirical research methods and the trade-off between content, methodology and practical applications within an already tight curriculum. Modern linguistics has developed out of philology and is traditionally perceived as part of the humanities rather than as an empirical social science and/or independent branch of cognitive science. Unlike students of sociology or psychology, students of linguistics therefore do not receive special training in empirical research methods and even the most elementary notions of statistics. However, students need such knowledge to appreciate actual research in the field and to engage in learning activities that resemble such research in relevant respects. Where such classes are not part of the curriculum, different ways of integrating ‘research-oriented’ teaching in the sense of Healey (2005) – i.e., the teaching of research *methods* – must be found. Student feedback to the course discussed in section 3 suggests that integrating separate methodology sections into individual seminars is not the ideal solution. Apart from the fact that methodology basics would be repeated over and over again from course to course, they would have to be taught at the expense of both content coverage (‘research-led’ teaching) and actual research practice in the classroom

(‘research-based’ teaching), and as much as already more than a fifth of all sessions was not perceived as enough for this in the present case. Where there is no dedicated methodology course in the curriculum, it would thus be desirable to have relevant tutorials accompanying classes with a focus on research-based learning. Where this is not possible either, an appropriate infrastructure for self-study must be created. Most importantly, this relates to the acquisition and creation of appropriate study resources. Both short, concise introductions to individual problems (such as a specific form of data collection, a certain statistical test etc.) as well as full textbooks on empirical methods and data analysis for a specifically linguistic readership are badly needed.³ Such resources could then be linked with tutorials, demonstrations and exercises to be integrated into an existing e-Learning infrastructure. Whichever option is chosen, it is clear that ultimately *some* way of integrating these issues into the curriculum is required if a stronger focus on research-based learning is desired.

Finally, if research-based learning is indeed to be targeted as “the norm” for future university education as current reform initiatives demand, it is essential that universities can indeed provide an institutional environment in which such activities can thrive. If, on the contrary, teaching obligations are increasingly concentrated in the hands of staff that is hired exclusively for this very purpose and not expected nor given any room to do research (as currently observable in Germany), this is of course an unmistakable step into the opposite direction.

³ Some such works have appeared in recent years (e.g. Baayen 2008; Rietveld & van Hout 2005; Gries 2008), but these are commonly too advanced and too technical for undergraduate students.

5 References

- Abrandt Dahlgren, M. and Dahlgren, L. O. 2002. Portraits of PBL: Students' Experiences of the Characteristics of Problem-Based Learning in Physiotherapy, Computer Engineering and Psychology. *Instructional Science*, 30, 2, 111-127.
- Baayen, R.H. 2008. *Analyzing Linguistic Data*. Cambridge: Cambridge University Press.
- Baker, P. 2006. *Using Corpora in Discourse Analysis*. London: Continuum.
- Bing, J.M. and Bergvall, V.L. 1996. The question of questions: beyond binary thinking. In: Bergvall, V.L., Bing, J.M. and Freed, A.F. eds. *Rethinking Language and Gender Research. Theory and Practice*. Singapore: Longman.
- Boroditsky, L., Schmidt, L., and Phillips, W. 2003. Sex, Syntax, and Semantics. In Gentner, D. and Goldin-Meadow, S. eds. *Language in Mind: Advances in the study of Language and Thought*. MIT Press: Cambridge, MA.
- Boroditsky, L., Phillips, W. and Schmidt, L.A. in preparation. Can quirks of grammar affect the way you think? Grammatical gender categories and the mental representation of objects. (Manuscript)
- Braxton, J.M. 1996. Contrasting perspectives on the relationship between teaching and research. *New Directions for Institutional Research* 90, 5-14.
- Brew, A. and Boud, D. Teaching and Research: Establishing the Vital Link with Learning. *Higher Education* 29, 3, 261-273
- Cameron, D. 2005. Language, gender and sexuality: current issues and new directions. *Applied Linguistics* 26, 4, 482-502.
- Centra, J.A. 1983. Research productivity and teaching effectiveness. *Research in Higher Education* 18, 4, 379-389.

-
- Dennison, C.L. 2006. *The effect of gender stereotypes in language on attitudes toward speakers*. University of Pittsburgh. (Manuscript)
- Eckert, P. and McConnell-Ginet, S. 2003. *Language and Gender*. Cambridge: Cambridge University Press.
- Faia, M. A. 1976. Teaching and Research: Rapport or Mesalliance. *Research in Higher Education* 4, 235-246.
- Fishman, P. 1983. Interaction: The work women do. In: Thorne, B., Kramarae, C. and Henley, N. eds. *Language, Gender, and Society*. Rowley: Newbury House. 89-102.
- Fox, M. F. 1992. Research, teaching, and publication productivity: Mutuality versus competition in academia. *Sociology of Education* 65, 293-305.
- Gries, S.T. 2008. *Statistik für Sprachwissenschaftler*. Göttingen: Vandenhoeck & Ruprecht.
- Griffiths, R. 2004. Knowledge production and the research–teaching nexus: the case of the built environment disciplines. *Studies in Higher Education* 29, 6, 709-726.
- Harry, J. and Goldner, N. 1972. The Null Relationship Between Teaching and Research. *Sociology of Education*, 47-60.
- Healey, M. 2005. Linking research and teaching: disciplinary spaces. In: Barnett, R. ed. *Reshaping the university: new relationships between research, scholarship and teaching*. Maidenhead: McGraw-Hill/Open University Press. 30-42.
- Huber, L. 2004. Forschendes Lernen. 10 Thesen zum Verhältnis von Forschung und Lehre aus der Perspektive des Studiums. *Die Hochschule* 2, 29-49.
- Huber, L., Hellmer, J. and Schneider, F. eds. 2009. *Forschendes Lernen im Studium. Aktuelle Konzepte und Erfahrungen*. Bielefeld: UVW.
- Lakoff, R. 1975. *Language and woman's place*. New York: Harper and Row.

- Maltz, D.N. and Borker, R. 1982. A cultural approach to male-female miscommunication. In: Gumperz, J.J., ed. *Language and social identity*. Cambridge: Cambridge University Press. 196-216.
- Marsh, H. W. & Hattie, J. 2002. The relation between research productivity and teaching effectiveness: complementary, antagonistic or independent constructs? *The Journal of Higher Education* 73, 5, 603–641.
- Persson, M. 2006. “Everybody does, don’t they?”— A corpus study of a nonsexist personal pronoun in spoken British English. University of Uppsala. (Manuscript)
- Rietveld, T. & van Hout, R. 2005. *Statistics in Language Research: Analysis of Variance*. Berlin: Mouton de Gruyter.
- Roters, B., Schneider, R., Koch-Priewe, B., Thiele, J. and Wildt, J. eds. 2009. *Forschendes Lernen im Lehramtsstudium*. Bad Heilbrunn: Klinkhardt.
- Strum Kenny, S. 1998. Reinventing Undergraduate Education: A Blueprint for America's Research Universities. (Manuscript)
- Tremp, P. 2005. Verknüpfung von Lehre und Forschung: Eine universitäre Tradition als didaktische Herausforderung. *Beiträge zur Lehrerbildung* 23, 3, 339-348.
- Wray, A., Trott, K. and Bloomer, A. 2006. *Projects in Linguistics*. London: Arnold.
- Wissenschaftsrat. 2001. *Empfehlungen zur künftigen Struktur der Lehrerbildung*
<http://www.wissenschaftsrat.de/texte/5065-01.pdf>

Arne Zeschel
IFKI/University of Southern Denmark
Alsion 2
6400 Sonderborg
Denmark
zeschel@sitkom.sdu.dk
<http://www.sdu.dk/staff/zeschel.aspx>