"Teaching-based research" as a triple-win: Student learning, partner benefits and research advancements

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Introduction: From "research-based teaching" to "teaching-based research" and back

The "research-based teaching" agenda in Geography (e.g. Healey, 2005) and beyond opens a discussion on the potentials of "teaching-based research". In this pedagogy project, I refer to teaching-based research as student fieldwork projects, which includes collaboration with an external partner organization, and form part of and advance ongoing academic research. Other scholars have shown that engaging students in research activities in fieldwork - and specifically combining research-based student fieldwork with staff research - is strongly perceived by students to add value, stimulate interest in the subject, and improve understanding of methodologies (Fuller, Mellor, and Entwistle, 2014). Along these lines, I hypothesize that such teaching-based research is a triple-win, specifically because:

- 1. it improves student learning by increasing motivation through supervisor engagement, unique experiences, and collaboration with external partners,
- 2. it provides benefits to external partners in terms of new knowledge and work force, and
- 3. it integrates with and advances ongoing research, typically led by the main supervisor

With an emphasis on (a) student learning, the main objective of this pedagogy project is to assess students' experiences with teaching-based research

in order to draw relevant lessons and point out potentials and limitations. As a sub-objective, I also include responses from external partners to examine their benefits (b), combined with own experiences and reflections as supervisor in terms of research advancements (c).

With this particular focus and approach, I believe this pedagogy project can contribute to the overall debate on research-based teaching by turning it "upside-down" as teaching-based research (see also Rønn, 2015 on "Undervisningsbaseret forskning - en utopi?"). By showcasing lessons from (own) experiences with supervising student fieldwork in Cambodia, this project provides suggestions on how to better engage students in teaching-based research with mutual benefits for both external partners and the supervisor.

Data and methods: A survey, dialogues and self-reflections

I draw on own past and present supervision of students, who have conducted fieldwork on deforestation/forest protection in Cambodia during two separate periods. In the first period (around 2012) the student fieldwork was related to my PhD research in the Oddar Meanchey province, Northern Cambodia, where a community-based forest protection project was being implemented at the time by an American NGO called Pact, serving as the external partner for the student projects (see Bradley, 2009). During the second period (2015-ongoing), the Danish charity Danmission , along with a range of locally-based NGOs, served as external partners for student projects revolving around local forest monitoring and protection of the Prey Lang forest in central Cambodia.

An online survey was developed to assess student experiences after completing fieldwork. Eight out of nine invited students completed the survey. The survey contained questions about: their level of motivation and how it was affected by the setup (student-partner-supervisor); their level of learning and how it was affected by the setup; whether they felt they had contributed to academic research; whether they had felt like a benefit or burden to the external partner; and finally, how they perceived the strengths and weaknesses of the setup, and how to improve it.

Besides the student survey, dialogues with external partners, as well as my own experiences and reflections as supervisor, provide data to test subhypotheses (b) and (c).

Results: Motivation, learning outcomes, limitations and potentials

Below, an account of results and selected quotes from the student survey are brought forward to exemplify whether and how this particular case of teaching-based research (a) improves student learning, (b) provides benefits to external partners, and (c) advances ongoing research.

Student motivation

The responses from the students show a general high level of motivation towards their (field) study. On a 5-point scale, five students rated their motivation as 'very high' (highest rating), while three students rated their motivation as 'high'. Similarly, five student stated that the setup of student-partner-supervisor 'greatly increased motivation' (highest rating), while three stated that their 'motivation increased'. When explaining why and how motivation was affected by the setup, one student said:

Det at jeg/vi var i Cambodja "via." ekstern partner, har skabt trykke rammer, og givet anledning til at engagere sig endnu mere i projektet, da netop de eksterne partnere har vist interesse i vores projekt [...]Ligeledes har det at arbejde som frivillige i en udenlandsk organisation virket motiverende for vores eget "faglige" projekt [...]blandt andet at sammenarbejdet mellem studerende/vejleder og en ekstern partner, gav os ressourcer og muligheder for at komme [af sted]

Another student noted an increased will to perform well, saying that:

... man ønsker at levere en bedre præstation ikke kun for ens egen forventninger men også for vejleder og ekstern partners skyld A third student simply said that the setup "provided support, guidance and

A third student simply said that the setup "provided support, guidance and a feeling of reassurance", while a fourth student coupled his/her motivation with the supervisor's engagement and experiences:

It was great that the supervisor was very passionate about the project. Also, it was motivating that there already was a base from where my own project could develop. Mainly because it created safety, somebody to share reflections with and a foundational knowledge on the project - something to build on.

Student learning outcome Similar to and as a natural effect of the high levels of motivation, responses from the students show a perceived high level

of learning. Seven out of eight rated their learning outcomes as 'very high' on a 5-point scale, while one students rated it as 'high'. Half the students stated that the setup of student-partner-supervisor 'greatly increased learning outcome', three stated that their 'learning outcome increased', while one student felt 'no effect' of the setup on his/her learning outcome, mainly because the student "tried to work as independently as possible". Other quotes support the perceived positive effect of the setup on student learning, for instance related to the collaboration with the external partner and support from the homebase in Denmark:

At arbejde i det miljø man behandler giver et helt andet syn på projektet. Der er en ro at finde når man har et samarbejde med ekstern partner [...] Det giver et langt større læringsindhold.

There were other people to bounce ideas off. There was a sense of 'this is worth doing and will contribute towards something'. Having a contact person in Denmark who had been in Cambodia before was very helpful, and who could help to guide the process was indispensable!

While the last part of the latter quote likely refers to the supervisor, the student also mentions "other people" in plural, indicating that the group of students (in particular in the second period, Prey Lang) shared their experiences with each other, which created a sense of joint objective and venture. I will return to this point in my own reflections, section 3.6.

Benefit or burden?

Three of the eight students stated that they had felt like 'a benefit only', three had felt like 'a benefit with some burdens attached', while two had felt 'neither a benefit nor a burden'. None of the students had felt 'more' or 'only as a burden'. Most of the students were quite rational, when asked to consider whether they had felt like a benefit or burden:

I felt like the set up was very fair, and that the NGO had an option of saying no to hosting, therefore I didn't feel like a burden. The people who worked there were very supportive and kind, which made the experience enjoyable. It was also interesting to see how they work!

Felt some of my findings could positively be used further by external partner; on the other hand obviously needed a chunk of their time and explanation.

Besides students providing new knowledge in expense of the external partners' time, an additional benefit to the external partner was raised by one

student, concerning how the students could act as links between multiple partners:

... det var positivt at der kunne gives feedback på samarbejdet med de NGO'er vi blev sendt ud i. Jeg føler jeg har fungeret som bindeled mellem den eksterne partner og endnu en ekstern partner - et allerede fungerende partnerskab bliver derved styrket ved at man hjælper hinanden.

Limitations and potentials

Finally, the students were asked to share their views on the strengths and weaknesses of the setup and how it could be improved. Some specific suggestions were aired, including preparation of tasks for the students, and feedback was given on the general coherency of the setup in time and space:

[vi blev] videresendt til NGO'er. Her ville det ha' været mere professionelt, hvis disse NGO'er havde en række af opgaver man kunne hjælpe med [...] kunne der godt være en bedre forklaring til en eksterne partner hvilke redskaber og kunnen man ankommer med. Derudover skal det nævnes at det at der er personlig kontakt inden, under og efter med [external partner] er virkelig positivt. Det giver en helhed til projektet og motivere blot yderligere til arbejdet [...] Meget professionelt at information omkring muligheden for projektet, samt samarbejdet, starter så tidligt i processen. At vejleder selv har været i felten i det respektive land samt områder giver helt klart også en positiv indvirkning da man føler sig mere sikker i felten samt at det motiverer endnu mere at vide at man bygger videre på undersøgelsen af allerede eksisterende problematikker. Meget tilfreds herfra.

Det kunne være en god ide, at lave/tegne/skrive en kontrakt, liste eller lignende, hvori det fremgår hvad formålet med ens arbejde i den pågældende organisation skal ende ud i. Jeg følte at nogle overordnede formål/mål ved at arbejde i [external partner] ville have gavnet mig, og gjort et rigtig godt koncept endnu bedre.

Similarly, communication and coordination was mentioned by other students as the main weakness with the greatest potential for improving the concept:

More communication between the parties involved, maybe in the format of regular reports (email)

The main weakness from my experience was that my role was not clearly specified when I came to Cambodia [...] To have a more

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clear idea of responsibilities makes it so much easier to get engage quickly. The main strength was to have a group of people in Cambodia - all involved in the same project. This created affiliation and somebody to discuss the issues with.

The sense of a common goal is emphasized here again and rounds up the survey results.

Contribution

Besides contributing to the work by the external partners (in terms of knowledge exchange, writing reports/blogs, strengthening links across partners, etc.), actual contributions to academic research, teaching and even policy is evident from this case of teaching-based research. For instance, a combination of the data from the supervisor and a student has resulted in a peer-reviewed article (Pasgaard and Nielsen, 2016), another student has given a guest lecture about her fieldwork at MSc courses on qualitative methods and rural livelihoods, respectively, and a third student gave direct input to a main policy design document (Terra Global, 2012). It should also be noted that the setup contributes to the students' personal experiences and development, and in a very direct way to their professional resume/CV.

Reflections from external partner

Continuous dialogue with the main external partner of the Prey Lang project, Danmission, provides a few reflections to be included. Head of Danmission in Cambodia expresses a great satisfaction with the setup, and is pleased that students want to engage in and help with the project. He also notes that the local partners have been very pleased with the assistance from the students. Besides, summaries of the student projects are communicated back to the main funder, Danida, as a part of the project outcome, thereby adding value to the project documentation and lessons as a whole.

Reflections by supervisor

From my point of view as the co-supervisor (2012) or main supervisor (2015/ongoing), this form of teaching-based research has several advantages, which more than makes up for the additional administration and coordination efforts (email communications, assisting with host letters and funding applications for fieldwork, etc.). First and foremost, students' increased motivation and learning outcomes are valuable and rewarding in itself. Importantly, with regard to research contribution, I view the students as my "drones" or "extended tentacles" in the field, meaning that they bring

home new updated knowledge, and that they maintain or even extend my academic network. For the actual supervision, the setup allows me draw on my own and other students' experiences to a great extent. In that regard, I have tried to build and connect common experiences among students, encouraging them to share and pass on their lessons and knowledge on practical matters, in that way facilitating a sense of a common goal and joint contribution, as also mentioned by the students above. I believe that this furthers motivation and has been quite successful, mainly due to the willingness and engagement of the students themselves to build something together, also independently of my supervision (e.g. setting up shared folders and meeting on own initiative). As a final remark, I have learned that it is important to level expectations with the external partners in the early stages of the setup and throughout the collaboration in order to minimize misunderstandings and a mixing of responsibilities.

Conclusion: More than a triple win?

This pedagogical project confirms its hypotheses of increased student learning, partner benefits and advanced research, and it goes even further. It shows additional benefits of teaching-based research in terms of linking across partners, creating a common sense of aim and contribution, and contributing beyond expected outcomes. Lessons of better communication, coordination, preparation and levelling of expectations can further improve the concept.

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