2016

Engagement of Students Teaching Assistants-Confessions From 5 Years of Conference Participation

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ENGAGEMENT OF STUDENT TEACHING ASSISTANTS – CONFESSIONS FROM 5 YEARS OF CONFERENCE PARTICIPATION

Completed Research

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Abstract

This paper reports from five years of experience of engaging young student teaching assistants in the continuous development of a course by involving them in research, both pedagogically and in other course related themes. The purpose of the paper is to pave the road for a more engaged and integrated form of teaching, where the full potential of STAs is released. Firstly some basic constructs are presented; secondly a concrete example of STAs' research activity is presented – as an illustrative case - which also forms the empirical background of the paper. Finally implications and reflections are identified accompanied with suggestions for further research.

Keywords: Student Teaching Assistants, Engagement, Teaching

1   The role of student teaching assistants

Universities are constantly faced with interesting challenges related to their educational role of students. Aarhus University (AU), the largest university in Denmark with four faculties and 44,500 students, counters increasing costs and number of students, lower and more restricted financial support from the government as well as a high diversity of students. In addition to this, the government of Denmark has called for a higher focus on universities as elite education institutions which in addition put more pressure on retention of highly qualified students to stay in academia.

One of the ways to support the challenges mentioned above is to take advantage, and improve the use, of student teaching assistants (STAs) to supplement the traditional teaching done by professors.

STAs play an integral role in Anglophone universities. Accordingly, the recent literature on STAs can offer useful lessons, although allowance must obviously be made for the different economic, cultural, social and political contexts when working with STAs (Agerdal-Hjermind, Johansen, Clausen, & Schlichter, 2011).

Aarhus School of Business and Social Sciences, a broad business school, constitutes one of the faculties within AU, with 16,000 students, +700 academic staff, including 200 PhD students, thus making it one of the largest business schools in Europe. We have tried to rethink our use of STAs, e.g. by offering them to participate in conference activities in order to meet the challenges mentioned above.

Can such models deliver satisfactory learning outcomes? Notably, accounts are broadly in agreement about the potential value of STAs. Surveying the literature, Kathryn Sutherland points to "decades of research that provides evidence for their effectiveness as university employees", but – crucially – deplores the reluctance by administrations to commit resources to skilling and supporting their activities

(Sutherland, 2009). She argues: "However, potential issues arise when student tutors are employed with similar expectations of expertise and experience as the industry professionals and permanent staff they teach alongside" (Sutherland, 2009).

Lave and Wenger refer to "legitimate peripheral participants" (Wenger & Lave, 1991). The overriding challenge is to turn STAs into such participants. Incorporating generations of students, in this case in the form of STAs, into the "community of practice" of a department is not a straightforward task. Sutherland insists that integration must be part of "a carefully designed learning programme" (Sutherland, 2009). This leads us to the following research question:

How can STAs' participation in a conference activity influence their role as legitimate peripheral participants in the course teaching community?

The remainder of this paper is organized as follows. The next section presents a brief summary of the role of student teaching assistants and some of the challenges stated. The research setting and approach are then described as well as data collection and data analysis. The paper continues with a section presenting the empirical data, followed by an analysis of the impact of the conference participation. The paper ends with the concluding remarks and suggestions for further research.

2 Research Setting and Research Method

This section accounts for the research setting by explaining the daily role of the STAs in their course setting, telling about their yearly conference participation and explaining how the research was done.

2.1 The setting

Aarhus School of Business and Social Sciences has a longstanding tradition of using STAs to supervise exercise classes of 20-30 students as a supplement to the traditional lecturing by senior staff in lecture classes from 30 up to 350 students.

One example is "Business Development with Information Systems (BDIS)" – a five-ECTS[1] course consisting of two lecture lessons per week for 10 weeks and two tutorial lessons per week for 10 weeks. This course is mandatory for BSc students during their third semester. Senior staff members provide lecture lessons (100-300 students in each of the three lecture groups). Tutorials consist of classroom based discussions and problem-solving exercises in support of the lecture series. The tutorials are taught by STAs in classes of around 25 students. Each STA is responsible for two tutorial groups. The final exam is based on a prescribed group assignment which is written in groups of four students and followed by an individual oral exam. The individual examination is based on the group assignment and questions from the curriculum.

The 15 student teaching assistants meet weekly with the senior staff. The objective of the meeting is to prepare and discuss the week's teaching of the tutorial classes. Discussions consider course content and approaches to teaching. STAs are asked to prepare teaching plans and exercises on the basis of the course plan. Feedback is given to teaching plans and exercises alike.

The weekly meetings are part of a formalized course structure which also includes a joint introductory meeting before the semester, mid-semester meetings and a post-semester evaluation meeting. A "senior" STA teaches a two-day course covering the "technical" aspects of the course. Furthermore, experienced STAs give presentations to inspire new STAs (Agerdal-Hjermind et al., 2011).

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[1] European Credit Transfer System – 60 ECTS equals one year of studies

2.2 An example of conference participation

Each year in April up to four STAs take part in the International Conference for young Scientists and Students[2] arranged by the Ukrainian Dutch Faculty Programme at Ternopil National Economic University. The STAs are in Ternopil, Ukraine, for one week staying in a student dormitory. They present their papers in small sessions and take part in related conference activities such as plenums, master classes, and cultural events and engage heavily with local Ukrainian students. Papers submitted to the conference are accepted based on extended abstracts reviewed by the program committee.

Figure 1: Two engaged STAs

During the autumn semester, the course responsible professor engage into discussions with the STAs on the possibilities to develop a paper based on elements from the course and to present this paper at the international conference in Ukraine. Based on competitive synopses, 2-4 STAs are, selected each year (to write 1-2 papers). The paper is written under limited supervision by the course responsible Professor and has an extent of 6-9 pages. When applicable, the papers are published (in addition to the official proceedings) at the AU university publication portal and will as a result of this be visible at Google Scholar, which seems to be important by the STAs as they appreciate their papers to be broadly visible.

2.3 Method

Grounded Theory techniques have been used (Miles & Huberman, 1994), e.g. by applying open coding. The purpose was to *understand* how STAs' participation in conference activities influenced their role as legitimate peripheral participants in the course teaching community.

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[2] http://unf.tneu.edu.ua/

To understand the context, the daily role of STAs has been told and reflected upon, based on early interviews with professors and observations made by teachers. Eight conference papers by the STAs were then categorized followed by an analysis of reflections done by STAs during four micro-interviews and four brief evaluations.

The individual interviews were done in May 2016, just after the STAs' participation in the 2016 conference, and took their offset in the following two questions:

- What was the outcome of your participation in the study trip to Ukraine in April?

- How did/will the process (writing of short paper, participation in conference, cultural activities) influence your attitude to / role as a STA and student?

The respondents answered the questions in writing. The evaluations were done by the groups of participating STAs just after their participation in the yearly conference.

This provides us with the empirical bases shown in table 1:

Type	Units	STAs involved
E1: Reflections (Written) done by STAs after conference participation	5	13
E2: Papers written by STAs	8	13
E3: Micro interviews with STAs	4	4
E4: Interview with professors	2	-
E5: Observations done by professors	1	-

Table 1: Empirical basis

3 Analysis

The analysis is divided into three parts. First a preliminary assessment of the use of STAs was done based on interviews with and observations done by professors. This is followed by a description of the papers produced by the STAs, leading to an analysis of the material to identify how participation in the conference activity influenced their role being a part of the community.

3.1 Preliminary assessment of the use of STAs

During the first steps of the analysis, a preliminary assessment was done of the use of STAs as such in the subject (Agerdal-Hjermind et al., 2011) based on two interviews with and observations by the professors teaching the subject :

1. STAs provide a less expensive resource to supplement scarce professor (full as well as part time) teaching resources.
2. By substituting 1/3 of the STAs each year, the existing group of STAs acts as a shared memory regarding the subject. Senior STAs are responsible for training their successors.
3. Sufficient VIP resources must be allocated to ensure a rigorous selection process and nursing in order to motivate, supervise and increase self-confidence in the teaching STAs.
4. To maintain high quality of teaching and involvement, it is essential to establish a STA community, both in terms of physical space (office facilities on campus) and social environment (social events and introductory meetings). Business Development with IS includes a post-semester get-together and a "STA-of-the-Year Award".

5. When carefully selected, properly integrated, and continually supervised, STAs are a reliable workforce.
6. Student evaluations are generally encouraging. Students view STAs as more accessible and less intimidating than the senior staff encountered throughout the lecture series. Hence, STAs can promote greater student involvement. However, extensive supervision and coaching are essential.
7. The pool of STAs is an excellent source of research assistants and prospective PhD students, and they contribute to cultivating a department-wide community of practice.
8. Another positive outcome is the favourable attitude of STAs towards their degree programmes.

STAs can provide a less expensive and reliable resource to supplement scarce VIP resources and even promote greater student involvement by their perceived closer proximity to the students, but this is achieved by means of a thorough selection-process, sufficient coaching, nursing and establishment of a STA community as well as physical space – all of which requires VIP-resources. If the motivational factors are perceived as benefitting for the STAs, we are able to create retention of 1/3 of the STAs who can then act as a shared memory regarding the subject and train their successors. If retaining a group of STAs from one year to the next is not possible , there will be a high investment in making the group of STAs work properly with respect to work ethics, how to handle issues with students, and a deep and shared understanding of the topics between STAs and VIPs. After servicing a year or two as STA, the likelihood of recruiting the STA for our specific MSc-line is large, but we have yet to see PhD candidates to pop out of our pool of STAs. Unfortunately (in the present context) academia in Denmark is in fierce competition with the private sector for the best graduate students.

3.2   Content of papers

During the five-year period, STAs have participated in five conferences and contributed with eight papers. The STAs decide on the subject of their paper themselves (supervised by the professor) and they prepare it as an extracurricular activity. The titles of the papers are show in table 2.

#	Year	Title	Type
1	2011	Motivation of first semester undergraduate students in an introductory IT course	2
2	2012	The use of videos for exam preparation	2
3	2013	How does video influence learning? The case of IT in Business and IT management	2
4	2014	The role of social media platforms in a MIS Freshman course	2
5	2014	Implementation of a new LMS, experiences by student teaching assistants	2
6	2015	Implementation of Blackboard at Aarhus University	2
7	2016	Development of a Research Design using Action Research	1
8	2016	An investigation of the practical usefulness of stakeholder management theory when implementing ERP systems in larger organizations	1

Table 2: List of papers by Student Teaching Assistants

(Arenfeldt Holm, Toft, & Schlichter, 2016; Fog, Ulfkjær, & Schlichter, 2013; Hassinggaard, Malmberg, & Schlichter, 2016; Jensen, Duus, & Schlichter, 2014; Jonsson, Sigvardsen, & Schlichter, 2011; Laursen & Schlichter, 2015; Mathiesen, Nørgaard, & Schlichter, 2012; Trankjær, Hougaard, & Schlichter, 2014).

When looking into the papers listed in table 2, it reveals that they can be divided into two main groups: (1) Papers relating to a theme or a tool from the course and (2) papers relating to how to teach the subject.

3.3 Analysing the interviews and reflections

Based on a grounded approach, 39 interesting text pieces were identified in the four STA-interviews and in the four reflections made by the STAs after their conference participation. During the reading, codes were manually attached to the text pieces *in vivo* and named after the content of the text piece. Coding was done by one author, verified and challenged by the co-author and were consolidated into six codes (ref table 3).

(A) The first observation showed that the activity could <u>provide insight into their (own) teaching processes</u>. Some STAs said that "*our paper contributed with concrete analyses and recommendations on how video helps us to teach by showing how students learn about practical implications…*" (#31, Evaluation 1) and one STA claimed that the writing of the paper gave him: "*improved skills when working as a student teaching assistant*" (#29, STA 4). This is also indicated in the paper title: "*Motivation of first semester undergraduate students in an introductory IT course*" (Paper 1).

(B) One of the issues suggested as problematic when using STAs, is their integration into the teaching community around the course. This aspect is reflected in the coding <u>participation helps understanding the relations and the integration of STAs into the course teaching community.</u> This is backed by one STA who said that the participation "*strengthened the personal and professional relationship between me, the three other STAs and our professor*" (#16, STA 2) and another saying "*…that it contributed to a stronger cohesiveness in the group of student teaching assistants*" (#35, STA 5).

(C) The transcriptions have plenty of occurrences <u>showing how the participation in the conference contributes to future studies of the STAs</u>, e.g. on ideas for topics or on how to study. This is seen by one STA stating that "*The conference gave me a great insight in many different topics, which were inspiring and opened up for ideas to new research*" (#4, STA 1) and the same idea, but expressed differently: "*(it)…changed my approach to my own study in a positive way*" (#27, STA 4). One of the papers also took this approach: "An investigation of the practical usefulness of stakeholder management theory when implementing ERP systems in larger organizations" (Paper 8). This is one of the papers taking its offset in a subject to be taught either in the present course or in a course taken as a part of their own studies.

(D) One of the observations often reported by the professors teaching the subject is related to <u>motivation of STAs, retention of STAs themselves and how they urge others</u> to become STAs. It seems that the STAs are also aware of this aspect, which is supported by the statement from a STA: "*….underlines the value of having a job as a STA and will make me even more positive when discussing this position with other students*" (#14, STA 2) and in the same style: "*I would certainly recommend other STAs to go on such a study trip*" (#22, STA 3). This group of observations shows the impact of inviting STAs to take part in conference activities.

(E) Apart from the effect of keeping the STAs as STAs, the observations show that participation in the conferences also support <u>retention of STAs as students in the IS domain</u>. This consequence is quite important to attract students to the IS master studies, which as such is seen as beneficial for the IS community and a precondition for employment of IS professors: The more students, the more professors are needed. Examples of supporting quotes for creation of this code are *"(the participation)…. strengthened my encouragement and enthusiasm in studying and teaching the re-*

maining years of my education at AU" (#20, STA 3) and just as strong: "*it gives us the motivation to develop ourselves and try to contribute to our future development in the IS domain* (#37, STA 5).

(F) The last, but not least important code emerged from finding traces on how STAs were preparing (or being introduced to prepare) themselves for academia: <u>Preparing for/Introducing to academia.</u> In the Danish context, the attraction of prosperous doctoral IS students are heavily challenged by a huge number of possibilities outside of academia, the majority of these are much better paid and in very attractive positions. The STAs acknowledge this angle in several versions. One quote is: "*This was the first time, I wrote something academic in my free time going beyond curriculum, and presenting it to people, who were there only for their interest in the subject, gave me a feeling of being a better and more ambitious student*" (#19, STA 3) and also very direct: "*to gain a valuable experience with design, performance, presentation and defence of researc*h" (#38, Eval 2).

The analysis done above is summarized in table 3, where the six resulting codes are presented along with information on how many times they occurred in the analyzed interviews and reflections.

Code	Name / Explanation	Amount
A	Provide insight in (one's own) teaching process	10
B	Help understanding of relations /Integration into course teaching community	7
C	Contribute to (Future) studies, subject wise	11
D	Motivation as STAs, remain and urge others	11
E	Retention as student in the IS domain /	3
F	Preparing for/Introducing to academia	9

Table 3: Codes

During the coding process, a heavy search was done to identify any indications of negative impact of the STAs' participation in the Ukrainian conference. None of this type of observation could be done, except for a very few minor remarks on the extra workload imposed upon the STAs as a result of this extracurricular activity.

4   Conclusion and reflections

This paper answers the research question: How can STAs' participation in conference activities influence their role as legitimate peripheral participants in the course teaching community? The RQ was answered by telling the story of 5 years of STAs' participation in a conference in Ukraine. By analysing papers written by the STAs as well as their written evaluations, we conclude that this activity is beneficial for the STAs' integration in the community by improving their motivation, their teaching capabilities and does also improve the retention of STAs as seen by the six coding categories identified.

We also acknowledge that this approach in a smaller course setting could be quite expensive and that it requires a dedicated course management. To further develop our understanding of the present concept, we are to do more comprehensive interviews with former and coming participants, eventually combining this with an in-depth analysis of the papers written by the STAs.

5   Acknowledgements

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