

Initiatives to improve learning at economic seminars

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Abstract

In this memo, I discuss three ways to improve learning at the seminars offered to master's students by Department of Economics, University of Copenhagen: 1) increased focus on how to choose a successful topic, 2) increased feedback during the writing process, and 3) introducing dissemination of results as an explicit learning objective. The discussion is based on changes to the standard format of seminars I introduced in the seminar Produktivitetspolitik in the spring of 2015. I argue that the changes to the seminars I propose are cost-effective ways of improving learning.

1 Introduction

How to reduce the time university students spend on their studies is high on the current political agenda. To reach the targets set by the study progress reform, Copenhagen Business School and some institutes on Aarhus University have reduced the time allowed to write a master's thesis from six to four months. It is highly likely that University of Copenhagen will be forced to follow suit, and Department of Economics are already planning for this possibility.

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Some students will presumably be able to finish their theses in four months by increasing their daily effort rather than reducing quality or their own learning. But it seems likely that many students will struggle with the shorter deadline.

One way to help this group is to reduce the requirements of the master's thesis. The consequence, however, would be a devalued university education. A better way to help them is to do more to prepare them for the thesis writing during their studies. This has the added benefit that many of the skills they need to complete their theses are also skills they will need later on in their career.

All the courses of the economics program at University of Copenhagen are designed to teach students economic theories and empirical methods relevant for their theses. Training in formulating research questions and writing papers is, however, confined to the bachelor project, and two economic seminars for master's students.

In this memo, I discuss ways to improve the economic seminars with the triple aim of increasing learning, preparing students better for their thesis, and to improve their ability to disseminate economics to both economists and laymen.

To be concrete, I propose the following changes to the economics seminars:

- Each seminar should as standard have one or two introductory lectures where the teacher clearly defines what constitute a good research question within the topic of the seminar, and what criteria the students should use for assessing their ideas for research questions. After the lectures, but before the deadline for the commitment paper, the teacher should organize two workshops where students can discuss ideas for research questions. The first could should used as a brainstorming session, whereas the second should allow students to deliberate further on the best ideas they came up with during the first work shop.
- In addition to the seminar paper, the students should hand in a two page popular summary of the result. The popular summary should be non-technical and written for a lay audience. The popular summary should be part of the formal assessment towards the final grade. Students should be required to give each other feedback on the popular

summaries.

- Students should be allowed to revise and resubmit their seminar papers and their popular summaries after they have received feedback at the student presentations.

In addition, I propose that economics students should be taught economic writing in conjunction with the first seminar they participate, or in conjunction with writing their bachelors project.

I will spell out the details of each proposals in sections 3-5. The proposals are based on changes to the standard format of seminars I introduced in the seminar Produktivitetspolitik in the spring of 2015.¹

In section 6, I discuss the potential cost in terms of resource requirements, and conclude that the proposed initiatives are a relatively cost-effective way to increase learning in economic seminars.

The proposals for economic seminars presented here are also relevant for the bachelors project, and the masters thesis.

2 The standard seminar

The purpose of the economic seminars is to give students' an opportunity to practice writing papers before they begin their master's thesis. Students are required to write a term paper and present it in class towards the end of the semester. They are also required to discuss each other's papers.

Teachers have relatively free hands for changing the structure of economic seminars. I will here briefly state the minimum requirements for teaching of economic seminars as defined by the official study rules. I will use these rules as benchmark for the changes I propose.

The official guidelines for economic seminars state that:²

¹The seminar was held in Danish since it dealt with current Danish policy issues, meaning that many of the background readings were in Danish.

²Available at https://intranet.ku.dk/economics_ma/study_programme/seminars/Pages/default.aspx.

- “The seminar instructor will summon the participating students for a planning meeting where you agree on theme, literature and assignments. (...) There is no fixed syllabus on a seminar, but the students and the instructor may arrange an amount of shared reading matter.”
- “All students must hand in a short commitment paper no later than March 1/October 1. (...) The commitment paper must be no more than 1 page.”
- “The seminar paper is uploaded as a pdf file in the course room in Absalon at deadline set by the instructor. (...) This paper is presented and discussed in class. The participants take turns as opponents on each other’s papers.”

So the bare minimum for teacher/student interaction is one planning meeting at the beginning of the semester, a commitment paper that should be approved, and the presentations at the end of the semester. In practice, many teachers at Department of Economics offer additional introductory lectures and/or supervision and feedback during the semester. But there are no formal guidelines for best practice, and teachers are not required to go beyond the minimum of teacher/student interaction stated in the official guidelines reproduced above.

3 Increased focus on choice of topic

The choice of topic for the seminar paper is not just important for the final grade, but also for how much a student learn on the way. A successful topic question is not just interesting. It should also allow students to apply the theories and empirical methods they have learned in a specific context, and to discover new insights from the economics literature. No students benefit from realizing in the middle of the semester that no data exist that can shed light on his or her research question, and that the theoretical literature is too complicated to understand without a Ph.D.-degree.

Research questions should not be handed to students by the seminar teacher. It is important for them to learn themselves how to identify a viable research question. They will need that

skill when they go on to write their master's thesis, and if they get jobs afterwards where economic analysis is important.

How to choose a research question is not part of the stated learning objectives of the economic seminars, however, and only the best students at the master's level are able to consciously set up criteria for successful research topics.

3.1 What I did

Compared to the bare boned economic seminar, I introduced three measurements to increase focus on how to choose a topic for the seminar papers. First, I gave two lectures in the beginning of the semester. The lectures gave a broad overview on the theoretical drivers of productivity growth, and the empirical evidence from Denmark. I paid special attention to empirical problems that students should be aware of when choosing topics for their papers, particularly problems of measurement, data availability, and the importance of finding a suitable control group for their empirical analyses. The lectures were, of course, specific to Produktivitetspolitik, but similar lectures could easily be given in the context of other seminars.

Second, in the third week of the semester, I held a workshop where students were asked to bring three ideas for research questions. In class, I divided them in groups of three. The groups were then asked to pick the three most promising research ideas out of the nine (3x3) they had brought to class. For each of the three research questions, I gave them a written template the groups should fill out with answers to questions such as: What is your motivation for choosing this topic? Do you know any theories that describe it? How would you analyze this problem empirically? What data sources would you use?³

During the group work, I circulated among the groups to answer questions, and come with suggestions. Based on these discussions with the groups, I chose two groups to give a 10 minutes presentation (including plenary discussion) of one of their ideas at the end of class.

Lastly, I increased the length of the commitment paper, which students are required to

³The template, which was also the template for the commitment paper, is reproduced in Appendix B.

hand in one month into the semester, from one page to two pages. On the first page I asked student to explain their research question, the motivation, and their approach to analyzing it in a non-technical language. The second page corresponded to the template they were asked to fill out at the workshop.

3.2 Outcome and discussion

It is hard to quantify how big an effect the focus on choice of topic in the beginning of the semester had on learning. One thing that is certain, however, is that the workshop was appreciated by the students. Asked about it in an evaluation, 62 percent agreed or strongly agreed that they had benefited a lot from the workshop.⁴ Only 10 percent disagreed. Asked about whether they would have liked even more focus on choice of topic gave similar results in the evaluation.

Another thing I noted as a teacher was that the commitment papers generally were of high quality: students had clearly invested a lot of effort in thinking about their research questions. Moreover, all of the students carried out the analysis they had outlined in their commitment papers. Of course, many did not get the results they had expected, and many extended their analysis by using other models or data sets than the ones described in the commitment paper.

In hindsight, the initiatives to improve focus on choice of topic for papers could be improved in two important ways. First, I should have been even more explicit about what constitutes a good paper and a good research topic, and perhaps provided more concrete examples. Second, as also suggested by the students, the workshop should be split into two: one with more or less the same format as the one I held, and another later in the process where students got the chance to discuss the actual research ideas they were considering. Both workshops should be held before the deadline for the commitment paper.

⁴The quantitative results of the evaluation are reproduced in Appendix A.

4 Increased attention to dissemination

Economics is as much about rhetoric as math and statistics.⁵ John Cochrane once quibbled that many academic economists “falsely think of themselves as scientists who just ‘write up’ research. We are not; we are primarily writers.” That statement is even truer for economists working outside academia. Their main job is often to communicate complicated economic results to a lay-audience of colleagues or the general public.

One of the learning objectives of economic seminars is that students should “Give a logical, clear and well-written correct presentation of the selected problem and its associated analysis.” However, this learning objective is not reflected in the way seminars are currently conducted. Moreover, no other course in the economics program at University of Copenhagen teaches logical, clear and well-written writing.

4.1 What I did

To alleviate this shortcoming, I required the students to hand in a popular summary of their term paper. The popular summary could be no longer than two pages, and counted towards the final grade.⁶ I asked student to write their summaries in a style that would fit in the opinion pages of a regular newspaper. The students should, in other words, turn technical economics into something comprehensible – and interesting - to a lay audience.

The popular summary served two purposes. It is a form of writing that the students have little practical experience with, but is highly likely to be useful in their work life. And it forced the students to clearly articulate their research question and their conclusions.

The intention with the latter was that this exercise would help students to spot flaws in their own arguments, essentially providing them with a tool for internal feedback. Moreover, I hoped that the writing style of the popular summary would make students realize that plain

⁵McCloskey (1998). See also the recent debate sparked by Romer et al. (2015).

⁶I replaced the mandatory summary and the list of contents in official requirements for the seminar with the popular summary.

and concise language work better in an academic paper than the technical and convoluted writing style that many students mistakenly use.

The students were asked to hand in a draft of the popular summary three weeks before their presentation, and each student were asked to give written feedback to three of their peers within a week.

To prepare students for writing both their paper and their popular summary, I spent one lecture during the fourth week of the semester on how to write well. The lecture covered basic advice, such as “get to the main point fast” and “omit needless words”, and students were asked to solve small exercises in class.

4.2 Outcome and discussion

In the evaluation, 90 percent of students agreed or strongly agreed that there should be more focus on written dissemination in the economics program. 10 percent neither agreed nor disagreed. So, without a doubt, there is a demand among students for learning how to write well. The question is whether the popular summary I introduced in *Produktivitetpolitik* is a way to partially fulfill this demand without diverting scarce resources from teaching economics.

The lessons from *Produktivitetpolitik* are encouraging, although they also show some potential pitfalls.

The students were generally happy with the popular summary. In the evaluations, 76% thought they should be part of seminars in the future, whereas only 5% opposed the idea. In terms of learning, 48% responded that they learned a lot, and 38% discovered weaknesses in the argumentation of their paper when they wrote the popular summary. Based on these percentages, and additional responses in prose, it appears that the students did use the popular summary as an internal feedback mechanism for their analysis. The majority of the students also wrote in prose in their evaluations that the popular summary had helped them to improve the structure and the language of the main paper.

The evaluations also reflect that students considered the popular summary a relevant and

authentic examination form. So, too, did the effort they had put into their popular summaries. The quality of the summaries varied, of course. But when I compare them to the actual seminar papers, it is clear that the students gave the summaries as high priority.

While the students generally liked the popular summary, many of them complained that they were required to hand in a draft of it too early in the process (six weeks after the commitment paper, and three weeks before the presentations). Many had not finished their empirical analyses, and therefore lacked conclusions to put in the popular summary.

I had, to some extent, foreseen this reaction when I decided on the deadline. I chose an early deadline because I wanted the work on the popular summary to be integrated into the work on the main paper. Moreover, I wanted the students to be able to use the feedback they got on the popular summary to make changes to the paper before they handed in the first draft. Because of time constraint, it would not be possible with a later deadline. Lastly, the early deadline was supposed to work as a wake-up call for the students, and force them to work on their paper throughout the semester, and not just in the week before the deadline. Many students acknowledged in their evaluation that the early deadline for the popular summary did in fact have this effect.

There are consequently pros and cons for setting an early deadline for the popular summary. On balance, it may had been better to postpone the deadline of the popular summary to the same day as the draft for the paper, i.e., one week before the presentations, and then substitute the early deadline for another assignment.

As mentioned above, I introduced the popular summary in a lecture on writing well in the beginning of the semester. If the popular summary is to become a part of every seminar class, it would make sense to move this lecture to a common class for all seminar participants. Students should only be required to attend when they participate in a seminar for the first time. Alternatively, one could move the lecture to be part of the preparation for the bachelor project.

One lecture on writing well can only cover the basics. It would be helpful for the students to extend the teaching of how to write well to more lectures, and to include exercises for the

students. The exercises could be based on their own writings for the seminars of bachelor projects.

Extending teaching of economic writing would require more teaching resources, or that the teaching of actual economics is cut down. Including the popular summary as a mandatory part of the seminars would, by contrast, only require marginally more teaching resource as it can be organized such that it is the students rather than the teachers that give feedback. For the final assessment, teachers only needs to read two more pages.

5 Increased feedback

Feedback is central to learning.⁷ It is also useful for motivating students, and to match the expectations of teachers and students. On that background, The Committee on Quality and Relevance in Higher Education, appointed by the Ministry for Higher Education, surveyed the amount of feedback students at Danish higher education institutions receive.⁸ Based on the investigation, The Committee concluded that Danish universities can raise education standards by giving students more feedback. As similar point has been raised by the students' associations, and University of Copenhagen has responded by appointing its own Task Force on Feedback.⁹

The economic seminars do provide students with some feedback on their work. But, as I argue below, more feedback could be introduced into the seminars at relatively low cost. Especially since the classes are small, which makes it easy to for the teacher to organize that the students give each other feedback

⁷See, e.g., Hattie and Timperley (2007), Blaiich et al. (2011), McCormick et al. (2013b), and McCormick et al. (2013a).

⁸for Kvalitet og Relevans i de Videregående Uddannelser (2014).

⁹See <http://uddannelseskvalitet.ku.dk/udviklingsinitiativer/feedback/> .

5.1 What I did

Compared to the minimum requirement in the seminar guidelines, I introduced two additional occasions where the students received feedback. One was the workshop mentioned above, where the students discussed their research ideas with me and each other. The other occasion was when they handed in the popular summary, and were required to comment on three summaries written by their peers.

The main channel of feedback in economic seminars are the student presentations, where students get comments both from the teacher, from one or two students chosen as discussants, and from the class in general. Seminars are usually structured such that the students cannot use the feedback to improve their papers, as the deadline for the final paper is before the presentation. I extended the deadline for the final papers to give them a chance to revise their paper based on the feedback they got from the presentations. They were still required to hand in a complete draft of their paper one week before the presentations.

5.2 Outcome and discussion

At the time of writing, students have yet to hand in the revised paper and the revised popular summary. It is therefore too soon to tell how big an effect the revise-based-on-feedback part of the seminar has on the final papers as compared to the drafts that students handed in earlier in the semester. It is, however, fair to say that the potential is there. Students were generally active in the feedback process, and most of them got a large amount of high quality suggestions for improvements.

Students were not asked about the feedback tasks in the evaluation. But many of them approached me to say that they appreciated the opportunity to revise the paper and the summary based on the feedback they had received. It was also my impression that students were more active during presentations because they felt that the comments they gave each others would in fact be used.

6 Costs and benefits

Based on my experience from Produktivitetspolitik, I am convinced that the three changes to the standard seminars will increase learning. The attention to how to choose a research question not just makes it easier for students to write a successful seminar paper, but also provides them with skills they will need when they start to look for a topic for their master's thesis. The popular summary trains them in non-technical writing, and gives them a mechanism for both internal feedback and additional external feedback. The possibility of revising their paper based on their presentations make the presentations more meaningful, and the feedback they get useful.

All these initiatives are additions to the standard seminar. The question is whether the gain from these additions, in terms of learning, outweigh the additional teacher resources they require.

The increased focus on how to choose a research question requires (roughly) two lectures of (2x2x45 minutes), and two workshops (2x2x45 minutes). It is my impression that most teachers of seminar at present do start the semester with a couple of lectures. So compared to today, only the workshops will increase resource use. But since the idea is that the workshops should be student driven and standardized across seminars, they do not require preparation from the teacher. They only require attendance.

The popular summaries are likewise a marginal strain on resources. Teachers would be required to read two extra pages for each seminar paper. Most of the feedback on the popular summaries can be given by students to each other. However, the introduction of popular summaries should be coupled with some formal teaching of writing skills. This could be done in a series of centralized lectures for all participants in economic seminars. Alternatively, these lectures could be held in conjunction with the bachelor project.

The biggest change in terms of resources is the possibility to revise and resubmit papers. Teachers would have to read every paper twice, although a cursory reading suffices before the student presentations.

The initiatives may also save some resources. They may reduce the number of students that fail the seminars, and, perhaps, reduce the time students spend on their master's theses. It is at this stage just speculation, but it is a possibility that is worth investigating.

All things considered, the proposed changes to the economics seminars appear to be relatively simple and cost-effective ways to increase learning.

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A Appendix: Evaluation results

Students were asked to evaluate Produktivitetspolitik after their presentations. The evaluation questionnaire asked them to give both answers in prose, and to rate some of the questions on the following scale: Strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), strongly agree (5), no opinion (0). The questionnaire was in Danish. The results from the questions where students were asked to use the scale are reproduced below.

1. Det var en stor hjælp til valg af emne at der var en undervisningsgang i februar sat af til at diskutere emnevalg.

sp1	Freq.	Percent	Cum.
0	2	9.52	9.52
2	2	9.52	19.05
3	4	19.05	38.10
4	7	33.33	71.43
5	6	28.57	100.00
Total	21	100.00	

2. Jeg ville gerne have haft mere fokus på valg af emne i starten af semestret

sp2	Freq.	Percent	Cum.
1	1	4.76	4.76
2	3	14.29	19.05
3	5	23.81	42.86
4	8	38.10	80.95
5	4	19.05	100.00
Total	21	100.00	

3. Jeg fik meget ud af forelæsningen om skriftlig formidling i februar

sp3	Freq.	Percent	Cum.
2	2	9.52	9.52
3	1	4.76	14.29
4	11	52.38	66.67
5	7	33.33	100.00
Total	21	100.00	

4. Jeg ville gerne have at der var mere fokus på skriftlig formidling på politstudiet

sp4	Freq.	Percent	Cum.
3	2	9.52	9.52
4	6	28.57	38.10
5	13	61.90	100.00
Total	21	100.00	

5. Jeg lærte meget af at skrive pixi-udgaven af min øvelse

sp5	Freq.	Percent	Cum.
2	1	4.76	4.76
3	9	42.86	47.62
4	6	28.57	76.19
5	5	23.81	100.00
Total	21	100.00	

6. Jeg anså pixi-bogen som en separat opgave, og ikke som en del af øvelsen.

sp6	Freq.	Percent	Cum.
1	1	4.76	4.76
2	11	52.38	57.14
3	2	9.52	66.67
4	6	28.57	95.24
5	1	4.76	100.00
Total	21	100.00	

7. Jeg opdagede svagheder ved min øvelsesopgave i forbindelse med at jeg arbejdede med pixibogen som jeg ellers ikke ville have opdaget.

sp7	Freq.	Percent	Cum.
0	1	4.76	4.76
2	7	33.33	38.10
3	5	23.81	61.90
4	5	23.81	85.71
5	3	14.29	100.00
Total	21	100.00	

8. Jeg synes det vil være en god idé hvis pixi-udgaver blev en fast del af øvelserne i fremtiden.

sp8	Freq.	Percent	Cum.
0	1	4.76	4.76
2	1	4.76	9.52
3	3	14.29	23.81
4	12	57.14	80.95
5	4	19.05	100.00
Total	21	100.00	

B Appendix: The commitment paper

The commitment paper template is reproduced on the next pages.

PRODUKTIVITETSPOLITIK, FORÅR 2015

EMNEVALG OG SYNOPSIS

[Titel]

[Forfatter]

[Evt. medforfatter]

SYNOPSIS

[Maks én side. Beskriv det spørgsmål du ønsker at besvare i et sprog, der er let at forstå. Det vigtige er at du argumenterer klart og præcist for:

- *At den problematik, du vil beskæftige dig med, er væsentlig for den danske samfund*
- *Hvad årsagerne til problemet er*
- *Hvilke tiltag, der kan afhjælpe problemet*
- *At de tiltag, du foreslå, kan gennemføres i praksis og vil have den ønskede effekt*

Kom gerne med konkrete eksempler. Er emnet fx planloven, så kom med et eksempel på en virksomhed, som har måtte droppe en produktivetsforbedring pga. restriktioner på butiksstørrelser. Kom også gerne med internationale sammenligninger. Er planlovgivningen anderledes i andre lande, og hvilke konsekvenser har det haft?

Det er også vigtigt at I anerkender modargumenter for jeres forslag. I tilfældet af planloven, så har modstandere af en liberalisering fx fremhævet butiksdød, affolkning af bymidter, og miljøbelastning fra øget biltrafik. Er I uenige med modargumenterne, eller synes I at omkostningerne er mindre end gevinsterne, skal I forklare hvorfor.]

YDERLIGERE OVERVEJELSER

Hvad er mulige teoretiske årsager til problemet?

[Forklar hvilke økonomiske teorier, du vil anvende. Har du en særlig mekanisme eller model i tankerne?]

Hvordan vil du/I dokumentere problemet empirisk?

[Hvilke data vil du anvende til analysen? Hvad er datakilden? Hvad er din empiriske strategi?]

Hvilken litteratur vil du/I anvende?

[Nævn mindst tre artikler/rapporter, du vil anvende i din opgave]

Er der nogle særlige udfordringer i den analyse du ønsker at lave?

[Er der noget data, du mangler for at besvare dit spørgsmål? Er det et emne, som mange har analyseret, og det kan være svært at finde på noget nyt? Brug dette felt hvis du har særlige spørgsmål til underviseren]