Continuing and Professional Education in Economics and Finance
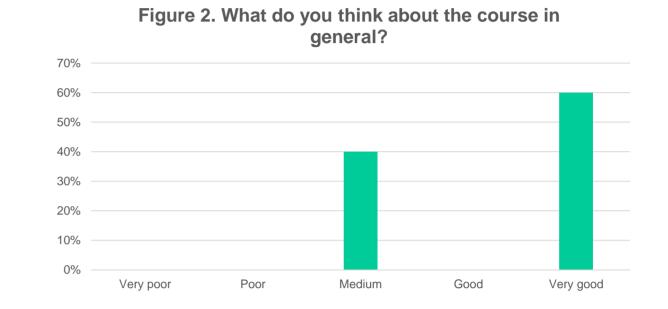
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Abstract:

We developed and offered two Continuing and Professional Education (CPE) courses within the Department of Economics, in collaboration with colleagues. Given that CPE is a strategic focus area at the Faculty of Social Sciences, our project output is to deliver a roadmap for future developers of such a course format. We hope our experiences help to identify best practices for the implementation and successful rollout of such a course. Our project has two objectives. The primary objective is to collect best practices on how to plan such a course. Main takeaways are: the preparation time for professional courses is way higher than for a course that is taught within the university curriculum. Client needs require tailor-made program development. The effort to sell the course by communicating with essential stakeholders is substantial. The secondary objective is to gather experience on teaching the target group – professional economists – to increase the quality of future courses. We find that particularly the heterogeneity among Participants knowledge requires careful adjustment of the workshop design.

Motivation and objectives

The development of continuing and professional education is a central part of Action Plan 2020, Faculty of Social Sciences, UCPH (see figure 1, adapted from Peter Kjær Kruse-Andersen). Our major project outcome itself is a description of our experiences from developing the academic content and didactic format. We realized the major relevance to identify the specific needs of the participants and to highlight methods that help to activate the students. Given that we planned two different courses with different target audiences, we provide lessons learned that hopefully ease the burden for future developers of professional courses at the faculty.

We got help from CPE consultants to determine the demands in the market for our courses.

In summary, the objectives of the project are:

- Primary objective: gather and document our experience of creating a professional course.

- Second objective: gather and document experience of teaching the target group: economic and finance professionals.

Method

We divided the procedure to develop professional courses into three phases:

1. Evaluation of market demand: Together with the CPE consultants, we reach out to potential customers with a brief sketch of our intended workshop programs with the aim to schedule a meeting to evaluate common interests. The meetings trigger an iterative process of adjusting the workshop program and seeking feedback on the improved version. The discussions enable us to identify the (potential organization-specific) needs of the potential clients.

2. Planning phase: We design the two workshops. We are individually responsible for the academic content of our own course, but actively discuss and explore ways to incorporate activation learning methods into our teaching. We do consider inviting additional guest speakers to enrich the program

3. Conducing the workshops.

The Courses

The first course is titled Climate Policy and is taught by Frikk, Christina Gravert, Peter Kjær Kruse-Andersen and Peter Birch Sørensen. It is a one-day course without required preparation or exam. The course is thus explicitly in line with Action Plan 2020 which emphasizes the development of climate courses including continuing and professional education as a central goal.

The course is primarily targeted to participants from the central administration in Denmark. A second target group is employees at consultancies, lobby organizations and public think tanks. The idea is to provide participants with an overview of the literature on climate policy with an emphasis on material that is directly relevant in a Danish context. The course also offers insights into new policy outside Denmark and international practice when relevant for the Danish context.

The second course is taught by Stefan. The course is targeted at portfolio managers and risk managers at banks, insurance companies and pension funds. The course puts a great amount of emphasis on state-of-the-art machine learning methods in financial decision-making and the practical implementation and direct application of machine learning methods. The course emphasizes the whole life cycle of the data science process, from (big) data set cleaning to the analysis of prediction errors, all within an iterative machine learning process to improve predictive performance.

Course Preparation

We found that the main challenge in setting up a professional course is that participants register for the course contingent on the advertised course content. To tailor a course which attracts sufficient participants requires a careful market analysis beforehand. Together with CPE consultants from the faculty, we both designed preliminary course descriptions to fix ideas.

Next, we conducted interviews with potential clients. For the Climate policy course, this included meetings and a series of interactions with the Ministry of Climate, Energy and Utilities. For the Machine Learning course, this included Deloitte, the Financial Supervisory Authority, Nordea and Danske Bank. The interviews showed crucial to update the course description: Potential clients provided us with input to improve the content and gave important indications which topics and technical level would be mainly relevant for them. Finally, the faculty advertises the course.

Course Status

The course on Climate Policy was held on April 26, 2022. There were 14 participants from the Ministry of Finance; the National Bank; the Financial Supervisory Authority; the Ministry of Climate, Energy and Utilities; the Confederation of Danish Industry; and The Danish Council on Climate Change.

The course on Machine Learning is planned to go live in September, in form of multiple, organization specific workshops which are targeted partially towards the clients needs. During the interview phase it turned out that the expectations of potential clients where too heterogeneous such that we decided to offer a course with a common machine learning component and industry specific examples directly on-site.
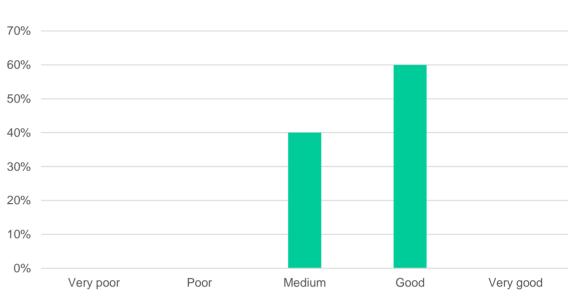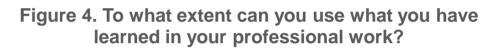
Results: Planning the course

The main points from our experiences are listed here:

1. Initial design of the course program: We received substantial support from the faculty in terms of market research, sales and marketing. The iterative process of developing a course program is time-consuming and hard to avoid: Within the multiple interview rounds, we received feedback regarding potentially interesting topics. One big lesson learned (for the Machine Learning course) is that some potential clients prefer individual catering of their own needs. For instance, while the financial supervisory board is very interested in the course offered, they declined to attend a joint meeting with representatives from banks. We solved this issue by offering tailor-made workshops which consist of a general introduction and hands-on examples tailored to the needs of Banks, insurances and regulators. The hope is that this flexible approach allows to increase the overall number of participants while maintaining scale effects to keep the workload manageable. We also considered offering tailor-made courses on Climate Policy, but instead adjusted the topics and technical level to ensure relevance for the main clients.

2. Marketing of the course and networks: Another lesson that may apply more generally for non-Danes doing CPE courses is the importance of a local network. Knowledge of the some of the clients is an advantage when marketing the course. While arranging such courses clearly has the benefit of broadening the network, this is an example of where the faculty can play a key role. For the Climate Policy course this problem was mitigated by Danes included among the instructors. Still, the number of clients that signed up was smaller as compared to the course given the year before. For the Machine Learning course, it turned out that fostering the relationship with potential clients required multiple meetings before the contact persons supported the promotion of the course actively. This turned out particularly important in the context of banks which maintain active "Chinese walls" to reduce contact between different groups. Thus, there may not be a single point of contact within each organization.

3. Courses that can be repeated: To make the investment worthwhile we have also ensured that the courses we developed can be repeated or easily tailored to new clients. For the Climate Policy course, the innovation as compared to previously offered courses at the faculty level is to broaden the number of topics covered and lower the technical level.

4. Confirming previous lessons: Finally, we would like to confirm a number of previous results also for our CPE courses. We would in particular like to emphasize the importance of producing course program drafts at an early stage and that for the course design it reduces the work load of you can rely on teaching or research material already produced as a starting point.

Results: Target Group

Out of 16 participants, 5 completed the evaluation of the course titled Climate Policy. Figure 2-5 shows data from this evaluation.

Based on this feedback, cf. Figure 3, and also conversations with participants during the course, many liked it in general. They also indicated a large demand for similar courses to be given in the future.

The findings, cf. Figure 4, also point to challenges with giving a broad CPE course. Participants will necessarily be heterogeneous in that some have more knowledge about certain topics. A broad course further makes it attractive for non-economists, even with the recommended prior knowledge equivalent to a bachelor's degree. The course benefitted from a diverse group of participants, but future course material could be adjusted in response.

The result on the direct relevance for the work, cf. Figure 4, can be explained by the fact that some participants work with a subset of these issues, while others had a broad interest and came to learn about them. The evaluation, cf. Figure 5, also revealed that the active teaching components with plenary and group discussions worked well.

Concluding remarks

There is high demand for CPE courses and it is also a priority for the Faculty of Social Science. We hope that our experiences could help when designing CPE courses in the future.

Figure 2. What do you think about the course in general?

Figure 3. How did the technical level suit you?

Figure 4. To what extent can you use what you have learned in your professional work?
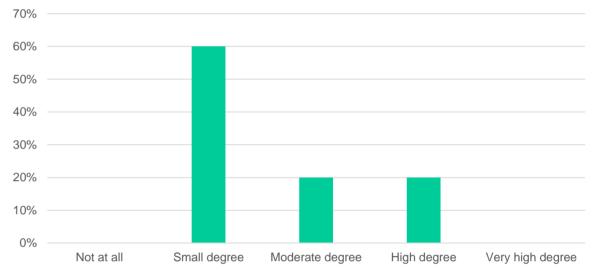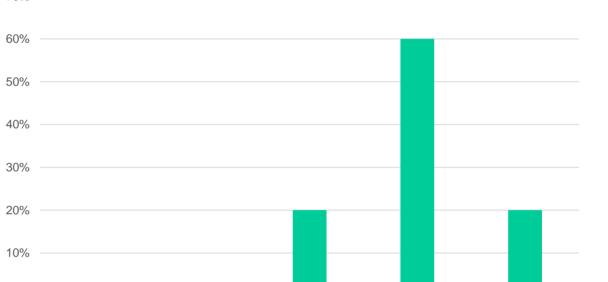
Figure 5. During the course you have been asked to discuss some issues with your fellow students. What do you think about that?

Figure 1. Two of the four strategy areas from Action Plan 2020, Faculty of Social Sciences, UCHP

SOCIAL SCIENCE Learning: Reform of program management and study administration services, emphasis on interdisciplinary patterns of study and the development of continuing and professional education.

SOCIAL SCIENCE Climate: Developing climate courses with a focus on interdisciplinary competencies aimed at solving specific societal problems within the areas of the climate and sustainability, including continuing and professional education, the promotion of a green study environment and the development of the faculty's sustainability profile.