Chapter 4 Pursuing Organisational Change in Construction Education by Implementing Change Projects



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Abstract The university colleges in Denmark are progressively confronted with new educational policies, where adaptation presupposes that the individual educational department facilitates organisational change. In this study, we describe and analyse how the Department of Construction at University College Lillebaelt (UCL) has strived to adapt to new educational policies by implementing change projects. Specifically, we examine the implementation of the two change projects entitled 'Bridge building' and 'Capacity development' and explain how aspects of organisational life (i.e. structure, identity and routines) develop and alter as a result of the change processes. The study empirically draws on interviews and workshops conducted between 2018 and 2021. In the analysis, we show that the department, in the Bridge building project, implements changes in the study programme on Architectural Technology and Construction Management to adapt to educational policies demanding a strengthened quality of education. In addition, we show that the department, in the Capacity development project, implements changes internally in the department to adapt to educational policies demanding an increased involvement in research and development activities. In the discussion and conclusions, we explain that the top management of UCL redirects the practical efforts required to adapt to new educational policies into the educational departments. We also demonstrate that the department is experiencing a pressure to implement change projects in order to adapt to new educational policies and thereby ensure quality education.

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48 N. Frederiksen et al.

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4.1 Introduction

Development in the field of education has been prompted as an important source of fostering new skills and entrepreneurship that can address societal challenges (George et al., 2016). An implication of this is that the field of education is progressively subjected to new educational policies demanding the individual educational institution to act by facilitating organisational change. Adaptation to new educational policies has also been highlighted as critical to meeting the fourth United Nations Sustainable Development Goal on "quality education" (cf. Boeren, 2019). In the study, we demonstrate how a university college department adapts to new educational policies by implementing change projects to ensure quality education.

Since 2013, the university colleges in Denmark have received funding from the Finance Act to conduct and advance their involvement in practical and application-oriented research and development activities (R&D). Later in 2014, the revised Act on University Colleges of Higher Education was enacted, which made it compulsory for university colleges to conduct R&D (Uddannelses- og Forskningsministeriet, 2014). The main purpose of the legal requirement is to strengthen the knowledge base of the study programmes offered by the university colleges and to ensure that the programmes contribute to production of practical as well as scientific knowledge (Danmarks Evalueringsinstitut, 2017).

A direct consequence of the legal requirement is that the responsibilities of the university colleges and the related job descriptions for the teaching staff have undergone significant changes. Prior to 2014, the university colleges in Denmark were mainly obliged to conduct teaching activities, and the staff affiliated with the educational departments primarily served as 'teachers' who provided lectures and supervision. Following the enactment of the revised Act on University Colleges of Higher Education in 2014, the staff were, in addition to the conventional teaching activities, also legally obliged to conduct R&D. The legal requirement on R&D thereby positioned the educational departments in a difficult situation with two strategic options for ensuring compliance with the legal requirement. The first involved a major staff turnover, where the existing teaching staff had to be replaced with new employees who possess competencies on R&D. The second involved a profound upskill of the teaching staff to cultivate competencies on R&D.

In the study, we describe and analyse how the Department of Construction at University College Lillebaelt (UCL), through a bottom-up approach, adapts to new educational policies by implementing change projects to upskill staff. The department chose the bottom-up approach in the belief that internal change is a responsibility of the individual educational department and furthermore provides an opportunity to build on existing conditions in the department. This is a rather different approach compared to other educational departments at UCL where internal

changes primarily are pursued by making changes in the staff. The overall purpose of the change projects is to cultivate competencies on R&D internally in the department. A change project can be considered as a temporary organised effort of work aiming to change aspects of organisational life in accordance with a particular rationale (Alvesson & Sveningsson, 2008). Specifically, we examine the two change projects entitled 'Bridge building' and 'Capacity development'. In brief, Bridge building aims to improve the study programme offered by the department by strengthening the students' analytical competencies so that they are qualified to study for a master's degree. Analogously, Capacity development aims to (re)organise the department and foster academic environments where the staff can exchange experiences and jointly develop competencies on R&D that can strengthen the knowledge base in the teaching activities. By mobilising an analytical framework based on the literature on organisational change, we analyse empirical material from the two change projects to obtain an understanding of the internal changes pursued by the department.

4.2 Organisational Change: From Prescriptive Models to a Normal Condition

Change is a prerequisite for contemporary organisations to be able to develop and alter internal structures, identities and routines (Battilana et al., 2010; Weick & Quinn, 1999) thereby addressing and adapting to changing external conditions and pressures (Fernie et al., 2006; George et al., 2016; Gottlieb & Frederiksen, 2020). Because of this centrality, organisational change has been an enduring examined phenomenon in the fields of management and organisation research (Pettigrew et al., 2001; Suddaby & Foster, 2017). Studies on organisational change have traditionally distinguished between episodic changes and continuous changes (cf. Weick & Quinn, 1999). Episodic changes are those that occur when an organisation deliberately initiates activities to transform from its present state to a desired future state (Stouten et al., 2018). Analogously, continuous changes are those that are perpetual, developmental and cumulative (Pettigrew et al., 2001).

According to Haridimos Tsoukas and Robert Chia (2002), organisational change, whether episodic or continuous, is distinctly pervasive, indivisible and a rather normal condition of organisational life. Studies on organisational change should therefore treat processes of change as a normal condition for organisations instead of exceptional ventures accomplished through prescriptive models such as Michael Beer and colleagues' (1990) model to effective change or John Kotter's (1995) model for transforming an organisation. Specifically, studies should examine how aspects of organisational life such as structures, identities and routines become temporary instantiations of perpetual change processes (cf. Langley et al., 2013; Tsoukas & Chia, 2002). In this perspective, the analytical focus thereby shifts from understanding the change process itself (as per Beer et al., 1990; Kotter, 1995) to

understand how aspects of organisational life are developed and altered as a result of change processes.

4.2.1 Studying the Impact of Change Processes on Organisational Life

A critical starting point when studying organisational change is to construct clarity regarding the notion of change (cf. Quattrone & Hopper, 2001; Suddaby & Foster, 2017). In order to grasp the impact of change processes on organisational life, studies should moreover apply a research design that allows examination across multiple contexts and levels of analysis (Alvesson & Sveningsson, 2008; Langley et al., 2013; Pettigrew et al., 2001). In this regard, the study sets out to explore how the change projects trigger structural, identity and routine changes in the examined department. These three analytical categories are core aspects of organisational life and are fundamental in understanding organisational change processes (Becker et al., 2005; Gioia et al., 2013; Hannan & Freeman, 1984). We therefore perceive the notion of change as incremental or radical developments in organisational structures, identities or routines that lead to more or less permanent changes in organisational life. Moreover, we join the group of researchers who perceive organisational structures, identities and routines as dynamic processes of organisational life (e.g. Howard-Greenville et al., 2016; Langley et al., 2013; Tsoukas & Chia, 2002) rather than stable entities of an organisation. Each of the analytical categories is briefly described in the following.

An organisational structure encompasses a series of contingencies and regularities characterising the organisation such as its authority, distribution of tasks, patterns of interaction, resource allocation, rules and strategy (Chia, 1997; Ranson et al., 1980). Changes in one or more of these contingencies and regularities usually affect the structure at large and thus exhibit a structural change (Král & Králová, 2016). Changes in the organisational structure often occur with ambitions to address and adapt to external conditions and pressures (Hannan & Freeman, 1984). An organisational identity refers to an organisation's self-perception. The identity of an organisation is said to be a result of its members' shared perceptions of features that are central to the organisation and differentiate it from other comparable organisations (Albert & Whetten, 1985). Change in an organisational identity can take place over relatively shorter durations of time and is assumed to be fundamental for organisational change (Gioia et al., 2013). An organisational routine can be understood as a regular and predictable behavioural pattern of an organisation (Nelson & Winter, 1982). Routines provide an organisation with capabilities to perform and accomplish diverse types of work (Howard-Greenville et al., 2016). A common assumption on routines is that organisations change their everyday activities when they make changes in their routines (cf. Becker et al., 2005).

4.3 Case Description and Research Design

UCL is a university college that offers more than 40 academy and professional bachelor's programmes within the three educational areas: (1) business science and technology, (2) education and social sciences and (3) health sciences. Each of the three areas has a number of research centres that are responsible for initiating and supporting R&D carried out by the staff affiliated with the educational departments. As of 2022, UCL has 11,300 students. Approximately 550 of these are enrolled in the professional bachelor's programme on Architectural Technology and Construction Management.

The Department of Construction, which is under scrutiny in this study, belongs to the educational area of business science and technology and corresponds with the research centre of trade. The department consists of 25 persons who manage the study programme on Architectural Technology and Construction Management and conduct R&D. According to the executive order in force, the purpose of the professional bachelor's programme on Architectural Technology and Construction Management is to qualify the students to be able to independently plan, lead and handle technical and administrative work in the design and execution of building and construction tasks.

Since 2014, when the university colleges became legally obliged to conduct R&D, the department has strived to strengthen its involvement in R&D in several ways. For instance, a significant number of the staff have undergone an upskill from adjuncts to lecturers. A so-called knowledge centre was also established in the department in an effort to create a central unit that could manage external projects and function as the formal link between the department and the industry. The knowledge centre, however, was closed by UCL with the argument that there should be a greater focus on cultivating research activities. Consequently, two PhD projects were commenced to strengthen the research activities in the department. Commencement of PhD projects is generally a widespread and internally recognised strategy for obtaining research competencies in the educational departments at UCL. Unfortunately, only one of the PhD projects was completed, and the candidate subsequently applied for a job outside UCL. Also, the department has unsuccessfully attempted to recruit persons holding a PhD degree or having relevant experience on R&D.

In 2018, the department revised its internal strategy and started searching for assistance outside UCL. A result of this quest was the establishment of a formal collaboration with Aalborg University. Accordingly, the department and Aalborg University have in recent years collaborated throughout a series of change projects with the aim to develop and support the department in its current development and involvement in R&D. Two of the change projects are Bridge building and Capacity development. These are the subject of analysis in this study.

4.3.1 Methods and Collection of Empirical Material

The research presented draws on a qualitative research paradigm based on principles from action research (McNiff & Whitehead, 2002) where the authors have both functioned as project facilitators and sequentially met to discuss and reflect on the experiences. This was to obtain insights into the actual change work performed (Alvesson & Sveningsson, 2008) and to advance practical as well as scientific knowledge of the change projects (Van de Ven, 2018). We collected empirical material in the examined change projects between 2018 and 2021 using interviews and workshops. The collection of empirical material is elaborated in the following.

4.3.1.1 Interviews

In summer 2021, we interviewed six informants from different organisational levels at UCL. Three of the informants were heads of departments, while the other three were lecturers in the Department of Construction. Each of the interviews was audio-recorded by agreement with the informants and selected passages of the audio-recordings were subsequently transcribed verbatim. The interview conversations had an average duration of 49 minutes. All interviews were open-ended and pragmatic by nature (cf. Lamont & Swidler, 2014) and covered the following five aspects: (1) UCL's current situation, (2) understandings and requirements on R&D, (3) the daily work with R&D, (4) relevant competencies when conducting R&D and (5) the relationship between R&D and teaching activities.

4.3.1.2 Workshops

A total of six workshops were held throughout the study period. Three of the workshops dealt with conceptualising the collaboration between the department and Aalborg University to meet the set aspirations. Two workshops involved group exercises with the staff in the department to get insight into their daily work and the perceived core competencies and values characterising the department. The last workshop was held with the staff in the department who have been involved in R&D to obtain an understanding of the experienced challenges and needs. Each of the workshops had a duration of 6–8 hours and notes were prepared accordingly.

4.3.1.3 Internal Meetings

Internal meetings have been held between the department and Aalborg University (i.e., the authors) about every 3 weeks. At the meetings, the ongoing collaboration and the progression of the change projects and future efforts were discussed. Each of the meetings had a duration of 1–2 hours.

4.4 Analysis

In this section, we describe and analyse the two change projects. We specifically focus on the efforts made in the change projects to facilitate structural, identity and routine changes in the department and the change work performed in this pursuit. Insights from the workshops form the empirical basis in the first part of the analysis on Bridge building, while the interview conversations are mainly used in the second part of the analysis on Capacity development.

4.4.1 Bridge Building

The Bridge building project was initiated in September 2018 and completed ultimo January 2019. The project originated from a report prepared by the Danish Ministry of Higher Education and Science in which it was proposed that all bachelor's programmes in Denmark incorporated a philosophy course. The stipulated aim of the philosophy course was to develop the individual student as a professional and to promote curiosity, critical thinking and judgment (Uddannelses- og Forskningsministeriet, 2018).

Although most of the professional bachelor's programmes at UCL at that time already touched upon scientific theories and methods, the Department of Construction found it necessary to integrate philosophy more profoundly in the study programme on Architectural Technology and Construction Management. In this effort, the department entered a collaboration with Aalborg University on the project entitled Bridge building. The purpose of the project was twofold. The first was to strengthen the students' analytical competencies so that they were prepared to study for a master's degree. The second was to reinforce the general education in the study programme on Architectural Technology and Construction Management (Forman & Gottlieb, 2019).

4.4.1.1 Implementation of Bridge Building

A starting point for the project was to compare and understand the differences between the 3.5-year professional bachelor's programme on Architectural Technology and Construction Management (offered by UCL) and the 2-year master's programme on Construction Management and Informatics (offered by Aalborg University). The master's programme has traditionally attracted many graduates with a background from the study programme on Architectural Technology and Construction Management. The comparison was made to obtain an understanding of the different didactically approaches, understandings and values characterising the two study programmes. The comparison was conducted by examining the curricula of the study programmes and through workshops.

As part of the comparison, it was found that the bachelor's programme didactically drew on principles where the students were introduced to and had to master the practical use of a wide range of tools and profession-oriented work functions. Analogously, the master's programme was based on principles from problem-based learning where the students explored practical and theoretical problems in the construction industry and mobilised scientific theories and methods to understand and potentially solve the identified problems. This difference has previously been highlighted to be a significant challenge for graduated bachelors who are admitted for the master's programme as they experience the curriculum and the lectures to be somewhat abstract (Forman & Gottlieb, 2019). An outcome of the comparison therefore was the ambition to integrate scientific theories and methods into the bachelor's programme while maintaining the practical focus on the use of tools and profession-oriented work functions. This is elaborated by a project participant:

Among other things, we wanted to change the focus from solely understanding how to use a technology such as a drone to cultivate a more profound understanding of a drone as a technological device that produces data.

In practice, a series of initiatives were incorporated in the last two semesters of the bachelor's programme (i.e., the sixth and seventh semesters) to promote and strengthen the students' use of scientific theories and methods. In relation to the sixth semester, which involves an internship, the students were introduced to new learning targets, which presupposed the application of scientific theories and methods to reflect on their own practice and the experiences from the internship. These reflections were to be documented in an individual internship report that had to be prepared to pass the semester. Prior to the internship, the students were accordingly taught scientific theories and methodologies such as cultural analysis, discourse analysis and ethnographic and qualitative methodologies.

In relation to the seventh semester where the students prepare their bachelor projects, the students were encouraged to further develop the insights obtained through the internships (i.e., dilemmas, paradoxes and contradictions) to formulate bachelor projects that were relevant to practice as well as grounded in scientific theories and methods. To support this, a mandatory 10 ECTS introduction course to the bachelor project was added. The introduction course entailed lectures in academic writing, formulation of project description, methodological considerations as well as theoretical approaches to structure and analyse empirical material. The introduction course was handled by the department's staff who were expected to supervise the students on their bachelor projects.

The ambition to integrate scientific theories and methods more profoundly in the study programme derived several discussions in department regarding which core competencies graduates should acquire in the study programme. This is emphasised by a Lecturer:

There have been several discussions in the department about which core competencies our graduates should acquire throughout the study. I think such discussions are important as they push us to debate and reflect on how we can improve the study programme and maintain our relevance.

4.4.1.2 Change Work Performed and the Effects of Bridge Building

In this first part of the analysis, we showed how the Department of Construction through the Bridge building project performed change work in order to anchor scientific theory and methods in the study programme. Structurally, the department made changes in the curriculum and introduced new learning targets to create a balance between a practice-oriented focus and a scientific focus. In relation to identity, the department developed shared perceptions and started debating what core competencies graduates should acquire in the study programme. As opposed to previously, these perceptions and debates concerned not only how to prepare students for a job in the industry but also about preparing the students to study for a master's degree. In line with the increased focus on scientific theories and methods in the study programme, the department's staff also acquired new routines accordingly. For instance, where the staff traditionally provided lectures about the practical use of tools and profession-oriented work functions, they now teach the application of scientific theories and methods and how to understand practical insights through a scientific approach.

4.4.2 Capacity Development

The capacity development project was initiated in June 2021 and is currently planned to run until ultimo 2022. The objective of the project has been to (re)organise the Department of Construction and upskill the staff with competencies so that they can better conduct R&D. R&D forms an increasing part of the activities in the department, which has simultaneously created a pressure to develop capacity that supports the staff's involvement in R&D. This is emphasised by a Head of Department:

With the legal requirement on R&D and the new job descriptions, many of our current employees are not qualified to possess their own jobs, which means that they have to undergo a significant capacity development.

Specifically, the stated ambition of the department has been, through the Capacity development project, to strengthen its involvement in R&D by developing capacity within (1) research management, (2) formation of academic environments and (3) the teaching activities. These are elaborated in the following.

4.4.2.1 Preliminary Results from the Implementation of Capacity Development

Historically, the research centres and the educational departments at UCL have been essentially detached from one another. Specifically, employees have been either responsible for conducting R&D in the research centres or responsible for carrying

N. Frederiksen et al.

out teaching activities in the study programmes. UCL has structurally attempted to bridge the research centres and the study programmes by moving employees from the research centres into the educational departments. This is elaborated by a Head of Department:

Back in the days, employees were either affiliated the research centres or the educational departments. We still have some specialists affiliated the research centres such as docents and statisticians but most of our employees are now hired directly to the educational departments, which means that they must conduct teaching activities as well as R&D. This decision was made in the belief that teaching activities and R&D can enrich one another and should go hand in hand.

As explained in the quote, the motive for bridging the research centres and the educational departments has been to strengthen both areas. However, the department was unaffected by this effort because the research centre within trade (where the department belongs) did not have any employees with relevant R&D competencies within construction. A Head of Department elaborates:

The research centre within trade is very small and don't have any employees with relevant research experience in construction, which makes it really difficult to support R&D in the Department of Construction.

Consequently, the most significant outcome of the structural change was that the department, in addition to teaching activities, has also been obliged to conduct R&D, which historically has otherwise been the responsibility of the research centre. With ambitions to strengthen the involvement in R&D and increase the general understanding of research management, the department invited researchers from Aalborg University to seminars to share experiences on R&D and approaches to structure academic environments.

An outcome of the seminars was the idea that the department should develop its internal structure containing the four units: (1) building design, (2) building statics and HVAC, (3) communication and (4) construction planning and management, into academic environments. The rationale behind this idea was to foster academic environments with specialised knowledge that could collectively develop the R&D competencies and translate new knowledge generated through R&D into the teaching activities. However, the top management at UCL has also expressed an expectation that the department strengthens its engagement in dissemination activities such as article publication. This is explicated by a Lecturer:

The department units (i.e., academic environments) are spaces where we can foster academic environments as well as distribute tasks and develop R&D competencies related to the specific academic environment. However, the top management at UCL still expects us to acquire advanced writing skills so that we can publish articles based on our involvement in R&D.

In an attempt to develop advanced writing skills, the department has on its own initiative been establishing a so-called writing workshop. According to several of the informants, the writing workshop is relevant because dissemination in written format is a new discipline in the department that requires extensive training to

master. Although the establishment of the writing workshop generally has been appreciated by the staff in the department, it has also given rise to debate in the top management of UCL. The debate has been concerning whether persons without a PhD degree have the capacity to produce and publish scientific articles. The following presents the different views of two heads of departments on this issue:

You don't necessarily have to hold a PhD degree to produce scientific articles as long as you work in accordance with the recognised scientific approaches and methods or collaborate with experienced researchers.

There's no one in the Department of Construction with a PhD degree and I therefore think it is very unlikely that the department can produce research. Academia is a closed club that you can only be part of if you hold a PhD degree. The department needs to commence PhD projects to comply with the legal requirements on R&D.

Several of the informants have been expressing an interest in writing scientific articles but at the same time point out that the articles must benefit the teaching activities in the study programme. Moreover, the informants have been emphasising that the link between R&D and teaching activities is fragmented and that future initiatives should aim at merging R&D and teaching activities better. This is elaborated by a Lecturer:

We're expected to produce scientific articles. However, it's not valuable for us (i.e., the staff) if the only purpose is to demonstrate that we can do it and it doesn't benefit our teaching activities. In the future, we should work to create coherency between R&D and teaching activities and identify what tools and approaches we can apply to ensure a harmony.

4.4.2.2 Change Work Performed and the Preliminary Effects of Capacity Development

In this second part of the analysis, we showed how the Department of Construction through the Capacity development project performed change work to (re)organise the department and upskill the staff with competencies so that they can better conduct R&D. Structurally, the department has been embracing the idea that the existing four units in the department must be developed into distinct academic environments, which means that each employee in the department will belong to an academic environment. A writing workshop has also been established across the specialised units wherein the staff are supposed to meet and collectively advance skills on scientific writing and dissemination. In relation to identity, the department has with the new internal structure based on academic environments attempted to foster internal awareness that employees with shared professional interest are to increase specialisation within their domains and link activities in the environments with the teaching activities. In addition, the academic environments are expected to collectively develop routines that ensure integration of knowledge gained through R&D in the teaching activities.

Project:	Bridge building	Capacity development
Project period:	September 1, 2018, to January 31, 2019	June 1, 2021, to December 31, 2022 (planned)
Structural changes:	Changes in the structure of the study programme (new curriculum and new learning targets)	Establishment of academic environments and writing workshop
Identity changes:	Awareness that students must both be prepared for a job in the industry and for studying a master's degree	Awareness that the staff must increase specialisation and link knowledge obtained through R&D in the teaching activities
Routine changes:	Development of new routines in the teaching of scientific theories and methods	Development of new routines that bridge R&D and teaching activities

Table 4.1 Organisational changes pursued in the change projects

4.5 Discussion

58

In the analysis, we have described how the Department of Construction has strived to facilitate structural, identity and routine changes by implementing the two change projects Bridge building and Capacity development. In this section, we first present a table summarising the main findings from the analysis. Subsequently, we reflect on the department's aspirations to develop and alter aspects of organisational life through change projects to adapt to new educational policies.

The structural, identity and routine changes pursued in the Bridge building and Capacity development projects are shown in Table 4.1.

4.5.1 Pursuing Organisational Change in Construction Education Through Change Projects

It is well known that modern societal conditions are under rapid change (e.g. Alvesson & Sveningsson, 2008). A consequence hereof is that organisations, including educational institutions as demonstrated in this study, are progressively confronted with demands and expectations to adapt to changing societal conditions to ensure quality education and consolidate their relevance in society (Boeren, 2019; George et al., 2016). A recognised approach to adapting to changing societal conditions is through the implementation of change projects aimed at changing aspects of organisational life (Alvesson & Sveningsson, 2008).

In the analysis, we have provided insights into the efforts made by the Department of Construction at UCL to develop and alter aspects of organisational life by implementing the two change projects Bridge building and Capacity development. Both change projects were initiated to adapt to educational policies that demand an increased quality of education and an increased involvement of university colleges in R&D. In addition, both change projects involved structural, identity and routine changes in the department (as illustrated in Table 4.1). The change projects were

bottom-up initiatives formulated, initiated and implemented by the department. As illustrated in the analysis, UCL is obliged to integrate new educational policies into the study programmes offered by UCL. The practical efforts required to adapt to new educational policies are, however, redirected to the educational departments, which simultaneously experience a pressure from the top management of UCL to facilitate internal changes accordingly. In line with this, the requirements of the top management of UCL in relation to changes in the educational departments are ambiguous. This is most significantly exemplified in the second part of the analysis, where two heads of departments have different views on whether the Department of Construction can produce research and thereby join 'the academic club' without having employees with PhD degrees.

4.6 Conclusions

In the study, we have described and analysed how the Department of Construction at University College Lillebaelt has strived to adapt to educational policies by implementing change projects. Our interest was to obtain an understanding of the internal changes pursued by the department and the change work performed in this regard. In the study, we have shown that the department, through a bottom-up approach, implements change projects to adapt to new educational policies demanding a strengthened quality of education and an increased involvement of university colleges in R&D. We have also shown that the department successfully has made changes in its internal structure, identity and routines. An implication hereof is that the department at large has attained a greater focus on scientific theories and methods as well as the need to foster academic environments and specialisation. Although it is a long-term and comprehensive effort, the bottom-up approach is considered a fruitful approach to facilitate change in the department in the sense that structures, identities and routines are developed and altered with respect to existing conditions in the department.

Finally, we have throughout the study demonstrated how a university college department strives to consolidate its relevance by adapting to the needs of society (expressed through educational policies). The study thus contributes with practical insights into how the fourth United Nations Sustainable Development Goal on quality education is embraced by an educational department through the implementation of change projects aimed at facilitating internal change accordingly.

References

Albert, S., & Whetten, D. A. (1985). Organizational identity. In L. L. Cummings & M. M. Staw (Eds.), *Research in organizational behaviour* (pp. 263–295). JAI.

Alvesson, M., & Sveningsson, S. (2008). Changing organizational culture: Cultural change work in progress. Routledge. Battilana, J., Gilmartin, M., Sengul, M., Pache, A.-C., & Alexander, J. A. (2010). Leadership competencies for implementing planned organizational change. *The Leader Quarterly*, 21(3), 422–438.

- Becker, M. C., Lazaric, N., Nelson, R. R., & Winter, S. G. (2005). Applying organizational routines in understanding organizational change. *Industrial and Corporate Change*, 14(5), 775–791.
- Beer, M., Eisenstat, R. A., & Spector, B. (1990). Why change programs don't produce change. *Harvard Business Review*, 68(6), 158–166.
- Boeren, E. (2019). Understanding sustainable development goal (SDG) 4 on "quality education" from micro, meso and macro perspectives. *International Review of Education*, 65(2), 277–294.
- Chia, R. (1997). Essai: Thirty years on: From organizational structures to the organization of thought. Organization Studies, 18(4), 685–707.
- Danmarks Evalueringsinstitut. (2017). Forskning og udvikling på professionshøjskolerne som vej til uddannelseskvalitet. Danmarks Evalueringsinstitut.
- Fernie, S., Leiringer, R., & Thorpe, T. (2006). Change in construction: A critical perspective. *Building Research & Information*, 34(2), 91–103.
- Forman, M., & Gottlieb, S. C. (2019). Brobygning mellem bygningskonstruktøruddannelsen og kandidat i ledelse og informatik i byggeriet. Statens Byggeforskningsinstitut.
- George, G., Howard-Greenville, J., Joshi, A., & Tihanyi, L. (2016). Understanding and tackling societal grand challenges through management research. *Academy of Management Journal*, 59(6), 1880–1895.
- Gioia, D. A., Patvardhan, S. D., Hamilton, A. L., & Corley, K. G. (2013). Organizational identity formation and change. *Academy of Management Annals*, 7(1), 123–192.
- Gottlieb, S. C., & Frederiksen, N. (2020). Deregulation as socio-spatial transformation: Dimensions and consequences of shifting governmentalities in the Danish construction industry. *Environment and Planning C: Politics and Space*, 38(3), 484–502.
- Hannan, M. T., & Freeman, J. (1984). Structural inertia and organizational change. American Sociological Review, 49(2), 149–164.
- Howard-Greenville, J., Rerup, C., Langley, A., & Tsoukas, H. (2016). Introduction: Advancing a process perspective on routines by zooming out and zooming in. In J. Howard-Greenville, C. Rerup, A. Langley, & H. Tsoukas (Eds.), Organizational routines: How they are created, maintained, and changed. Oxford University Press.
- Kotter, J. P. (1995). Leading change: Why transformation efforts fail. *Harvard Business Review*, 2(1), 1–10.
- Král, P., & Králová, V. (2016). Approaches to changing organizational structure: The effect of drivers and communication. *Journal of Business Research*, 69(11), 5169–5174.
- Lamont, M., & Swidler, A. (2014). Methodological pluralism and the possibilities and limits of interviewing. *Qualitative Sociology*, 37(2), 153–171.
- Langley, A., Smallman, C., Tsoukas, H., & Van de Ven, A. (2013). Process studies of change in organization and management: Unveiling temporality, activity, and flow. *Academy of Management Journal*, 56(1), 1–13.
- McNiff, J., & Whitehead, J. (2002). *Action research: Principles and practices*. Routledge Falmer. Nelson, P. R., & Winter, S. (1982). *An evolutionary theory of economic change*. Harvard University Press.
- Pettigrew, A. M., Woodman, R. W., & Cameron, K. S. (2001). Studying organizational change and development: Challenges for future research. *Academy of Management*, 44(4), 697–713.
- Quattrone, P., & Hopper, T. (2001). What does organizational change mean? Speculations on a taken for granted category. *Management Accounting Research*, 12(4), 403–435.
- Ranson, S., Hinings, B., & Greenwood, R. (1980). The structuring of organizational structures. *Administrative Science Quarterly*, 25(1), 1–17.
- Stouten, J., Rousseau, D. M., & De Cremer, D. (2018). Successful organizational change: Integrating the management practice and scholarly literatures. *Academy of Management*, 12(2), 752–788.

- Suddaby, R., & Foster, W. M. (2017). History and organizational change. *Journal of Management*, 43(1), 19–38.
- Tsoukas, H., & Chia, R. (2002). On organizational becoming: Rethinking organizational change. *Organization Science*, 13(5), 567–582.
- Uddannelses- og Forskningsministeriet. (2014). Bekendtgørelse af lov om professionshøjskoler for videregående uddannelser. LBK nr 936 af 25/08/2014. Uddannelses- og Forskningsministeriet.
- Uddannelses- og Forskningsministeriet. (2018). *Inspirationsgruppen om nyt filosofikum: Afrapportering til uddannelses- og forskningsministeren.* Uddannelses- og Forskningsministeriet.
- Van de Ven, A. H. (2018). Academic-practitioner engaged scholarship. *Information and Organization*, 28(1), 37–43.
- Weick, K. E., & Quinn, R. E. (1999). Organizational change and development. Annual Review of Psychology, 50(1), 361–386.