Summary

Background: School dropout is a major concern for society as well as for the individual. Formal education predicts good health, and increases life expectancy. Dropout from vocational education is particularly high. In Denmark, approximately 50% in vocational education drop out compared to 18% in general upper secondary education, i.e. high school. Structural interventions targeting the organisation of school life offer important windows of opportunity to increase the completion of education. Danish vocational schools do not have many social gatherings in everyday school life. Instead, smoking cigarettes plays a central role for students to become socially integrated and students' focus may drift away from achievement of professional skills. Inspired by the settings-based approach, the Shaping the Social study was developed to improve the social environment of vocational schools. The intervention programme was aimed to reduce dropout from basic vocational education in two ways: by improving how schools welcome incoming students and through integration of social and educational activities. The first aim of this thesis was to develop the design of the effect evaluation. The second aim was to evaluate intervention effects on smoking, student wellbeing, and school dropout.

Methods: A non-randomized controlled design was employed with a two-year follow-up period. The study included 10 vocational schools (four intervention and six control). The schools that were involved in the intervention's development phase continued as intervention schools. Characteristics of the intervention schools were used to select control schools among schools that best matched. The study included two samples. The first sample was based on the National Student Register from Statistics Denmark. This sample was identified by: (1) school address, (2) type of basic course and (3) date of school start from 1st October 2011 until 31st October 2012. The second sample was comprised of students who answered a questionnaire within the first week of school. Follow-up assessment was performed 10 weeks after and included items on student wellbeing (conceptualised as school connectedness, student support, teacher relatedness and valuing the profession) and health risk behaviour such as daily cigarette smoking. School dropout was tracked by the National Student Register and students were categorised as completed or still registered in the basic course versus dropped out. Furthermore, teachers of the classes that were involved in the intervention answered a questionnaire about implementation.

Results: At 2-year follow-up, 36% of students in the intervention group compared to 40% in the control group were dropped out of school (adjusted OR = 0.86, 95% CI: 0.74, 0.99). The intervention was also associated with higher school connectedness, and an intervention effect on dropout through school connectedness was found. No significant intervention effects through student support, teacher relatedness or valuing the profession were found. The intervention was not associated with reduced daily smoking; however, an interaction analysis (baseline smoking × intervention, $p < 0.05$) suggested that baseline occasional smokers in the intervention group had lower odds ratio for becoming a daily smoker compared to baseline occasional smokers in the control group (8% versus 16%). School connectedness, student support, teacher relatedness and valuing the profession were all strongly related to school dropout. Student background determinants of school dropout were youngest age group (16-19 years old), non-Western ethnicity, low parental socioeconomic position, living alone or with friends, and prior dropout from vocational education. Sex and type of basic course were not significantly related to school dropout.

Conclusion: This thesis founds that Shaping the Social was associated with reduced dropout from vocational education, through its effect on school connectedness. Although the lack of intervention effect on smoking, the positive effects in preventing occasional smokers becoming daily smokers indicate that it is possible to provide social alternatives to smoking. Reducing smoking among daily smokers and ex-smokers require probably additional intervention program strategies such as psychological support. The lack of intervention effect on student support, teacher relatedness and valuing the profession might be explained by low sensitivity of the measurements or implementation problems. Nevertheless, the strong relations of school connectedness, student support, teacher relatedness and valuing the profession on dropouts emphasize their importance, and future interventions targeting dropout from vocational education should incorporate improvements in these areas.