Abstract

Widenberg, L. (2003) Psychosocial research environment and scientific production. Department of Psychology, Göteborg University, Sweden.

The aim of this thesis was to investigate which connections exist between psychosocial working environment factors and scientific productivity within scientific research in Sweden. The dissertation consists of a literature review and four empirical studies.

The first of the empirical studies, **Factors behind scientific productivity**, consists of an interview survey where researchers and doctoral students have provided their views on which factors they considered important for successful research. The study produced seventeen factors of which some appeared to be more important, namely leadership, supervision, scientific exchange and debate as well as a number of individual and group-related aspects.

The purpose of the second study, **Measurement of research units' productivity**, was to develop and test an instrument for the measuring of scientific productivity. The result of the sample measurements, obtained from 23 research units, principally exhibited the difficulty in distinguishing, in an unambiguous way, between successful and unsuccessful units. The reason for this difficulty was that the research units could be successful in different ways, depending on which measurement criteria were used.

Study number three, **Psychosocial working environment and scientific productivity**, concentrated on investigating the connection between different factors of psychosocial working environment and research productivity. The results, which were based on survey data from 70 research units, indicated a number of success factors. These included, among others, subject and research competence, commitment, career possibilities, working conditions, climate of co-operation and the possibilities for different types of scientific exchange. Regarding important characteristics in research leaders, one can include a great interest in research and advanced competency such as a distinct, but dynamic, exercise of leadership.

The purpose of the fourth and final study, **New forms for research - altering leadership?**, was to study the overall research leadership within eleven interdisciplinary consortia and to relate the leadership to the success of the enterprise. The results showed that the more successful consortia had leaders, who were to a greater degree result oriented, their self-confidence was more apparent and they were more authoritative and extrovert. They had also, to a greater degree, succeeded in shaping and, among co-workers, establishing a clear objective for the enterprise. In contact with the outside world, they stood out as more talented in their marketing of the consortium, just as they were better at developing co-operation with industry.

In the final chapter, **Discussion and conclusions**, there is discussion of to what degree this work and the different studies have achieved their purposes and what problems and weaknesses of method have existed. As a final point in the chapter, and in the whole of the work, the importance is emphasised of developing and improving working environments where needed, regardless of the productivity aspect, as the whole concept also concerns another important aspect, namely people's health and well-being.

Keywords: Working environment; scientific productivity; research; leadership; psychosocial working environment; scientific consortia

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ISSN 1101-718X ISRN GU/PSYK/AVH--113SE