Adoption of Managerial Ideologies in Finnish Academic Management Education 1960-2007

Abstract

The paper analyses when and how different management paradigms have been adopted for teaching, in the subject of organization and management, by examining the curricula and study guides of the eight main business schools in Finland. The data was analysed in three ways: 1) the analysis of all the reading lists in curricula and study guides, 2) the analyses of subject descriptions in the study guides and 3) the analysis of individual course descriptions in the study guides. Theoretically, the study draws on the literature on German-style and American-style business schools, and on the literature on management paradigms and their dissemination. Our findings indicate that there are differences in the adoption of different management paradigms in management education in German-style and American-style business schools in Finland. For example, between 1980 and 1995, the most commonly used paradigm in teaching in German-style schools was the human relations paradigm, while in American-style schools the most popular paradigm was structural analysis. The results suggest that different traditions in arranging higher management education may have an impact on the content of teaching. This provides an interesting point of departure for investigating the contents of management education in other countries, too.

Keywords: Finland, history, management education, management paradigms
**Introduction**

The purpose of this study is to examine how the different management paradigms have manifested themselves in Finnish academic management education during the time period 1960–2007. We examine management education in the eight main business schools to seek answers to the following four research questions: 1) what management paradigms are represented in the *curricula and course literature* used in university-level management education in Finland during each decade from the 1960s onwards? 2) What management paradigms are applied when presenting the subject of management in the *study guides* of the institutions of higher education? 3) Measured in the *number of courses and credit units*, how widely have the different management paradigms been taught in 1980–2007? 4) Are there differences in the adoption of the management paradigms between schools adhering to the traditions of German and American business education?

Curricula of business schools have been found to reflect on the one hand, the type of competences demanded by the business community (Amdam et al. 2003), and on the other hand, to mirror the challenges facing firms at different times (Engwall 1992). Universities also shape local applications of theories, which is a central step in the acceptance and establishment of new ideas from abroad both in teaching and in practical business (Guillén 1994; Sturdy and Gabriel 2000, 985). Yet, the *content* of management education from the viewpoints of different management paradigms has received little attention.

From an international perspective, the case of Finland is interesting and worth studying because university-level management education began early in Finland, and in the 20th century the education level of managers has been rather high compared to other Nordic and European countries (Fellman 2000, 131–136). The second wave of professionalization in management, which began in Finland in the 1960s, meant it was increasingly common for people working as managers to acquire university degrees tailored especially for business life (Fellman 2003, 5).

Our study consists of eight main business schools in Finland. We did not analyse all the courses in the business school curriculum, but only a subset: courses that fall under the main subject of organization and management. The selection criterion was that the title of the main
subject had to contain the word management, administration or organization. Within the main subject of organization and management we examined all individual courses with a title containing any of the following words: management, administration, business management, organization, work supervision, organizational psychology, or the names of any of the management paradigms addressed in this study. In practice this meant that we examined all courses that fall under the main subject of organization and management in the business school curriculum.

First, the reading lists of all of the curricula and study guides within the main subject of management were examined. As a result a ‘Top 5’ list of the most used books was drawn up for each decade from the 1960s onwards. Second, thematic analysis was conducted on the main subject descriptions in the study guides from 1980 to 2004 with a three-year interval. Thirdly and finally, after the analysis of the subject descriptions, a similar thematic analysis was conducted on individual course descriptions in order to track changes in course content. The time period for this analysis was 1980–2007 with a three-year interval. In Finnish business schools the course literature is stated in the curricula. However, each business school and faculty can individually decide the content of curricula (see e.g. Luoto and Lappalainen, 2006). The specific course descriptions of curricula have been available since the 1980s in Finland (Nurmi 1984, 173). Therefore, we also analysed the content of these course descriptions in addition to course literature for the period 1980-2007.

In the following section we will first describe the management paradigms researched in brief, after which we will introduce the two different models for arranging higher education management: the German and the American one. Our purpose is to discuss about these models in relation our empirical data on Finnish academic management education. This is followed by introduction of the context and methods, after which the results are presented. Finally, the results will be discussed and some avenues for future research will be deliberated upon.

Management ideas can be considered as paradigms, or groups of similarly oriented theories, techniques and models with a shared ideological basis (Guillén 1994, 8). Guillén defines a paradigm
as a system of interconnected ideas and techniques that offer a distinct diagnosis and solutions to a set of problems (ibid. 7). According to Barley and Kunda (1992, 363), managerial theories can be treated as rhetorics that have an ideological component, and these rhetorics are historically organized as paradigms. Guillén (1994) notes that there is no set template for the introduction of paradigms; instead, local conditions tend to generate ‘tailor-made’ solutions. The central paradigms of the 20th century are scientific management, human relations movement, structural analysis, and organizational culture (Guillén 1994, Barley and Kunda 1992, Abrahamson 1997). We have added to this list innovation theories as the latest paradigm, because it encompasses the ideological and technical features, which according to Guillén (1994, 10-11, 306) constitute a paradigm (see Table 2, p. 15).

Paradigms are of course only one way to analyse the continuum of management ideas. For instance, management ideas can also be studied from the viewpoint of trends or fashions (Abrahamson 1997). We used paradigms in our analysis because a management paradigm typically prevails for 20 to 30 years (Barley and Kunda, 1992, 364), and consist of both technical and ideological features (Guillén, 1994a, 7–15; Barley and Kunda, 1992, 363). In addition, many management trends that prevail at the time a paradigm surfaces reflect its ideology and spirit, even though this is not explicitly emphasized (Seeck, 2008, 1).

Scientific management was born out of a need to solve problems in the organization of production (Barley and Kunda 1992, 369). The solution proposed for this was rationalization of work (Taylor 1911, 9, 16; Barley and Kunda 1992, 371). The most important practical applications of scientific management were the division between task design and execution; co-ordinating of a divided task process; time-motion studies; and piecework wages (Taylor 1911, 22-25, 128-129; Littler 1982, 50–63). Scientific management relied on an unshakable faith in scientific reasoning (Taylor 1911, 114-115). Essentially, scientific management aimed at finding the one best way of managing workers and organizing work tasks (Taylor 1911, 25). The human relations movement expressed criticism of the practice of breaking down work tasks into their basic elements; the
expansion and enrichment workers’ job descriptions and rotation of the work tasks were among its goals (Wren 2005, 293, 391; Rose 1989, 103–104; 106–107; Guillén 1994, 58). The Hawthorne-experiments (e.g. Mayo 1933; Roethlisberger and Dickson 1939) had a significant role in the breakthrough of the human relations school (Gillespie, 1991). The human relations paradigm provided solutions for problems such as absenteeism, high employee turnover, low morale, and conflict, all of which were seen as having a negative effect on productivity (Guillén 1994, 12–13). The most important practical applications of the human relations paradigm were mappings of workplace climate and social systems by means of interviews, questionnaires, discussion groups, psychodrama, and role playing. The duty of the manager, according to this paradigm, was to increase interaction in the workplace and to balance the relations between the work community and the worker (Guillén 1994, 12–13; Abrahamson 1997, 498; Wren 2005, 323–327).

The *structural analysis paradigm* was born out of the need to solve problems caused by large, bureaucratic organizations (Guillén 1994, 13). These problems were addressed by focusing on the organization as a whole, organizing tasks into departments and units, forming channels of communication, and establishing formal hierarchy and control (Guillén 1994, 80–83). The understanding was that organizational problems could be solved by manipulating organizational structures (Barley and Kunda 1992, 377–378). In practice, this meant changes such as the differentiation and integration of functions, the decentralization of authority, and the creation of divisions and profit centres (Guillén 1994, 14–15; see also Drucker 1954, 189–223; Etzioni 1964). The *organizational culture paradigm*, on the other hand, is based on the assumption that each organization encompasses a culture or a multitude of cultures (Smircich 1983; Alvesson and Berg 1988). Culture is a way of building and rebuilding a shared reality through which people can find mutual ways of understanding occurrences, actions, objects, and situations. A culture can be expressed as shared values, meanings, beliefs, and understanding (Morgan 1997, 138; see also Schein 2001). In organization studies, organizational culture has been discussed as a critical variable, and as a root metaphor (Smircich 1983).
The innovation theories were born out of the need to constantly improve and develop new products and solutions to the rapidly changing market needs, in order for the organization to stay competitive. The roots of innovation paradigm can be traced to the rise of competition strategies in the 1960s. It has been on the political agenda of the western industrial countries since the 1980s, when national competitiveness became a central concern for countries (Kantola 2006). The core aim of the innovation paradigm is to increase the productivity of workers by getting them to constantly improve products and processes and develop new ones in order to improve the competitiveness of the organizations (Seeck 2008, 2; see also Thrift 2006). Innovation can be seen as a process where new ideas are captured, filtered, financed, developed, adapted, and finally realized and commercialized (McLean 2005, 240, see also West and Farr 1990; Kanter 1988).

The Models of Higher Management Education

The Finnish higher education system comprises universities and polytechnics. Most Finnish polytechnics are multidisciplinary institutions, which give particular weight to contacts with local business and industry. As of 2008, 24 polytechnics offer education in the areas of social sciences, business and management. In the Finnish university sector on the other hand, there are three schools of economics and business administration, nine multi-faculty universities and one university of technology offering education and degrees in business-related fields. The business-related programmes in the universities have usually included accounting, marketing, management and personnel management. Several individual schools also offer management teaching in the fields of extension studies and adult education (Ministry of Education 2007, 21-27.)

The universities are overseen and funded by the Ministry of Education. University education – like education in general with the exception of adult and extension studies – in Finland is free of charge. Students only pay for books and other materials they need but not for teaching. This might be one of the reasons for the prevalence of pre-experience management degrees over extension degrees, such as MBA degrees, where students are required to pay for their tuition. The schools
selected for the study form the core of Finnish academic management education and have operated the longest – other Finnish establishments providing higher education in management have been founded in the 1980s or later.

Finnish universities date back to the year 1640, when a university was established in Turku. It was moved from Turku to Helsinki in 1928 and later became the University of Helsinki. Some attempts to introduce economics into the universities had been made during the 18th century, but the emergence of management as an academic discipline dates back to the turn of the 20th century both in Europe and in the United States (Engwall 2007, 10; Whitley 1994, 167). According to Locke, there are two strong traditions in business education, the German and the American one (Locke 1994, 156; 1988).

In Germany, the first business schools date back to 1898 (Aachen and Leipzig) (Engwall 2000, 5). The German independent business schools (handelshochschulen) had an entirely general and practical orientation with a curriculum containing economics, law, accounting, and foreign languages (Pieper 1994, 116–117). The undergraduate programs lasted four to five years (Amdam 1996, 5). In Germany, the changes in the field of production were defined as technical problems, with the consequence that technical universities were the first to include work organization and personnel management in their teaching and research agenda. Thus, technical universities proved to be strong actors in management education, reflecting the typically German division between technical and commercial managers (Pieper 1994, 118). Instead of providing management education, the German business schools provided tools that could help managers in their profession (Locke 1988, 92). Hence, the curriculum in the business schools was focused on economics instead of management. Many German business schools gained university status or were attached to existing universities in the decades following World War II (Engwall 2000, 6; Pieper 1994).

The German Handelshochschulen became an indirect model for Finnish business schools (Michelsen 2001b). The first two business schools to be established in Finland were the Helsinki School of Economics (founded in 1911) and the Swedish School of Economics. The Swedish
School of Economics in Helsinki was founded in 1909 as a commercial academy and became a Business School in 1927. The Stockholm School became a model for the other Nordic countries and was, in turn, inspired by the German schools, from which the first professors were also recruited. (Michelsen 2001b.) In Finland, several early professors either were Swedes or were educated in Sweden (Engwall 2004). The first Finnish and other Nordic schools were all independent business schools that did not belong to any university.

However, the Nordic business schools, with their research orientation, sought full academic status early on. They wanted to distinguish themselves from the existing commercial academies and to indicate membership of the academic family, in spite of the fact that they did not function under existing universities. (Engwall 2007, 9.) In Finland, the doctoral degree was first introduced in the Helsinki School of Economics in 1931 and in the Swedish School of Economics in Helsinki in 1944. Similarly to Germany, the Finnish universities of technology have since their inception provided education in management, in Helsinki since the 1920s and in Lappeenranta since 1975.

In the United States, business schools were founded within existing universities (Engwall 2007, 11). The Wharton School of Finance and Economy, established in 1881, was the first academic business school in the world. However, the number of business schools increased rapidly in the twentieth century, when the first MBA programmes were set up. The MBA, a two-year postgraduate programme, is a symbol of the American system (Amdam 1996, 4). In the 1960s, demands were voiced to develop management education. The curricula were developed through the incorporation of operation analysis, financing, accounting, and statistics and the emergence of the structural analysis paradigm began (Barley and Kunda 1992, 377). At the same time, efforts were made to transform management into a systematic scientific discipline, management science (Barley and Kunda 1992, 377; Guillén 1994, 15). In 1990, one-third of the chief executive officers of the 500 largest companies in the US had an MBA degree from one of the twenty leading American business schools (Amdam 1996, 4). In contrast to the German perspective on commercial and technical management, the American system of industrial relations draws a sharp distinction.
between managers and workers, which is also reflected in a separation of manual and management functions in training and education.

The growing research orientation seems to have increased the Finns' interest in the United States: a study on the origins of textbooks at the Stockholm School of Economics 1910–1997 shows that the share of US-originated literature has increased from zero to 45%, while the share of European-originated literature has decreased from a full 100% to 55% (Engwall 2004). In addition, management studies were introduced to multidisciplinary universities during the 1960s in Finland, in the Universities of Vaasa and Tampere, and later in a number of other universities. The American-style MBA teaching started in Finland at the Helsinki School of Economics in 1983, and in 2007 thirteen institutions offered MBA and EMBA programmes (Ministry of Education 2007, 27).

Other national arrangements for management education also exist. In Great Britain, up until the 1940s, the majority of manufacturing companies made the distinction between 'gentlemen' (owning family) and 'players' (salaried managers). The 'players' usually received only an on-the-job training, and need for professional training in business was not recognized. (Wilson 1996, 134.) The attitude of academic institutions towards vocational education was one of antipathy; the British educational system was based on a gentlemanly ideal with a preference for liberal arts (Locke 1989; Wilson 1996). By the 1960s management education became more widely accepted as a result of the general realization that Britain was falling behind as an industrial and commercial power, which led to the establishment of the first business schools (Wilson 1996; Brown et al. 1996). In the 1980s, business schools were established also within polytechnics that were created in the 1960s. Polytechnics gained university status in 1992 (Brown et al 1996). Currently in Britain, the MBA is a master's level degree that can be taken either as a full time or part-time student, and students are required to have a first degree (not necessarily in business) and/or several years' experience of being a manager. Business schools are typically departments in universities (Brown et al. 1996, 150-151).
The general attitude of Finnish universities towards vocational education has before the 1970s been rather sceptical; it was considered that universities should enjoy a high level of autonomy and respect for academic standards and traditions, and it was not appropriate to decide on the distribution of duties between universities on the basis of current vocational needs on the state level (Lampinen 2003, 26–27). The Finnish business schools and technical universities have been more open to vocational education: for example the Helsinki School of Economics was founded because it was considered that, in a small and rather isolated country; Finland's young business community did not have enough experience-based knowledge resources (Michelsen 2001b, 23).

In developing and transitioning countries, the management education system often closely follows the American model, but the dynamics of localization are still present. In transitioning countries, after an almost total absence of management education, many swing to the opposite extreme by establishing too many programmes too quickly with the consequence that issues of quality get pushed to the background (Svetlicic and Cibron 1996, 112; see also Gupta et al. 2005). In Finland, in contrast for example to the Slovenian (Svetlicic and Cibron 1996) and Indian (Gupta et al. 2005) cases, MBA programmes formally constitute further education and the degrees they award are not academic. In Finland, they have not replaced basic master's degrees in management in degrees awarded or in the number of applicants, although they have managed to increase their popularity year by year (Laitila 2002).

Various systems of management education have similarities to management education in Finland, but the formation of the systems is always a unique product of local conditions. After World War II, the international influences have originated mainly in the United States and have been adopted by its allies (Üsdiken 2007). Recently, as Üsdiken (2007, 90) points out, this center-periphery division is currently being transformed into a continuum of center, semi-periphery, and periphery. A number of European countries, most notably the UK, have moved towards the semi-periphery in terms of their international impact on management education and research (ibid). Next,
the methodology and the schools analysed in this study are presented together with a short introduction to key developments in the legislation of higher education in Finland.

**Methodology**

The data consists of curricula and study guides obtained from eight Finnish business schools that provide academic management education (see Table 1). Curricula and study guides contain general guidelines and requirements regarding degrees and studying. Study guides also contain course descriptions and general descriptions of the purpose and goals of each main subject. Both, the main subject descriptions and course descriptions have been analysed for this study.

Table 2 summarizes the criteria by which all individual course descriptions and main subject descriptions were classified. As we were interested in possible differences between the German and American model, we gathered and analysed data from schools functioning in either one of the systems. Hence data includes material from five business schools and universities of technology that function according to the German model, and three schools functioning within the universities (i.e. the American model). The particular management schools were selected according to their age, since the oldest schools provided adequate longitudinal information.

*Table 1 here*

The role of curricula and study guides in Finnish academic management education has varied during the selected time period. The main reasons for this are two major legislative changes. From 1923 to the end of the 1970s, Finnish academic syllabuses usually contained the main information on the courses, for instance, the names and places. The curricula usually stated the names of different courses including their study credits and reading lists. The legislation on Finnish universities was reformed during the late 1970s. The new legislation required universities to list and describe the education they provide in study guides. Along with administrative information, the
study guides had to include the names, aims and main content of each specific course. (Nurmi 1984, 170-173, Karjalainen 2003.) The professors were almost the sole contributor to the process of deciding the content of syllabuses and courses until the late 1970s (Nurmi 1984). Nowadays, the processes by which the curricula are decided vary to some degree across Finnish universities (Luoto and Lappalainen 2006). Despite the administrative changes in the Finnish university system during the studied time period, even nowadays, professors and members of university staff have the strongest impact on the content of curricula and study guides (Luoto and Lappalainen 2006, 44).

The study guides used in this analysis have been gathered from the target schools' own archives between March and May 2007 and from the National Collection of the National Library of Finland in August 2007. The National Collection features all publications printed in Finland since 1810 and has thus yielded even study guides that have disappeared from the schools' own archives. There is no reason to assume that the copies in the National Collection collection would differ from those in the schools’ own archives as study guides generally constitute printed materials subject to ISBN coding. As with other publications with ISBN coding, the printed study guides can thus be identified with certainty and different versions cannot be found under the same number. Because a preliminary test analysis showed that study guides changed relatively little from year to year with the exception of certain major overhauls due to legislative changes the sampling interval was set at three years. The first sampling year was 1917, the year of Finland's independence, followed by every third year (1920, 1923, 1926 etc) up until 2007. It soon turned out that the study guides issued before 1960 did not contain sufficient information to be used in our analyses, and therefore the studied time period was narrowed to 1960–2007.

Up to the late seventies and early eighties, the study guides of business schools tended to contain mainly reading lists sorted on the one hand by main subject and on the other hand by degree. Descriptions of the main subjects, study units, and courses including course literature and lecture descriptions have been included in study guides since the 1970s as a result of the following developments in the Finnish university system. During the time period 1960–1970, all private
universities in Finland were nationalized. This development was part of a larger reform that took place throughout the seventies with the overall objective of constructing a Nordic welfare state (Michelsen 2001, 266). In addition, the study time and amount of studies required for different level university degrees were systematized across disciplines (Michelsen 2001, 266). In the 1970s, the degrees awarded in the economic sciences were converted into masters' degrees and referred to as the 'new' degree. These changes also brought systematization to study guides thus rendering the study guides of different schools similar and more comparable in structure after 1980.

At the same time, universities renounced the use of syllabi as the only units of study. The problem with the syllabi was that their scopes were difficult to measure and compare. At the beginning of the 1980s the universities started to measure their degrees in smaller thematic courses, the scopes of which were measured in credit units (Nurmi 1984). A credit unit approximates 40 hours of study, and a master's degree consists of 160 credit units. The goal of these reforms was to shorten the period of studying and define the professional and scientific goals of university degrees more accurately (Lampinen 2003, 27-28). By 1980, all the schools analysed in our study had switched to the credit unit system. With the Bologna process and the resulting new statute, the Finnish universities shifted from credit units to study points in 2004. One study point approximates 27 hours of study and a master's degree consists of 300 study points. The new statute also made it obligatory to obtain a bachelor's degree prior to master's.

After an initial reading of the data gathered, the research material on the subject of organization and management was analysed in three ways: 1) the analysis of all the reading lists in curricula and study guides, 2) the analyses of subject descriptions in the study guides and 3) the analysis of individual course descriptions in the study guides.

First, the reading lists of all of the curricula and study guides were examined. Mentions of any of the 97 books which Guillén (1994, 17–19) and Barley and Kunda (1992) define as falling under each of the selected paradigms were systematically scanned for and counted from the reading lists. In addition to the literature defined by Guillén (1994) and Barley and Kunda (1992), books
with titles that contain the names of paradigms, their principal ideologies, or their principal techniques (cf. Table 2) were also included in the analysis. It was soon discovered that the literature presented in the reading lists also included many books in Finnish, Swedish, and German. These were also included in the analysis. A ‘Top 5’ list of the most used books was drawn up for each decade from the 1960s onwards. Formulation of such lists would not have been possible for decades preceding the 1960s, as there were not enough books earning several mentions. There are some limitations involved in using set books as research material. Lecturers may assign additional reading or replace one book with another. Also, as Lars Engwall points out, many courses also include lectures, the content of which may or may not be related to the books assigned (2000, 11). Some study guides contain a notification that additions or deletions are possible in the course literature during the academic year (e.g. University of Tampere 1970, 119).

Second, thematic analysis was conducted on the main subject descriptions in the study guides from 1980 to 2004 with a three-year interval. The sample years were thus 1980, 1983, 1986, 1989, 1992, 1995, 1998, 2001, and 2004. The analysis was conducted in order to determine how the existence and objectives of the subject of management has been described in the study guides. All of the descriptions were analysed sentence by sentence. The sentences were compared to the paradigm features summarized in Table 2. This analysis frame has been used previously for similar purposes with good results (Seeck and Eräkivi 2007, Seeck and Kuokkanen 2007). In majority of the cases, each sentence in the descriptions was coded as belonging either to one of the researched paradigms or to the category 'other.' A few sentences were classified as belonging to two or more paradigms. The analysis of subject descriptions thus followed David Silverman's (2006) definition of the content analysis process. In this process, the researcher establishes a set of categories and counts the number of instances that fall into each category. The main requirement for successful analysis is that the categories are sufficiently precise to enable different coders to gain similar results with the same material (ibid, 159). We ensured this by using two persons to classify the data.
The first person performed the initial coding and the second person went over the classification made by the first person. The views of the coders differed only in seven cases.

Thirdly and finally, after the analysis of the subject descriptions, a similar thematic analysis was conducted on individual course descriptions. The time period for this analysis was 1980–2007 with a three-year interval. The sample years were 1980, 1983, 1986, 1989, 1992, 1995, 1998, 2001, 2004, and 2007. Each course was classified under one or more of the five paradigms or to category 'other.' The courses that included traits of more than one paradigm were counted as representing all these paradigms. The number of courses per paradigm per year was counted. After this, tables were drawn up describing how different paradigms were used in teaching in different sample years. Finally, the mutual ratios of the different paradigms as used in teaching were also measured in credit units, because in the Finnish system different courses vary between one to five credit units in magnitude.

*Table 2 here*

**Results and Discussion**

In this section, we will first provide short overviews on the findings from analyses. After this, we will elaborate these findings in more detail for each paradigm.

*Literature Used in Management Education in Finland 1960–2007*

Literature of the structural analysis paradigm dominates the top five lists until the eighties, after which it was replaced by the organizational culture paradigm and the emergence of corporate strategy literature. The corporate strategy literature does not belong to any of the paradigms defined by Guillén (1994) or Barley and Kunda (1992), but they were included in this analysis as they constituted a significant share of the category 'other' and thus the books used by the students in the 1980s and again after the year 2000. The 1990s saw the emergence of the organizational culture
literature, with the exception of Edgar Schein's *Organizational Psychology* as the most popular title in the 1970s. From the 1990s onwards, management education has a strong entrepreneurial subfield. Bachelor's and master's degree programs for business administration students in entrepreneurship were started simultaneously with a surge of innovation and creativity-oriented literature.

Table 3 here

**Management Paradigms used in Management Education, 1980–2007**

With view to *description of the main subject*, we also focused on approaches outside of the five paradigms targeted in the study. These were coded in the category 'other.' The most important approaches categorized as 'other' constitute human resource management and strategic management. Through an analysis of the descriptions, we found that until the end of the 1990s, the structural analysis paradigm was the most commonly applied paradigm when describing the contents and objectives of the main subjects associated with management. With 20 mentions per year between 1980 and 1992, its appearance is in a scale of its own compared to other paradigms receiving a maximum of 15 mentions. The popularity of the structural analysis paradigm began to fade after 1992, but shows a slight rise towards the end of the sample period. With only individual mentions, scientific management remains on the background throughout the sample period. The peak years for people-oriented approaches to management, the human relations school and human resource management, occurred at the beginning and the end of the sample period in 1980 (human resource management) and in 2004 (human relations school). The rise of innovation paradigm begins in 1992 and peaks at the end of the sample period in 2004. The paradigm of organizational culture begins its rise in the same year as innovation, but its scale remains around ten mentions a year with the exception of the year 2001.

Figure 1 here
Yet, comparison between the German-style business schools and technical universities and the university departments based on the American model reveals significant differences in the results on the content of courses. In addition to the structural paradigm, the schools that had adopted the German model also stressed the ideas of the human relations school. The institutes functioning according to the American model stressed almost exclusively the learnings from structural theories. One explanation for this might be the teaching of work psychology, which has enjoyed a firm position in the Helsinki University of Technology ever since the 1920s. The difference between the German and the American model, however, remains intact even when comparing instruction in separate business schools and university departments.

*An analysis of courses and credit units* was conducted to explore the extent to which the different paradigms have been taught at different times measured in credit units and number of courses. The results gained indicated no significant differences in the number of courses or credit units. This is why the results are examined here mainly in terms of the number of courses. After the universities' shift to course-based teaching, the students have had a great measure of freedom to select courses that appeal to them and not all students take the exact same courses. The students are not meant to pass all the courses offered in the curriculum. Yet, the curriculum as a whole provides a relatively good idea of what paradigms are considered useful.

*Figure 2 here*

Experiencing figures 1 and 2, it is clear that certain paradigms are, in fact, each other's antitheses: when one goes up, the other goes down. Such opposing pairs constitute structural analysis and strategic management and the human relations school and human resource management, and to some extent also structural analysis and organizational culture, although the share of organizational culture in teaching was notably smaller than that of structural analysis. In
addition to the opposing pairs, the data also yielded a pair of curves with similar development: strategic management and innovation theories.

*Figure 3 here*

Individual schools display significant differences in emphasis regarding the different paradigms at different periods. The differences between schools were vast for instance with human resource management. However, the pattern of adoption between different schools for structural analysis as well as for organization culture, innovation theories, and strategic management appears to be more similar, even though the scale of teaching may differ between schools. With view to the five paradigms initially studied, the amount of teaching in the American-style schools was smaller compared to the German-style schools measured in the number of courses. On the whole, the American-style schools appear smaller than the German-style schools measured in the amount of teaching offered. This is why we have chosen to present the number of courses in German and American-style schools in separate graphs each in their own scale.

Significant differences were found between German-style (Figure 4) and American-style institutions (Figure 5) in the adoption patterns of different paradigms. The figures illustrate that German-style schools taught different paradigms with a relatively broad spectrum, and, for example, the human relations school and human resource management maintained an important position throughout the sample period. The structural analysis paradigm, however, quickly lost popularity after 1986. The use of the structural analysis paradigm did not diminish equally rapidly in the American-style schools. Towards the end of the sample period, these schools highlight human resource management in addition to strategic management whereas German-style business and technical schools stress strategic management and innovation theories.

*Figure 4 here*
Scientific Management is Lacking from Finnish Management Education

The literature of scientific management cannot be found in management teaching at Finnish universities in the sampling years of the period under review, or before it, since 1917. Very few influences from scientific management can be detected in the teaching of management at business schools, as is evident from analyses of the main subject descriptions and courses. The only exception is a special course in administration given at the Faculty of Economics and Administration at the University of Tampere from 1970 to 1988 under the title ‘Rationalization’.

According to Michelsen (1999), the Helsinki University of Technology planned to establish a psycho-technical laboratory in the 1920s, but the project was never realized. Taylorism and Fordism were slow to reach Finland, and initially they were promoted through education campaigns in professional journals and by other institutions. Michelsen (ibid., 291) reports that the Helsinki University of Technology had only one teacher of rationalization, Professor Bernhard Wuolle; in the 1930s, he gained two assistants, and rationalization made inroads into other areas of study too. This parallels the trend in Germany, where the scientific management paradigm first appeared in universities of technology (Pieper 1994, 118). In universities of technology, the appearance of scientific management paradigm during the period of analysis is limited to mentions of rationalization, time-motion studies, and job analysis and design.

Taylorism and rationalization were propounded mainly by other bodies: private colleges such as the Work Efficiency Association, later renamed RASTOR, and the Industry Management College, later renamed JTO School of Management (Tuomisto 1986; Kettunen 2001), and professional journals in various fields (Michelsen 1999, 288). Also, there was no widespread demand in Finland for the techniques of Taylorism, since Finnish companies were typically small and supervisors were recruited from among existing staff members. The general approach did not
change until the 1930s, when Finland was obliged to reform its entire national economy to secure competitiveness and the urgency of rationalization prompted the trade union movement, which had taken a skeptical view of Taylorism at the turn of the century, to revise its views (Michelsen 1999, 289). However, the provision of rationalization training on a wider scale was entrusted to the Rationalization Promotion Association and later, in 1943, to the Industrial Work Efficiency Association (Michelsen 2001, 119, see also Kettunen 2001).

**Human Relations School - Shifting Adoption in Finnish Management Education**

The adoption of the human relations school in teaching varies. Reading lists show that the psychological and social aspects of work, motivation and personnel management were addressed throughout the 1960s for example at the Turku School of Economics, and it was not until 1989 that literature on the motivation of individuals disappeared altogether from the Turku School of Economics. Likewise, in the University of Tampere, the principal works of the human relations school (such as Likert’s and McGregor’s works) were used between 1968 and 1980, but, as is evident from the top 5 book list (see Table 3), these titles were not as popular as those belonging to the structural analysis paradigm. Interestingly, there is a sharp difference in the adoption of the human relations paradigm in the main subject descriptions compared to its adoption in actual teaching. Starting from 1995, the paradigm experiences a significant upswing in the descriptions of the main subject, but the number of courses stays at approximately the same level throughout the period of analysis.

Seeck and Kuokkanen (2008) found in their study on the adoption of human relations in Finnish scientific and general journals 1921–2006 that the discussion of the human relations paradigm in Finnish journals has been somewhat insignificant in comparison to the broad international attention it received. In addition, none of the classic books of the human relations paradigm have been translated into Finnish to date. However, the impact of the paradigm in Finland
was significantly greater in other respects, such as the institutionalization of occupational psychology to Finnish working life. The interest in occupational psychology has also been a prominent feature of Finnish higher education in technology, mainly in the Helsinki University of Technology that established a Laboratory of Occupational Psychology in 1946 (Liesto 1988). The study guide for the academic year 1983–1984 provides an example of a typical occupational psychology course:

Name: Advanced Course in Occupational Psychology

Objective: The objective of the advanced course is to provide far-reaching fundamentals in the application of psychological knowledge to work life, based on the information provided in the basic course. The course is meant for students interested in work psychology or in fields of study where viewpoints from the behavioral sciences are important.

[Content:] --- Questions of motivation on the basis of a dynamic system of human needs. Factors affecting work contribution. Effects of work environment on occupational health, work efficiency, and satisfaction. Working time arrangements: length of working day, breaks, shift work.---

Human resources management on the other hand emerged as a strong element in the teaching of German-style schools in the 1980s, and the matters discussed under this topic are very similar to those contemplated by the theoreticians of the human relations school, such as turnover and motivation. Earlier, Kari Lilja (1987) has found that the formation of the human resources management in Finnish business took place during the turn of the 1950s and 1960s, and that the 1970s were the decade of human resource management (Lilja 1987, 186–188). In our analyses, however, the number of courses in human resource management has slightly increased during the period of analysis 1980–2007.
The Brisk Adoption of Structural Analysis in Finnish Management Education

Structural analysis was the dominant paradigm up until the early 1990s. Its rise is systematic and occurred simultaneously in all the analysed schools. The tendency is clearly visible in the course descriptions and reading lists. For example, Etzioni’s *Modern Organizations* was listed in the entrance exam requirements for the Administrative Sciences Program at the University of Tampere in 1970–1973. The reading lists contain both principal works of structural analysis translated from the original English and Finnish literature falling within the structural analysis paradigm. However, the rise of structural analysis remains clear even when registering only the original works listed by Guillén (1994, 18-19).

Course: The Standing and Functions of Management
Objective: To analyze the standing and functions of management from a corporate control point of view using theory, models of analyses and case examples. Special attention will be paid to directing and managing of corporate business operations and development, and adapting organizational structures to different environments. (University of Tampere Study Guide for 1980-1981, 63)

Even though, for example, in the academic year of 1974-1975 the Helsinki University of Technology was teaching rationalization, work organization techniques, occupational psychology, and ergonomics, it also provided teaching in the new subjects of corporate organization and investment planning. Guillén (1994, 15) noted that the structural analysis paradigm involves above all the broadening of the viewpoint from a single job to the entire organization in its operating environment, and as such is not mutually exclusive with the ideas of the scientific management and human relations school paradigms which preceded it. The strong and clear emergence of structural analysis follows the trend outlined by Locke (1994) concerning the spreading of a more general 'new paradigm' in management training from the United States to Europe. In fact, Huhtala and Laakso (2006) see the structural analysis paradigm as an essential part of this new paradigm. Thus, it is not surprising that it was emphasized more in American-style schools than in German-style schools that include technical schools. The emergence of the 'new paradigm' in Finland seems to
have included both the content of the education and the form of its administrative settings, like in the United States, where the MBA degree was presented as an antecedent for managerial career at the same time that the structural analysis paradigm was formed (Barley and Kunda 1992, 377). In all, the structural analysis paradigm seems to have been very influential in Finnish management education. This influence has not, however, transferred to articles published in Finnish scientific journals (Huhtala and Laakso 2006).

Observation of the adoption patterns of paradigms reveals some paradigms as each others’ antitheses. The antithesis for the structural analysis paradigm is strategic management. One explanation could be that, rather than functioning as a conceptual antithesis, the strategic management approach would form a continuum and further elaboration of the structural analysis paradigm. Strategy was also discussed by some writers of the structural analysis paradigm, such as Alfred Chandler, who in *Strategy and Structure* (1962) considered organizational structure a product of strategy in that structural changes are made in order to meet the needs arising from the strategies of further expansion. Also, Peter Drucker’s (1954) concept of management by objectives brought up the procedure of setting objectives and monitoring the progress made towards them on the organization level. Rather than the strategy process, however, the structural analysis paradigm elaborated the match between organizational structure and the environment. Subsequent authors on strategy have focused more on the tools for the strategy process itself, for example different portfolio analyses (e.g. Boston Consulting Group's Growth-share matrix), defining core competencies (Hamel and Prahalad 1990), or typologies of strategies for different situations (e.g. Porter 1980).

Organizational Culture Theories were not Popular in Finnish Management Education

Although classic books of the organizational culture paradigm were quickly translated into Finnish, typically some years after the publication of the original works (see Huhtala and Laakso 2007, 16), these books were not broadly used in Finnish management education. Edgar Schein's book
Organizational Psychology was a textbook at the Turku School of Economics as early as in 1971, but on the whole, other books on organizational culture did not appear on the reading lists of business schools until the early and mid-1980s. The most frequently used book was Organizational Culture and Leadership, also by Schein (1987). When looking at the number of courses, organizational culture experienced a rise from 1983 to 1998, after which the paradigm has began to decline but has yet to disappear altogether. In a book celebrating the 20th anniversary of the Faculty of Economics and Administration at the University of Tampere, reference is made to two points of focus in administration research: the structural approach on the one hand and a cultural, member-oriented approach on the other, suggesting that these two paradigms existed side by side (Mäkinen and Näsi 1985).

In the course descriptions, organizational culture was taught in special selective courses, excluding, for example, the introductory courses on management, which are obligatory for everyone. In universities of technology, organizational culture did not form the core of any course. Typically, it was taught in courses that also included other 'softer' approaches to management. The organizational culture paradigm has also been discussed in Finnish scientific journals from the 1980s onwards. The focus areas of this discussion are similar to those of teaching: knowledge-intensive work, team work, and changes in requirements of work (Huhtala and Laakso 2007, 28). A typical example is the course on values and culture in the Helsinki School of Economics:

Name: Values and culture in managerial work

Objectives: The goal of this course is to advance the skills needed in organizational change and development. Questions arising from organizational culture are emphasized.

Content: 1. Diagnosis and research on organizational culture. 2. The emergence and change of culture in work communities. 3. The impact of national corporate cultures. 4. Organizational commitment (Helsinki School of Economics study guide 1995-1996, 189.)
Surge of the Innovation Theories in Finnish Management Education in the 1990s

Innovation theories and mentions of innovation in general have featured in management teaching throughout the period of analysis 1980–2007. However, the real surge of innovation in management teaching did not occur until the early 1990s. In addition to using the term, innovation, the creation of new business was trumpeted during and after the recession of Finnish economy in the beginning of 1990s. This is clear from a vast number of new courses on managing a small business, setting up a business, developing business ideas, and entrepreneur personalities. The concept of innovation is linked to technical innovations even at the Helsinki School of Economics. At the Helsinki University of Technology and the Lappeenranta University of Technology, innovation theories are inextricably linked to technology and production.

From Idea to Product: Basics of Innovation Management, 3 credits
The purpose of the course is to encourage students with basic technological competence or a product idea to innovation and critical thinking and to understand the importance and challenges of customer-oriented product development. Product development is discussed from the point of view of the owner of the idea, the competitiveness of the business and production.
Content: The field of industrial innovation. Setting up a new technology company. Operational management of a product development project. (Lappeenranta University of Technology study guide 2004-2005, 163)

Also, innovation combined with entrepreneurship seems to be the only clearly new theme in the study guides to have appeared in the range of Finnish management education since the introduction of strategic management, international management and personnel management in the study guides.

Conclusions
Analysis of study guides proved to be a fruitful way of examining the introduction of various management paradigms into the management education. Interestingly, we observed notable differences between the management paradigms used in the descriptions of the subject of management in curricula and study guides and the management paradigms actually used in teaching. Thus, the way in which management is communicated and portrayed to students did not
match with what the institutions actually taught as management. It seems that the institutions are themselves defining management in the ways which do not reflect the way it materializes in their own teaching practice.

One reason for this could be that the curricular choices that academics make are influenced by the institutional frameworks they work in (Dill 1999, 57). Although the main subject descriptions are not updated annually, the curriculum is, and several factors influence the yearly realization of the definition of management expressed in the main subject description. These factors include the number and areas of specialization of the teaching staff, material resources, systems of internal and external evaluation, and recent or upcoming reforms. (Ibid., 57).

Locke (1988) and Engwall (2007) make a distinction between the goals of the American and German traditions in management education. According to the American model, it is education that produces managers. This is reflected in the teaching methodology – extensive use of case studies is characteristic of the American style of teaching. Structural analysis, together with the use of case study methods provided a set of practical tools for managing. Yet, the results on the differences between German-style and American-style schools are somewhat surprising, considering the fact that Finnish institutions in this field are publicly funded and overseen by the Ministry of Education. Then again, it has been previously argued that role of the national institutions as shaping force of the content of management education per se is diminishing (Amdam et al. 2003).

This leads one to consider other explanations for the differences between schools than their national or international models. One explanation could be the impact of professors' areas of specialization. A study by Kari Lilja (2001) on the history of the subject of organization and management in Finland, suggests that the development of Finnish management education was closely linked to the actions of a few select professors. For example, in the case of organizational psychology, Professor Ohto Oksala was an important developer of the field in both, the Helsinki University of Technology and the Finnish Institute of Occupational Health (Kettunen 1994, 362). Further research on him and other key developers and disseminators of management thought in
Finland could prove fruitful. As Birkinshaw, Hamel and Mol (2008, 825) recently put forth, in addition the more dominant institutional and fashion perspectives to management innovation and dissemination, there is a need for the agency-perspective.
<table>
<thead>
<tr>
<th>Established</th>
<th>Name of subject</th>
<th>Number of study guides analysed</th>
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<tbody>
<tr>
<td><strong>German-style self-standing business and technical schools</strong></td>
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<tr>
<td>Swedish School of Economics</td>
<td>1909</td>
<td>not recorded, difficult to obtain</td>
</tr>
<tr>
<td>Helsinki University of Technology</td>
<td>1908</td>
<td>1917-1946 Industrial Economics 1947-1976 Industrial Economics, Supervision of Work, and Industrial Psychology 1977- Industrial Engineering and Management</td>
</tr>
<tr>
<td>Lappeenranta University of Technology</td>
<td>1969</td>
<td>1975- Industrial Engineering and Management</td>
</tr>
<tr>
<td><strong>American-style university department business schools</strong></td>
<td></td>
<td></td>
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<tr>
<td>Abo Akademi University business school</td>
<td>1927</td>
<td>not recorded, difficult to obtain</td>
</tr>
</tbody>
</table>

Table 1: Schools selected for analysis, names of the subject under which management education is provided, and the number of study guides used for different analyses
<table>
<thead>
<tr>
<th>Scientific management</th>
<th>Human relations</th>
<th>Structural analysis</th>
<th>Organizational culture</th>
<th>Innovation theories</th>
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<tbody>
<tr>
<td><strong>Ideological features</strong></td>
<td><strong>Perceived problem</strong></td>
<td><strong>Perceived problem</strong></td>
<td><strong>Perceived problem</strong></td>
<td><strong>Perceived problem</strong></td>
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<tr>
<td>Soldiering, waste, disorder, management arbitrariness and greed, lack of control.</td>
<td>Monotony of work, conflict, unrest, absenteeism, turnover, low morale.</td>
<td>Organizational structure -technology -environment mismatch.</td>
<td>Low productivity, low commitment, management of professional employees.</td>
<td>Need for constantly improving and coming up with new products and solutions to the market in order for the organization to stay competitive.</td>
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<tr>
<td>General form of solution:</td>
<td>General form of solution:</td>
<td>General form of solution:</td>
<td>General form of solution:</td>
<td>general form of solution:</td>
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<tr>
<td>Avoidable: more surplus benefits both workers and management.</td>
<td>Avoidable: co-operation is in human nature. The organization as a social system.</td>
<td>Is structurally-shaped, and not necessarily bad, generates change.</td>
<td>Conflict illustrates clash of organizational and individual values.</td>
<td>Is structurally-shaped, and not necessarily bad, generates change.</td>
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<tr>
<td>View of workers and way of dealing with them:</td>
<td>View of workers, and way of dealing with them:</td>
<td>View of workers, and way of dealing with them:</td>
<td>View of workers, and way of dealing with them:</td>
<td>View of workers, and way of dealing with them:</td>
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<tr>
<td>Driven by self-interest; need to be told what to do, and supervised.</td>
<td>Driven by psychosocial norms, needs, emotions; need to be lead.</td>
<td>Driven by professional aims and professionalism, with aims to improve expertise or managerial skills for example through management education. Structural position impacts the behaviour of both, the employees and the managers. Need to be treated as rational actors, as professionals.</td>
<td>Driven by a need for belonging. Workers have other objectives besides pay, for example a need for commitment. Workers can be led by altering their values and attitudes to match the aims of the organization (in organization has a culture, i.e. cultural engineering, approach).</td>
<td>Driven by a need for renewing oneself continuously. Workers have other objectives in addition to pay, for example a need for using their creative potential and knowledge. Particularly in knowledge-intensive organizations, workers are seen as the most valuable asset of an organization. Though they are rather easily replaceable and providing long career is not often an organizations aims, rather it is to constantly renew the organization, including it employees and hence quickly adapt to the needs of the market.</td>
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<tr>
<th>Technical features</th>
<th>Fascination with:</th>
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<tr>
<td>Machinery, technology, factory aesthetic, mass production.</td>
<td>Communal life, interaction in social groups</td>
<td>Ubiquity and complexity of organizations in modern society.</td>
<td>Community, shared values, habits, practices, building reality through social interaction.</td>
<td>Novelty, change and creativity, innovativeness, continuous improvement and flexibility</td>
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<tr>
<td>Methodology:</td>
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<td>Time and motion study, job analysis, piecework.</td>
<td>Surveys, interviews, discussion groups, job rotation.</td>
<td>Comparative study of cases, typologies of organizations.</td>
<td>Expressing and defining organizational values (vision and mission to which everyone commits), target setting and personal commitment to them, harmony of values, assumptions, and working practices.</td>
<td>With innovative groups, intensive methods such as brainstorming, role-plays, shock experiences and visits to new environments. More generally, open-office spaces are common as is securing sufficient funding of research and development. Customer-driven, open to continuous improvement, and ready to reform ways of operating.</td>
</tr>
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Table 2: Ideological and technical content of the management paradigms studied (Guillén 1994, 10–11; Huhtala and Laakso 2006, 2007; Seeck and Eräkivi 2007, Seeck 2008).
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<td>Rubenowitz: Organizational Psychology</td>
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<td>Cyert and March: A Behavioral Theory of the Firm</td>
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<td>Drucker: Practice of Management</td>
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<td>Etzioni: Comparative Analysis of Complex Organizations</td>
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<td>Etzioni: Modern Organizations</td>
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<td>Kast and Rosenzweig: Contingency Views of Organisation and Management</td>
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<td>Kast and Rosenzweig: Organization and Management: A Systems Approach</td>
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<td>Kast and Rosenzweig: Organizations and Management</td>
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<td>March and Simon: Organizations</td>
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<tr>
<td>Selznick: Leadership in Administration</td>
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<td>Simon: Administrative Behavior</td>
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<td>Thompson: Organizations in Action</td>
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<td>Woodward: Industrial Organizations</td>
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<tr>
<td>Alvesson and Berg: Företagskultur och Organisationssymbolism [Corporate Culture and Organizational Symbolism]</td>
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<td>Hofstede: Cultures and Organizations</td>
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<td>Morgan: Images of Organization</td>
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<td>Schein: Organizational Culture and Leadership</td>
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<td>Schein: Organizational Psychology</td>
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<td>Schein: Process Consultation Revisited</td>
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<tr>
<td>Normann: Luova Yritysjohto [Creative Business Administration]]</td>
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<tr>
<td>Drucker: Innovation and Entrepreneurship</td>
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<td>McKinsey inc.: Ideasta kasvuyritykseksi [From Ideas to a Growing Firm - Venture cup manual]</td>
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<td>Sveiby: The New Organizational Wealth</td>
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<td>Ansoff: Strategic Management</td>
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<td>Johnson and Scholes: Exploring Corporate Strategy</td>
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<tr>
<td>Minzberg et al: Strategy Safari</td>
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<tr>
<td>Porter: Competitive Strategy</td>
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<th>Other</th>
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<td>French and Bell: Organizational development</td>
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Table 3: The most popular books from 1960 to 2007, per decade and paradigm.
Figure 1 Paradigms used in main subject descriptions 1980-2004, all schools
Figure 2 Number of courses per paradigm 1980-2007, all schools
Figure 3 Number of credit units per paradigm 1980-2007, all schools
Figure 4 Number of courses, per paradigm 1980-2007, German-style business and technical schools
Figure 5 Number of courses per paradigm 1980-2007, American-style business schools
References


