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ABSTRACT

This study examined the characteristics of networks of Dutch teacher training colleges and school-counseling services for inservice teacher training. The study involved a 1992 nationwide survey of inservice training counselors at 42 teacher training colleges and 66 school-counseling services. The survey asked about characteristics of the participants' networks. The results highlighted four types of networks. Researchers examined the networks in detail via a multiple-case study with four network cases. Using several interviews for each case, researchers asked about cooperation regarding inservice training in general and about an educational management course in particular. They also discussed the structure of the cooperation. Certain teachers completed a separate questionnaire about cooperation between teacher-training colleges and school-counseling services during the educational management course and during other courses and the perceived effects of cooperation on the quality and utility of the inservice training. Results indicated that exchange networks (which exchanged professional expertise and resources) were most common, followed by coalitions (which joined forces) and circuits (which attained joint goals). The study showed that the nature of the networks changed over time. The vagueness of government policy about future networking encouraged the respective organizations to cling to their individual autonomy. (Contains 30 references.) (SM)

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INTERORGANISATIONAL NETWORKS IN THE DOMAIN OF IN-SERVICE TEACHER TRAINING

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Interorganisational networks in the domain of in-service teacher training

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1. Abstract

In this study, the characteristics of the networks involving Dutch teacher-training colleges (PABOs) and school-counselling services (SBDs) in the domain of in-service teacher training are examined. Networks can be described as clusters of organisations which enable interorganisational interaction and cooperation. In order to identify the characteristics of the networks involving the teacher-training colleges and school-counselling services, use was made of a survey and a multiple-case study. The variables used to characterise the networks were derived from the literature on interorganisational relations and networks. On the basis of the data from the survey, it appears that exchange networks (directed at the exchange of professional expertise and resources) are most common, followed by coalitions (directed at the combining of joint forces) and circuits (directed at the attainment of a joint goal). On the basis of the data from the multiple-case study, it appears that the nature of these networks can shift over time. The vagueness of government policy with regard to the future cooperation between the teacher-training colleges and school-counselling services has in fact encouraged the respective organisations to cling to their individual autonomy.

2. Introduction

Continuing education for teachers or so-called staff development is generally seen as an important instrument for maintaining the quality of education. As a result of rapid social and technological changes, it is important that teachers maintain or improve the competence which they have acquired through a process of life-long learning.

The task of staff development has traditionally been allocated to teacher-training colleges in The Netherlands. These colleges are responsible for not only the initial or pre-service training of teachers but also for the continuing or in-service training of teachers. Most of the in-service activities take the form of courses or workshops. The topics for in-service training may be determined by the local schools themselves, by the teacher-training colleges themselves and by the government as a result of new legislation. With respect to primary-school teaching in The Netherlands, the teacher-training colleges (PABOs) have been responsible for staff development. With the establishment of the school-counselling services (SBDs) in the sixties, the largely self-evident link between staff development and the teacher-training colleges was broken. These school-counselling services are institutions working at the local and regional levels to provide school guidance, support and development activities; advice; and information for primary schools and special schools. The guidance, support or advice provided is largely job-related and directed at the school as a whole or at groups of teachers within a school. With the recent emphasis on school-based in-service training or school-based staff development, the boundaries between the teacher-training colleges and school-counselling services have faded and exact responsibility for the in-service training of teachers has become unclear.

Starting in 1975, the Dutch government has repeatedly undertaken measures to promote greater cooperation between the two aforementioned organisations. In order to receive government funding for in-service training, the two organisations are required to construct a plan of cooperation. At the end of the eighties, the government developed plans for the establishment of so called Educational Faculties in which the teacher-training colleges and school-counselling services can realise appropriate forms of cooperation on their own. In the course of the nineties, these plans were partially abolished which suggests that the government does not know which forms of cooperation are desired. As a result of the current emphasis of government policy on deregulation, economising and market-oriented operation, in-service training money is no longer allocated to the teacher-training colleges and school-counselling services but directly to schools (starting in 1997). The schools can then purchase the required services on the in-service training and support market. The hope is that the quality of the in-service training product will improve as a result; schools presumably spend their money on the best available in-service training materials. In addition, the school-counselling services are expected to obtain at least part if not all of their financing by selling their products and services on this free market. This development means that the teacher-training colleges and school-counselling services are directed at the same

in-service training market and may compete with each other. Such competition can nevertheless be prevented when the two organisations decide to cooperate and thereby ensure the survival of their own organisation.

On the basis of the scarce amount of research available, it appears that the cooperation between the teacher-training colleges and school-counselling services has proceeded with difficulty. Major barriers are competition for the favour of schools, differences in the cultures associated with the two organisations and differences in the manner of working and professionalism of the two organisations stemming from the different tasks of the teacher-training colleges and school-counselling services (Van Gennip, 1990; Association of Institutes for Professional Education (*HBO-Raad*), 1993). Differences in denomination have also played a role. Teacher-training colleges have an ideological foundation (protestant, catholic or non-denominational private) while school-counselling services do not.

The present research is an attempt to map the forms of interorganisational cooperation found to occur between the teacher-training colleges and school-counselling services in the provision of in-service teacher training and the perceived effects of the selected forms of cooperation on the quality of the in-service training. This cooperation between the teacher-training colleges and school-counselling services is examined with the aid of some theoretical concepts pertaining to interorganisational networks. According to Alter and Hage (1993), "networks constitute the basic social form that permits interorganisational interactions or exchange, concerted action, and joint production. Networks are unbounded or bounded clusters of organisations that, by definition, are nonhierchical collectives of legally separate units" (p. 46). This description certainly applies to the forms of cooperation found between the teacher-training colleges and school-counselling services. Cooperation between at least two organisations with their own organisational structure and their own culture is involved; one can speak of interorganisational cooperation in the domain of in-service training; and this cooperation can lead to the provision of a joint in-service training product. Both organisations have a large degree of autonomy and legally distinct responsibilities for schooling and counselling. As a result of the market situation in which the two organisations find themselves, they are interdependent with respect to the acquisition of the necessary in-service training funds. This dependency calls for a particular form of cooperation with a particular structure. Within this cooperation, the organisations strive towards their own objectives which may involve strengthening their own position, survival, competition with each other or the creation of the best in-service training product. In order to attain these objectives, each of the organisations follows particular strategies. A description of the characteristics of the networks associated with the cooperation between the Dutch teacher-training colleges (PABOs) and school-counselling services (SBDs) in the provision of in-service teacher training constitutes the goal of the present study.

3. Interorganisational Relations

In order to describe and analyse the forms of interorganisational relations between the teacher-training colleges and school-counselling services, the general model from Godfroij (1993) for analysing networks as social-action systems is utilised to a significant degree. Because networks involve particular relations between organisations, a number of the concepts from research on interorganisational relations will first be considered. In addition to playing a role in the model from Godfroij, the following concepts were also used in the development of the instruments to describe the forms of cooperation found between the teacher-training colleges and school-counselling services.

The starting point for all studies of aggregates of organisations is a relation or transaction between two or more organisations (Aldrich & Whetten, 1981). Galaskiewicz (1985) distinguishes three arenas for interorganisational relations: resource procurement and allocation, political advocacy and organisational legitimation. In Galaskiewicz' view, the direct procurement of facilities, materials, products or revenues to ensure organisational survival is seen as the overriding reason for establishing the interorganisational relations. Alter and Hage (1993) speak of "resource dependency" or the degree to which a network of organisations utilises external resources coming from a single source for survival and goal attainment. As already noted in the preceding section, resource procurement or resource dependency also appear to constitute the principal reason for cooperation between teacher-training colleges and school-counselling services.

Alter and Hage (1993) suggest a typology of networks organised along three dimensions: competitive versus symbiotic cooperation, the number of organisations involved in the cooperation and the level of cooperation. These dimensions produce a classification scheme for competitively cooperating organisations and symbiotically cooperating organisations (cf. Astley & Frombrun, 1983). Competitors are organisations of the same kind (producing the same product or service) while symbiotic relationships occur among organisations which may bear some similarities but nevertheless operate in different sectors. Teacher-training colleges and school-counselling services can be seen to bear a symbiotic relation to each other (the teacher-training colleges operate in the pre-service and in-service areas of education while the school-counselling services operate in the areas of providing schools with job-related guidance and support for school improvement), and only Alter and Hage's typology of symbiotic cooperation will therefore be considered here. Along these lines, Alter and Hage distinguish three kinds of (dyadic and triadic, consisting of two or three organisations) linkages or (multiorganisational, consisting of more than three organisations) networks: obligatory linkages or networks (limited cooperation), promotional linkages or networks (moderate cooperation) and systemic production linkages or networks (broad cooperation). Obligatory linkages/networks are exchange relationships, and the medium can be products, services, clients or money. The most dominant linking function is

subcontracting. The function of promotional linkages/networks is to achieve a collective goal which could otherwise not be achieved by a single or limited number of organisations. Through joint ventures or partnerships, organisations can share expertise and equipment or jointly invest, purchase, advertise and market. Systemic production linkages/networks produce products or services which could not be produced by any one participant alone. Broad informational, technical, financial, political and managerial cooperation is thus required. On the basis of this typology, the forms of cooperation between teacher-training colleges and school-counselling services can be characterised as obligatory or promotional linkages when two or three organisations cooperate with each other and as obligatory or promotional networks when four or more organisations cooperate with each other.

For voluntary cooperation or --in terms of Whetten (1981, 1987)-- coordination to occur, five conditions must be met (Whetten, 1981, 1987): 1) administrators must have a positive attitude towards interorganisational coordination; 2) administrators must recognise an organisational need for coordination which justifies absorbing the associated costs (recognition of partial interdependence); 3) knowledge of potential partners (this awareness may emerge from informal contacts or by geographical proximity); 4) assessment of compatibility and desirability (seeking partners which have roughly the same status, share a common definition of the problems to be addressed, have an encompassing professional ideology and have compatible organisational structures and procedures); and 5) the participating organisations must assess their capacity to manage the ongoing coordination process. Three of these conditions must be met when the coordination is mandated by law, which happens to be the case for the cooperation between the teacher-training colleges and school-counselling services in the domain of in-service teacher training. According to Whetten, the staff's attitude towards coordination and its knowledge of available coordination partners are not necessary conditions under these circumstances because the mandate substitutes for recognition of a need to coordinate. Assessment of compatibility and organisational capacity, however, remain critical factors.

Alter and Hage (1993) argue that four factors are necessary for the development of cooperation between organisations: the willingness to cooperate, the need for expertise, the need for funds and task sharing, and the need for adaptive efficiency. These four factors may in turn be affected by the culture of trust, the complexity of the task, the existence of specialised knowledge and skills, and the emergence of small units -- whether as separate organisations or within larger-scale organisations.

4. Networks as Action Systems

According to Godfroij (1981, 1989, 1993), networks can be characterised as "social action systems" or structures created to coordinate the actions of the relevant organisations or actors with respect to the interdependencies between them. In a network, organisations or actors enter into more or less durable relations with other organisations or actors without losing all too much of their own autonomy. Networks are action systems. Both individuals and organised groups (e.g., departments, organisations) can be considered actors in networks. Individuals can be regarded as actors because they act on the basis of the functions they perform in organisational settings. They act as representatives of a unit or an entire organisation and thus as "organised actors" although there is some room for personal style. It is also possible to consider organisational units or entire organisations as actors within a network. Collectivities or groups can be considered actors as institutional means enable them to act as a unit. Within the context of networks, organisations can thus be viewed as interdependent actors who engage in bargaining, transactions and/or cooperative actions and develop structural forms to coordinate and/or regulate these actions (Godfroij, 1993).

The interdependency between organisations can result in forms of interaction ranging from transaction (cf. Williamson, 1975) to cooperative action. The actors involved in transactions are not primarily oriented towards the attainment of a common goal but interdependent because of an interest in exchange. Transactions may be regulated when the actors are in need of safeguards against uncertainties, opportunism and other risks. In contrast, cooperative action is a form of interaction in which the actors are oriented toward the attainment of common goals and interdependent because of the complementary contributions they can make to the attainment of these goals.

The interactions within a network can be analysed in analogy to the moves in a chess game. Godfroij (1981, 1993) makes a distinction between the strategies of the actors (i.e., the rationality underlying their actions) and the type of game being played by the actors. Godfroij then distinguishes strategies focused on the maintenance or increase of the market position, the maintenance or increase of power, the maintenance or increase of certainty, the maintenance or increase of autonomy, the intentional running of risks, the avoidance of power and responsibility, and the maintenance of established social constructions. The degree of congruence or incongruence between the strategies of the actors in a situation of interaction determines to a very large degree the nature of the game which can develop. Godfroij (1981) identifies the following types of games: cooperation, coalition, competition, limitation of competition, open conflict, conflict management, avoidance and merger.

The construction of a social-action system (i.e., institutionalisation) depends on the structure of the interaction between the actors and the cultural and structural characteristics of the social-action systems in which the actors participate. Two or more organisations having contact with

each other implies the meeting of different organisational cultures (cf. Schein, 1990). The structure is the entirety of the objective relations between the organisations/actors, and these relations can take on different forms. In this connection, Godfroij (1993) refers to the "context typology" of Warren (1967) who distinguishes four positions for interorganisational structures along a continuum: 1) the social-choice context in which the relevant units have maximum autonomy; 2) the coalitional context which is a cooperative arrangement between units with respect to some specific common goal leaving substantial autonomy to the units; 3) the federative context which is characterised by a stronger orientation towards central goals and greater restriction of unit independence when compared to the coalitional structure; and 4) the unitary context which is an organisation with a strong orientation towards central goals and a centralised decision-making structure. This continuum represents degrees of autonomy versus coordination. A unitary structure does not characterise the cooperation between teacher-training colleges and school-counselling services because the in-service teacher training only constitutes part of the responsibilities of these organisations. To the degree that the number of organisations in a network increases, the network is forced to rely on more formalistic modes of coordination (Alter & Hage, 1993; Litwak & Rothman, 1970).

Based on the functions which networks are assumed to serve, Godfroij (1989, 1993) identifies the following six network types: 1) exchange networks which consist of more or less durable relations between organisations for transactions relating to the primary and support processes of production and marketing; 2) circuit networks or organisational structures in which organisations are sequentially interdependent (clear specification of the functions of the different organisations) from the clients' point of view; 3) developmental networks or (temporary) structures around certain new developments which organisations can only implement by taking the interests of the other organisations into consideration and jointly taking such contextual factors as space, financing and competition from third parties into consideration; 4) policy networks or both formal and informal structures in which the participation of many governmental and non-governmental actors is regulated with regard to a specific field of policy; 5) coalition networks which are organisational structures enabling a consolidation of forces with respect to a third party or the joint utilisation of available opportunities to attain, for example, government subsidies; and 6) competitive networks or forms of cooperation characterised by competitive interdependence, questions about the legitimacy of the other's territorial claims and the minimal presence of common objectives and direct interaction.

A popular way of characterising networks is to describe them as "loosely coupled systems" (Weick, 1976; Orton & Weick, 1990). These are structures which coordinate actions between organisations without curtailing the autonomy of the participating organisations more than is strictly necessary (cf. Godfroij, 1993). Godfroij also applies Mintzberg's (1983, 1989) configuration theory to interorganisational networks. We will limit the discussion here to the features of Mintzberg's professional organisations because the teacher-training colleges and

school-counselling services can be characterised as such. The salient features of professional organisations are standardisation of knowledge and skills, the formation of specialised professional groups, decentralisation, moderate degrees of formalisation and complex coordination problems resulting from the combination of specialisation and autonomy. Networks of professional organisations "can thus be defined as (interorganisational) structures through which professional groups or units exchange information, coordinate research efforts and approaches and other activities. We can predict that within professional networks coordination will often be laborious" (Godfroij, 1993, p. 86). The driving force behind a professional network is the attainment of proficiency.

Concepts from the literature on interorganisational networks will be used to analyse the forms of networks found for teacher-training colleges and school-counselling services in the domain of in-service training. The variables selected for use from the conceptual model utilised here are presented in Figure 1 which provides a heuristic for organising our examination of the interorganisational cooperation between teacher-training colleges and school-counselling services.

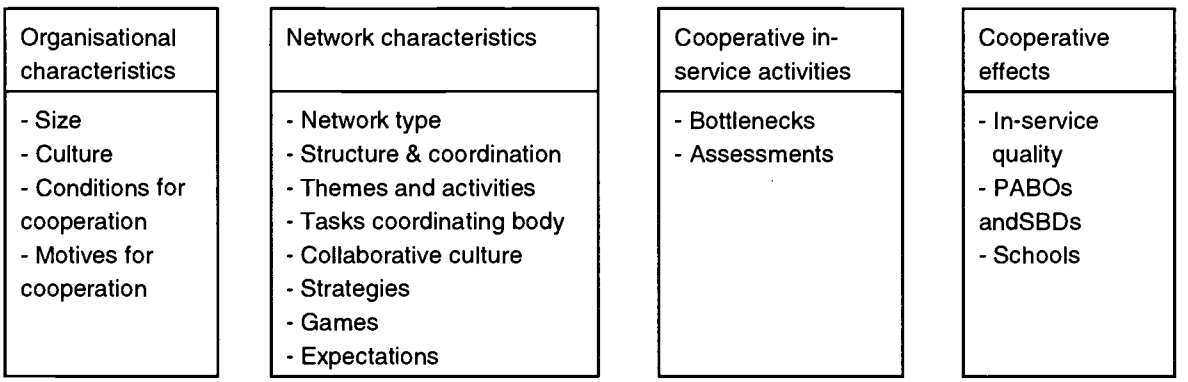

Figure 1 Conceptual framework for studying interorganisational relationships between teacher-training colleges (PABOs) and school-counselling services (SBDs)

5. Purpose of the Present Study and Research Questions

In the present study, the network characteristics of the cooperation between teacher-training colleges and school-counselling services in the provision of in-service teacher training are examined. The study was designed to address the following questions.

1. What types of networks can be distinguished with regard to the organisation and provision of in-service training by the teacher-training colleges and school-counselling services?

2. Which problems present themselves with regard to the design, establishment and organisation of the networks for the provision of in-service training among the participants, school administrators and in-service training coordinators?
3. What solutions are selected for these problems?
4. How are the particular networks selected for the in-service training assessed by the participants, school administrators and in-service training coordinators?
5. What are the effects of the selected network forms on the set up and conduct of the in-service training?
6. What are the experiences of the teachers of primary schools with regard to the cooperation between the teacher-training colleges and school-counselling services?

6. Methods and Instrumentation

6.1 Design

The present research was conducted in two phases. First, a nation-wide survey was conducted. On the grounds of these results, four specific types of networks were then examined in greater detail in a multiple-case study. The survey research was primarily directed at answering research questions (1), (2) and (4). The emphasis lay on the structural aspects of the cooperation between the teacher-training colleges and school-counselling services and not so much on the actual processes of interaction between the actors in these organisations. In the case study, the emphasis lay on how the selected forms of cooperation were given shape in concrete training practice and the perceived effects of the interorganisational networks on the quality and impact of the in-service training (i.e., research questions 3, 5 and 6).

6.2 The Survey

6.2.1 Subjects.

In the spring of 1992, a questionnaire was sent to the in-service training coordinators from all 42 teacher-training colleges and 66 school-counselling services in The Netherlands. These people were assumed to be the most informed respondents because of their key position in the cooperation between the two organisations. They were considered actors representative of the organisation -- that is, organised actors (cf. Godfroij, 1993). Of the 108 questionnaires sent out, a total of 73 were completed and returned (response rate of 68%). When telephoned, an

additional 21 respondents were prepared to answer the most essential questions (bringing the response rate up to 87%).

6.2.2 Questionnaire schedule

On the basis of the literature on interorganisational relations and the network typology of Godfroij (1981, 1993), an extended list of questions was composed. A tentative version of this questionnaire was presented to 12 experts in the field of in-service teacher training with knowledge of the cooperation between the teacher-training colleges and the school-counselling services. On the basis of the comments provided by these experts, the questionnaire was revised in places. In the development of the questionnaire, use was also made of approximately 30 year plans and annual reports from the school-counselling services. This information was examined from the perspective of the cooperation with the teacher-training colleges.

The items on the questionnaire were derived from the scheme of variables presented in Figure 1. The majority of the items simply required a check mark as an answer or a forced choice on a four- or five-point Likert scale.

The particular type of network was determined using the information from a number of scales. That is, the idealised network types specified by Godfroij (1989, 1993) were operationalised by a number of different items on the questionnaire. Some network characteristics were specified by a number of items while others were specified by a single item. In the case of multiple items for a single network type, scales were formed using principal component analyses. The reliability of these scales (Cronbach's alpha) varied from .66 to .86, and the characteristics of the network types are presented in Table 1.

On the basis of the scores assigned by the participants to the characteristics associated with a particular network type, the degree to which an organisation differed from the theoretically idealised score for that characteristic of the network type could be calculated. This occurred on the basis of city-block distances (Schiffman, 1981; Schröger, Rauh & Schubö, 1993). "The City-Block distance between two stimuli roughly corresponds to 'walking' halfway round a city block in a regular grid of streets" (Schiffman, 1981, p. 16) with the scores assigned by the participants as starting point and the idealised scores as final point of the City-Block. The differences between the actual and idealised scores for each network characteristic were then summed to obtain a measure of the total distance of the relevant organisation from the six theoretical network types. In order to compare the different scores for the six network types, the difference scores were divided by the total number of characteristics for the relevant network type. In such a manner, an average absolute difference score could be specified for an organisation with respect to each network type. Each of the organisations involved in a network thus had six difference scores which could then be compared to the difference scores for the other organisations involved in the cooperation and thereby used to specify the type of network.

Table 1
Characteristics of the network types

Exchange network
- network already exists for a longer period
- domains of the organisations are complementary
- organisations are symbiotically interdependent
- motive for cooperation is to strengthen competitive capacity and market position
- one can speak of an exchange of knowledge and materials (4 items, α=0.70)
- motive for cooperation is certainty with regard to personnel and finances (6 items, α=0.71)
- motive for cooperation is quality development for the in-service training product (3 items, α=0.72)
- motive for cooperation is efficiency promotion with regard to in-service training (9 items, α=0.82)

Circuit
- organisations are sequentially interdependent
- one can speak of clear specification (sequential interdependency) of the functions of the different organisations
- one can speak of a flow of clients from one organisation to the other
- there is a need for attunement between the organisations
- one can speak of a mutual division of tasks and referral to each other
- motive for cooperation is policy formation with respect to in-service training (3 items, α=0.73)
- organisations tend to cling to their own autonomy (5 items, α=0.74)

Developmental network
- motive for cooperation is to implement the innovation
- forces need to be combined to implement the innovation
- negotiation occurs in cases of disagreement
- the cooperation is only until the innovation has been implemented and thus temporary
- one can speak of a common challenge, namely the innovation (4 items, α=0.73)
- each organisation works on the innovation in its own manner (2 items, α=0.66)

Policy network
- cooperating organisations have diverse objectives
- cooperating organisations have diverse interests
- one can speak of joint involvement or interdependency with respect to policy
- organisations have a need for power
- one can speak of partial conflict, diverse visions (5 items, α=0.69)
- organisations tend to cling to their own autonomy (5 items, α=0.74)

Coalition
- one can speak of combining forces in order to be stronger with respect to a third party
- motive for cooperation is to strengthen competitive capacity and market position
- the cooperation is only until the innovation has been implemented and thus temporary
- one can speak of competitive behaviour (2 items, α=0.86)
- one can speak of cooperation because of shared opportunities (2 items, α=0.76)

Competitive network
- organisations do not have shared objectives but are interdependent
- one can speak of partially overlapping domains
- territorial claims of the other may be contested, there is a desire to expand one's territory
- one can speak of competitive behaviour (2 items, α=0.86)

6.3 The Multiple-Case Study

6.3.1 Sampling

In the selection of cases for further examination, particularly "information-rich" cases were sought (Patton, 1987). Of the network types identified on the basis of the survey, four specific networks were selected for further study. Two strategies were followed in doing this: criterion sampling and maximum variation sampling. In the first strategy, the following criteria were utilised: the network to be selected for study should meet the characteristics for only one of the network types in Godfroij's network typology; both large and small networks should be represented in the sample; and the organisations within the selected networks should not have cooperative relations with organisations in a different network. As part of the second strategy, the selected cases were required to occupy distinct positions in Godfroij's typology while providing the same type of in-service training program. This latter criteria was applied in order to control for the effects of particular in-service training programs on the cooperation between the different organisations. The in-service training course provided in all of the cases was Educational Management for (deputy) head teachers. All of the organisations were in a position to acquire government subsidies for the provision of the in-service training.

It was originally our intention to select six network cases corresponding to the six network types in Godfroij's typology. The survey research showed the competitive network to not occur. The coalition and policy networks were collapsed on the basis of the information from the survey into a single network. In such a manner, four network cases were selected for study. Two of the cases consisted of two organisations (one teacher-training college and one school-counselling service); one of the cases consisted of four organisations (two teacher-training colleges and two school-counselling services); and one of the cases consisted of twelve organisations (three teacher-training colleges and nine school-counselling services). For logistic reasons, the number of organisations examined per case was limited to a maximum of four (two teacher-training colleges and two school-counselling services). Due to their geographic distribution and for reasons of anonymity, the four network cases will be referred to as Network South, Network West, Network East and Network North. It should be noted that the network constituted the unit of analysis in the case study and the independent organisation the unit of analysis in the survey.

A minimum of four respondents (two from the PABO and two from the SBD) were interviewed per network case in 1993. This involved members of the organisational directorate, in-service training coordinators and those responsible for the conduct of the in-service Educational Management course. A total of 19 interviews were conducted with 22 respondents as there were three group-interviews. The interviews took approximately one-and-a-half hours.

The (deputy) head teachers of the primary schools participating in the Educational Management training for each network case were also asked to provide their opinions with regard

to the cooperation between the teacher-training colleges and school-counselling services via a questionnaire. This questionnaire was sent to 367 schools, and 170 schools returned a completed questionnaire (response rate of 46%).

6.3.2 Interview and questionnaire schedules

As already mentioned, semi-structured interviews were undertaken in order to gather information on the relevant network. The interview questionnaire consisted of two parts. In the first part, questions about the cooperation with regard to the in-service training in general and the Educational Management course in particular were posed. In the second part, questions about the structure of the cooperation were posed. The items for this were derived from the conceptual model outlined in Figure 1. In pilot research, the interview was undertaken with five participants from a network not participating in the present research. On the basis of the comments provided in these interviews, the interview questionnaire was adjusted somewhat. The final list of questions was then sent to the network respondents prior to the interview. Two researchers were present during each of the interviews; one posed the questions while the other took notes and tape recorded the interview.

A short --seperate-- questionnaire for the (deputy) head teachers of primary schools participating in the in-service Educational Management course consisted of questions (scales) with regard to the cooperation between the teacher-training colleges and school-counselling services during the conduct of this and other courses and also the perceived effects of the cooperation on the quality and utility of the in-service training. Prior to the use of this questionnaire, it was presented to six primary-school (deputy) head teachers for evaluation. On the basis of the comments provided by the head teachers, the questionnaire was adjusted somewhat. These head teachers were part of the schools in the (otherwise non-participating) network where the pilot interviews were also conducted.

6.3.3 Procedures for qualitative data analyses

The interview data collected in the multiple-case study were analysed using the procedures proposed by Miles and Huberman (1984, 1994): data gathering, data reduction, data analysis and display. After data collection, the interviews were summarised. This resulted in a summary of about eight pages per interview. Thereafter, the text was classified using the variables from the conceptual model. Every meaningful statement was assigned a code which involved examination of whether the network participants expressed themselves positively, negatively or neutrally with respect to a particular topic (for example, the selected network structure). The codes were then entered in the computer program KWALITAN (a program for analysing qualitative research data, Peters & Wester, 1992). In order to achieve reliability in the coding process, all of the interviews

were coded by two trained raters. Disagreements were discussed and clarified. In the end, a Cohen's (1960) Kappa of .63 was reached which represents a fair to good degree of agreement beyond chance (cf. Bakeman & Gottman, 1986).

With the aid of KWALITAN, the data from the comprehensive case reports were rearranged in order to make matrix building, within-case and cross-case analyses easier. In the first phase, matrices were developed for each case. In the second phase, cross-case matrices were developed. The matrices were then extracted from the interview protocols and compared for shared and contrasting patterns.

7. Results

7.1 The Survey

The results with respect to the characteristics of the teacher-training colleges and school-counselling services will first be discussed independently. Then the characteristics of the networks will be discussed and thereafter the characteristics of the jointly conducted in-service training and perceived effects of this cooperation on the quality of the in-service training. Once again, the scheme of variables presented in Figure 1 will be followed. The major information with respect to these characteristics is summarised later on in Table 4.

Characteristics of the teacher-training colleges and school-counselling services. With respect to the size or breadth of each of the organisations, the number of permanent positions and the extent of the in-service training conducted jointly by the two organisations (PABOs and SBDs) were examined. The number of permanent positions was found to vary for the school-counselling services between 2.5 and 120 and for the teacher-training colleges between 11 and 54. Of these positions, an average of 11.8% (s.d. 13.7) was specifically devoted to in-service training with 4.3% (s.d. 4.4) actually involved in the in-service training being conducted by the teacher-training colleges and school-counselling services jointly. Of all the primary school teachers participating in some form of in-service training, 33% (s.d. 23.7) participated in the in-service training being provided in cooperation. This means that, despite the marginal number of permanent positions specifically devoted to the joint conduct of the in-service training, a very large portion of the primary school teachers was participating in the in-service training being provided in cooperation.

The motives (see Table 4) for cooperation found to score the highest were the creation of increased possibilities for fine-tuning the in-service training to the needs of the schools and the attainment of increased clarity with respect to in-service training policy. The prevention of internal competition and attainment of government funds were found to play similarly important roles. Culture and conditions for cooperation as in Figure 1 are studied in the multiple-case study.

Characteristics of the networks. The 108 teacher-training colleges and school-counselling services for which data were available were found to cooperate in 27 networks. Approximately 40% of the networks exist since 1980; 55% entered into a network construction in the 1980s; and 5% after 1990. On a five-point scale, the average intensity of the cooperation between the relevant organisations was reported to be 2.7 (s.d. 0.8). Using the city-block method, the distances of the scores for these organisations from the theoretically idealised scores for the network types identified by Godfroij (1981, 1989) were examined. The results of this analysis are presented in Table 2. As can be seen, the majority of the organisations characterise their network as an exchange network. The second most frequent characterisation of the network is as a circuit network. Of the 27 networks, 7 can be characterised as exchange networks, 6 as circuit networks and 5 as policy networks/coalitions. The policy network and the coalition have been combined here because the organisations within this network type did not always agree on the type of network: some of the organisations characterised their cooperation as occurring in the context of a policy network and others as occurring in the context of a coalition. In the opinion of the network participants, moreover, the differences between these two network types are not particularly great.

Table 2
City-block distances per network type and classification of networks

Network type	Mean city-block distance	S.D.	% net-works	k	n
Exchange networks	1.6	0.4	25.9	7	26
Circuits	1.8	0.5	22.2	6	13
Developmental networks	2.1	0.5	3.7	1	2
Policy networks	2.3	0.6			
Coalitions	2.0	0.6	18.5	5	17
Competitive networks	2.5	0.6			
Non-classifiable			29.6	8	13
Total			100	27	71

Note: k = number of networks; n = number of organisations per network

The developmental network only occurred once, and the competitive network was not found to occur at all. Eight networks could also not be classified within the typology utilised (due to non-response or lack of agreement between the relevant organisations). This pattern of findings is also reflected in the correlations between the different network types presented in Table 3.

Table 3
Correlations between network types

Network type	Exchange network	Circuit	Developmental network	Policy network	Coalition
Circuit	.59**				
Developmental network	.41**	.65**			
Policy network	-.13	.15	.18		
Coalition	-.16	-.09	.05	.44**	
Competitive network	-.28*	-.12	.01	.66**	.44**

**p<0.01; *p<0.05

From Table 3, it can be seen that the characteristics of the exchange network, the circuit network and the developmental network are correlated. This also holds for the policy network, the coalition network and the competitive network. This set of results corresponds to a dichotomy suggested by Godfroij (1981, 1989): in the initial three network types, one can speak of cooperation; in the latter three network types, one can speak of competition and divergent interests.

Table 4
Overview of the average scores for network characteristics

Variable	Mean	SD
Motives for collaboration		
Better opportunities to fine tune the in-service training	4.3	0.7
Attainment of greater clarity with respect to in-service training policy	4.1	0.9
Joint involvement in educational innovation	3.9	1.1
Prevention of competition between organisations during in-service training	3.9	1.0
Improvement of the quality of the in-service training	3.9	1.0
Attainment of government subsidies for in-service training	3.8	1.2
Tasks of the coordinating body		
Expansion and/or adaptation of the supply of in-service training courses	3.3	1.1
Distribution of tasks	3.1	1.2
Publication of a joint brochure on in-service training supply	3.1	1.6
Improve the attunement of the cooperating partners to each other	3.0	1.2

Variable	Mean	SD
Strategies		
Strengthen one's position on the in-service training market	3.9	1.0
Profile/distinguish own professional approach to in-service training	3.6	1.2
Certainty with regard to personnel	3.3	1.0
Defence or expansion of own in-service training domain	3.3	1.2
Certainty with regard to financial resources	3.2	1.2
Preservation or expansion of power with respect to in-service training	2.6	1.3
Defence or strengthening of autonomy with respect to in-service training	2.5	1.2
Defence of existing routines and manner of operating during in-service training	2.3	1.1
Games		
Coalition (concentration of forces)	3.4	1.1
Cooperation (attunement of behaviour to attain common goals)	3.3	1.2
Limitation of competition (rules to weaken internal competition)	2.5	1.1
Avoidance of open conflict (negotiation in cases of conflict)	2.0	1.0
Competition (one can speak of internal competition)	1.9	0.9
Open conflict (conflicts resulting from a clash of opinions)	1.8	0.8
Expectations for the future (four-point scale)		
The cooperation between the organisations will become more intense	3.0	1.0
There are plans to collaborate on additional in-service training themes	3.0	0.8
The quality of the in-service training supply will improve	3.0	0.8
The cooperation will come under pressure	2.8	1.0
The school-counselling services will cling to their independence	2.7	0.9
The teacher-training colleges will cling to their independence	2.7	0.9
The efficiency of the coordinating body will increase	2.7	0.8
The chances of conflict between the cooperating organisations will decrease	2.5	1.0
The competition between the cooperating organisations will shrink	2.4	1.0
Bottlenecks		
The vagueness and unclarities in government policy	3.1	1.3
The teacher-training colleges still cling to their independence	3.0	1.3
The organisations have conflicting interests	2.9	1.3
The delineation of tasks between the organisations is problematic	2.8	1.2
The school-counselling services still cling to their independence	2.7	1.4
The financial resources for the cooperation are too few	2.7	1.3
The willingness of current employees to cooperate is problematic	2.7	1.2
Effects		
Effects on the quality of the in-service training (2 items, $\alpha = 0.93$)	3.2	0.9
Effects on the organisation of the in-service training (9 items, $\alpha = 0.82$)	2.9	0.6
Effects on the organisations themselves (8 items, $\alpha = 0.86$)	2.8	0.7
Effects on the schools (6 items, $\alpha = 0.89$)	2.7	0.7

Note: Means and standard deviations on a five-point scale: 1 = not characteristic; 5 = very characteristic

Information with regard to the structure and coordination of the network is summarised in Table 5. On the basis of this information, it can be seen that two thirds of all the organisations consider the structure of their network to be a federative context (Warren, 1967) with a delegated control system (in which the supporting unit can formulate policies to some degree independent of the approval of the member organisations; cf. Haas & Drabek, 1973). Characteristic of the delegated control system is that the coordinating body coordinates the cooperation, makes consensual decisions and formulates policy with regard to the in-service training. Slightly less than one third of the organisations are of the opinion that their network has a social-choice context with a

simple exchange-control system as the coordinating body. In this simple exchange control system, the tasks just mentioned largely remain in the hands of the individual organisations. The various organisations maintain a type of veto right with regard to the in-service training provided, moreover (Haas & Drabek, 1973).

Table 5
Overview of the percentages for each structure and univariate ANOVAs on the city-block distances from the network types

Variable	%	n	Exchange network [1]	Circuit [2]	Coalition [3]
structure and coordination					
- federative context with a delegated control system	63	46	1.55	1.69	2.10
- coalitional context with an intermediate control system	8	6	1.13	1.37	1.37
- social-choice context with a simple exchange-control system	29	21	1.85	2.11	1.86

Note: [1] $F(2,57) = 4.82^{*}$; [2] $F(2,57) = 4.90^{*}$; [3] $F(2,57) = 5.37^{**}$; $^{**}p<.01$; $^{*}p < .05$
n = number of organisations

Using analyses of variance, the relation between the type of network and the structure selected for the network was examined. As can be seen in Table 5, exchange networks and circuit networks are characterised by a coalition context with a mediated control system (and limited autonomy) or a federative context with a delegated control system. The coalition networks indeed appear to have a coalitional context with a mediated control system. A mediated control system means coordination more rigid than the simple exchange-control system and less rigid than the delegated control system (Haas & Drabek, 1973).

The tasks of the coordinating body (see Table 4) lie predominantly in the supply of in-service training courses and include the planning of the in-service training and the joint publication of an in-service training brochure for the schools. In addition, the coordinating body has the task of internally adjusting and realising the distribution of tasks.

The topics or themes and activities for the cooperation were found to involve primarily the following in-service training courses: Educational Management, Computers in School, School Principalship and New Mathematics. The course Educational Management was most commonly mentioned and was therefore selected to further analyse the cooperation between the teacher-training colleges and school-counselling services in the multiple-case study. For half of the in-service training topics, committees were established with members of the staffs from the different organisations as members. This was particularly found to hold for the networks which could be characterised as circuits ($F(1,58) = 6.9$; $p< .01$).

The strengthening of one's own market position constituted the most important strategy (see Table 4) for the organisations to realise their goals. Distinguishing or profiling one's own organisation and the attainment of as much certainty as possible with regard to personnel and financial resources also constituted important strategies. The organisations are thus clearly busy with the strengthening of their competitive position.

Games or playing (see Table 4) to describe the interaction between the organisations appeared to occur primarily in the form of a coalition and cooperation, which means that the organisations collaborate with either extrinsic motives e.g. survival (coalition) or intrinsic motives (cooperation). The other games scored lower than average and thus occupied a less important position.

With respect to the expectations for the future (see Table 4), one can speak of rather conflicting expectations for the future. On the one hand, the organisations expect the intensity of the cooperation to increase and increased cooperation on a number of in-service training themes. On the other hand, they expect increased pressure on the cooperation to occur and that both of the organisations will cling to their autonomy. The majority of the organisations (57.1%), however, expect the cooperation to be strengthened in the future. The collaborative culture as in Figure 1 is studied in the multiple-case study.

Cooperation in the conduct of in-service training The survey respondents were also asked about the bottlenecks they encountered during the joint conduct of in-service training. The bottlenecks receiving the highest scores are mentioned in Table 4. The vagueness or unclarities in government policy with regard to in-service teacher training appear to receive the highest score. Another important bottleneck is the clinging of the organisations to their own autonomy. The highest score (3.1) for the cited bottlenecks was slightly above the middle of the five-point scale and thereby suggests that none of the bottlenecks were experienced as very urgent. The standard deviations were particularly high, however, which indicates large differences in the degree to which the different organisations experience bottlenecks.

Assessment of the cooperation was done on the basis of a scale consisting of 13 questionnaire items (alpha = 0.93). The average evaluation of the cooperation was 3.4 (s.d. 0.6), which indicates a reasonably positive perspective on the cooperation. Those organisations involved in exchange networks, circuits or developmental networks were found to have a particularly positive opinion with regard to the cooperation.

Effects of the cooperation. In order to gain insight into the effects of the jointly conducted in-service training, the respondents were asked to give their opinion. The results in Table 4 show a particularly positive effect of cooperation on the quality of the in-service training to be reported. The effects for the organisation of the in-service training and one's own organisation are average.

The least clear effect is that of the cooperation on the schools participating in the in-service training program.

In closing, the connections between the most important variables used in the present research and the different types of networks were examined. The relevant information is summarised in Table 6. Only those correlations reaching statistical significance are reported ($p < .01$), and it should be noted that some of the variables are partially correlated with themselves as they were also part of the city-block analyses to determine the particular network types. These correlations are reported in italics in Table 6.

From Table 6, it can be seen that large organisations tend more to be a part of a competitive network than small organisations and that organisations with many of the teachers participating in the jointly conducted in-service training tend to belong to an exchange network or circuit. The motives for collaboration are most transparent for the participants in the exchange networks, circuits and developmental networks. These networks also show higher consciousness of their interdependency and have higher intrinsic motivation for cooperation.

Recently formed networks show predominantly the features of a coalition. This means that the networks involving the teacher-training colleges and school-counselling services often start as a coalition and gradually develop into a network oriented towards mutual cooperation. The most intense cooperation occurs in exchange networks, circuits and developmental networks.

In the conduct of the tasks of the coordinating bodies, only significant correlations are found for the exchange networks, circuits and developmental networks. This outcome stems from the fact that one cannot speak of a coordinating body for the other types of networks where the separate organisations largely perform these tasks themselves.

The organisations collaborating in a coalition tend to provide in-service courses with a low degree of cooperative intensity. Intensive forms of cooperation are positively correlated with exchange networks, circuits and developmental networks.

A clear correlation between the strategies utilised and the type of network was observed for the policy networks, coalitions and competitive networks. These networks employ strategies intended to strengthen their own position on the in-service training market, enhance the profile of their organisation, protect their resources and increase their autonomy.

From the correlations between network type and games, it can be seen than the exchange network, circuit and developmental network tend to be involved in cooperative interactions while the policy networks, coalitions and competitive networks tend to be more involved in internal competition and conflict.

Significant correlations with expectations for the future were only found for the exchange network. Organisations participating in an exchange network were most positive with regard to cooperation in the future.

Table 6
Correlations of the continuous variables with the network types

Variable	Ex-change network	Circuit	Develop-mental network	Policy net-work	Coal-ition	Com-petitive network
Size						
Number of permanent positions						.33
Percentage participating in cooperation for in-service training	.36	.34				
Motives for collaboration						
Improved possibilities for attunement of the in-service training	.37	*.51*	.45			
Creation of greater clarity in the in-service training policy	*.46*	*.36*	.43			
Joint involvement in educational innovation	.40	.43	*.54*			
Improvement of the quality of the in-service training	*.47*					
Attainment of government subsidies for in-service training					*.44*	
Interdependency	*.52*	*.43*				
Duration and intensity of the cooperation						
Duration					-.58	
Intensity	.54	.50	.52			
Tasks of the coordinating body						
Expansion and/or adaptation of the supply of in-service training courses	.34	.57	.51			
Distribution of tasks		*.48*				
Joint publication of a joint brochure on the in-service training supply	.33	.58	.44			
Improve the attunement between the cooperating partners		*.58*	.50			
In-service training themes: Number and intensity of the cooperation						
Number of in-service training courses					.39	
Number of in-service training courses with relatively little cooperation		-.34			.43	
Number of in-service training courses with intensive cooperation	.34	.37	.44			

Variable	Ex-change network	Circuit	Develop-mental network	Policy net-work	Coal-ition	Com-petitive network
Strategies						
Strengthen position on the in-service training market					.55	
Profile/distinguish own professional approach to in-service training				.31	.48	
Certainty with regard to personnel			.34	.41	.40	.36
Defence or expansion of own in-service training domain						.48
Certainty about financial resources				.38	.45	.34
Preservation or expansion of power with respect to in-service training				.55		
Defence or strengthening of autonomy with respect to in-service training	-.44			.47	.57	.45
Defence of existing routines and manner of operating during in-service training			.32			
Games						
Coalition	.42	.54	.62			
Cooperation	.45	.38	.31			
Conflict management (negotiation)				.57	.35	
Competition				.39	.57	.57
Conflict				.51		.39
Expectations for the future						
There are plans to collaborate on additional in-service training themes	.33					
The quality of the in-service training supply will improve	.35					
The efficiency of the coordinating body will increase	.46					
The chances of conflict between the cooperating organisations will decrease	.39					
Bottlenecks						
Unclarity of government policy				.42	.33	.35
The teacher-training colleges cling to their independence				.55		.45
The organisations have conflicting interests				.72	.48	.47
The delineation of tasks between the organisations is problematic				.62	.43	.63
The school-counselling services cling to their independence				.60		.49
The willingness of current staff members to cooperate is problematic				.43		.35
Effects						
Effects on the quality of the in-service training	.48					
Effects on the organisation of the in-service training	.63	.57	.57			
Effects on the organisations themselves	.45		.46			
Effects on the schools	.40					

Significant correlations between the bottlenecks experienced and the type of network were only observed for the policy networks, coalitions and competitive network. Organisations apparently experience more bottlenecks when they cooperate in these types of networks.

For the exchange networks, a clear correlation was found between network type and the effects of the cooperation. Positive effects were observed for the quality and the organisation of the in-service training and for one's own organisation and school. Such positive effects of the cooperation were also found for the developmental network. Little or no effect of the cooperation was observed for the other network types.

7.2 The Multiple-Case Study

In the multiple-case study, interviews were used to highlight the character of the actual cooperation with respect to the in-service training in general and the Educational Management course in particular. For the four network cases selected for study, only those results which further refine or clarify the results of the survey research will be reported. The main results for these four cases are summarised in Table 7.

An important variable receiving little or no attention in the survey research is the organisational culture characteristic of the different organisations involved in a network. As might be expected, the large differences in the (professional) organisational cultures of the teacher-training colleges and school-counselling services can clearly hinder the cooperation. In all four cases, fundamental differences between the cultures of the teacher-training colleges and the school-counselling services were observed. In the terms of Hofstede, Neuijen, Ohavy and Sanders (1990), the culture of the teacher-training colleges can be characterised as "process oriented" and that of the school-counselling services as "result oriented." This means that the teacher-training colleges are more oriented towards perfecting the quality of the in-service training process and product while the school-counselling services are more oriented towards the impact of the in-service training on the development of the schools.

With respect to network type, the four networks selected for further study on the basis of the survey could be categorised as follows: Network South as an exchange network, Network West as a circuit, Network East as a developmental network and Network North as a policy network/coalition. On the basis of the information from the interviews undertaken a year after the survey, it can be concluded that the Networks South, West and North had shifted in the direction of a policy network. This can be explained by the development of the Educational Faculties (see introduction) during this time and the concomitant emphasis on deregulation and market-oriented operation.

Table 7
Summary of interview results

Variable	Network East (n=5)	Network North (n=7)	Network West (n=6)	Network South (n=4)
Network characteristics				
network type	developmental network	policy network	developmental / policy network	exchange / policy network
structure and coordination	federative context with a delegated control system	coalitional context with an intermediated control system / social-choice context with a simple exchange-control system	federative context with a delegated control system	social-choice context with a simple exchange-control system
breadth of the cooperation	very broad	very narrow	broad	narrow
cooperative culture	growth	acceptance	jointly thought through	none
interaction attitudes	good growth	usually good good	good growth	good growth
strategy	market	market autonomy routine (SBD)	market autonomy power	market autonomy
game	merger	competition limitation of competition	competition limitation of competition cooperation conflict conflict management	competition limitation of competition
future	small Educational Faculty	monosectoral and Educational Federation	Educational Federation	monosectoral or strengthen cooperative relationship
Collaborative in-service activities				
content consultations	course content task distribution	course content task distribution	course development	course content practical matters
assessment	very positive	positive	very positive	positive
conduct tasks assessment	joint SBD (intake/ follow-up) very positive	joint SBD (follow-up) positive	joint SBD (intake/ follow-up) PABO (evaluation) very positive	joint SBD (evaluation/ follow-up) mediocre
bottlenecks	follow-up culture	content personnel effort	follow-up, intake culture, time content	content culture financing

Variable	Network East (n=5)	Network North (n=7)	Network West (n=6)	Network South (n=4)
Collaboration effects				
effects	product efficiency in-service training policy own organisation	product schools	product efficiency in-service training supply image formation	own organisation

Note: n = number of organisations participating in the network

With regard to structure and coordination, the Networks East and West showed a more rigid organisation than the other two networks. The Networks East and West both have a federative context (cf. Warren, 1967) with a delegated control system while the Networks North and South have a social-choice structure with a simple exchange-control system (in which the organisations make specific agreements and keep their discretionary authority in all other respects; cf. Haas & Drabek, 1973).

During the interviews, it was asked how the cooperation was given form during the in-service training in general and the course Educational Management in particular. The interviewees were also asked to indicate the topics or subjects for which cooperation occurred. On the basis of these results, the "breadth" of the cooperation could be estimated. For the Networks West and East, one can speak of broad cooperation on a large number of in-service training themes.

With the aid of the questions with regard to the quality of the relations between the network participants and the attitudes of employees with respect to each other, it was attempted to gain insight into the dominant cooperative culture. In fact, however, one simply cannot speak of a cooperative culture. Only in the Network West were the employees of the teacher-training colleges and school-counselling services found to follow the same basic principles, namely market-oriented operation and maximum quality. The relations between the employees in all of the networks were judged to be good although a need for "further growth" towards each other was also expressed.

On the basis of the information from the survey, a clear market strategy could be expected to play an important role in the cases under consideration here. The interview findings confirm this expectation. As one can speak of a merger in the case of Network East, however, the strategy of maintenance or increase of autonomy did not appear to be an issue. The emphasis placed on a professional manner of operation by the school-counselling services in the Network North further stands out. In Network West, a power struggle can be seen in the efforts of the school-counselling services to keep certain in-service training activities outside the domain of cooperation.

From the information with regard to games, internal competition can be seen to influence the interactions for all of the networks with the exception of the Network East. It is attempted to limit

this competition as much as possible through adequate consultation. Other types of games are also encountered in Network West and include both cooperation and conflict.

With regard to expectations for the future, only Network East appears to have a clear vision of the future. The cooperation has clearly been given the form of an Educational Faculty in this case. In the Networks North and West, a form of cooperation lighter than the Educational Faculty was chosen and cooperation with organisations outside the network thus remains possible. In Network North, one can also speak of a strengthening of the ties between the school-counselling services themselves (i.e., monosectoral cooperation). This also holds for the Network South. In general, it can be concluded that the organisations are preparing themselves for a very uncertain future.

The coordination of the cooperation in the Networks North and West has taken the form of a coordinating body intended to stimulate consultation between the employees of the teacher-training colleges and school-counselling services. In Network East, the employees themselves specify who they consult with. The content of the in-service training course constituted a point for consultation in almost every case. In Network West in this light, the emphasis lay on the development of new in-service training courses. In the Networks East, North and South, the division of tasks and various practical matters were also points of discussion. The consultations are reported to be satisfactory in each network.

For the conduct of the in-service training course Educational Management, a distinction between the intake, conduct of the course, evaluation of the course and follow-up activities can be made. The conduct of the courses is jointly undertaken in every case. The follow-up is in the hands of the school-counselling services in all cases. And the intake and evaluation can be seen to vary from case to case. The joint conduct of the in-service training is generally considered satisfactory by the parties involved.

The most frequently mentioned bottlenecks are: content and culture. The concrete content of the in-service training apparently constitutes a regular point of discussion primarily caused by the difference in the organisational cultures. In the Networks East and West, follow-up constitutes a particular point of contention. Too little attention has apparently been paid to follow-up in the past.

The respondents in the Networks East, North and West experience positive effects of the cooperation on the quality of the in-service training product. In the Networks East and West, the respondents also report positive effects of the cooperation on the efficiency with which the in-service training is conducted. The respondents in the Networks East and South also see positive effects of the cooperation on their own organisations when, for example, elements of the in-service training are used as part of the regular teaching in the training college. The trickle down of effects to the level of the school remains invisible for all of the respondents with the exception of those in Network North.

On the basis of the information from the written questionnaire presented to the teaching (deputy) head teachers participating in the in-service training course Educational Management, there appears to be general satisfaction with the quality of the in-service training product presented to them. As can be seen in Table 8, the scores for the different subscales are above average. With regard to the cooperation between the teacher-training colleges and school-counselling services increasing the utility of and satisfaction with the in-service training product, the relevant (deputy) head teachers were less decided. When asked about the organisation(s) which the schools would prefer to provide their in-service training, 66% responded that their preference was for the cooperating organisations.

Table 8
Overview of effects of in-service training as perceived by school principals

Factor	Network East (n=128)	Network North (n=28)	Network West (n=28)	Network South (n=31)	All cases (n=215)
Attunement and clarity of the supply and content of the in-service training in general (7 items, α = 0.81)	3.5 (0.5)	3.2 (0.5)	3.2 (0.5)	3.3 (0.6)	3.4 (0.5)
Satisfaction of the participants with the course Educational Management (6 items, α = 0.82)	3.5 (0.4)	3.5 (0.5)	3.3 (0.5)	3.4 (0.5)	3.5 (0.5)
Promotion of satisfaction with the course Educational Management as a result of the cooperation (6 items, α = 0.91)	3.7 (0.5)	3.2 (0.8)	3.1 (0.6)	2.9 (0.7)	3.3 (0.7)
Utility of the course Educa-tional Management for the school (5 items, α = 0.88)	3.4 (0.6)	3.2 (0.5)	3.0 (0.7)	3.3 (0.6)	3.3 (0.6)
Promotion of the utility of the course Educational Management as a result of the cooperation (5 items, α = 0.97)	3.2 (0.7)	2.6 (0.8)	3.1 (0.6)	2.7 (0.6)	2.9 (0.7)

Note: Standard deviations in parentheses; E.M. = Educational Management; n = number of schools
Means and standard deviations on a four-point scale: 1 = not in the least 4 = to a large degree

8. Discussion

Research into the forms of cooperation for educational organisations in The Netherlands has received little attention. In the present research, the network constructions realised by teacher-training colleges and school-counselling services in the domain of in-service teacher training were examined. The results of the research viewed from the perspective of network construction show two forms of networks to be employed: networks with a practical slant or orientation and networks with a more administrative slant. In networks with a practical slant, the cooperation is built up from the work floor by emphasising the concrete activities to be performed within the framework of the joint conduct of the in-service training. The accent lies on cooperation and a concentration of forces. The structuring of the cooperation at the level of the directorate comes second. The exchange networks, circuits and developmental networks all fall under the networks with a practical slant. In networks with an administrative slant, the structuring of the cooperation occurs predominantly at the level of the directorate. The number of activities undertaken jointly on the work floor is limited. The accent lies primarily on the limitation of internal competition and the promotion of a diversity of interests in the area of in-service training. Policy networks, coalitions and competitive networks all fall under the networks with an administrative slant. In the present research, competitive networks involving the teacher-training colleges and school-counselling services were simply not encountered.

The results of the multiple-case study undertaken one year after the survey show the character of the networks to have shifted over time. The vagueness of government policy with respect to the future cooperation between the teacher-training colleges and school-counselling services and the concomitant firm grip maintained by the relevant organisations on their autonomy means that the characteristics of policy networks which include the promotion of one's own interests, the profiling of one's own organisation and accentuation of already existing competitive relations stand out. Differences in the organisational cultures also play a role in the developmental course for the cooperation. The teacher-training colleges are largely process oriented while the school-counselling services are largely result oriented. As a result of uncertain expectations with respect to the financing of the school-counselling services in the future, moreover, the school-counselling services tend to cling to internal cooperation as offering the best chances of survival.

The cooperation on the work floor (i.e., coordination and joint conduct of the in-service training courses) is in most cases reported to proceed to the satisfaction of those involved. This satisfaction appears to be more or less independent of the type of network characterising the cooperation between the organisations. The cooperation is also generally viewed as clearly providing added value for the in-service training product. The (deputy) head teachers participating in the in-service training course Educational Management evaluate the course quite positively. Whether this satisfaction can be attributed to the cooperation between the relevant

organisations or not is unclear in part because the nature of the cooperation is not always clear to the (deputy) head teachers. The intake and follow-up aspects of in-service training present clear and concrete points for further improvement of the cooperation.

In the description of the network types within the present research, the work of Godfroij (1981, 1989, 1993) was used and the idealised classification of network types was applied within the educational sector for the first time. Godfroij distinguishes six idealised network types: the exchange network, the circuit, the developmental network, the policy network, the coalition and the competitive network. On the basis of the information gathered with regard to the cooperation between the teacher-training colleges and the school-counselling services here, it can be concluded that the exchange network is the most common network for cooperation. The policy network could not be distinguished from the coalition, and -- as already noted -- the competitive network was simply not encountered. The characteristics of the competitive network nevertheless appeared to be highly correlated with the occurrence of a policy network/coalition. The characteristics of the exchange network, circuit and developmental network also appeared to be highly correlated with each other.

Given these results, one may ask whether the typology created by Godfroij is not too refined for the description of the networks characteristic of the cooperation between educational organisations. A dichotomy such as the one encountered in the present research may sufficiently characterise the networks established between educational organisations to date. The following two points should nevertheless be noted. First, it is possible that this dichotomy only applies for cooperating educational organisations and not for organisations outside the educational sector. Second, the observed dichotomy may stem from the operationalisation of the relevant network types in the present research. A shortcoming in the operationalisations utilised here is that some of the variables partially correlated with themselves as a result of inclusion in the city-block analysis used to specify the network types. Further research is clearly needed to determine the utility of Godfroij's network typology for analysis of the cooperation between both educational and non-educational organisations.

According to Godfroij (1992), many policy networks and coalitions are quite rigidly structured while a more flexible form of organisation may be more suited to the transience associated with most policy networks and coalitions. On the basis of the information regarding the cooperation between the teacher-training colleges and school-counselling services in the present study, this opinion cannot be supported. For all of the network types, theoretically "fitting" types of structure and coordination were encountered. The policy networks and coalitions were found to be loosely structured within a social-choice context and with a simple exchange-control system as the coordinating body (Haas & Drabek, 1973). The exchange networks, circuits and developmental networks were found to be more rigidly structured than the other networks and to either occur within a coalitional context with a mediated control system or a federative context with a delegated control system.

In the work of Godfroij, connections are not made between the type of network and the types of strategies or games associated with that network. In the present research, an initial attempt was made to identify the relevant connections and some important relations were indeed encountered. An autonomy strategy appears to be of particular importance for policy networks, coalitions and competitive networks along with as much certainty as possible with regard to available resources (power strategy). With regard to the games which appear to be played, the interaction between the teacher-training colleges and school-counselling services within the exchange networks, circuits and developmental network appear to be characterised by cooperation. In the case of policy networks, circuits or competitive networks, one can speak of competition, conflict and conflict management. These characteristics largely correspond to and reflect the type of network. The fact that the differences between the network types with respect to strategies and games were less marked in the multiple-case study than in the survey can be explained by changes in the external environment: namely, government policy. The cooperating teacher-training colleges and school-counselling services currently employ similar strategies (namely, a market-oriented strategy and competition) in order to effectively anticipate the vague changes in government policy. Further research into the relations between the different network types and the strategies and games employed by the "organised actors" in these networks is certainly desired.

As can be seen in Figure 1, we assumed that a particular type of network would be accompanied by a particular form of cooperation on the work floor. This assumption was not confirmed. The cooperation and consultation on the work floor was found to be satisfactory for all of the networks and irrespective of the type of network. In the network theory of Godfroij, much attention is paid to the structuring of the networks and little attention to the shaping of the cooperation on the work floor. In further research, attention should be paid to both of these relations. The correlations found in the present research, for example, show the cooperation in exchange networks, circuits and developmental networks to have fewer bottlenecks and to produce greater satisfaction and actual effects than the cooperation in policy networks and coalitions.

In the present research, the emphasis was placed on the formal structure and functional characteristics of the networks under consideration. The actor-oriented dynamic aspects of network theory did not, thus, receive much attention. This research constitutes an initial attempt to describe the characteristics of the networks found to occur for the cooperation between teacher-training colleges and school-counselling services. Given the limited duration of the present project, it was decided to undertake a survey and a multiple-case study to examine the characteristics of these networks. An approach from the perspective of the actors themselves would require much more time, both formal and informal interviews and various participant observations. Only on the basis of such extensive information can the dynamic interactions between various cooperative structures and strategic behaviour and the dynamic interactions

between strategic behaviour and the cooperative structures selected for use be examined. In this sense, the empirical foundations for Godfroij's network theory have yet to be established.

A comparison of the network types from Godfroij (1981, 1989) and those from Alter and Hage (1993) revealed the following picture. Obligatory linkages (dyadic and triadic) and networks (multiorganisational) are comparable to exchange networks (directed at the exchange of professional expertise and resources); promotional linkages/networks are comparable to circuits (directed at the attainment of a common goal); and systemic linkages/networks are comparable to developmental networks (directed at joint product development and/or innovation). A difference between the two typologies is that in the typology of Alter and Hage, the degree or level of cooperation explicitly constitutes one of the three dimensions for distinguishing between the different networks (the other dimensions are competitive versus symbiotic cooperation and the number of organisations involved in the collaboration; see the section on interorganisational relations above). Alter and Hage suggest that a cooperation with an obligatory start can grow into a systemic linkage or network over time. A prerequisite for this is a culture of trust. The information in the present research shows such trust between the teacher-training colleges and school-counselling services to sometimes be lacking. This means that many of the linkages or networks can be characterised as obligatory or promotional linkages/networks with the most dominant linking functions being subcontracting and joint ventures or partnerships. Alter and Hage's suggestion that trust may be easier to realise in linkages than in networks cannot be confirmed on the basis of the present findings. In a large network such as that of Network West, a culture of mutual trust can be observed; in a linkage such as that of Network South, one cannot speak of a culture of trust. Network North is a network in which the people simply tolerate each other and thus a culture without trust.

In sum: When the level of cooperation is taken as a gauge of the cooperation between teacher-training colleges and school-counselling services in the domain of in-service training, the majority of the forms of cooperation encountered can be characterised as obligatory and promotional. With the exception of the Network East, systemic linkages or networks cannot be spoken of. In order to foster the cooperation between organisations, Alter and Hage (1993) offer the following recommendations: the cooperating organisations should be approximately the same size; a coordinator should be appointed to function as contact person and information point (i.e., as a boundary spanner) for each of the cooperating organisations; the cooperating organisations should regularly exchange personnel in order to foster a better understanding of the organisational cultures; and both profits and losses and praise and critique should be fairly distributed. These recommendations also hold for better cooperation between the teacher-training colleges and school-counselling services, and the results for Network East clearly show how the cooperation can benefit when these recommendations are taken to heart.

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